



Mobility 2045

METROPOLITAN TRANSPORTATION PLAN



Adopted August 7, 2019



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COASTAL REGION METROPOLITAN PLANNING ORGANIZATION
METROPOLITAN TRANAPORTATION PLAN
MOBILITY 2045

Coastal Region Metropolitan Planning Organization
Chatham County - Savannah Metropolitan Planning Commission
P.O. Box 8246, 110 East State Street
Savannah, Georgia 31412-8246
Phone: (912) 651.1440
Fax: (912) 651.1480
www.thempc.org

Prepared by the Chatham County - Savannah Metropolitan Planning Commission in cooperation with the Federal Highway Administration, the Federal Transit Administration and the Georgia Department of Transportation

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Terri Harrison, CFO
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Byron Cowart, District Planning and
Programming Engineer
Georgia Department of Transportation
District 5

Zhongze (Wykoda) Wang,
Transportation Administrator
Chatham County-Savannah
Metropolitan Planning Commission

Ned Green, Planning Specialist
Office of Planning
Georgia Department of Transportation

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Savannah Area Chamber of Commerce

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Georgia Department of Transportation

Lee Smith, County Manager
Chatham County

Hugh “Trip” Tollison, President and CEO
Savannah Economic Development Authority

Randy Weitman, Facilities Engineer
Georgia Ports Authority

Chris Hutchins, County Manager
Effingham County

Brandt Herndon, Director
Effingham County Industrial Development
Authority

Lt. Col. Kenneth M. Dwyer,
Garrison Commander
Fort Steward/Hunter Army Airfield

Representative
Environmental Group

Representative
Law Enforcement

Representative
Savannah - Chatham County Public Schools

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Chatham County

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Chatham County

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National Federation of the Blind

Neil Ligon
Living Independence for Everyone Inc.

Paula Valdez
Savannah Center for the Blind and Low
Vision

Jackie Immel
Georgia Infirmary Day Center for
Rehabilitation

Wykoda Wang, Transportation Planner
Chatham County-Savannah Metropolitan
Planning Commission

Patti Lyons, President
Senior Citizens Savannah - Chatham County
Inc.

Pamela Oglesby
Savannah Chatham Council on Disability
Issues

Demetria Freeman Paratransit
ADA/Eligibility Assistant
Chatham Area Transit

Dr. Frank Lala
Georgia Association of the Deaf

Living Independence for Everyone (LIFE), Inc.

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Economic Opportunity Authority

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Representative,
NAACP - Savannah Branch

Representative,
Coastal Center for Development Services

Neil Ligon, Executive Director

COASTAL REGION METROPOLITAN PLANNING ORGANIZATION STAFF MEMBERS

Stephanie Rossi, Principal Planner and Project Manager
Chatham County-Savannah Metropolitan Planning Commission

James Small, Transportation Planning Coordinator
Chatham County-Savannah Metropolitan Planning Commission

Zhongze (Wykoda) Wang, Transportation Administrator
Chatham County-Savannah Metropolitan Planning Commission

Mark Wilkes, PE, AICP, Interim Executive Director
Coastal Region Metropolitan Planning Organization



METROPOLITAN PLANNING ORGANIZATION

RESOLUTION TO ADOPT THE MOBILITY 2045 METROPOLITAN TRANSPORTATION PLAN Coastal Region METROPOLITAN PLANNING ORGANIZATION

WHEREAS, current federal regulations for metropolitan transportation planning, require that the Coastal Region Metropolitan Planning Organization in cooperation with participants in the planning process, develop and update the Metropolitan Transportation Plan (MTP) every five years; and

WHEREAS, the Coastal Region Metropolitan Planning Organization has been designated by the Governor as the Metropolitan Planning Organization (MPO) of the Savannah Urbanized Area; and

WHEREAS, the staff of the Chatham County-Savannah Metropolitan Planning Commission and the Georgia Department of Transportation have reviewed the organization and activities of the planning process and found them to be in conformance with the requirements of law and regulations; and

WHEREAS, the locally developed and adopted process for public participation has been followed in the development of the CORE MPO Mobility 2045 MTP; and

WHEREAS, the Coastal Region Metropolitan Planning Organization, in accordance with federal requirements for a Metropolitan Transportation Plan, has developed a twenty-plus year plan for federally-funded highway, transit and non-motorized projects for the Savannah urbanized area; and

WHEREAS, the CORE MPO Mobility 2045 MTP is consistent with all plans, goals and objectives of the Coastal Region Metropolitan Planning Organization, and shall be updated at least every five years with revisions to reflect changes in program emphasis and anticipated funding availability; and

WHEREAS, the CORE MPO Mobility 2045 MTP includes the plans for motorized transportation, non-motorized transportation and transit projects in the Savannah urbanized area for the next 25 years.

NOW, THEREFORE BE IT RESOLVED, that the Coastal Region Metropolitan Planning Organization Board adopts the attached CORE MPO Mobility 2045 MTP.

CERTIFICATION

I hereby certify that the above is a true and correct copy of a Resolution adopted by the Coastal Region Metropolitan Planning Organization Board at a meeting held on August 7, 2019.



Albert J. Scott, Chairman
Coastal Region Metropolitan Planning Organization

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SECTION ONE: OVERVIEW



Coastal Region Metropolitan Planning Organization



The Coastal Region Metropolitan Planning Organization (CORE MPO) is the designated Metropolitan Planning Organization (MPO) for the Savannah Urbanized Area (UA), a Census-designated area that includes the City of Savannah and all of Chatham County, Richmond Hill in Bryan County and portions of Effingham County.

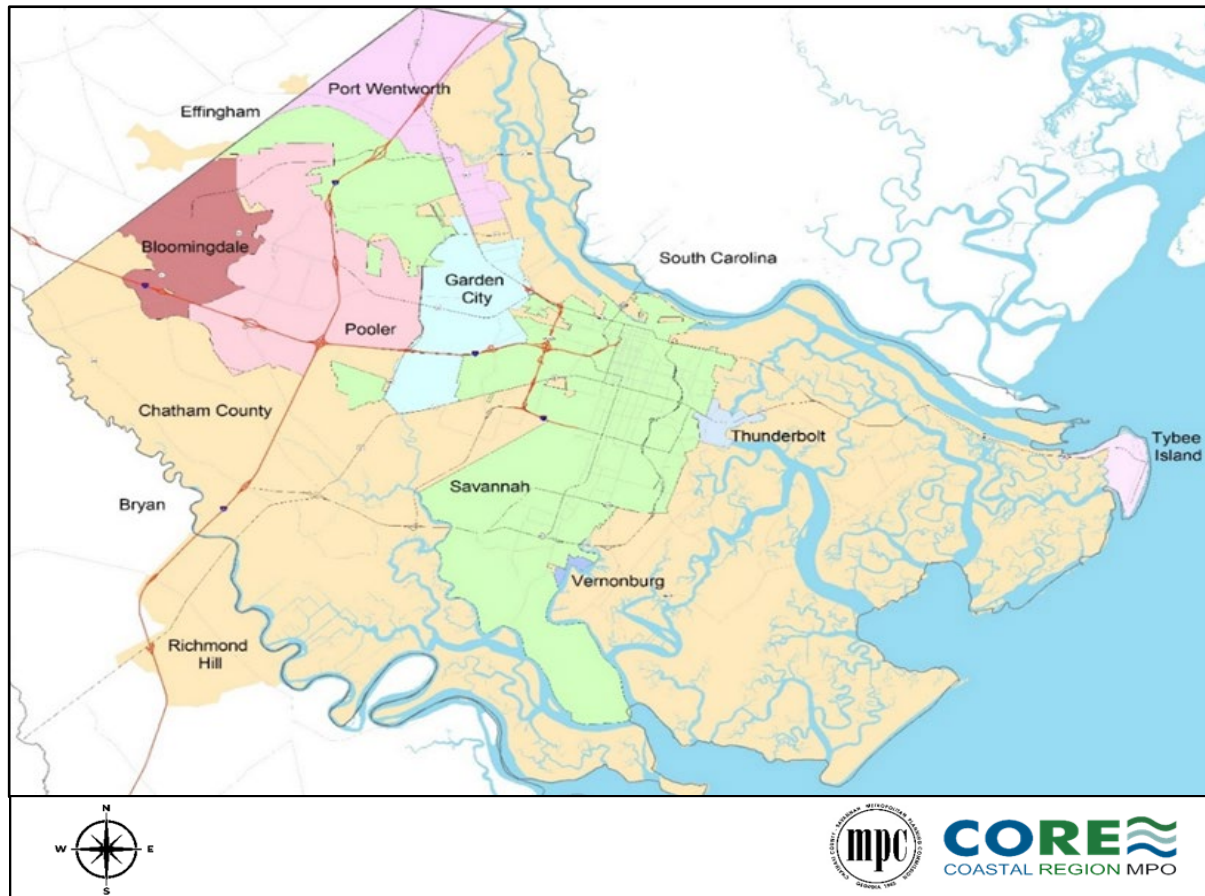
Metropolitan planning processes are governed by federal law (23 USC 134), with regulations included in 23 CFR 450. Since 1962, federal law has mandated that Metropolitan Transportation Plans (MTPs) and programs be developed through a continuing, cooperative and comprehensive (3-C) planning process.

According to law, transportation planning processes must be organized and directed by MPOs for all urbanized areas with a population of at least 50,000 as defined by the US Census Bureau. MPOs oversee the transportation planning processes for the urbanized area, as well as the area expected to become urbanized in the next 20 years. Figure 1 depicts the geographic extent of the CORE MPO planning area and the included jurisdictions.

Since the 2000 U.S. Census, the Savannah Urbanized Area population exceeded 200,000, designating the MPO as a Transportation Management Area (TMA). In addition to the federal requirements of MPOs, TMAs are also responsible for developing Congestion Management Processes (CMP), Transportation Improvement Program (TIP) project selection, and are subject to a joint federal certification review of the planning process at least every four years.

The CORE MPO Board (CORE Board) includes elected and appointed officials from Chatham County and its municipalities, Richmond Hill, Effingham County and executives from local, state and federal agencies. There are four standing committees that advise the CORE Board and help them carry out the 3-C process. These committees include the Technical Coordinating Committee (TCC), the Citizens Advisory Committee (CAC), the Advisory Committee on Accessible Transportation (ACAT) and the Economic Development and Freight Advisory Committee (EDFAC).

Figure 1. CORE MPO Metropolitan Planning Area



Planning Transportation for the Future

Mobility 2045 was prepared in accordance with federal statute (23 CFR Part 450), which requires that each MPO have an MTP to identify proposed major transportation investments over the minimum of a 20 year horizon period and that it must be updated every five years. The MTP identifies the vision, goals and objectives, strategies and projects that promote mobility within and through the region for both people and goods. Updating the plan every five years allows for the MPO to review, revise and recalibrate the travel demand model with updated demographic and socioeconomic characteristics. Updating the plan also allows for the MPO to incorporate results of any new or ongoing studies and any changes to federal regulations and guidance.

The Metropolitan Planning organization (MPO) Metropolitan Transportation Plan (MTP) serves as a guide for comprehensive, cooperative and continuing transportation planning throughout the Coastal Region MPO planning area. The plan identifies existing and anticipated transportation issues and proposes solutions and opportunities that are both financially feasible and supportive of the community priorities. Traditional transportation planning has focused on how quickly and efficiently vehicles can move from point to point. This approach typically has not considered the impacts on and relationships to land use, community character and the quality of life. The CORE MPO and its members are committed to wisely investing in the transportation network to address the growth of the area while

enhancing mobility for people and goods and ensuring a sustainable future. This commitment is incorporated in this plan update through a diverse and wide-ranging process, including an assessment of transportation needs in coordination with the future regional growth and anticipated future trends.

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 Act, or 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 Mobility 2045 Plan continues the framework of the previous plans and emphasizes a multimodal performance based planning approach to transportation planning to meet the travel demands over the next 26 years while taking into consideration the regions goals and financial capacity. Mobility 2045 will serve as the defining vision for transportation systems and services in the region. The overall goal of the Mobility 2045 Plan is to continue moving the planning process beyond a singular focus on moving motor vehicles and consider transportation issues from a comprehensive perspective that incorporates community values, needs, land use and modal alternatives.

Transportation Performance Management

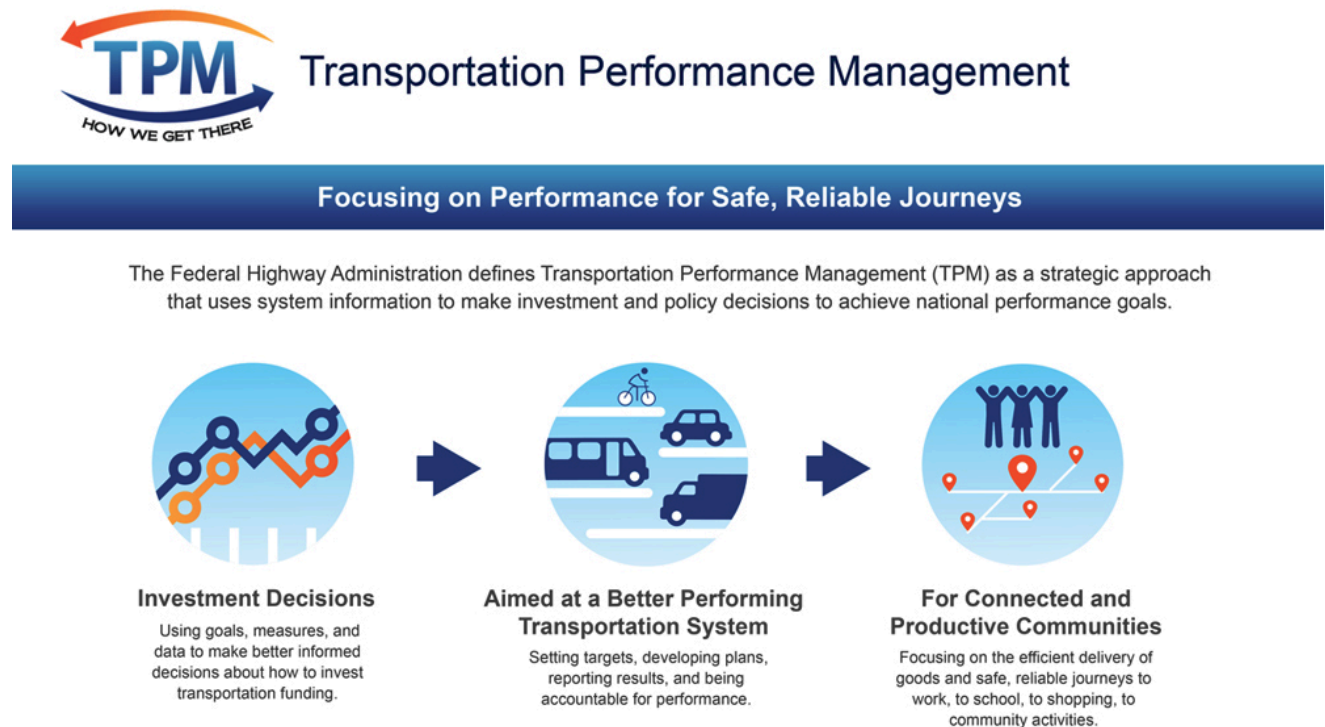
The Moving Ahead for Progress in the 21st Century Act (MAP-21) signed into law in 2012 and the Fixing American's Surface Transportation Act (FAST ACT) signed into law in 2015 requires that all state departments of transportation and metropolitan planning organizations use a performance based planning and programming approach as part of a Transportation Performance Management (TPM) program transforming transportation decision making into a performance-driven and outcome based process.

The Federal Highway Administration (FHWA) defines TPM as a strategic approach that uses system information to make investment and policy decisions to achieve national performance goals (see Figure 2). Performance management has been increasingly utilized over the past two decades. This process provides key information to decision makers allowing them to understand the consequences of investment decisions across transportation assets and modes. It is also credited with improving project and program delivery and providing greater transparency and accountability to the public.

Transportation Performance Management:

- Is systematically applied on a regular ongoing basis;
- Provides key information to help decision makers, allowing them to understand the consequences of investment decisions across transportation assets or modes;
- Improves communications between decision makers, stakeholders and the traveling public; and
- Ensures targets and measures are developed in cooperative partnerships and based on data and objective information.

Figure 2: Transportation Performance Management



Source: FHWA

Performance Based Planning and Programming

Performance-based planning and programming (PBPP) refers to transportation agencies' application of TPM as a standard state of the practice in the planning and programming processes. The goal of PBPP is to ensure that transportation investment decisions, both long-term planning and short-term programming, are based on performance and the ability to meet established goals.

The process for MPOs includes incorporating PBPP into the Metropolitan Transportation Plan (MTP) which evaluates transportation system performance and is the MPO's long-range investment document, as well as the Transportation Improvement Program (TIP) which is the subset of the MTP and the MPO's short-term programming document outlining the anticipated projects the MPO intends to implement with federal funding in the next four fiscal years.

PBPP requires the following elements (see Figure 3) be incorporated into the metropolitan planning process:

- measurable goals and objectives for the transportation system;
- performance measures and targets for desired performance outcomes;
- data collection to monitor and analyze trends;
- performance measures and data collection to inform investment decisions; and
- monitoring, analyzing, and reporting decision outputs and performance outcomes.

Figure 3: Performance Based Planning and Programming Process



Source: FHWA

PBPP will assist the CORE MPO's decision-makers to make both policy and project decisions. Transportation needs continue to outweigh resources available for transportation improvements. Implementing PBPP assists decision makers with these difficult decisions by utilizing tradeoff analysis and focusing on data specific performance outcomes. The results will be the enhanced accountability and transparency of the MPO planning process. The PBPP process requires states and MPOs to set targets related to the national goals and to report on progress toward meeting those targets.

National Goal Areas

A key feature of MAP-21 and the FAST ACT is the establishment of a performance and outcome-based program. The objective of this performance- and outcome-based program is for States to invest resources in projects that collectively will make progress toward the achievement of the national goals (see Table 1) established by Congress.

Highway Performance Goals

Through the federal rulemaking process, FHWA is requiring state DOTs and MPOs to monitor the transportation system using specific performance measures. These measures are associated with the national goal areas prescribed in MAP-21 and the FAST Act. The goals address three areas of concern which include safety, state of good repair and system efficiency. The following table describes these national goal areas, rulemakings, performance areas, and prescribed measures.

Table 1: Federal Highway Program Performance Goals

National Goal	Performance Area	Performance Measures
Safety - To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.	Injuries & Fatalities	1. Number of Fatalities 2. Rate of Fatalities per 100 million Vehicle Miles Traveled (VMT) 3. Number of Serious Injuries 4. Rate of Serious Injuries per 100 million VMT 5. Number of Non-motorized Fatalities and Non-motorized Serious Injuries
Infrastructure Condition - To maintain the highway infrastructure asset system in a state of good repair	Pavement	1. Percentage of pavement on the Interstate System in Good condition 2. Percentage of pavements on the Interstate System in Poor condition 3. Percentage of pavements on the non-interstate national Highway System (NHS) in Good condition 4. Percentage of pavements on the non-Interstate NHS in Poor Condition
	Bridge Condition	1. Percentage of NHS bridged classified as in Good condition 2. Percentage of NHS bridges classified as in Poor condition
Congestion Reduction - To achieve a significant reduction in congestion on the National Highway System	Performance of the National Highway System	1. Percent of person miles traveled on the Interstate System that are reliable 2. Percent of the person miles traveled on the non-Interstate NHS that are reliable
System Reliability - To improve the efficiency of the surface transportation system	Freight Movement of the Interstate System	1. Truck Travel Time Reliability
Freight Movement and Economic Vitality - To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.	Traffic Congestion	1. Annual hours of peak-hour excessive delay per capita 2. Percent of non-single occupant vehicle travel
Environmental Sustainability - To enhance the performance of the transportation system while protecting and enhancing the natural environment.	On-Road Mobile Source Emissions*	1. Total emissions reduction*

*Only applies in non-attainment or maintenance area and does not apply to the CORE MPO at this time.

Source: 23USC §150(b)

Transit Performance Goals

Recipients of public transit funds, which can include states, local authorities, and public transportation operators are also required to establish performance targets based on the national goals (see Table 2) for safety and state of good repair; to develop transit asset management and transit safety plans; and to report on their progress toward achieving targets. Public transportation operators are directed to share information with the CORE MPO and states so that all plans and performance reports are coordinated. Table 2 identifies performance measures outlined in the National Public Safety Transportation Plan released by the Federal Transit Administration (FTA), and in the final rule for transit asset management. The CORE MPO is required to coordinate with public transit providers to set targets for these measures.

Table 2: Federal Transit Program Performance Goals

Safety - To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.	Fatalities, Injuries and Safety Events	1. Total number of fatalities and rate per total vehicle revenue miles by mode 2. Total number of injuries and rate per total vehicle revenue miles by mode 3. Total number of events and rate per total vehicle revenue miles by mode 4. Mean distance between major mechanical failures by mode
Infrastructure Condition (State of Good Repair: Transit Asset Management)	Equipment	Percentage of vehicles that have met or exceeded their Useful Life Benchmark (ULB)
	Rolling Stock	Percentage of revenue vehicles within a particular asset class that have met or exceeded their ULB
	Facilities	Percentage of facilities within an asset class rated below 3.0 on the FTA Transit Economic Requirements Model scale

Targets

As part of the TPM, each state DOT and MPO must adopt targets to strive for within the planning and programming process. State DOTs and MPOs are required to set targets for a variety of performance measures related to safety, state of good repair and system performance. The process for setting targets will be taking place through 2019. The state DOT will set their targets first and the MPO has 180 days from that time to adopt their own targets. The MPO has two options in terms of setting targets. The MPO can state that it supports the state DOT targets, or it can create its own unique targets. By supporting the state's targets, GDOT will do the quantitative work and the CORE MPO will reflect the support of the target through its planning and programming activities.

GDOT, CORE MPO, and the Chatham Area Transit Authority (CAT) must coordinate throughout the target setting process to ensure consistency to the maximum extent practicable. For each performance measure, the CORE MPO Board will decide to either support statewide target(s), or to establish a quantifiable target(s) specific to the CORE MPO's planning area.

Reporting

The CORE MPO's MTP must describe the performance measures and targets, evaluate the performance of the transportation system and report on progress made towards achieving the targets. The TIP must link investment priorities to the targets in the MTP and describe the anticipated effect of the program toward achieving established targets. CORE MPO must also produce a system performance report showing progress toward the achievement of targets to GDOT.

Assessments

FHWA and FTA will not directly evaluate the CORE MPO progress towards meeting targets for required performance measures but rather the performance will be assessed as part of regular cyclical certification review. FHWA will determine if GDOT has met or made significant progress towards attaining the selected targets for the highway system on an annual basis.

Demographics and Future Trends

Savannah and Chatham County have long served as the regional center for Coastal Georgia and the Lowcountry of South Carolina for employment, shopping and recreation. In addition to serving as the regional center for residents, Savannah, with its Historic Landmark District, is host to over 14.1 million visitors each year spending \$2.91 billion and has become one of the top tourist destinations, both nationally and internationally.

Chatham County is also home to the Port of Savannah, which is the largest single container terminal in North America and the second busiest container exporter in the United States, next to Los Angeles, moving 4.35 million twenty-foot container units in FY 2018. 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.

Population

The population of Chatham County and Savannah has continued its upward growth over the years. Before the economic downturn, the population for the six-county coastal region of Georgia was anticipated to be close to 1,000,000 people, with Chatham County projected to remain the largest population center in the region. With the recession, the pace of growth along the coast slowed. Since the recovery, however, growth has resumed within the MPO area, but at a slower pace than earlier projections.

According to the US Census, the population grew almost 8% in Chatham County from 265,128 in 2010 to an estimated 285,506 in 2017 (see Figure 4). The City of Savannah is the largest municipality in the County and its population also grew from 136,286 in 2010 to an estimated 145,094 in 2017, about a 6.5% increase.

The major growth centers in Chatham County are located in the western portion of the County and are concentrated in the cities of Pooler and Port Wentworth. From 2010 to 2017, Port Wentworth has experienced an almost 41% increase in population. At the same time, the City of Pooler grew approximately 17%, from a population of 19,140 to a

THE REGION IN A SNAPSHOT:

Region's Population (2018 Est)

❖ 310,047

Land Area (Square miles)

❖ 542

Planning Area

- ❖ Chatham County and all jurisdictions
- ❖ Richmond Hill
- ❖ Portions of Effingham County

The City of Savannah's Historic District is the largest national landmark district in the United States

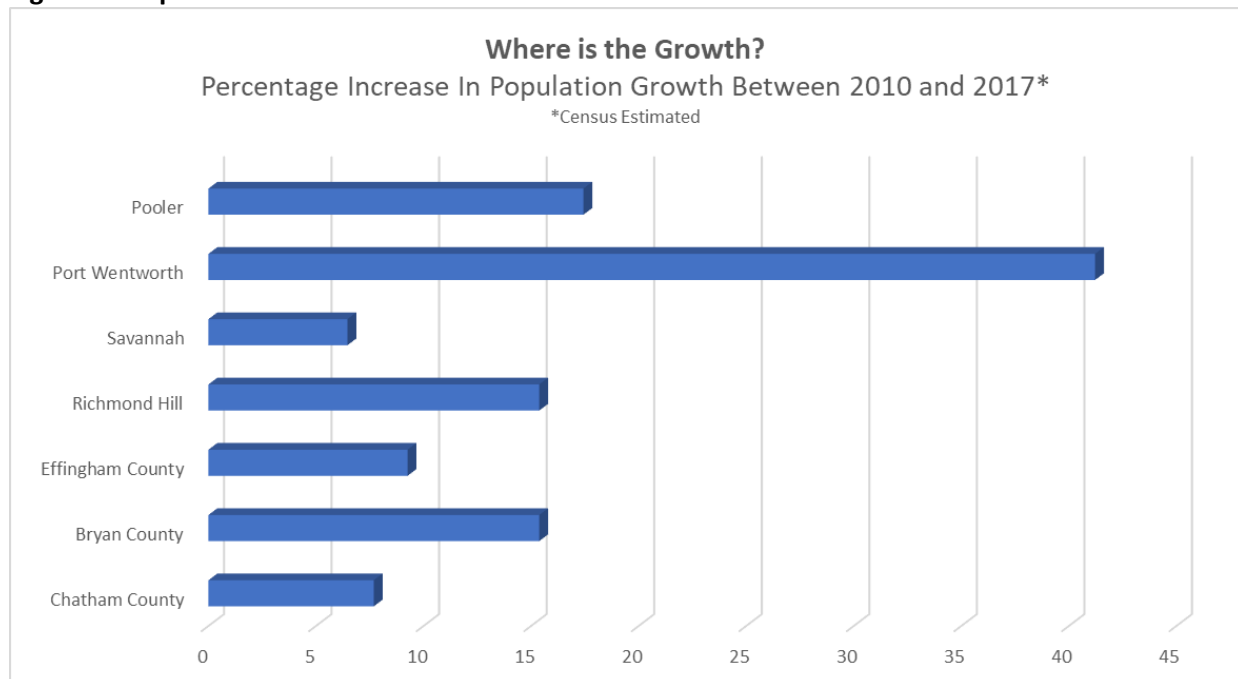
Over 14.1 million tourists visit the region annually and spend almost \$3 billion.

The Port of Savannah is the largest single container terminal in North America

The CORE MPO coordinates transportation planning activities with its regional partners: The Hinesville Area MPO in Liberty County and the Lowcountry Council of Governments in South Carolina.

population of 22,477. During the same period, Richmond Hill in Bryan County has grown about 15% from 30,233 to an estimated 57,087 for 2017.

Figure 4: Population Growth Between 2010 and 2017



Demographics

One of the considerations for transportation planning is Environmental Justice (EJ), which is directly related to minority populations and low-income households or populations. Title VI also impacts transportation planning, as the planning practice should not discriminate against persons on the grounds of race, color, or national origin. Thus, it is important to understand the regional demographic profile and trend for the Savannah region in the 2045 MTP development process. This information is useful in helping the MPO to design inclusive public involvement procedures, evaluate possible disproportionate impacts and develop mitigation measures, and assess benefits distributions.

The CORE MPO Metropolitan Planning Area (MPA) is located within the Savannah Metropolitan Statistical Area (MSA) which composes of Bryan, Chatham and Effingham Counties in Georgia. The Savannah MSA is home to a diverse population, particularly Chatham County. Based on the 2010 census data, non-Hispanic white composes the largest percentage of the regional population (around 57%). County wide, however, Bryan County and Effingham County are dominated by non-Hispanic white population, with a percentage of 77.55% and 80.98% respectively. Chatham County has a non-Hispanic white percentage of 50.35%.

The 2010 census data also indicate that the African Americans compose most of the minority populations in the Savannah MSA (33.87%). County wise, the percentage of African Americans to the county population is 40.13% for Chatham County, 14.18% for Bryan County, and 13.49% for Effingham County. Other minority groups - American Indians and Alaska natives, Asians, Native Hawaiian and Other Pacific natives, some other races, and two or more races - compose only a small combined percentage.

The demographics of the Savannah region have remained relatively constant with African American population being the largest minority group. The latest 2018 census estimates indicate that the non-Hispanic white population percentage is 48.4% for Chatham County, 73.4 for Bryan County, and 78.8% for Effingham County. The African American population percentage is 40.7% for Chatham County, 14.9% for Bryan County, and 13.9% for Effingham County. Though the percentage changes remain small, it is apparent that the population composition is diversifying in the Savannah region.

The biggest change comes from Hispanic population. In 2000, the Hispanic population was only a small segment of the Savannah region's total population. The 2010 census data show that Persons of Hispanic or Latino Origin almost 7% for Chatham County, 4.5% for Bryan County and nearly 3% for Effingham County. Because of this change the CORE MPO developed a Limited English Proficiency (LEP) Plan and translate some documents to Spanish. The 2018 census estimates indicate the following percentages for the Hispanic population – 6.6% for Chatham County, 7.2% for Bryan County, and 4.4% for Effingham County. The percentage increases might seem small, but the actual number of Hispanic population is significant considering the regional total population growth.

Another segment of underserved population to consider for transportation planning is related to poverty. According to the 2008 – 2013 American Community Survey (ACS) data, the percentage of Persons Below Poverty Level is 17% in the Savannah MSA. By county, the percentage is 19% for Chatham County, 12% for Bryan County, and 10.5% for Effingham County. The 2013 – 2017 ACS data show the poverty rate at a level of 17.3% for Chatham County, 14% for Bryan County, and 9.6% for Effingham County.

As part of the federal requirements for developing a transportation plan, the CORE MPO identified where these traditionally underserved population groups, or environmental justice communities, are located to ensure that there are no disproportionate or adverse impacts from the planned transportation projects. The location of the environmental justice communities were mapped to fully understand the locations and to correlate with the planned improvements. This is discussed further in the Section 7: Impact Analysis and Mitigation.

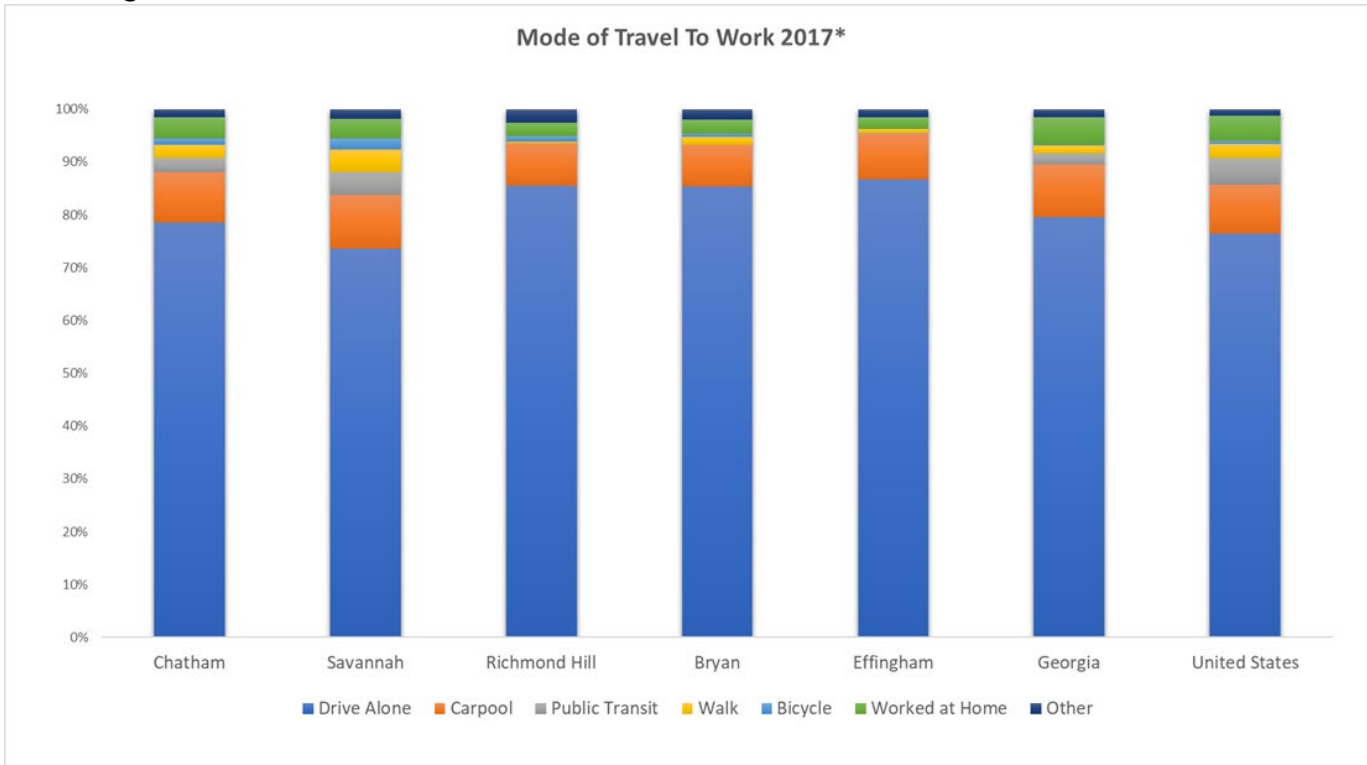
Travel Characteristics

In order to appropriately plan transportation improvements that will serve the existing and future needs, the travel characteristics and mobility patterns within the area must be understood. In addition, the plan update must also consider all modes of transportation. The warm climate, flat terrain, and strong grid pattern within the City of Savannah, particularly north of DeRenne Avenue, is conducive to workers utilizing a variety of modes in traveling to their places of employment, although driving alone is still the mode choice of the majority of workers. The City and Chatham County are continuing to invest in bicycle and pedestrian infrastructure to ensure the safety of the users and to provide network connectivity.

According to the American Community Survey estimates shown in Figure 5 for 2017, the City of Savannah is estimated to have had 73.6% of its workers driving to work alone and 78.5% of the workers in Chatham County drove alone to work, as compared to 79.5% in the state and 76.4% in the US. Effingham and Richmond Hill have about 85% of their workers driving alone. Those carpooling in both Chatham County and the City of Savannah was higher than both the state and the US, as well as transit usage. The City of Savannah also exhibits a high percentage of walking (4.2%) and biking (2.1%). With

the 2017 estimates, the percentage of those driving alone increased, which could be attributed to the growth in the suburban western areas of the County. However, the transit, walking and biking percentage remained relatively stable.

Figure 5: Travel To Work



Regional Commuting Patterns

Chatham County and the City of Savannah are regional hubs for employment, shopping, recreation, medical and educational institutions, and other economic generators. Many residents of neighboring counties commute into Chatham County for work each day, greatly impacting the traffic patterns and overall efficiency of the transportation network. Within Chatham County, over 92% of the Chatham County residents work in Chatham County (see Table 3).

Table 3: Commuting Patterns

Location	Work In County of residence	Work <u>Outside</u> County of residence
Chatham	92.2%	4.9%
Savannah	94.1%	3.6%
Richmond Hill	26.2%	72.1%
Bryan	27.5%	69.7%
Effingham	31.1%	64.4%
Bulloch	74.5%	23.9%
Liberty	79.9%	18.6%
Hinesville City	82.4%	15.8%
Beaufort SC	90.2%	4.6%

**Commuting Characteristics 2013-2017 ACS 5-year estimates (2017)*

The neighboring counties of Bryan and Effingham both have over 64% of their residents commuting outside the County for work each day and 72% of Richmond Hill residents travel outside Bryan County for work. Other nearby counties also experience a significant out-commuting pattern. Liberty 18.6% and Bulloch County has 24% of their population working outside their county and those workers have a typical commute time of about one hour each way.

Trends for the Future

It is anticipated that over the planning horizon years, the Savannah region will continue to grow in population. Chatham, Bryan and Effingham Counties are expected to grow to almost 470,000 by 2045 with Chatham County/Savannah continuing to serve as the major regional center. In conjunction with this expected population growth, the components needed to serve this growth, such as retail, medical and educational, will also continue to grow.

Savannah and Chatham County also continue to gain national and international prominence as a tourist destination hosting 14 million tourists a year. The tourism industry is already a major part of the economy contributing \$3 billion and is anticipated to continue as an important economic driver. There are approximately 27,000 people employed serving the tourism industry and the record number of visitors allows residents to hold these jobs year-round rather than just seasonally. Savannah has been named by several organizations as one of the top destinations and an increasing number of international tourists are enjoying the area. With a strong economy nationwide, tourism numbers are expected to grow.

The Port of Savannah is also expected to continue its upward trend. As a major economic driver for the entire state, the importance of the port and access to its facilities will continue to be of vital importance. Currently, port related jobs account for over 9% of the state's employment and almost 8% of the total

state GDP. With the expected harbor deepening in conjunction with the Panama Canal expansion, the port will continue to be one of the busiest in the country.



The movement of freight and goods will continue to have a great impact on the transportation facilities. Over the last decades, more and more goods have been imported, as the manufacturing in the US has moved overseas. This trend has already led to an increased focus on addressing the needs of freight and this focus will continue.

Demographic factors will also have an impact on planning for our mobility. The Baby Boomers, the generation born between 1946 and 1964, are aging. This generation has had a tremendous impact as it has moved through its different ages, and the same will be true for their retirement years. Addressing the need to for mobility for seniors and for the ability to age in place with adequate transportation facilities will be a focus.

The Millennial generation, those born between 1980 and 1999, are also having a significant impact as they age. Members of the Millennial generation are more focused on urban living rather than the long-held suburban, “picket fence” model. In addition, this technology focused generation is no longer tied to the standard 9 to 5 job and have a much stronger focus on work and life balance. With this lifestyle, the provision of safe, pleasant, connected and accessible multimodal options, including bicycle, pedestrian and transit, will be a key element of transportation planning for the future.



SECTION TWO: REGIONAL GOALS AND PERFORMANCE MEASURES



Transportation Policy and Regional Goals

Development of Mobility 2045 was guided by a set of adopted goals and objectives (see figure 6). The goals and objectives identified for the Mobility 2045 Plan meet each of the planning factors and provide the framework for the development of the plan (see Table 4). In addition to the FAST Act planning factors the development of goals also heavily considered the national goals, the Georgia State Transportation Plan and local planning goals and priorities along with local public comment and feedback.

Figure 6: Mobility 2045 Goals




Along with the development of the goals and objectives developed for the Mobility 2045, performance measures for each goal were also identified by stakeholders and members of the general public. These goals and objectives are targeted to ensure that the transportation system helps the region attain their overall vision for the future. Stakeholders and citizens worked together 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 performance measures were originally identified in the Framework Mobility Plan (2035) and, with the consensus of the stakeholders, public, and decision-makers, were modified and updated for the

Mobility 2045 Plan to incorporate changes in local and national priorities particularly the performance based planning and programming process.

With the existing and future considerations and the planning framework provided by the identified goals and objectives, the transportation planning efforts for addressing the anticipated needs for the 2045 planning horizon incorporated a focus on economic vitality and sustaining and growing the existing economic engines; the accommodation of freight movement; addressing the needs of the aging population; the provision of a safe and secure, connected, accessible and multimodal network, and the preservation and maintenance of the existing transportation infrastructure.

Table 4: Mobility 2045 Goals Alignment with National Goals and Planning Factors

	National Goals							Planning Factors									
	Safety	State of Good Repair	Congestion Reduction	System Reliability	Freight Reliability	Environment Sustainability	Project Delivery	Economic Vitality	Safety	Security	Accessibility	Environment & Quality of Life	Connectivity	System Management	Preservation	Resiliency Including Stormwater	Tourism
System performance: An efficient, reliable, multi-modal transportation system that supports economic competitiveness and enhances tourism.			✓	✓	✓			✓						✓			✓
Safety and Security: A safe, secure, and resilient transportation system for all types of users and for freight.	✓								✓	✓						✓	✓
Accessibility, Mobility and Connectivity: Access and mobility, equitably and reliably available, for people and for freight, through a range of travel options and an integrated, connected transportation system.								✓			✓		✓				✓
Environment and Quality of Life: A healthy sustainable environment through the compatible integration of land use and transportation while taking into consideration the impact of transportation including that of stormwater.						✓						✓				✓	✓
State of Good Repair: Maintain a state of good repair.		✓													✓		
Intergovernmental Coordination: Wise use of public funds through coordination and a performance-based planning process.							✓										

Safety and Security

Mobility 2045 strives for a safe, secure, and resilient transportation system for all types of users and for freight. The goals adopted for the Mobility 2045 Plan explicitly include a focus on ensuring and increasing the safety and security of the transportation system for all users, including motorized vehicles, bicyclists and pedestrians.

Mobility 2045 Goal
A safe, secure and resilient transportation system for all users



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 transportation plan to address the provision of a safe, connected network.

There are several factors to roadway safety. Many are attributed to human behaviors that are personal decisions that could only be swayed by public education and enforcement campaigns. However, there are targeted safety improvements that can be tailored to individual corridors that can provide a driver with a more forgiving roadway. These design considerations work to keep a vehicle on the road and/or allow the driver to safely recover the vehicle should it depart the roadway.

Safety Objectives and Performance Measures

Mobility 2045 establishes several performance measures to evaluate the effectiveness of safety strategies implemented in the region. Measures identified with an asterisk are also required to have an adopted target as required by the FAST Act.

Safety and Security: A safe, secure, and resilient transportation system for all types of users and for freight.

Objectives:

- Eliminate at-grade railroad crossings
- Minimize frequency and severity of vehicular accidents
- Minimize conflicts and increase safety for non-motorized users
- Promote projects which aid in hurricane evacuation
- Adequately prepare for coordinated responses to incidents
- Monitor vulnerable infrastructure through visual and other inspection methods
- Enhance tourism offering a safe multi modal options to visit the region

Performance Measures:
<ul style="list-style-type: none"> • Reduce number of fatalities*
<ul style="list-style-type: none"> • Reduce number of serious injuries*
<ul style="list-style-type: none"> • Increased implementation of safety projects
<ul style="list-style-type: none"> • Number of at-grade crossings reduced
<ul style="list-style-type: none"> • Reduce rate of serious injuries per 100 million VMT*
<ul style="list-style-type: none"> • Reduce rate of fatalities per 100 million VMT*
<ul style="list-style-type: none"> • Reduce number of non-motorized fatalities and serious injuries*
<ul style="list-style-type: none"> • Hurricane evacuation route status (The project enhances or improve reliability on a hurricane evacuation route)
<ul style="list-style-type: none"> • Improved emergency responses (e.g., ambulance travel times to hospitals, emergency signal preemption)
<ul style="list-style-type: none"> • Minimize clearance times during disruptive events to avoid secondary crashes (such as reductions in time to clear major crashes from through lanes, CHAMP clearance times)
<ul style="list-style-type: none"> • Reduction in vulnerability of the transportation system (such as implementation of actively monitoring infrastructure, shoulder stabilization, battery backup for signals etc.)

Performance Based Planning and Programming Measure and Targets

As part of the Performance Based Planning and Programming process the Safety Performance Management (PM) Final Rule establishes the following five performance measures:

1. **Number of Fatalities¹:** The total number of persons suffering fatal injuries in a motor vehicle crash during a calendar year.
2. **Rate of Fatalities²:** The ratio of total number of fatalities to the number of vehicle miles travelled (VMT, in 100 million VMT) in a calendar year.
3. **Number of Serious Injuries³:** The total number of persons suffering at least one serious injury in a motor vehicle crash during a calendar year.
4. **Rate of Serious Injuries:** The ratio of total number of serious injuries to the number of VMT (in 100 million VMT) in a calendar year.

¹ Final FARS data is to be used if it is available, otherwise FARS Annual Report File (ARF) data may be used, which is generally available one year before Final FARS data.

² Volume Data: State VMT data is derived from the Highway Performance Monitoring System (HPMS). Metropolitan Planning Organization (MPO) VMT, if applicable, is estimated by the MPO.

³ Serious Injury Data: State motor vehicle crash database. Agencies must use the definition for "Suspected Serious Injury (A)" from the MMUCC, 4th edition by April 14, 2019. Prior to April 14, 2019 agencies may use injuries classified as "A" on the KABCO scale through use of NHTSA conversion tables. However, agencies are encouraged to begin using the MMUCC, 4th edition definition and attributes at the beginning of 2019 for a complete and consistent data file for the calendar year.

5. **Number of Non-motorized Fatalities and Non-motorized Serious Injuries⁴:** The combined total number of non-motorized fatalities and non-motorized serious injuries involving a motor vehicle during a calendar year.

Each of these performance measures must have an associated target. Each target is based on a 5-year rolling average, which is the average of five individual, consecutive points of data. The 5-year rolling average provides a better understanding of the overall data over time without eliminating years with significant increases or decreases; and provides a mechanism for accounting for regression to the mean. If a particularly high or low number of fatalities and/or serious injuries occur in one year, a return to a level consistent with the average in the previous year may occur.

For the 2018 and 2019 performance periods, CORE has elected to accept and support the State of Georgia's safety targets detailed in Appendix A. CORE MPO will maintain the PBPP process by:

- Address areas of concern for fatalities or serious injuries within the metropolitan planning area through coordination with GDOT and incorporation of safety considerations on all projects;
- Update safety targets or the support of GDOT safety targets annually;
- Integrate safety goals, objectives, performance measures, and targets into the planning process; and
- Describe the anticipated effect toward achieving the targets noted above within the TIP, effectively linking investment priorities to safety target achievement.

Georgia Safety Data

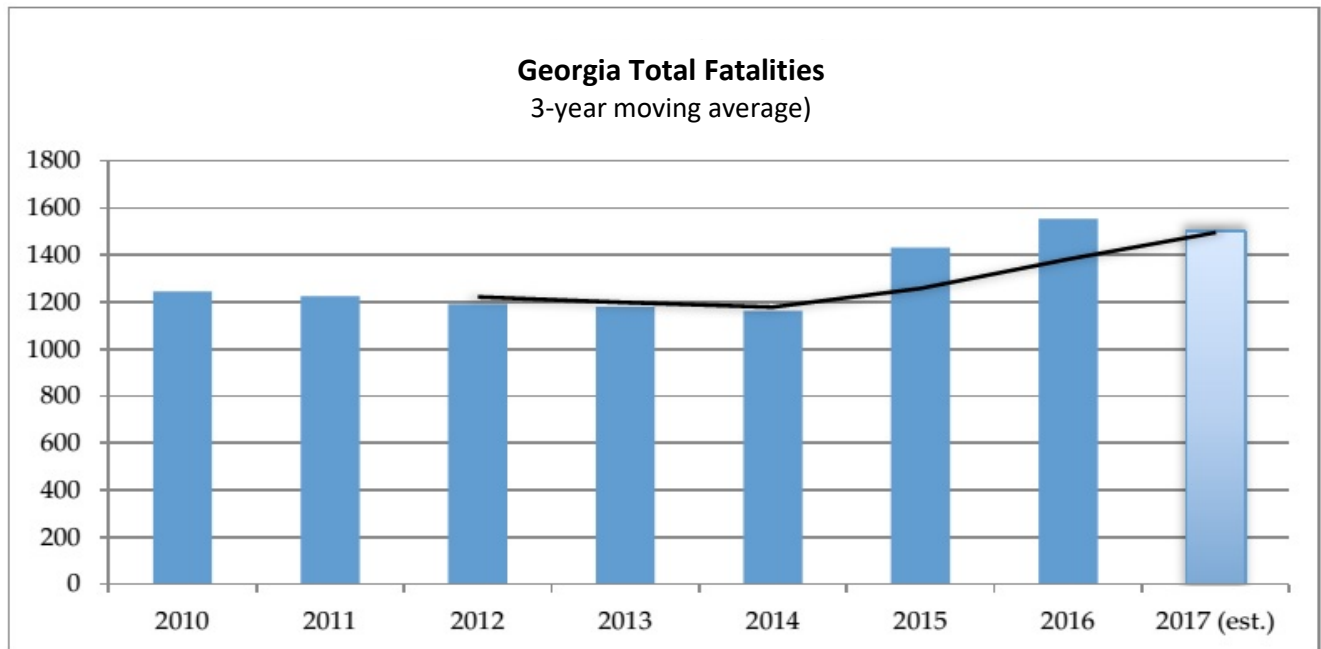
By focusing scarce resources on engineering solutions, Georgia is striving to reduce fatalities and serious injuries. After several years of trending downward, 2015 was the first year in which Georgia saw a rise in fatalities (see Figure 7). Georgia's total number of fatalities increased 22% from the previous year to 1.21 fatalities per 100 million vehicles miles traveled. There was a minor rise in statewide travel (6%) and Georgia's statewide fatality rate rose for the first time in 10 years⁵. In 2016 the rate again rose to 1.29. The fatality rate for Georgia is higher than the National average of 1.16⁶. These trends are closely monitored by all highway safety professionals in Georgia and remain the focus of the state's Strategic Highway Safety Plan (SHSP). The Strategic Highway Safety Plan (SHSP) is a statewide-coordinated safety plan that provides a comprehensive framework for reducing highway fatalities and serious injuries on all public roads. A SHSP identifies a State's key safety needs and guides investment decisions toward strategies and countermeasures with the most potential to save lives and prevent injuries.

⁴ The number of non-motorized fatalities is the total number of fatalities with the FARS person attribute codes: (5) Pedestrian, (6) Bicyclist, (7) Other Cyclist, and (8) Person on Personal Conveyance. The number of nonmotorized serious injuries is the total number of serious injuries where the injured person is, or is equivalent to, a pedestrian (2.2.36) or a pedalcyclist (2.2.39) as defined in ANSI D16.1-2007.

⁵ <https://www.gahighwaysafety.org/highway-safety/shsp/>

⁶ <http://www.iihs.org/iihs/topics/t/general-statistics/fatalityfacts/state-by-state-overview>

Figure 7: Georgia Total Fatalities 2010-2017



Source: <https://www.gahighwaysafety.org/research>

Georgia utilizes safety data to identify safety emphasis areas and establish strategic goals, objectives, and set performance measures. The emphasis areas for the State include: aggressive driving, impaired driving, occupant protection, serious crash type, age related and non-motorized users, vehicle type, trauma systems, crash records and traffic incident management⁷. Georgia's 2015 SHSP, can be found at <https://www.gahighwaysafety.org/highway-safety/shsp/>

⁷ <https://www.gahighwaysafety.org/highway-safety/shsp/>

Regional Safety Data

CORE regularly collects crash data utilizing the Georgia Electronic Accident Reporting System (GEARS). Traffic crashes in Chatham, Bryan Effingham Counties increased from 2012-2018, with the number of crashes and severity peaking in 2016. Crash data from 2017 and 2018 show a slight decrease in the number of crashes. The number of injury crashes, fatal crashes and total number of crashes for the CORE MPO area⁸ are shown Table 5.

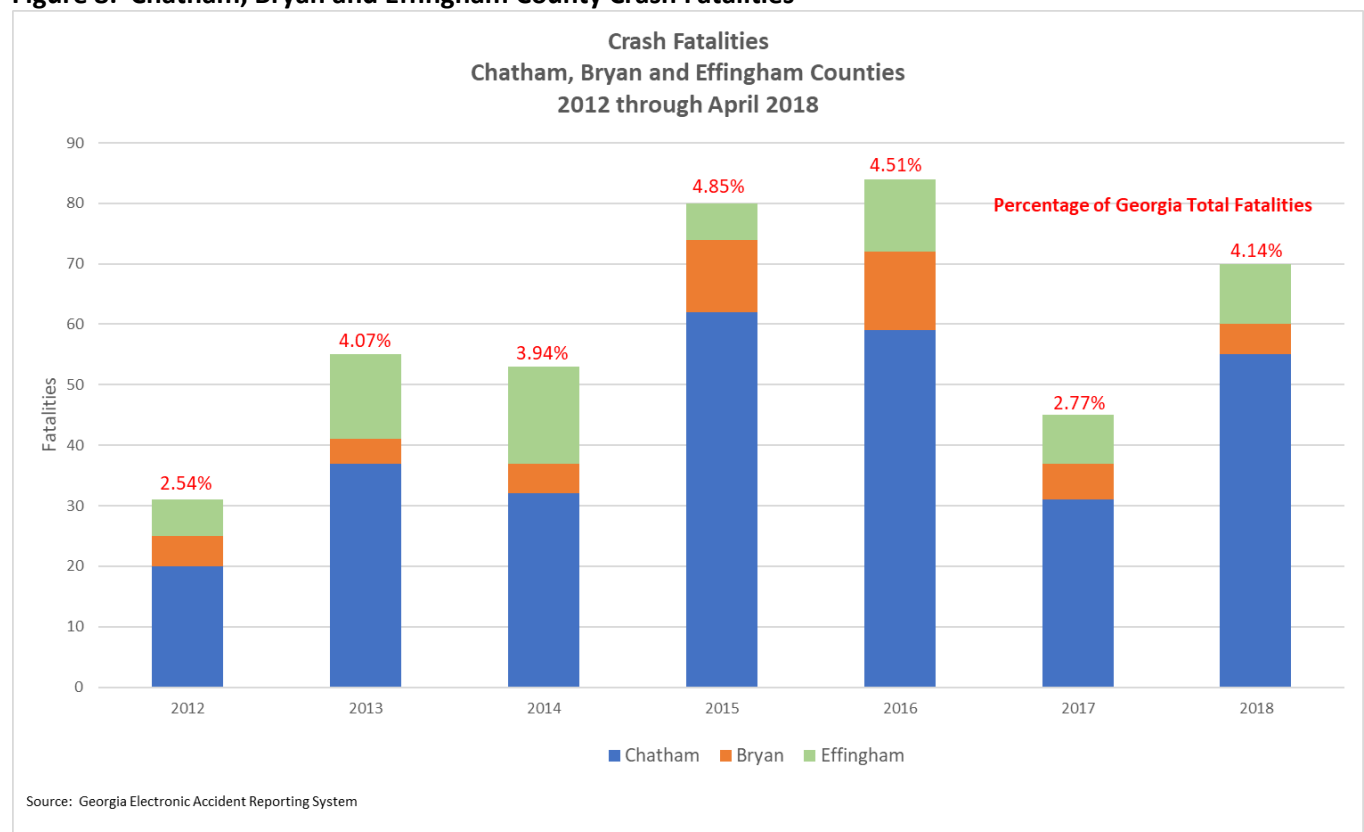
Table 5: Chatham, Bryan and Effingham County Total Crashes

	2012	2013	2014	2015	2016	2017	2018
Total Cashes							
Chatham County	13,065	15,921	16,703	19,497	20,525	19,583	18,031
Bryan County	588	430	807	987	977	1,054	1,372
Effingham County	691	1,036	1,335	1,515	1,650	1,532	1,717
Total	14,344	17,387	18,845	21,999	23,152	22,169	21,120
Crashes Involving Injuries							
Chatham County	2,696	2,894	3,001	3,676	3,925	3,556	2,651
Bryan County	139	116	186	243	280	322	276
Effingham County	181	228	243	279	311	368	191
Total	3,016	3,238	3,430	4,198	4,516	4,246	3,118
Crashes Involving a Fatality							
Chatham County	20	33	30	51	40	28	50
Bryan County	5	4	4	8	10	6	5
Effingham County	6	11	14	6	12	8	9
Total	31	48	48	65	62	42	64
Source: Georgia Electronic Accident Reporting System							

Crashes involving a fatality in the region had begun to decrease, similar to the statewide trend in 2017 (see Figure 8) with a jump in 2018. The regional percentage of statewide fatalities also dropped significantly down to 2.77% from a high of 4.85% in 2015 but rose again in 2018 to 4.14%. Of the three counties that make up the region Chatham with the largest population also has the largest share of fatal crashes.

⁸ The CORE MPO area currently consist of Chatham County, Richmond Hill in Bryan County and a small portion of unincorporated Effingham County. For the purposes this report the data collected included all three counties rather than just the MPO boundary.

Figure 8: Chatham, Bryan and Effingham County Crash Fatalities



Safety Strategies

The 2045 Mobility Plan assesses existing safety and security conditions, explores planning considerations for safety and security, and provides recommendations for future improvements. The roadway recommendations presented in this plan represent a series of engineering enhancements that should improve traffic flow while increasing safety for all users.

General engineering strategies to maximize safety include: improving highway and road design guidelines; implementing corridor-based ITS and access management strategies; identifying appropriate intersection improvements to mitigate crashes; constructing a coordinated network of on-street bicycle facilities and off-street trails; designing streets to be pedestrian-friendly; designating appropriately designed streets for truck freight; and maintaining adequate standards for railroad crossings.

Many safety concerns can potentially be addressed through some of the projects incorporated in the financially constrain plan. Others may qualify for and be addressed through GDOT's Quick Response program, which implements small scale projects using available safety funding. Qualifying projects are typically those ranging from intersection improvements to operational improvements, such as signal timing, and are generally less than \$750,000 for all project phases. Projects for Quick Response funding can be submitted by local governments, GDOT or the Federal Highway Administration. Submittals for eligible projects must also include information that summarizes the operational issues, supporting data, the proposed improvement, and cost estimates.

Coordinated Highway Assistance & Maintenance Program (CHAMP)

Safety is Georgia DOT's number one priority. CHAMP is critical to enhancing safety for the traveling public and responders. CHAMP is Georgia DOT's roadside assistance and maintenance program covering interstates outside of Metro Atlanta. This program is an integral part of our goal to provide safe and maintained roadways, support emergency responders and assist motorists outside of the HERO covered area in Metro Atlanta. CHAMP is operating on I-95 and I-16 interstates in the Savannah area.

Resiliency and Emergency Management



To meet the goal of ensuring and enhancing the resiliency and 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.

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 local fire departments, and the local 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 lane reversal 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.

Chatham Area Transit Authority (CAT), is responsible for the provision of public transit services in the area. CAT must also address security in their planning efforts and coordinates through the emergency management agencies. The Federal Transit Administration (FTA) has a number of requirements in place to address security for transit agencies. Examples of these requirements include a written security plan and employee training. In addition to the procedures CAT has in place to meet these requirements, the agency also coordinates with CEMA during an evacuation. CAT buses will be utilized in the case of an emergency to assist in the evacuation process.

State of Good Repair and System Preservation

Over the last decade, state and local transportation agencies have faced tremendous funding shortfalls. Agencies have struggled to keep up with their expanding transportation needs with continually shrinking budget.

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.

Mobility 2045 Goal Maintain a state of good repair for all transportation systems



State of Good Repair Objectives and Performance Measures

Mobility 2045 establishes the following objectives and performance measures to evaluate system preservation in the region. Measures identified with an asterisk are also required to have an adopted target as required by the FAST Act.

State of Good Repair: Maintain a state of good repair.

Objectives:

- Maintain a state of good repair for bridges
- Maintain a state of good repair for pavement
- Maintain a state of good repair for non-motorized facilities
- Maintain a state of good repair for transit vehicles and facilities

Performance Measures:

- Bicycle and pedestrian facility surface conditions
- Percent of NHS Bridges in Poor condition as a percentage of total NHS bridge deck area*
- Percent of NHS Bridges in Good condition as a percentage of total NHS bridge deck area*
- Percent of interstate NHS pavements in POOR condition*
- Percent of interstate NHS pavement in GOOD condition*
- Percent of NHS pavements in POOR condition*
- Transit assets considered in a state of good repair*
- Percent of NHS pavements in GOOD condition*

Transportation Asset Management: Bridge and Pavement Conditions

Transportation Asset Management is a strategic approach to cost-effectively and efficiently manage the physical assets of the transportation system. Preserving assets before they deteriorate extends their useful lives and saves money in the long run. This reduces the financial burden on taxpayers, as well as inconveniences to the traveling public that result from unanticipated asset failure and replacement.



The Moving Ahead for Progress in the 21st Century Act (MAP-21) and Fixing America's Surface Transportation Act (FAST ACT)

requires states to develop an asset management plan and both states and MPOs are required to adopt

targets related to Bridge and Pavement Conditions to better maintain and preserve our infrastructure.

The federal legislation focuses on the National Highway System (NHS). The National Highway System (NHS) is a network of strategic highways within the United States, including the Interstate Highway System and other roads serving major airports, ports, rail or truck terminals, railway stations, pipeline terminals and other strategic transport facilities. As part of the federal legislation the Bridge and Pavement Targets are based on the following performance measures.

Bridge Condition Measures

- Percent of NHS Bridges in Poor condition - Bridges rated *poor* are safe to drive on; however, they are nearing a point where it is necessary to either replace the bridge or extend its service life through substantial rehabilitation investments
- Percent of NHS Bridges in Good condition - Bridges rated as *good* will be evaluated by cost to maintain *good* condition. Bridges rated as *FAIR* will be evaluated by the cost of replacement vs. rehabilitation to bring the structure back to a condition rating of *good*.

Pavement Condition Measures

- Percent of interstate pavement in Poor condition - Interstate pavements in poor condition need work due to either the ride quality or due to a structural deficiency.
- Percent of interstate pavement in Good condition: Interstate pavements rated as good will be considered for potential pavement preservation treatments to maintain the good rating
- Percent of pavements in Poor condition - Non-interstate NHS pavements in poor condition need major maintenance. These will be evaluated for potential projects
- Percent of pavements in Good condition - Non-interstate NHS pavements in good condition will be evaluated for potential preservation treatments.

GDOT adopted Bridge and Pavement Condition targets on May 16th, 2018 and the CORE MPO adopted to support the state's targets through planning and programming projects on August 24, 2018.

GDOT will be collecting and analyzing the data statewide. The MPOs will be reporting on efforts to make progress towards the state's targets through planning and programming projects. Bridge and Pavement Condition Targets are required to be adopted every 4 years thereafter, with a revision possible at the 2-year mark. Information related to adopted targets and progress towards meeting those targets can be found in Appendix A.

Information GDOTs Transportation Asset Management Plan can be found on their website at www.dot.ga.gov/IS/TAM

Transit Asset Management



Fixing America's Surface Transportation Act (FAST ACT) develops a framework for transit agencies to monitor and manage public transportation assets, improve safety, increase reliability and performance, and establish performance measures in order to help keep their systems operating smoothly and efficiently. The Mobility 2045 Plan shows the importance of a system in a state of good repair by having an adopted goal for system maintenance.

TAM helps to prioritize projects and optimize funding allocations based on the condition of transit assets to achieve and maintain a State of Good Repair (SGR) for the nation's public transportation assets. Transit agencies are required to develop TAM plans and submit their targets to the Federal Transit Administration's (FTA's) National Transit Database (NTD).

Currently, there is an estimated \$85.9 billion transit SGR backlog. The regulations apply to all transit providers that are recipients or subrecipients of federal financial assistance under 49 U.S.C. Chapter 53 and own, operate, or manage transit capital assets used in the provision of public transportation.

There are two transit agencies operating within the CORE MPO's metropolitan planning boundary - the Chatham Area Transit Authority (CAT) and the Coastal Regional Commission (CRC). CAT is a direct recipient of FTA funds and developed its own TAM Plan. CRC is a participant in the GDOT group TAM plan.

In addition to TAM performance targets the plans are required to include an inventory of capital assets, conditions assessment, decision support tools and investment prioritization. The TAM plans must be updated every four years while the targets are to be updated annually. The transit agencies are responsible for collecting data and reporting their progress towards meeting their targets to the NTD annually. The transit agency submission to the NTD should include: projected targets for the next fiscal year, condition assessments and performance results, and a narrative report on changes in transit system conditions and the progress toward achieving previous performance targets. Asset performance

is measured by asset class. There are three categories of assets being measured: rolling stock, equipment and facilities. The targets are set within these categories by asset class such as buses, vans, ferryboat etc.

As a part of the TAM framework the CORE MPO is required to also set a TAM target. The MPO has adopted Regional TAM Targets which encompass both CAT and CRC needs (see Appendix A). The MPO will reflect the support of the targets through its planning and programming activities.

The CORE MPO will continue to support the regional transit agency targets through planning and programming activities. More information on specific targets and progress towards meeting targets can be found in Appendix A. For more detail on CAT's and CRC's other initiatives please visit CAT's web page at www.catchacat.org and CRCs web page at www.crc.ga.gov.

System Performance

One of the goals identified for the Mobility 2045 is the support an efficient, reliable, multi-modal transportation system that supports economic competitiveness and enhances tourism. 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 efficient system performance supporting these drivers is a key component in their sustainability and success.

Mobility 2045 Goal

An efficient, reliable, multi-modal transportation system that supports economic competitiveness and enhances tourism.



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.

System Performance Objectives and Performance Measures

Mobility 2045 establishes the following objectives and performance measures to evaluate the systems performance in the region. Measures identified with an asterisk are also required to have an adopted target as required by the FAST Act.

System performance: An efficient, reliable, multi-modal transportation system that supports economic competitiveness and enhances tourism.

Objectives:

- Minimize work and freight trip congestion
- Promote projects which provide the maximum travel benefit per cost
- Improve efficient access to job centers
- Enhance tourism offering efficient multi modal options to visit the region
- Maximize efficiency of signalized intersections

Performance Measures:

- Project cost/vehicle miles of travel (VMT)
- Reductions in VMT
- Reductions in work trip vehicle hours of travel (VHT)
- Increased Sustainable development incorporating mixed-use, pedestrian-oriented design
- Level of Service (LOS)
- Percent of person-miles traveled on the interstate system that are reliable*
- Percent of person-miles traveled on the non-interstate NHS that are reliable*
- Reductions in travel times
- Truck Travel Time Reliability (TTTR) Index*
- Percent of jobs within 1/2 miles access to frequent transit service
- Percent of the system actively managed with ITS
- Increase access to alternative transportation options to job centers (transit, bike facilities, sidewalks)
- Maximize transportation system mobility during disruptive events (such as reductions in time to clear major crashes from through lanes, CHAMP clearance times)
- Increased modal options and amenities assisting tourist travel (for examples wayfinding, sidewalks, bike sharing, airport bus express route, car sharing, shuttles, ferry etc.)

Reliability for People and Freight

Fixing America's Surface Transportation Act (FAST ACT) requires states and MPOs to adopt System Performance Targets focused on reducing traffic congestion, improving efficiency of the system and freight movement and protecting the environment. The Mobility 2045 Plan shows the importance of a system performance by having adopted several goals which support these targets such as quality of life and protecting the environment, supporting economic vitality through system performance and accessibility, mobility and connectivity.

GDOT adopted System Performance Targets on May 16th, 2018 and the CORE MPO adopted to support the state's targets on August 24, 2018. GDOT will be collecting and analyzing the data at a statewide level and the CORE MPO will be reporting on our efforts to make progress towards the state's targets through planning and programming projects. System Performance Targets are required to be adopted every 4 years thereafter, with a revision possible at the 2-year mark.

System Performance Measures

- Level of Travel Time Reliability (LOTTTR) – The LOTTTR is the ratio of the longer travel times (80th percentile) to a “normal” travel time (50th percentile). The measure is intended to capture person-miles traveled that are reliable. Person-miles take into account the users of the roadway including bus, auto, and truck occupancy levels.
- Freight movement will be assessed by the Truck Travel Time Reliability (TTTR) Index - The TTTR ratio will be generated by dividing the 95th percentile time by the normal time (50th percentile) for each segment. The TTTR Index will be generated by multiplying each segment's largest ratio of the five periods by its length, then dividing the sum of all length-weighted segments by the total length of Interstate.

Implementation differs for the Interstate and non-Interstate National Highway System (NHS) measures for the first performance period. State DOTs must establish 2- and 4- year targets for the Interstate, but only a 4-year target for the non-Interstate NHS, by May 20, 2018. Those targets will be reported in the State's baseline performance period report. The State DOTs have the option to adjust 4-year targets in their mid-performance period progress report, due October 1, 2020. For the first performance period only, there is no requirement for States to report baseline condition performance or 2-year targets for the non-Interstate NHS before the mid performance period progress report. This will allow State DOTs to consider more complete data. The process will align for both Interstate and non-Interstate measures with the beginning of the second performance period on January 1, 2022.

Accessibility and Connectivity

Accessibility refers to people's ability to reach goods, services and activities, which is typically the ultimate goal of the transportation system. Many factors affect accessibility, including mobility (physical movement), the quality and affordability of transportation options, system connectivity and land use patterns. A number of projects in the cost constrained plan have been targeted at addressing accessibility and connectivity issues by reducing delay and offering better opportunities for people and goods to travel. Mobility 2045 strives to increase accessibility, mobility and connectivity of the system for people and freight by offering strategies that improve network connectivity and integrate modes.



Mobility 2045 Goal

Ensure and increase the accessibility, mobility and connectivity options available to people and freight, and ensure the integration of modes, where appropriate.

Accessibility, Mobility and Connectivity Objectives and Performance Measures

Mobility 2045 establishes the following objectives and performance measures to evaluate accessibility, connectivity and mobility in the region.

Accessibility, Mobility and Connectivity: Ensure and increase the accessibility, mobility and connectivity options available to people and freight, and ensure the integration of modes, where appropriate.

Objectives:

- Minimize congestion delays
- Maximize regional population and employment accessibility
- Provide efficient and reliable freight corridors
- Minimize delays in corridors served by transit
- Encourage use of transit and non-motorized modes, focusing on areas with low rates of automobile ownership or high population of elderly and/or disabled populations
- Expand transit service area and increase service frequency
- Ensure access to essential services
- Expand use of Traveler information to accommodate people, freight and tourism

Performance Measures:

- Base year vs. future year volume/capacity ratios for various modes
- Percent of population within ½ mile of a multimodal (transit or bicycle) route or facility connecting to regional activity center(s)
- Percent of last mile and other freight strategies identified in the Freight Plan completed
- On time performance of the transit and paratransit system
- Increase in transit ridership
- Expanded coverage of ITS to share traveler information (On time bus arrival, way finding, commercial vehicle systems)
- Fewer transit user complaints
- Increase access and connectivity to alternative transportation options to job centers (transit, bike facilities, sidewalks)

Healthy Environment and Quality of Life

The goals of the Mobility 2045 Plan also include a focus on a healthy sustainable environment through the compatible integration of land use and transportation while taking into consideration the impact of transportation.

Healthy Environment and Quality of Life Objectives and Performance Measures

Mobility 2045 establishes the following objectives and performance measures to evaluate accessibility, connectivity and mobility in the region.

Mobility 2045 Goal
A healthy sustainable environment through the compatible integration of land use and transportation while taking into consideration the impact of transportation including that of stormwater.



Environment and Quality of Life: A healthy sustainable environment through the compatible integration of land use and transportation while taking into consideration the impact of transportation including that of stormwater.

Objectives:

- Protect wetlands, historic resources, neighborhoods, recreational facilities and other important resources
- Support infill development
- Implement green infrastructure to reduce region's impact on stormwater pollution and address potential impacts from a changing climate.
- Reduce negative impacts of transportation on stormwater
- Reduce emissions and maintain a healthy air quality
- Reduce energy consumption

Performance Measures:

- Less impacts to natural environment (such as rate of development of greenspace compared to the rate of greenspace preservation).
- Less impacts to historic and cultural and natural resources (tree canopies, waterways and historic roadways)
- Increase in promoting infill and brownfield development
- Flood zone risk status
- Decreased vehicle miles of travel through increased use of alternative modes to single occupancy vehicles
- Project exceeds local and or state storm water management plan requirements
- Increased percent of green infrastructure (GI) and/or Low Impact Development (LID) installation (swales (GI), permeable pavements (LID), green streets (LID) etc.)
- Increased percent of low emission projects (such as electric buses, bike share etc.)
- Total emissions*

Non-Motorized Transportation



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 transportation plan specifically for identifying and prioritizing the pedestrian and bicycle needs. As in the last 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.

Non-motorized transportation includes walking or using a wheelchair, bicycling, skating, and using pedicabs. The Non-motorized Transportation Plan, as part of Mobility 2045, provides a plan to address the needs of pedestrians, and other self-powered travelers. The Plan:

- Identifies needed improvements for the non-motorized modes;
- Identifies areas for amenities to help create a human-scaled environment that encourages use of physically active modes;
- Prioritizes improvements and identifying funding opportunities

The resulting prioritized lists will guide the MPO in programming the approximately \$22 million that is set aside for non-motorized transportation over 25 years in the Mobility 2045 Plan. The lists can also guide local governments in the development of Capital Improvement Programs, and guide organizations applying for grants in the future, under such programs as Transportation Alternatives.

Tide to Town

Following the lead of many communities across Georgia, a coalition of citizens in Savannah is coordinating the effort to create a branded urban trails system: Tide To Town. Tide To Town, like Atlanta's Beltline and Carrollton's Greenbelt, will be a network of protected walking and bicycling facilities connecting all of Savannah's neighborhoods. Tide To Town will link together existing and planned projects, including the Truman Linear Trail and the Springfield Canal Trail. The core of the system is a 30-mile route that encircles the City. Additional miles of connector paths will connect to priority neighborhoods as the system grows. Spur trails to popular destinations will also be added as the system expands outside of the City of Savannah.

The system maximizes existing public rights-of-way along streets and canals, which significantly reduces the cost of implementation. The Friends of Tide to Town coalition formed in 2017 to lead the development of Tide to Town.

Community Health

Community and public health as it relates to transportation policy and infrastructure has come to the forefront of planning. The approach to community health spans a number of disciplines including

transportation planning. The considerations when planning for transportation projects should include the promotion of active transportation and ensuring that the necessary facilities are in place, developing strategies and projects to enhance the safety of pedestrians and bicyclists, and reducing the negative impacts on the environment by increasing the number of active transportation users.

The CORE MPO recognizes and has implemented strategies to promote a healthy 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 region is cognizant of the interconnectedness between land use and public health. As such, they have instituted programs and policy changes to improve the public health and are committed to continue these efforts into the future.

Climate Change, Sea Level Rise, and Resiliency

One of the more discussed topics on a national level is climate change and its effects, which include sea level rise and nuisance flooding, and how to become more resilient. 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 and causing nuisance flooding. These exceptionally high tide events 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.

Stormwater

Stormwater has long been a concern in the region due to its negative impacts on water quality in area waterbodies partially in area such as Savannah surrounded by water. Efforts to deal with stormwater impacts as they relate to the transportation system mainly focused on protecting water quality and highway runoff. Streets, roads, and highways are the primary mode for moving goods, people, and services but also can carry stormwater runoff pollutants from the adjacent land and from cars, trucks, and buses, including heavy metals from tires, brakes, and engine wear, and hydrocarbons from lubricating fluids.

If the pollutants are not properly controlled, they can impair waters causing them to no longer support the water's designated uses and biotic communities. In the construction process of roads this has been done through the utilization of temporary sediment control devices to prevent sediment from leaving the construction site via stormwater runoff. Designs of roads include the use of detention ponds or swales to allow stormwater to be naturally filtered of oils and other pollutants it carries from road surfaces prior to the stormwater reaching area waterbodies.

In recent years, due to more frequent extreme weather events resulting in impassible roadways, stormwater efforts have expanded to also include the design and construction of roads in order to protect the transportation system from the negative impacts of stormwater and to improve the resiliency and reliability of the transportation system.

Intergovernmental Coordination

Mobility 2045 serves as a guide for comprehensive, cooperative and continuing transportation planning throughout the Coastal Region MPO planning area. Through intergovernmental coordination efforts and a performance based planning process, Mobility 2045 ensures a wise use of public funds.

Intergovernmental Coordination Objectives and Performance Measures

The development of Mobility 2045 strives to meet the following objectives and performance measures.

Mobility 2045 Goal
Wise use of public funds through coordination and a performance based planning process.



Intergovernmental Coordination: Wise use of public funds through coordination and a performance-based planning process.

Objectives:

- Enhance coordination between CORE MPO, Georgia Department of Transportation, County departments, City governments, Georgia Ports Authority, modal agencies (CAT and airport) and advocacy groups (Savannah Bicycle Campaign)
- Implement transportation performance management utilizing a performance based planning and programming process

Performance Measures:

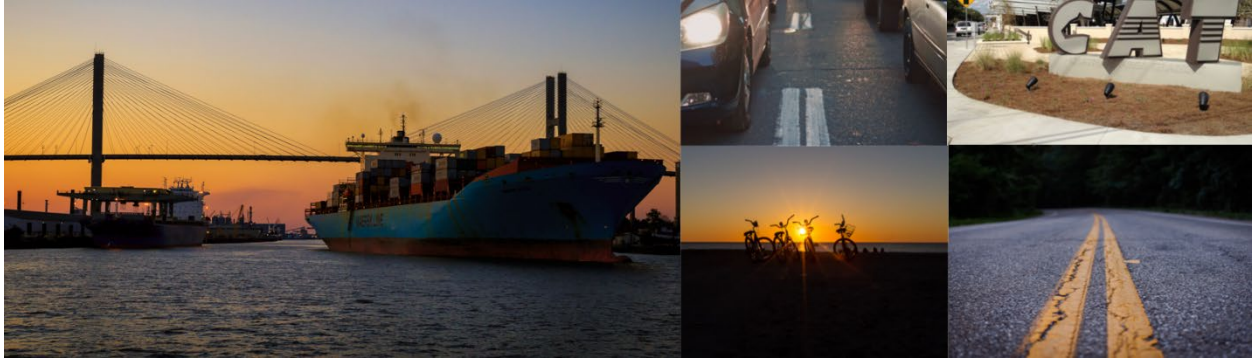
- CORE MPO represented at project development meetings (concept meetings and public information meetings)
- Establishment of coordination policies to promote communications between various agencies
- Establishment of a prioritization process based on cooperatively developed objectives and performance measures.



SECTION THREE: REGIONAL TRANSPORTATION NETWORK



Transportation Network



The transportation network in the Savannah region is made up of all modes which support the movement of freight and people. Although multimodal, Savannah's transportation network is still primarily focused on the highway network. The following section describes the various modes of transportation serving freight and people throughout the region as well as emerging trends in transportation.

Road Network

Roadways in the region serve multiple purpose and accommodate different types of travel. Roadway range from local streets that are designed for direct access to homes and businesses to interstate highways that are primarily for mobility and long distance travel. The Savannah Statistical Metropolitan Area (MSA) comprises of Bryan, Chatham and Effingham Counties and has a total of more than 2,490 miles of roadways. These roadways are categorized by their use and the amount of traffic that is carried. These categories, as defined by the Federal Highway Administration (FHWA), are described below.

Interstate/Freeway (around 132 miles)

Roads that are fully accessed controlled and are designed to carry large amount of traffic at a high rate of speed; examples include roadways such as I-16 and Harry Truman Parkway.

Arterials (around 376 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 Islands Expressway, SR 204 and US 80.

Collectors (around 372 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 (around 2,060 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 9 depicts the functional classification of the roadway network in the Savannah MSA while Table 6 table shows the roadway miles by functional class. Local roads make up almost 70% of the total miles in the area. Collectors make up about 12.65% of the total roadway miles. The interstates, freeway and arterials, though comprising only 17.28% of the total roadway mileage, carry most of the traffic. The interstates, freeways and principal arterials (about 9.49% of the total roadway mileage) also carry most of the freight traffic in the area.

Table 6: Federally Functional Classified Roadway Mileage

Functional Classification	Miles	Percentage
Interstate	97.52	3.32%
Freeway/Expressway	34.06	1.16%
Principal Arterial	147.27	5.01%
Minor Arterial	229.14	7.79%
Major Collector	263.29	8.95%
Minor Collector	108.83	3.70%
Local Roads	2060.44	70.07%
Total	2940.55	100.00%

Bridges

Due to the geography of the Savannah region, it is important to have a good understanding of the bridge conditions. This consideration will be necessary for safety, congestion and freight movements performance measures. The map below shows an inventory of the bridges in the area.

A bridge with fatigue damage may restrict what vehicle types and weights may cross it safely. A bridge is “load posted” when its capacity to carry heavy loads is diminished. The status of these bridges are described as structurally deficient (SD) or functionally obsolete (FO). A bridge with a “posted for load” posting has a weight limit capacity. All SD bridges are posted, but not all posted structures are SD (see Figure 10)

Figure 9: Federally Functional Classified Roadways

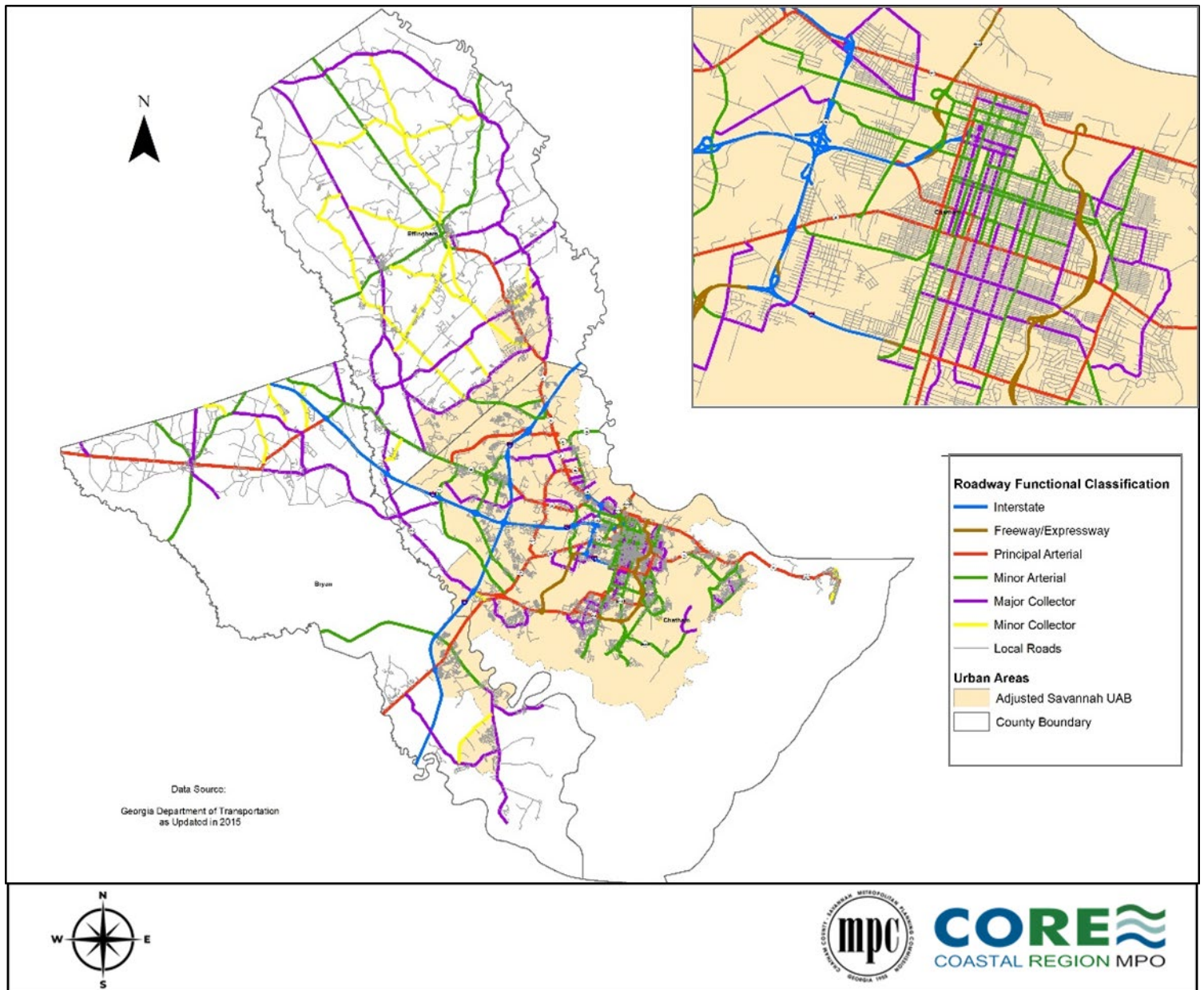
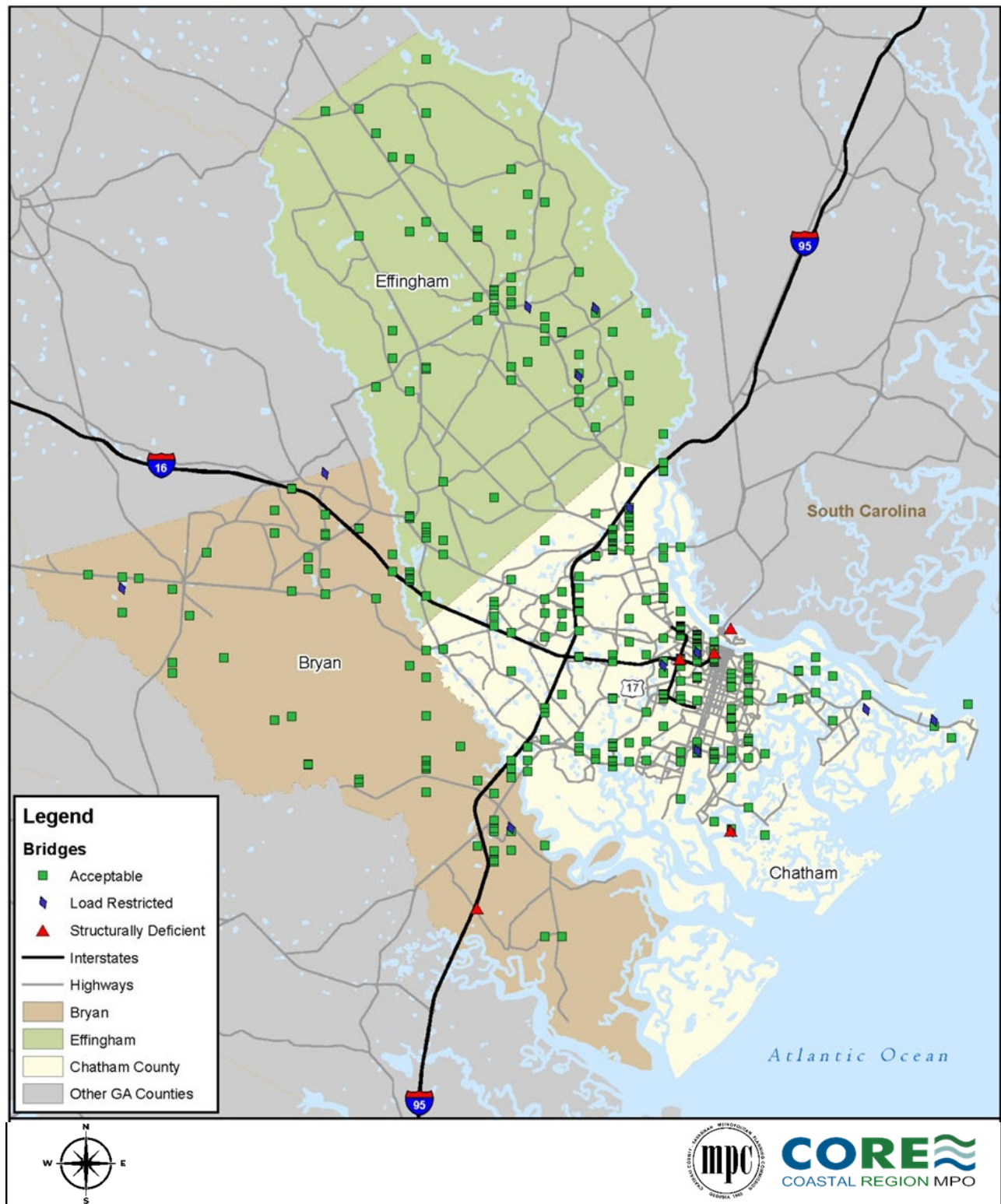


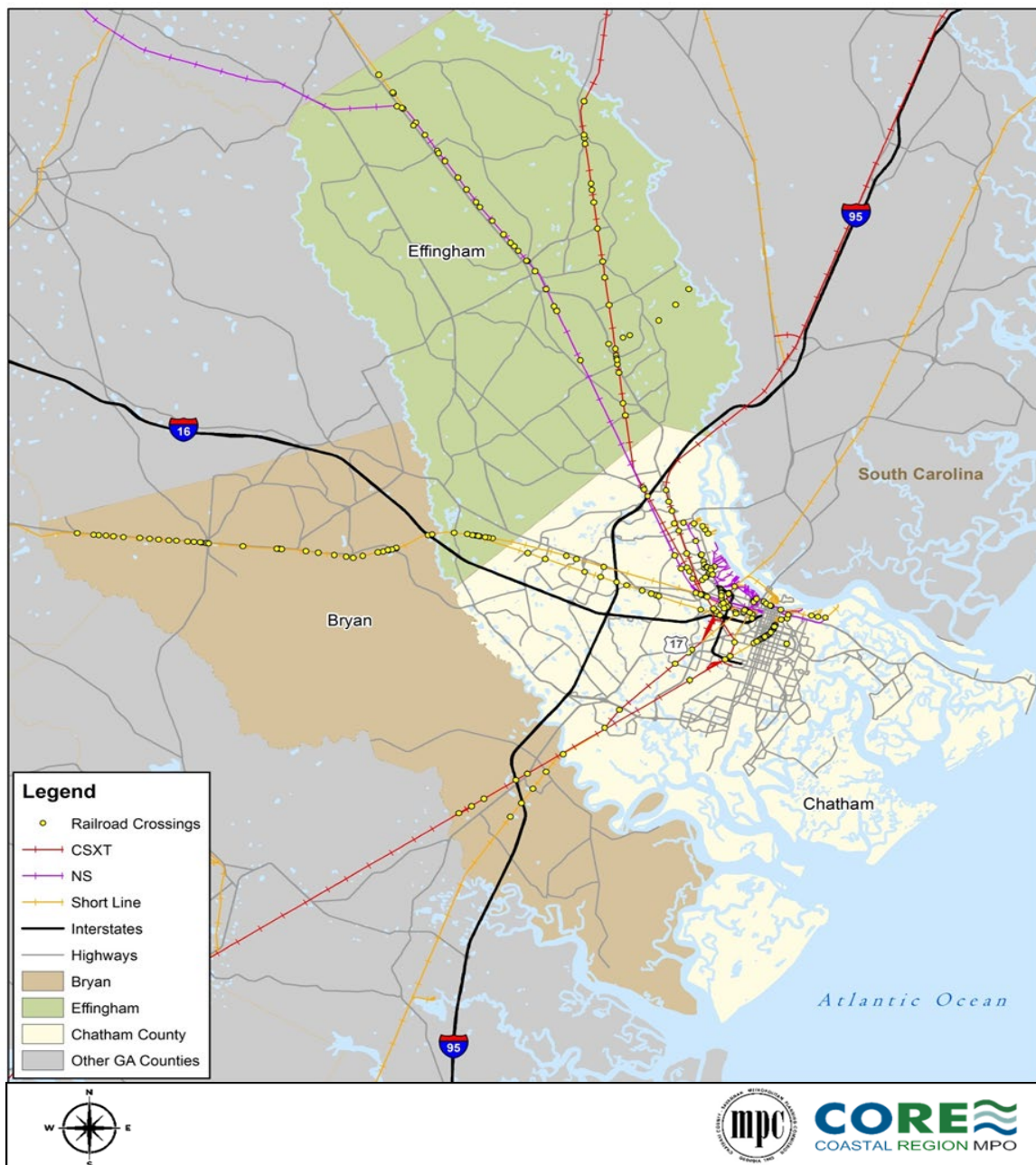
Figure 10: Bridge Locations and Conditions



Railroad Crossings

The presence of railroad crossings (i.e., at-grade) on roadways presents potential safety and/or operational concerns to motor vehicles utilizing such roadways. Grade separation refers to a crossing in which the roadway and rail are at different elevations. Figure 11 shows the railroad crossings in the Savannah area. There are a total of 317 at-grade crossings. According to the Federal Railroad Association (FRA) and National Transportation Atlas Database (NTAD) there are 49 at-grade crossings in Bryan County, 199 in Chatham County and 69 in Effingham County. These crossings occur for both Class I and Class III railroads.

Figure 11: Railway Crossings

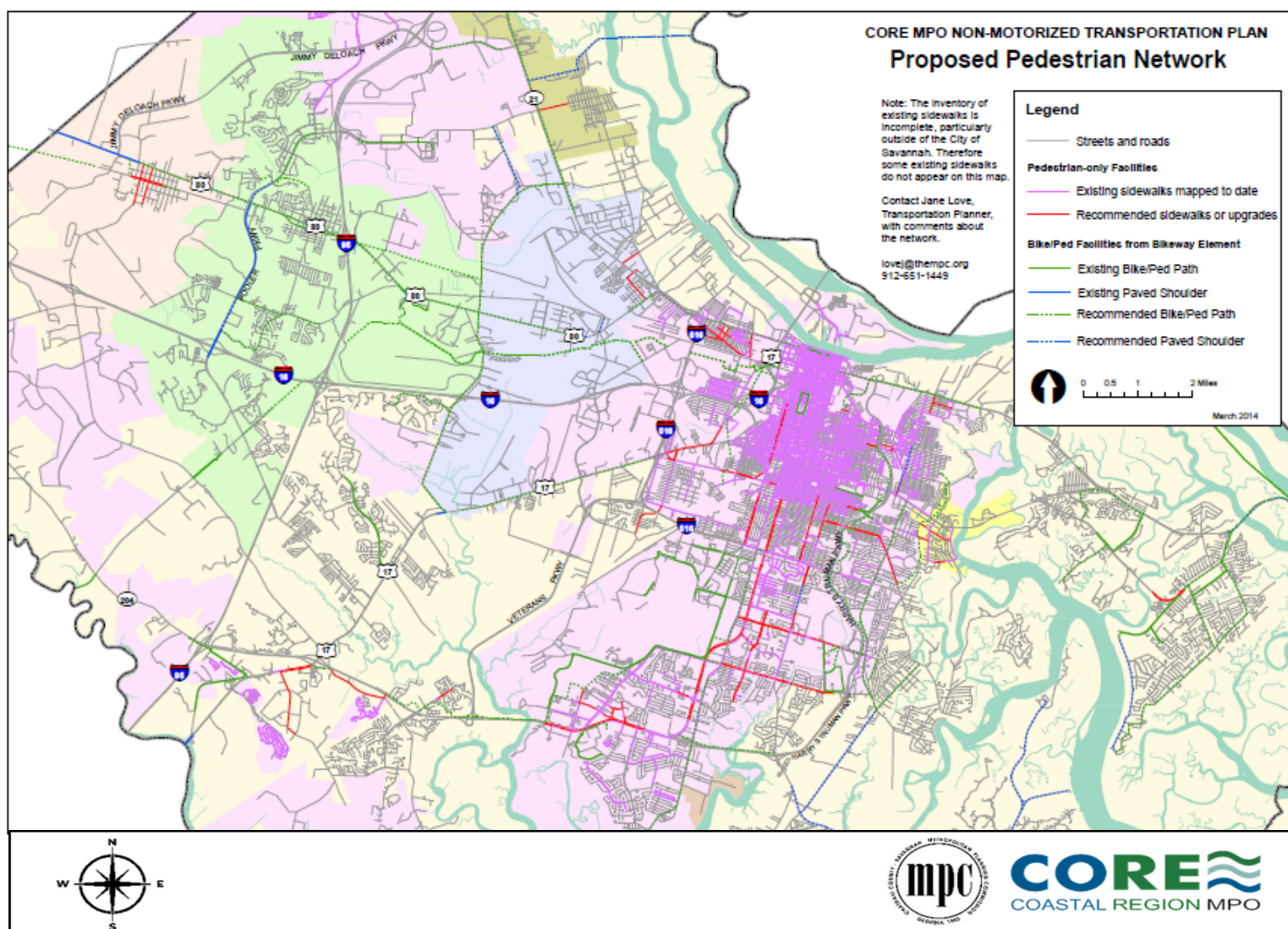


Pedestrian and Shared Use Path Network

While the automobile is the primary mode of transportation in the area, bicycling and walking are important modes. The MPO and the local jurisdictions all have a strong commitment to the provision of safe, connected facilities for pedestrians and bicyclists. There are a number of bicycle facilities, both lanes and trails that have been recently completed or are underway. In addition, there is a robust sidewalk network, particularly in the City of Savannah.

Figure 12 from the non-motorized transportation plan, depicts the existing and proposed pedestrian and shared use path network. The highest concentration of pedestrian facilities is located within the City of Savannah and the recommendations include connections from this network to the south. The existing and proposed bicycle network includes multi-use paths, designated bike lanes and paved shoulders.

Figure 12: Proposed Pedestrian and Shared Use Path Network



Chatham Area Transit Authority

Chatham Area Transit (CAT) is the agency responsible for the provision of transit services to the Savannah area, including fixed route and paratransit. CAT currently operates 65 fixed route buses 6 of which are electric and 42 paratransit vehicles. The CAT service area includes unincorporated Chatham County, the City of Savannah and portions of Garden City.

A Transit Development Plan (TDP), 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. CAT is currently in the process of updating the TDP as part of a full system redesign. 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.



CAT is in the process of a full system redesigned. Since the origins of the CAT bus network in 1987, the cities it serves, and the surrounding county have changed a great deal. While individual transit routes have been added or changed over the years, the overall design of the network has not been revisited. In an effort to provide more efficient and accommodating service CAT has launched a full system redesign starting with a "blank slate" plan, to see what would be possible if the network were re-imagined for the people and places of today.

Redesigning a bus network forces, us to make some hard choices. In this project, the community will help us make those choices.

Ridership

One measure of transit performance is the sheer amount of ridership it attracts. Looking for those patterns (see Table 7) we can observe that the highest ridership occurs on:

- North-south routes between downtown, the Oglethorpe Mall area, and GSU
- Near hospitals, universities and malls, in general.

- Augusta Road as far as Brampton.
- Skidaway Road and Pennsylvania Ave., from DeRenne to E. President Street.
- Savannah's DOT Forsyth Shuttle.

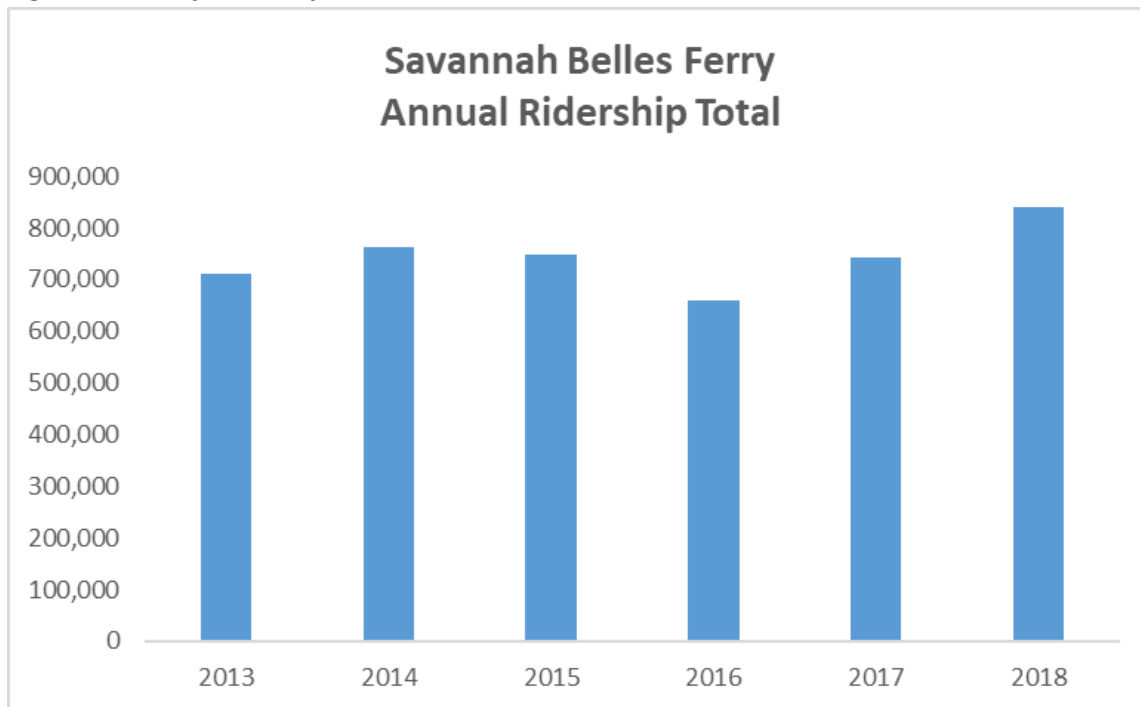
As part of the route system redesign CAT will be evaluating system coverage concepts along with concepts which support high ridership and more reliable service.

Table 7: Average Annual Passengers Per Hour Per Route

Average Annual Passengers Per Hour by Route					
Route/Year	2014	2015	2016	2017	2018
3: W.Chatham	18.1	18.3	16.4	16.1	15.1
3B: Augusta	22.6	24.6	25.6	24.3	24.1
4: Barnard	13.2	13.5	12.2	12.1	11.6
6: Xtown	11.5	12.5	11.6	11.2	10.2
10: E. Savannah	20.2	19.4	19.7	17.9	17.8
11: Candler	10.6	11.8	9.2	7.0	7.0
12: Henry	13.8	12.9	11.6	10.4	11.0
14: Abercorn	27.1	28.8	27.4	25.0	24.1
17: Silk Hope	18.0	19.2	17.6	17.1	17.2
20: Skidaway/Coffee Bluff	3.9	4.7	5.2	4.1	3.9
25: Westlake	19.3	19.6	18.6	17.6	17.1
27: Waters	21.2	22.4	21.8	20.6	20.0
28: Waters	22.5	23.1	22.8	22.2	21.4
29: W. Gwinnett	16.4	16.7	15.0	14.4	14.4
31: Skidaway/Sandfly	26.1	24.6	24.0	22.6	21.4
100X: Airport Express	3.8	3.0	3.0	2.7	2.7

The Savannah Belles Ferry which provides a water crossing over the Savannah River from downtown to the Savannah international Trade and Convention Center on Hutchinson Island is also operated by CAT. The ferry service is funded by the Savannah Trade Center. The system includes 2 ferries and three docks with a 4th dock planned for construction. Ferry ridership as shown in Figure 13 is heavily based on Convention Center events and tourism. Ridership typically begins to pick up in March with the St. Patrick's Day events and continues strong until August. Ridership peaks in June and July before slowing down a bit during months of less tourism for the exception of November when there is a jump in ridership for the Rock and Roll Marathon.

Figure 13: Ferry Ridership



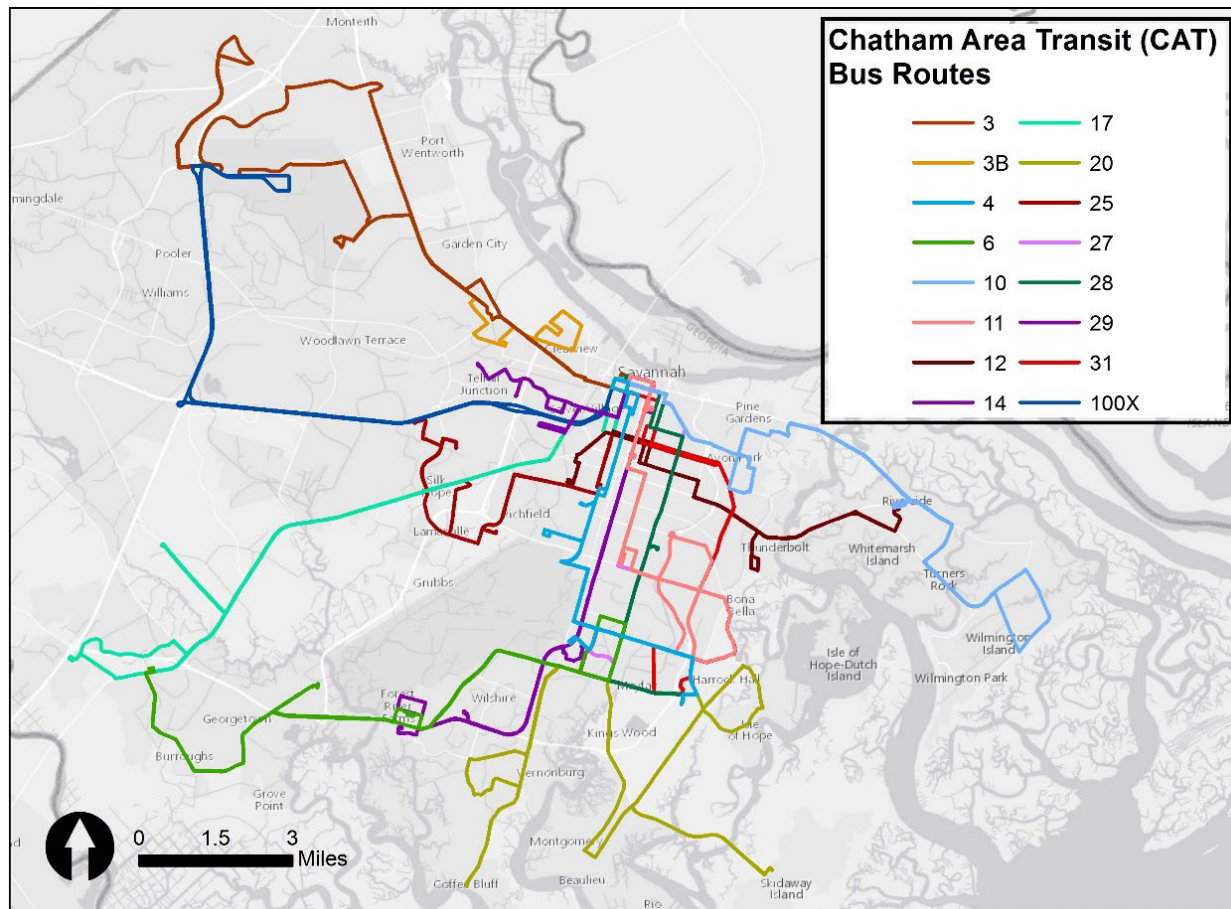
Routes and Facilities

CAT currently operates 16 routes, which includes one express route as shown in Figure 14. The express route provides service from the Savannah Hilton Head International Airport to the transit center in downtown Savannah. CAT also operates three free shuttles services. The Downtown Loop and the Forsyth Loop are funded by the City of Savannah and are free for passengers. The third shuttle is the Senior Circulator and is free to seniors CAT also operates the Savannah Belles Ferry, a free ferry service across the Savannah River between the Savannah Convention and Trade Center to downtown Savannah.

Coastal Regional Commission

The Coastal Regional Commission (CRC) operates the Coastal Regional Coaches which is part of the regional rural public transit program that provides general public transit service in the ten coastal Georgia counties including Bryan, Chatham and Effingham. This demand-response, advance reservation service is available to anyone, for any purpose, and to any destination in the coastal region. The CRC service must have either origin or destination outside of the Savannah Urbanized Area and it supplements the CAT service which is mostly within the Savannah UZA. CRC also operates a trail shuttle service from downtown Savannah to Tybee Island. The service operates twice a day six days a week.

Figure 14: CAT Transit Routes

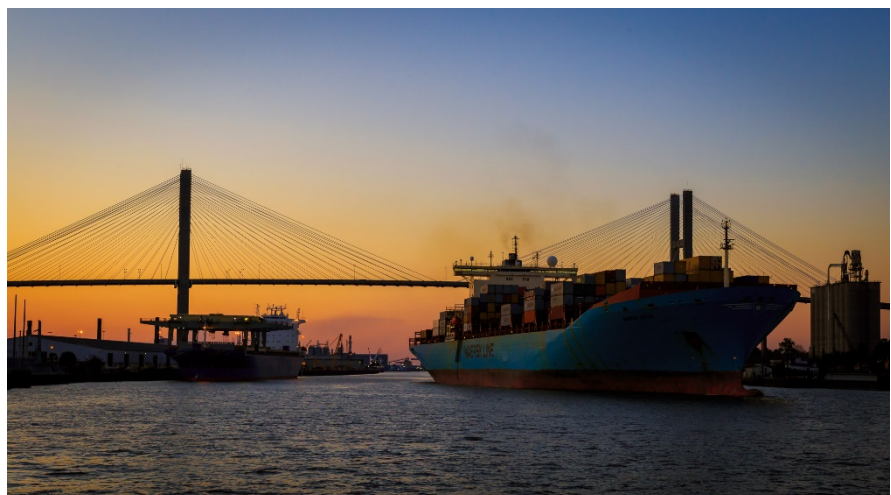


Port of Savannah

The Port of Savannah and the Georgia Ports Authority (GPA) continue to be a major transportation hub and economic engine for Chatham County. The Port of Savannah is the largest single container terminal in North America and the second busiest container exporter in the United State next to Los Angeles moving 4.35 million twenty foot container units in FY 2018. The port is a major economic engine for the region, as well as the State of Georgia. The Port is comprised of two deep water terminals: Garden City Terminal and Ocean Terminal.

The Savannah Harbor Expansion Project expected to be complete in 2020

supports jobs and commerce throughout the nation. The project will allow newer larger freighters to



navigate the river with greater flexibility. The total economic impact of Georgia's deep water ports on Georgia's economy is \$84 billion. The Georgia Ports Authority supports more than 369,000 jobs and approximately \$20.4 billion in personal income annually.

Savannah/Hilton head International Airport

Savannah/Hilton Head International Airport is a commercial and military-use airport in Savannah, Georgia, United States. Owned by the City of Savannah and managed by the Savannah Airport Commission. The airport is located about eight miles northwest of the Savannah Historic District. The airport's passenger terminal is directly accessible to Interstate 95 between Savannah and the suburban city of Pooler. Savannah/Hilton Head International is the chief commercial airport for Savannah, the Coastal Empire region of southeast Georgia and the Lowcountry of South Carolina, where the resort town of Hilton Head accounts for some 40 percent of total airport passenger traffic.

It is second only to Hartsfield–Jackson Atlanta International Airport as Georgia's busiest commercial airport. The airport is currently served by Delta (and Delta Connection carrier Shuttle America), JetBlue, United Airlines, American Airlines, American Eagle, Air Canada, Allegiant Air and Sun Country Airlines. In 2017 the first regularly scheduled international flight by a major air carrier when Air Canada began service to Toronto. The airport also serves as world headquarters for Gulfstream Aerospace. The Georgia Air National Guard's 165th Airlift Wing is also based at Savannah/Hilton Head International.

In 2018, Savannah/Hilton Head International handled a record 2,799,526 commercial airline passengers (1,395,040 enplanements and 1,404,486 deplanements), a 13.4 percent increase over 2017. the airport began a comprehensive capital expansion program with the construction of a new Federal Inspection Station, a terminal apron expansion and the southeast quadrant redevelopment project and began design on a new air cargo complex.

Intercity Passenger and Freight Services

There are two primary passenger intercity transportation services offered to and from Savannah; Amtrak Rail service and Greyhound Bus Service. Freight rail service primarily servicing the Port of Savannah area.

Passenger Rail

Amtrak Silver Service provides intercity passenger rail service to Savannah at its train station location at 2611 Seaboard Coastline Drive in Savannah. The trains provide direct service between Miami and New York as well as daily connections to the national Amtrak network and connecting bus service to other destinations in the region. It is the southern terminus of the Palmetto route and is along the Silver Star and Silver Meteor routes. North of Savannah, the Palmetto and Silver Meteor route diverge from the Silver Star line. While the Silver Star turns inland to serve Columbia, South Carolina and Cary and Raleigh, North Carolina, the Palmetto and Silver Meteor stay closer to the coast to serve Florence and Charleston, South Carolina. The trains do not converge again until Selma, North Carolina.

Passenger Bus

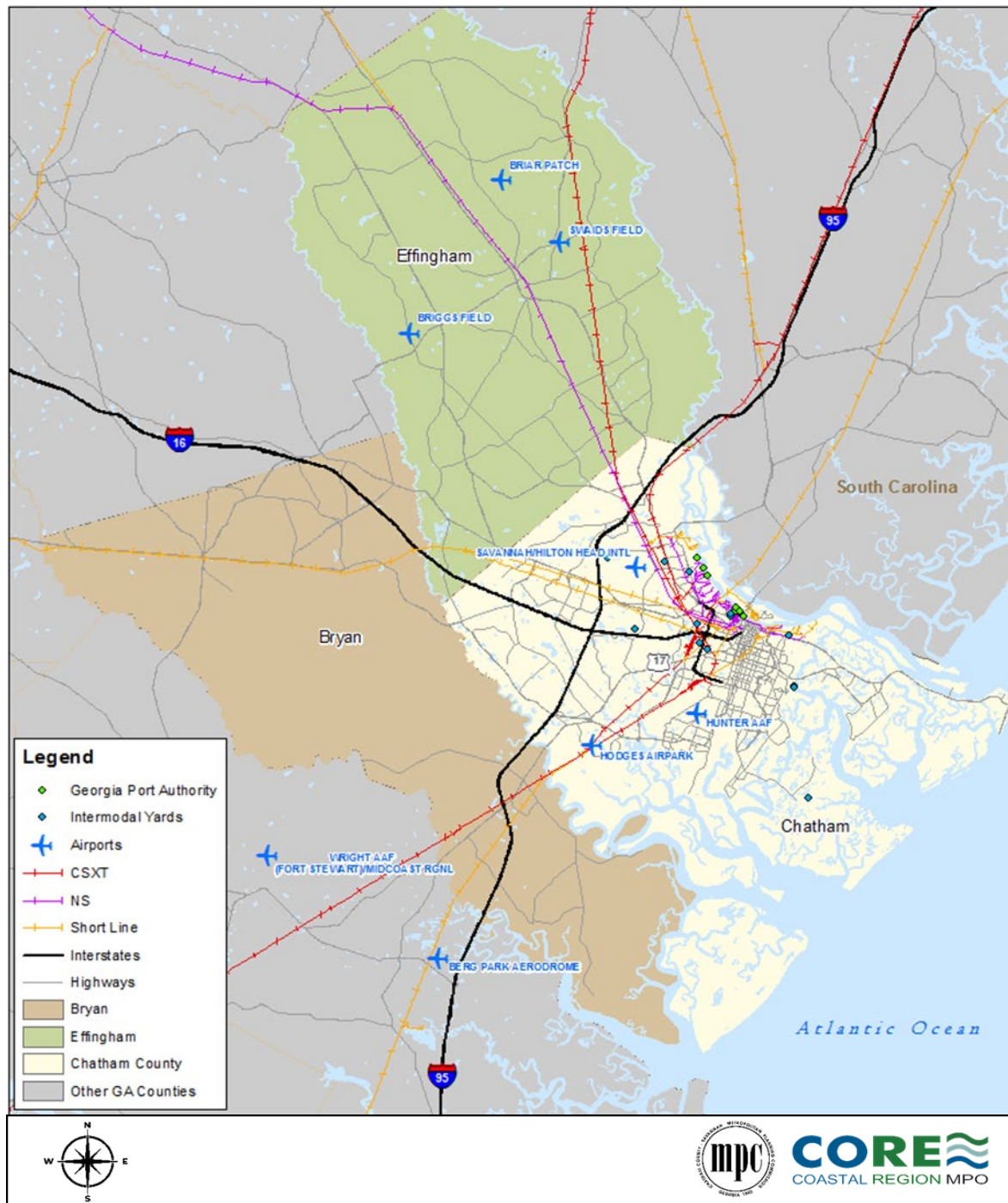
Greyhound Bus Line offer intercity bus service between Savannah and other cities within the United States. The terminal is in Savannah located at the Intermodal Transit Center at 610 Oglethorpe Avenue. There are over 30 departures daily at this station. This station also serves as a transit center for CAT.

Rail Freight Service

Although the roadway network is the primary backbone of the freight movement, the region is also served by about 170 miles of rail freight facilities, of which CSX Transportation and Norfolk Southern provide the major intermodal services (see Figure 15). The CSX Terminal is located in Savannah of Tremont Avenue which I Norfolk Southern is located in Garden City off Charlie Gay Drive. Other freight rail service providers primarily located in western Chatham County and around the Port of Savannah include Atlantic Coast Line, Central Georgia railroad and Savannah and Atlanta Railroad. The map below shows a map of the freight related facilities in the Savannah area.

The major commodities that are transported by rail are pulp and paper, furniture or fixtures, tobaccos products, rubber and plastics, leather, clay, concrete, glass or stone products, fabricated metals products, non-electrical and electrical machinery and scarp metals.

Figure 15: Freight Rail System



Traffic Operations and Emerging Technology

Transportation improvements that focus operations and technology can maintain and even restore the performance of the existing transportation system before extra capacity is needed. The goal here is to get the most performance out of the transportation facilities we already have. Operations projects may enable transportation agencies to “stretch” their funding to benefit more areas and customers.

The benefits of operations projects can include:

- Improved quality of life
- Smoother and more reliable traffic flow
- Improved safety
- Reduced congestion
- Less wasted fuel
- Cleaner air
- Increased economic vitality
- More efficient use of resources (facilities, funding)

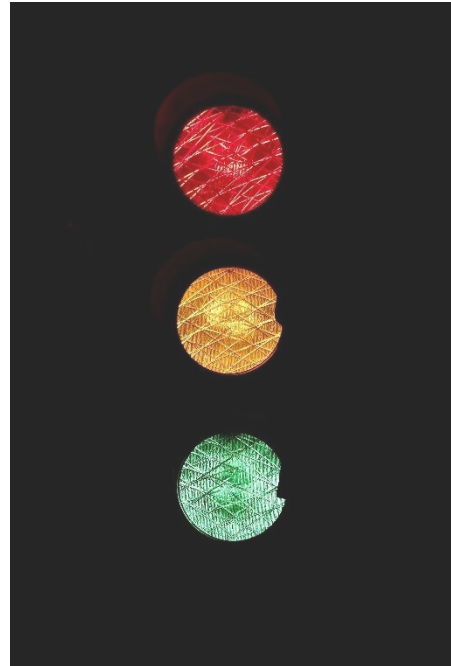
Traditionally, congestion issues were primarily addressed by funding major capital projects, such as adding lanes or building new interchanges and roads, to address physical constraints, such as bottlenecks. Today, transportation agencies are facing trends, such as increased urbanization, that create a growing demand for travel with less funding and space to work with. As a result, we can no longer build our way out of congestion. Trends we see today include:

- Limited funds – The primary source of federal funding for the U.S. highway system is the federal gas tax, which has not changed since 1993. Since that time, the financial constraints for public agencies have increased:
- Inflation – The cost to build roads and bridges has increased.
- Fuel efficiency – Vehicles today can travel farther with less trips to the gas pump, decreasing revenue. The growing use of electric and plug-in hybrid cars has also reduced the purchase of fuel.
- Advances in Technology – Transportation agencies can leverage technology to develop solutions to address congestion issues. However, given the advancement in consumer technologies (smart phones, apps, GPS, etc.), privately owned mobility services (Uber, Lyft, etc.), and the availability of more information, the traveling public expects that the products they use and the technologies they encounter will be "smart" and will ultimately improve their travel experience. They also expect that the information received will be accurate and reliable. This creates an added responsibility for the transportation community to provide the best customer service. Technology will likely have an even greater impact on the transportation network in the future with automation, connectivity, and big data.

Operational projects provide agencies with the tools to manage and operate what they already own more efficiently and effectively before making additional infrastructure investments. The City of Savannah has an operations center that is active primarily during commuting and daylight hours from 7:30am to 6pm. During major events such as the St. Patrick's Day Parade the center is manned 24 hours. The city currently has access to 109 cameras that can be monitored and also provide recording to review incidents.

The City of Savannah and Chatham County also benefit from a regional traffic operations program sponsored by GDOT. GDOT has expanded the Regional Traffic Operations program to the Savannah area. This was their first expansion outside the Atlanta area. The Savannah Regional Traffic Operations Program (SRTOP) is managed by GDOT and is a regional effort including the City of Savannah, Chatham County and local jurisdictions. The program provides:

- Weekly AM, Midday, and PM drive throughs of the corridors to monitor signal timing adjustment needs, congestion, and any other traffic operation deficiencies.
- Routine preventative maintenance (PM) activities to ensure all equipment and communications are operational.
- Upgraded traffic signal software to current statewide platform. The new software provides more functionality, as well as, remote monitoring capabilities.
- Assisted managing traffic operations during St. Patrick's Day festivities.
- Responded to emergency situations that required signal timing adjustments to accommodate shift in traffic patterns.
- Monitor operations after storms to ensure signals are operational.
- Repaired items, such as, malfunctioning detection (vehicle, pedestrian), pull boxes, replaced cabinets, etc.



Currently the Savannah Regional Traffic Operations Program (SRTOP) has been implemented on the following corridors:

- SR 25/Ogeechee between Canebreak Road to Stiles Ave
- Chatham Parkway between Police Memorial Drive and I-16/SR 404 and Carl Griffin Drive
- SR 26/Victory Drive between Hopkins Street and River Drive
- Johnny Mercer Boulevard between Whitmarsh Island Drive and Penn Waller Road
- SR 26/US 80/1st Street/Butler Ave between Johnny Mercer Boulevard and 14th Street

There are plans to expand SRTOP to include the intersections in Pooler on the following corridors:

- SR 26 between Pooler Parkway and Jimmy DeLoach
- Pooler Parkway between Durham Park and Lowes and I-16 ramps
- SR 307 at Jimmy DeLoach and Commerce
- SR 21 between Rice Hope and Fort Howard

The long range expansion of the SRTOP program may include addition locations on Island Expressway, Bay Street to west City limits, and the SR 21 corridor to the Chatham County line at Effingham County. The City of Pooler has also installed and adaptive signal program on Pooler Parkway at I-95 which interconnects signals along the corridor with “smart” signal technology by Rhythm Engineering allowing the signals to adapt to changes in traffic patterns rather than remain on fixed timing sequence.

Autonomous Vehicles/Driverless Cars

Autonomous Vehicles (AV) or Driverless cars are still, an emerging technology and it is still difficult to determine how they will affect the transportation system and when. The state of Georgia has passed legislation allowing driverless cars to operate in the state. At this time there are only test AV programs operating in the Atlanta Georgia area. The potential could eventually reach the Savannah area particularly related to AVs in the trucking industry such as *Waymo* to support the growing Georgia Port of Savannah. Another area that is often discussed as potential is driverless cars is with private companies such as *Uber* or *Lyft* offering rideshare services.

Transportation Network Companies (TNCs) or Ride-hailing/Ride Share

Ride-hailing services use apps and websites to connect passengers with drivers who provide rides in their personal vehicles. Companies such as Uber and Lyft currently service the Savannah area. These types of services offer the potential to expand transportation choices, increase carpooling and reduce vehicle mile travels as well as car ownership. There are signs that ride shares can also compete with public transit and provide inequitable service. Ridesharing services are already exploring the use of driverless cars.

Bike and Scooter Share

Bike and scooter share systems offer fleets of bicycles and scooters for short term rental within a defined service area. Currently the only service in the region is only offered to SCAD students. CAT used to operate a station based bicycle system but has discontinued the service. The technology has changed rapidly for bike share systems and the industry is now favoring private companies to own or operate systems. There are companies exploring the Savannah area particularly the historic downtown area as well as some of the college campuses.

In 2018 the Savannah City Council approved an ordinance that prohibits any shared mobility device from being placed in the public right-of-way, on public property or offered for use anywhere in the City. Other cities have found that without docking stations, scooters and other shared-use electric devices are often abandoned by users on streets, sidewalks and other public places. The scooters can become hazards for motorists and pedestrians.

After seeing some of the challenges stemming from the introduction of these devices in other cities, the City of Savannah chose to get in front of the issue so that we could establish appropriate guidance and regulation for their use. The ordinance is intended to be a short-term response, allowing City Staff and the community to work together to develop a long-term solution.

SCAD

The Savannah College of Art and Design (SCAD) is located in Savannah and enrolls approximately 11,300 students locally. The college currently operates its own separate transit system for only SCAD students, the Bee Line. In addition to the Bee Line transit service SCAD also operates its own bike share and car share programs for students.





SECTION FOUR: PUBLIC ENGAGEMENT



Public Engagement



Citizen engagement is one of the most important elements in the development of the plan and the CORE MPO has a long standing history of successfully incorporating citizen and stakeholder input into the planning process. Numerous opportunities for citizen and stakeholder input occurred throughout the development of Mobility 2045. Meetings and workshops occurred at critical project milestones and meeting locations were identified to ensure convenient accessibility by all populations, with proximity to transit and environmental justice communities.

In addition to the close coordination with the local jurisdictions, the CORE MPO has also included extensive coordination with its other planning partners in the development of Mobility 2045 and its components. These efforts have included working closely with state agencies, the Coastal Regional Commission, Chatham Area Transit, the Georgia Ports Authority, Savannah-Hilton Head International Airport, Bike, Walk Savannah, Healthy Savannah, and the Chamber of Commerce. The CORE MPO also works closely and coordinates with its regional partners. The MPO also has a close working relationship with its neighboring MPOs which include the Hinesville Area MPO in Liberty County and the Lowcountry Area Transportation Study (LATS) MPO in South Carolina. Staff from both neighboring MPOs have a standing invitation to participate in the MPO Policy Committee meetings and CORE staff regularly attend the Hinesville Policy Committee and LATS meetings. Coordination on specific planning efforts that may have more wide-ranging impacts, such as a freight assessment, also regularly occurs.

Mobility 2045 Public Involvement

Under the guidance of existing legislation, the MPO has developed and maintained a Public Involvement Plan which outlines public involvement strategies that meet or exceed the federal requirements:

- The Citizens Advisory Committee (CAC) will facilitate the participation process during the development of the MTP.
- The MPO will host at least one public meeting on the MTP early in the development process at a centralized, accessible location.
- A legal notice will be published in the Savannah Morning News at least 10 days prior to any public meeting.
- In addition to the Savannah Morning News, all other local media and the neighborhood associations as identified in Appendix H of the Public Participation Plan, and the consultation agencies as identified in Appendix I of the Public Participation Plan, will be notified of all public meetings. The meeting notice will also be posted on the MPO website.
- Upon completion of a draft MTP, the MPO will hold a 30-day public review and comment period.

- A legal notice will be published in the Savannah Morning News on the Sunday prior to the beginning of the public review and comment period. All the other contacts listed above will be notified as well.
- During the public review and comment period, copies of the draft MTP will be made available for review at the public agencies identified in Appendix J of the Public Participation Plan and will be posted on the MPO website.
- The MPO will host at least one public meeting during the public review and comment period at a centralized, accessible location. The public meeting will be in advance of or in conjunction with the anticipated MPO meeting when the MTP will be adopted.
- Public comments on the draft MTP must be provided in writing and will be included as an appendix to the final MTP.
- Public comments shall be accepted no later than three working days after the public review and comment period ends.
- At the close of the public review and comment period, the MPO staff will review comments and identify any significant comments.
- Significant comments will be reviewed by the MPO Committees at their meetings and incorporated into the final MTP.
- If the final MTP differs significantly from the version that was made available for public comment by the MPO and raises new material issues which interested parties could not reasonably have foreseen from the public involvement efforts, the MPO will re-start a 30-day public review period, whether during or after the initial 30-day public review period.
- A legal notice will be published in the Savannah Morning News on the Sunday prior to the beginning of the public review and comment period. All the other contacts listed above will be notified as well.

Public Review and Feedback Opportunities

The 2045 MTP update process is organized around three rounds of public meetings to facilitate public involvement at critical stages. While public meetings will be held during the plan update process, public meetings are only one part of a broader outreach effort that included print media, radio and television, direct mailings and the internet.

Media Contacts

All local newspapers, radio and television stations will be provided with notification of all public meetings on Mobility 2045. In addition, legal notices were published in the Savannah Morning News, in accordance with the Public Involvement Plan. See Appendix D for a copy of the legal notice.

Brochures

A brochure highlighting the activities of the plan update and the public participation process was developed for distribution at public meetings. Informational brochures were distributed in various churches, information booths etc. A copy of the brochure is in Appendix D

Publications

The MPC newsletter will be used to disseminate Mobility 2045 information. A copy of the article is located in Appendix D.

The Chatham Connection insert of the Savannah Morning News included an article on Mobility 2045 in February 2019. A copy of the article is located in Appendix D.

Open comment period

Although a formal comment period was established for various phases of the plan update, the MPO will accept comments at any time during the plan update.

Mailings

A contact list was developed, comprised of MPO contacts, all neighborhood associations, and all individuals and organizations who attended a meeting, provided comments, or otherwise expressed an interest in the plan update. This contact list is continually updated and expanded. Members of the contact list receive all meeting notices as well as an informational flyer summarizing the recommendations of the draft plan.

Internet

The MPC website will be used to disseminate up-to-date information on Mobility 2045. All drafts of Mobility 2045 will be made available for download at www.thempc.org, where the public will be invited to review preliminary plan documents and submit comment forms online.

Online Survey

In an effort to reach a wider audience staff has developed a short survey to capture the regions' thoughts on transportation. The online survey was distributed via email distribution lists and social media and a press release to major media outlets. The survey was in both Spanish and English and will be available for the public to respond to until July 31st, 2018. The survey had several opportunities for the public to respond in an open ended manner. Results from the survey were used to help confirm and modify the goals and objectives of the long range plan. The survey was designed with input from TCC.

The survey was distributed to a variety of groups (see Table 8). There were 645 responses to the survey and approximately 496 comments. A copy of the survey can be found in Appendix D.

Table 8: MTP Survey Distribution

Groups	Social Media	Email	Newsletter	Webpage	Other
MPC members and staff		X		X	
TCC		X			
ACAT		X			
CAC		X			
MPO		X		X	
Heathy Savannah	X		X		
Savannah Bicycle Campaign	X				
Savannah Morning News	X			X	
Garden City	X	X		X	
MPC Natural Resources	X				
Water Sprout			X		
Coastal Georgia Indicators and Community Teams	X		X		
Step Up Savannah	X				
Working Families Network	X				
Emmaus House	X				

Family Connections Partnership (Bryan, Effingham)		X			
Georgia Bikes	X				
Smart Growth Savannah	X				
Thomas Square Neighborhood Assoc.	X				
Effingham TAB		X			X
SAGIS TAC		X			X
Baldwin Park Neighborhood Association				X	
YMCA Coastal Georgia	X	X			
Slack	X				
Coastal Georgia Greenway	X				
CAT	X	X			
Savannah Council of the Blind		X			
Life Inc		X			

Social Media

In addition to using social media to distribute the MTP survey it will also be utilized when available to advertise public meetings.

Public Meetings

All meetings as part of the MPO meeting cycle were an opportunity for the public to learn about the 2045 MTP update (see Table 9). MPO staff also sought out additional regularly scheduled agency meetings outside of the MPO to provide briefings on the plan update. There were two rounds of community public meetings involving the 2045 MTP update which were held at central locations. At all meetings, attendees were given the opportunity to ask questions and discuss the 2045 MTP update directly with staff members, and to submit written comments. Mobility 2045 and its components had over 80 opportunities for public and stakeholder participation and input. These opportunities were supplemented with stakeholder interviews, stakeholder surveys, and on-line surveys and exercises. All meeting advertisements and notifications were conducted in compliance with, or exceeded the requirements found in the adopted CORE MPO Public Participation Plan. The table below includes the specific engagement activities incorporated in the development of the Mobility 2045 Plan.

The first-round of public meetings was held in fall 2018. The meetings focused on the development of the goals and objectives of the plan and allowed the public to review existing transportation planning documents, learn about the plan update process and schedule, and provide MPO staff with feedback on community needs and desires for the new 2045 MTP. In addition to the formal public meetings staff will also provide briefings and or handout materials at other local meeting such as neighborhood groups, TAB, CGIC etc. A second set of public meetings was held in June 2019 and focused on the draft plan project list.

Table 9: Public Input Opportunities

PLAN DEVELOPMENT INPUT OPPORTUNITIES	
Public MPO/MPC Meetings	49
MPC Meetings	1
SAGIS	1
Community Open Houses and Meetings	7
MTP Working Group Meetings	4
CAT Board	1
Garden City – City Council Meeting	2
Richmond Hill – City Council Meeting	3
Pooler City Council	1
Effingham Transportation Advisory Board	4
Coastal Georgia Indicators Coalition	7
Total Mobility Plan Final Public Hearing	1
TOTAL MEETING/WORKSHOP INPUT OPPORTUNITIES	81

ADDITIONAL INPUT OPPORTUNITIES
Stakeholder Interviews & Special Meetings
I-95 & Airways Avenue Study
I-16 & Little Neck Study
Let's Go CAT" transit System Redesign
ADDITIONAL SPECIFIC PARTNER COORDINATION
City of Savannah
Chatham County Engineering
Effingham TAB
Richmond Hill
Town of Pooler
City of Garden City
City of Tybee Island
Metropolitan Planning Commission
Chatham Area Transit
Savannah Hilton Head International Airport
Georgia Ports Authority
Savannah Area Chamber of Commerce
Coastal Regional Commission
Hinesville Area Metropolitan Planning Organization
Lowcountry Area Transportation Study Metropolitan Planning Organization
Georgia Department of Transportation
Federal Highway Administration
Federal Transit Administration
Bike Walk Savannah
Healthy Savannah

Public Outreach Environmental Justice Analysis

Staff conducted an environmental justice analysis (see table 10) to ensure we were reaching areas of diverse populations; in addition, including locations with access to transit. The main comment we heard regarding our meeting locations was to include a west side location during the second round of meetings which did include two west side locations.

Table 10: Environmental Justice Analysis

Venue	% Minority	% Elderly	% Children	% Persons Below Poverty Level	% of Hispanic LEP	Transit within 0.25 Mile
First Presbyterian Church (Chatham Crescent)	15.52	10.42	9.89	14	N	N
St. Luke Baptist Church	50.49	17.53	5.58	36.91	N	Y
City Hall of Garden City	55.79	5.38	9.68	31.03	N	N
City Hall of Richmond Hill	20.36	8.05	15.35	5.95	N	N
Live Oak Public Library at Savannah Mall	61.46	14.03	15.15	20.15	Y	Y
Armstrong Center	42.49	13.25	7.83	10.51	N	Y
Pooler Recreation Center	35.15	10.07	14.39	10.38	N	N
Moses Jackson Center	79.11	10.25	10	30.33	N	Y
Chatham County Commission Chamber	27.89	7.05	3.98	31.87	N	Y

Environmental Justice Thresholds: Minority **42.68%** (i.e., 42.68% of Savannah MSA population are minority); Persons Below Poverty Level **17.01%**; Elderly 11.61% (i.e. **11.61 %** of Savannah MSA population are 65 years and above); Children **13.67%** (persons under Age 10); Limited English Proficiency (LEP) - Persons of Hispanic or Latino Origin (**4.95%** of total regional population) is the only group that meets the Safe Harbor Rule for LEP consideration.

Source: US Census Bureau 2010 Decennial Census and 2012 ACS 5-year Estimates



SECTION FIVE: PROJECT SELECTION PROCESS



Project Selection Process and Plan Development

The Mobility 2045 Plan is based upon the performance based planning and programming process (PBPP). The goals and visions identified in Mobility 2045 support performance based planning by supporting a multimodal transportation system that provides a safe, connected, accessible for all users that enhances the mobility for people and goods. The plan incorporates an approach that integrates land use with transportation, complete streets/context sensitive design approach, and is focused on mobility, sustainability, and quality of life for residents and visitors. This transcendent approach is structured to ensure compliance with all federal and state requirements. With the continuing funding shortfalls for transportation, the FAST Act includes an emphasis on performance based planning and programming and achieving the maximum benefits from expenditures of transportation projects.

There are several elements which went into the project selection process:

- Formation of a technical advisory group, the Mobility 2045 Working Group
- Travel Demand Model analysis
- Project prioritization process with performance measures supporting regional goals and the PBPP
- Congestion Management Process
- Incorporation of contributing studies and plans

Public Engagement

The following section describes the process carried out to identify and select projects for Mobility 2045.

Mobility 2045 Working Group

Throughout the planning process a sub set of the CORE MPO Technical Coordinating Committee (TCC), the Mobility 2045 Working Group met several times to help make key recommendations to the TCC and the Policy Board. The Working Group was instrumental in weighing technical information and making key decisions on financial assumptions, project input for model and analyzing model and prioritization results. A complete list of Mobility 2045 Working Group meetings is identified in Appendix D.

Travel Demand Model

The travel demand model is one of the analysis tools used to more fully understand the existing and future traffic patterns and to measure the impacts of any planned improvements. The travel demand model is one tool that provides information on how the network is functioning, such as the depiction of Level of Service. Level of Service (LOS), which measures how well a facility is functioning, is presented in letter grades from LOS "A" which means the free flow of traffic, to LOS "F" which indicates gridlock. As part of the Mobility 2045 analysis the regional travel demand model was updated to reflect updated census, socioeconomic and transportation data. The Georgia Department of Transportation updated the model and provided LOS information throughout the plan development to the CORE MPO staff and committees to assess various transportation project scenarios.

Model results were provided to technical committee members for review and used as an aid in determining issues and strategies to resolve poor level of service. The committees reviewed the results for six model runs:

1. 2015 Base year
2. 2045 level of service with no new project implemented
3. 2045 level of service with existing and committed projects

4. 2045 level of service results with all current Transportation Improvement Projects completed
5. 2045 level of service results for non-financially constrained projects
6. 2045 level of service results for financially constrained projects

Information on the model and level of service maps are located in Appendix F.

Project Prioritization

Mobility 2045 utilizes a defined process for determining what projects are included in the plan, as well as developing performance measures to determine how well a plan is addressing the region's transportation needs. The CORE MPO developed the prioritization process within the framework of the identified goals and planning factors encompassing performance based planning. 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.

The project prioritization process consists of two screening tiers. The first screen is based on need and the second screen is based on sustainability. These screens are structured around the CORE MPO goals for their long range planning efforts. Specific metrics were identified based on available data and tools. The table below details the Needs Screen, with associated goals, prioritization factors and data source.

Screen 1:

Goal	Factor	Data Source
System Performance	<ul style="list-style-type: none"> Level of service Truck Traffic Freight connections to strategic infrastructure 	<ul style="list-style-type: none"> Travel Demand Model GIS
Safety and Security	<ul style="list-style-type: none"> Crash rate Designated evacuation route 	<ul style="list-style-type: none"> Georgia Department of Transportation Chatham Emergency Management Agency
Accessibility, Mobility and Connectivity	<ul style="list-style-type: none"> Connecting population and employment Freight last mile Transit ridership Non-motorized Plan priorities 	<ul style="list-style-type: none"> Travel Demand Model Freight Plan CAT Non-motorized Plan
State of Good Repair	<ul style="list-style-type: none"> Bridge rating Bridge Conditions Pavement Conditions Benefit/Cost 	<ul style="list-style-type: none"> Georgia Department of Transportation Cost Estimates Travel Demand Model

Screen 2:

The second screen incorporates those goals more focused on a sustainable mobility system. The table below details the goals, prioritization factors and data sources encompassed in the Sustainability Screen.

Goal	Factor	Data Source
Environment and Quality of Life	<ul style="list-style-type: none">• Impacts to environmental, cultural and social resources	<ul style="list-style-type: none">• GIS
Intergovernmental Coordination	<ul style="list-style-type: none">• Project Status• Local Priority• Consistency with other local, regional and state plans• Financial feasibility	<ul style="list-style-type: none">• Local Governments• Georgia Department of Transportation• Financial analysis

Each factor accomplishing the identified goal is awarded five points; if not, no points are awarded. Projects are then prioritized by the score, with the highest score ranking first. However, there are a number of other factors that must be incorporated into the prioritization process. These additional filters are applied to projects, resulting in the final prioritization. These additional filters include:

- Project Benefits/Costs
- Existing Project Status
- Local Priority
- Consistency with Other Local, Regional and State Plans
- Financial Feasibility

The results of the prioritization scoring can be found in the Appendix F. The prioritization scoring is a tool to aid decision makers in selecting projects. The prioritization process alone is not intended to determine the final list of projects in the plan. Decision makers also take into consideration the results from the travel demand model, the Congestion Management Process and local priorities.



Analysis of Performance Based Planning and Programming

Mobility 2045 goals and performance measures shown in Table 11 serves as a visualization tool to show how the 2045 MTP projects relate to federal performance measures. This underscores the strong alignment between CORE MPO's planning and federal transportation planning priorities of performance based planning.

Table 11: 2045 Mobility Plan Roadway Projects and PBPP

GDOT PI Number	Project Name	From	To	Federal Performance Measures						
				Safety	Pavement and Bridge	Congestion	Freight	Air Quality	Transit Safety	Transit Asset Management
0008358	I-516 @ CS/1503/DeRenne Avenue (DeRenne Blvd. Option)	I-516	White Bluff Road	✓		✓	✓			
0008359	East DeRenne from SR 204 to Harry S Truman Parkway (East DeRenne Avenue Improvements)	Abercorn St	Truman Pkwy	✓		✓	✓			
0010236	SR 21 from CS 346/Mildred Street to SR 204 (West DeRenne Avenue Improvements)	Mildred Street	Abercorn St	✓	✓	✓	✓			
0013741	SR 25/US 17 @ SAVANNAH RIVER IN PORT WENTWORTH	Savannah River		✓	✓		✓			
0013742	SR 25/US 17 @ MIDDLE RIVER IN PORT WENTWORTH	Middle River		✓	✓		✓			
0015704	SR 404 SPUR/US 17 @ BACK RIVER	Back River		✓	✓		✓			
0015705	SR 404 SPUR/US 17 FM NE OF SAVANNAH HARBOR PKWY TO BACK RIVER	NE of Savannah Harbor Pkwy	Back River	✓	✓		✓			
0006700	Effingham Parkway from SR 119/Effingham to SR 30/Chatham	Effingham County	Meinhard Road			✓				
0006328	Brampton Road Connector	SR 25	Georgia Ports Authority			✓	✓			
0012757	I-16 FROM I-95 TO I-516	I-95	I-516	✓	✓	✓	✓			
0012758	I-16 at I-95 Interchange Reconstruction	---	---	✓	✓	✓	✓			
0013727	I-16 @ SR 307			✓	✓	✓	✓			
521855	SR 26 From I-516 to CS 188/Victory Drive (US 80 / Ogeechee Rd Widening)	4 Ln E Lynes Pkwy	Victory Dr	✓	✓	✓	✓			
0010560	SR 26/US 80 @ Bull River and @ Lazaretto Creek	West of Bull River	East of Lazaretto Creek	✓	✓	✓				
None	I-16 Interchange at Little Neck Road	Little Neck Road		✓	✓	✓	✓			
None	I-95 at Airways Avenue	Airways Avenue		✓		✓	✓			

GDOT PI Number	Project Name	From	To	Federal Performance Measures						
				Safety	Pavement and Bridge	Congestion	Freight	Air Quality	Transit Safety	Transit Asset Management
None	I-516 / Lynes Parkway at I-16 Interchange Reconstruction	At I-16		✓	✓	✓	✓			
0013160	I-516 / Lynes Parkway Widening	I-16	Veterans Parkway	✓	✓	✓	✓			
None	I-516 / Lynes Parkway Widening	Veterans Parkway	Mildred St	✓	✓	✓	✓			
None	I-95 at SR 21 / Augusta Rd Interchange Reconstruction			✓	✓	✓	✓			
None	President Street / Truman Parkway Interchange Bridge and Ramp Reconstruction	HST Parkway		✓	✓	✓	✓			
0015528	I-16 Widening	Pooler Pkwy	I-95	✓	✓	✓	✓			
None	Old River Road Widening	SR 204	Effingham County / Chatham County line	✓	✓		✓			
None	Gulfstream Widening	SR 21	Airways Avenue	✓		✓	✓			
None	Harris Trail Road Widening	Timber Trail	Port Royal Road	✓		✓	✓			
None	Port Royal Road Widening	SR 144	Harris Trail	✓		✓	✓			

Congestion Management Process

In addition to the prioritization process the CORE MPO is also responsible for the development of a Congestion Management Process which can serve a tool to help decision makers prioritize projects.

In 2017 the CMP was updated to evaluate the conditions of the existing roadway network, prepare recommendations for congestion mitigation measures, and project the future conditions of the primary roads within the Coastal Region Metropolitan Planning Organization (CORE MPO) Metropolitan Planning Area (MPA) which includes all of Chatham County, Richmond Hill in Bryan County, and portions of Effingham County and Bryan County within the 2010 census-defined Savannah Urbanized Area. This information was used by the MPO primarily to identify congestion and mobility problems and target these areas for improvement. The study approach was to identify problem areas using multimodal data sources and prepare recommendations to improve the traffic flow on the transportation system as a whole and on specific corridors.



The CORE MPO followed the following steps as depicted in Figure 16 for CMP development as published in the FHWA's Congestion Management Process Guidebook⁹.

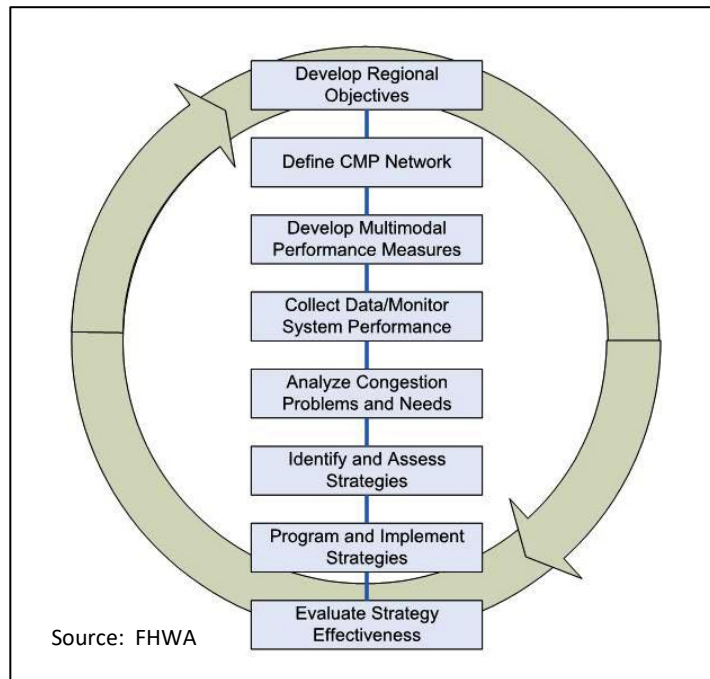
The CMP serves several key functions:

- Ensures consistency with the CORE MPO's Metropolitan Transportation Plan (MTP) and other planning processes;
- Provides a "toolbox" of congestion management strategies that can be applied to various improvement needs; and
- Establishes a recommended framework to assess, report and monitor congestion.

The results of this study were used as factors in prioritizing needed improvements and helping define projects for Mobility 2045. To view the complete CMP report, visit <https://www.thempc.org/Core/Cmp>. The CMP will be updated again during the next planning cycle.

⁹ http://www.fhwa.dot.gov/planning/congestion_management_process/cmp_guidebook/

Figure 16: Elements of the Congestion Management Process



Special Studies and Plans Contributing Mobility 2045

There are several special studies and plans that have been conducted which contributed to the development of Mobility 2045.

Freight plan

The CORE MPO's Freight Transportation Plan, completed in 2016, focused on the freight development of the Savannah MSA (Chatham, Bryan and Effingham Counties). The plan intends to provide a road map for enhancing freight mobility within and outside of the three-county area in order to improve the Savannah region's economic competitiveness. Recommendations from the Freight Plan included land use recommendations and freight infrastructure improvements, which have been presented in both policy recommendations and project-specific recommendations. Many of these infrastructure improvement recommendations are being incorporated into the 2045 Metropolitan Transportation Plan. For more information on the CORE MPO's Freight Transportation Plan, visit <https://www.thempc.org/Core/fp>.

Non-Motorized plan

The current Non-motorized plan was adopted in October 2014 and is in the process of being updated. Any bicycle, sidewalk or trail project seeking CORE MPO highway funding is considered consistent with the MPO's 2045 Metropolitan Transportation Plan provided that 1) the project is consistent with the adopted CORE MPO Non-Motorized Transportation Plan; and 2) the project has a dedicated local sponsor with local match funding commitment. For more information on the Non-Motorized Plan visit <https://www.thempc.org/Core/Bpp>



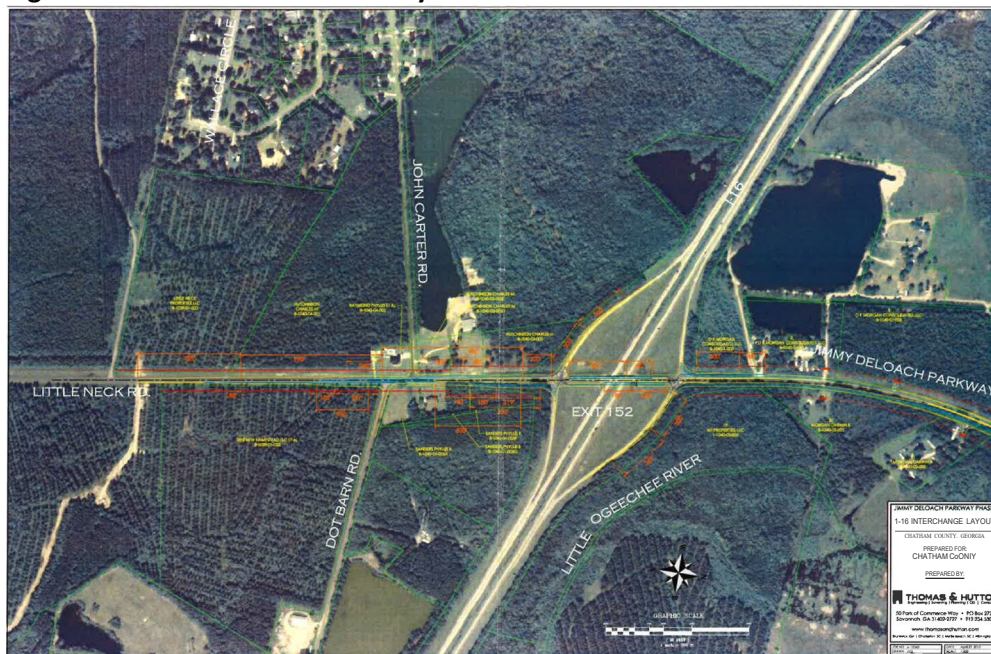
I-16 at Little Neck

The I-16 at Little Neck Road interchange as shown in Figure 17 will be the future terminus of the Jimmy DeLoach Parkway, Phase 2 project. The Jimmy DeLoach Parkway, Phase 2 project is the “last section” of the Jimmy DeLoach Corridor which will provide direct, alternative access into the Georgia Ports Authority from Interstate 16.

During development of the Jimmy DeLoach Parkway, Phase 2 project, FHWA required an additional analysis of the existing conventional diamond interchange at the intersection of I-16 and existing Bloomingdale Road/Little Neck Road. Using the approved counts and projections for the Jimmy DeLoach Parkway, Phase 2 and Jimmy DeLoach Parkway at US 80 Interchange, a rough analysis was performed to determine if improvements were needed at the interchange prior to construction of the Jimmy DeLoach Parkway, Phase 2 projects. The preliminary analysis showed that an interchange improvement will be needed at the existing interchange. The projected volumes in the area indicate that the ramp termini at future Jimmy DeLoach Parkway, Phase 2 will operate over capacity (LOS F) in 2038 regardless of whether or not the Jimmy DeLoach Parkway, Phase 2 is constructed. A secondary analysis was performed that included widening the roadway and bridge over I-16 to provide two thru lanes in each direction, as well as widening the I-16 off-ramps approaching Bloomingdale Road and signaling the on/off ramp intersections. This analysis showed significant improvement to the operation of the interchange, providing LOS of A, B, C, and D.

The I-16 at Little Neck Road study will update the traffic counts, evaluate the existing operational analysis of the interchange, project new traffic volumes based on growth and land use data, evaluate the crash history of the interchange, develop alternatives to improve the operation and safety of the interchange, evaluate the alternatives using traffic projections and provide preliminary environmental screening to facilitate development of a future concept report and Interchange Modification Report (IMR), if required.

Figure 17. I-16 at Little Neck Study Site



I-95 at Airways Avenue

The existing conventional diamond interchange at the intersection of I-95 and existing Airways Avenue/Pooler Parkway experiences significantly congestion and delays. An Interchange Operational Analysis Report of the interchange was completed during the preliminary engineering for the I-95/Airways Avenue Interchange Improvements project done by GDOT, SAC, SEDA, and Gulfstream. This analysis used counts and projections for the project. Using the referenced counts and projections, a rough analysis was performed to determine if improvements were needed at the interchange. The preliminary analysis showed that an interchange improvement will be needed at the existing interchange. The projected volumes in the area indicate that the interchange will continue to operate over capacity (LOS F) unless either a DDI (Diverging Diamond Interchange), northbound to westbound flyover, or a northbound to westbound loop ramp is constructed.

The I-95 at Airways Avenue Study will update the traffic counts, evaluate the existing operational analysis of the interchange, project new traffic volumes based on growth and land use data, evaluate the crash history of the interchange, develop alternatives to improve the operation and safety of the interchange, evaluate the alternatives using traffic projections, and provide preliminary environmental screening to facilitate development of a future concept report and Interchange Modification Report (IMR), if required.

Public Involvement

A large component of the planning process is the public engagement efforts that take place throughout the plan update. Section 4 along with Appendix D detail the outreach efforts that occurred to incorporate public input into the planning process. The CORE MPO reached out the public with several methods to engage, inform and collect feedback:

- Interactive exercises to introduce population and economic information which fed into the development of the socioeconomic data
- Online Survey to define goals and objectives
- Open houses (during goals developed and a second round to review the draft plan)
- Public Speaking opportunities
- MPC Newsletter article
- Newspaper insert article
- Development of an online interactive map



SECTION SIX: FINANCIAL PLAN AND PROJECT RECOMMENDATIONS



Mobility 2045 Financial Plan

The 2045 Metropolitan Transportation Plan is required to include a financially balanced list of projects; the project costs must not exceed the anticipated funding for the planning period. The financial analysis is a key component in the development of the plan. Project costs must be developed and inflated to the anticipated year of expenditure or inflated to the year that the project is expected to be underway. The anticipated revenues from all sources, including federal, state and local, must also be inflated. The project costs must then be compared to the anticipated funding to ensure that all of the projects are financially feasible to complete. The final list of financially balanced projects is the Mobility 2045 Plan. The projects identified but are not included in the plan are incorporated into the Vision Project list, or unfunded project list.

Subsequent plan updates will utilize the Vision Project list for projects to include _____ when funds become available. The section below is a summary of the Mobility 2045 Financial Plan. For details on the development of this plan, please refer to Appendix C.



Highway Revenues

The GDOT Office of Financial Management (OFM) provided highway revenue forecasts for 2019 – 2045 based on a three-year average of the state’s obligation authority and distributions among MPOs. The forecasted revenues are divided into two parts – funds for projects and funds for maintenance. The project amounts are determined based on the MPO population from the 2010 census, and the maintenance amount was calculated using the MPO’s percentage of state route lane miles. These estimates are based on a standard 1% annual inflation. According to the GDOT forecasts, the Savannah region will receive an annual average of a little over \$30 million. These forecasts only include the federal portion of the expected highway revenues for the Savannah area and will be the basis for the final 2045 MTP highway revenue development. Since the 2045 MTP will cover 2020 to 2045, the GDOT 2019 revenue data will not be included in the final forecast.

To access these federal revenues, the State of Georgia and/or local project sponsors must provide matching funds. Although each federal funding program requires a different percentage of matching funds, the majority require a 20% match. Thus, the assumption is that 20% state/local matching funds would be added to the final highway revenue forecasts of the 2045 MTP.

1. For the 2045 MTP highway revenue projections, the funds for projects and funds for maintenance will be separated from each other.
2. The first two years (2020 and 2021) of the 2045 MTP overlap with the last two years of the current FY 2018 – 2021 Transportation Improvement Program (TIP). The funds included in the TIP are considered “committed”. Thus, the revenues committed in the TIP for 2020 and 2021 will replace the state obligation authority – based revenue forecasts for these two years for projects. These committed revenues include funds allocated to projects included in the Major Mobility Investment Program (MMIP) and projects programmed with HB 170 funds.
3. Since it is uncertain how much HB 170 funds will be allocated to the Savannah area for the duration of the 2045 MTP, it is assumed that no HB 170 funds would be available after 2021 for the final revenue forecasts.

4. It is assumed that an additional \$2.5 million annual local funds would be included in the final 2045 MTP revenue forecasts. These funds will be used to finance projects' implementation, not to be spent on maintenance.
5. It is assumed that no other funding sources (bonds, discretionary grant funds, public – private partnership funds, etc.) would be included in the final 2045 MTP revenue forecasts.
6. Using 2020 as the base year, a 1% annual inflation rate is applied to the 2045 MTP revenue forecasts for maintenance and for projects of 2022 - 2045.
7. The revenues of the 2045 MTP expressed in Year-of-Expenditure (YOE) dollars will be distributed into short-, mid- and long- term cost bands to cover projects included in each band as follows.
 - a. Cost Band One: 2020 – 2027 (8 years)
 - b. Cost Band Two: 2028 – 2036 (9 years; mid-year is 2032)
 - c. Cost Band Three: 2037 – 2045 (9 years; mid-year is 2041)
8. The project revenues in each cost band will be divided into revenues for specific projects and revenues for category expenditures. Three categories have been identified:
 - a. Operational Improvements Set Aside: based on the approximate lump sum category percentage of the total revenues in the FY 2018 – 2021 TIP, it is assumed that 9.5% of available project revenues for 2022 - 2045 will be reserved for operational improvements. The 2020 and 2021 lump sum funding amounts in the TIP are used for Operational Improvements for these two years.
 - b. Transit Set Aside: based on historic Z230 funding awards, it is assumed that \$700,000 from project revenues will be reserved each year for bus purchase or transit improvements. Implementation of these transit projects will require funding flexing from FHWA to FTA.
 - c. Non-Motorized Set Aside: based on the annual Z301 funding availability for the Savannah area, it is assumed that \$500,000 each year from project revenues will be reserved for non-motorized projects (bike, ped, trails, etc.) for 2022 – 2045. The 2020 and 2021 funding amounts for programmed bike/ped projects in the TIP are used for these two years.

The Table 12 depicts the anticipated highway revenues for the planning period of 2020 – 2045 for highway projects and category expenditures.

Table 12: 2020-2045 Highway Revenue Projections

Year	Federal*			Matching Funds			Total with Matching Funds			HB 170	Local****	Other	Highway Total Estimates	Cost Band	Cost Band Total	Cost Band Project	Cost Band Maintenance
	Projects Estimate	Maintenance Estimate	Total Estimate	Projects Estimate	Maintenance Estimate	Total Estimate	Projects Estimate	Maintenance Estimate	Total Estimate								
2020**	\$30,473,622	\$6,289,725	\$36,763,348	\$7,618,406	\$1,572,431	\$9,190,837	\$285,949,746	\$7,862,157	\$293,811,903	\$0	\$2,500,000	\$0	\$296,311,903	One	\$801,290,466	\$736,147,226	\$65,143,240
2021**	\$30,778,358	\$6,352,623	\$37,130,981	\$7,694,590	\$1,588,156	\$9,282,745	\$190,430,286	\$7,940,778	\$198,371,064	\$0	\$2,525,000	\$0	\$200,896,064				
2022	\$31,086,142	\$6,416,149	\$37,502,291	\$7,771,536	\$1,604,037	\$9,375,573	\$38,857,678	\$8,020,186	\$46,877,864	\$0	\$2,550,250	\$0	\$49,428,114				
2023	\$31,397,003	\$6,480,310	\$37,877,314	\$7,849,251	\$1,620,078	\$9,469,328	\$39,246,254	\$8,100,388	\$47,346,642	\$0	\$2,575,753	\$0	\$49,922,395				
2024	\$31,710,974	\$6,545,113	\$38,256,087	\$7,927,743	\$1,636,278	\$9,564,022	\$39,638,717	\$8,181,392	\$47,820,109	\$0	\$2,601,510	\$0	\$50,421,619				
2025	\$32,028,083	\$6,610,565	\$38,638,648	\$8,007,021	\$1,652,641	\$9,659,662	\$40,035,104	\$8,263,206	\$48,298,310	\$0	\$2,627,525	\$0	\$50,925,835				
2026	\$32,348,364	\$6,676,670	\$39,025,034	\$8,087,091	\$1,669,168	\$9,756,259	\$40,435,455	\$8,345,838	\$48,781,293	\$0	\$2,653,800	\$0	\$51,435,093				
2027	\$32,671,848	\$6,743,437	\$39,415,285	\$8,167,962	\$1,685,859	\$9,853,821	\$40,839,810	\$8,429,296	\$49,269,106	\$0	\$2,680,338	\$0	\$51,949,444				
2028	\$32,998,566	\$6,810,871	\$39,809,437	\$8,249,642	\$1,702,718	\$9,952,359	\$41,248,208	\$8,513,589	\$49,761,797	\$0	\$2,707,142	\$0	\$52,468,939	Two	\$491,556,682	\$411,796,891	\$79,759,791
2029	\$33,328,552	\$6,878,980	\$40,207,532	\$8,332,138	\$1,719,745	\$10,051,883	\$41,660,690	\$8,598,725	\$50,259,415	\$0	\$2,734,213	\$0	\$52,993,628				
2030	\$33,661,837	\$6,947,770	\$40,609,607	\$8,415,459	\$1,736,942	\$10,152,402	\$42,077,297	\$8,684,712	\$50,762,009	\$0	\$2,761,555	\$0	\$53,523,564				
2031	\$33,998,456	\$7,017,247	\$41,015,703	\$8,499,614	\$1,754,312	\$10,253,926	\$42,498,070	\$8,771,559	\$51,269,629	\$0	\$2,789,171	\$0	\$54,058,800				
2032	\$34,338,440	\$7,087,420	\$41,425,860	\$8,584,610	\$1,771,855	\$10,356,465	\$42,923,050	\$8,859,275	\$51,782,325	\$0	\$2,817,063	\$0	\$54,599,388				
2033	\$34,681,825	\$7,158,294	\$41,840,119	\$8,670,456	\$1,789,574	\$10,460,030	\$43,352,281	\$8,947,868	\$52,300,149	\$0	\$2,845,233	\$0	\$55,145,382				
2034	\$35,028,643	\$7,229,877	\$42,258,520	\$8,757,161	\$1,807,469	\$10,564,630	\$43,785,804	\$9,037,346	\$52,823,150	\$0	\$2,873,686	\$0	\$55,696,836				
2035	\$35,378,929	\$7,302,176	\$42,681,105	\$8,844,732	\$1,825,544	\$10,670,276	\$44,223,662	\$9,127,720	\$53,351,382	\$0	\$2,902,422	\$0	\$56,253,804				
2036	\$35,732,719	\$7,375,198	\$43,107,916	\$8,933,180	\$1,843,799	\$10,776,979	\$44,665,898	\$9,218,997	\$53,884,895	\$0	\$2,931,447	\$0	\$56,816,342	Three	\$537,608,304	\$450,376,195	\$87,232,109
2037	\$36,090,046	\$7,448,950	\$43,538,995	\$9,022,511	\$1,862,237	\$10,884,749	\$45,112,557	\$9,311,187	\$54,423,744	\$0	\$2,960,761	\$0	\$57,384,505				
2038	\$36,450,946	\$7,523,439	\$43,974,385	\$9,112,737	\$1,880,860	\$10,993,596	\$45,563,683	\$9,404,299	\$54,967,982	\$0	\$2,990,369	\$0	\$57,958,350				
2039	\$36,815,456	\$7,598,673	\$44,414,129	\$9,203,864	\$1,899,668	\$11,103,532	\$46,019,320	\$9,498,342	\$55,517,662	\$0	\$3,020,272	\$0	\$58,537,934				
2040	\$37,183,610	\$7,674,660	\$44,858,271	\$9,295,903	\$1,918,665	\$11,214,568	\$46,479,513	\$9,593,325	\$56,072,838	\$0	\$3,050,475	\$0	\$59,123,313				
2041	\$37,555,446	\$7,751,407	\$45,306,853	\$9,388,862	\$1,937,852	\$11,326,713	\$46,944,308	\$9,689,259	\$56,633,567	\$0	\$3,080,980	\$0	\$59,714,546				
2042	\$37,931,001	\$7,828,921	\$45,759,922	\$9,482,750	\$1,957,230	\$11,439,980	\$47,413,751	\$9,786,151	\$57,199,902	\$0	\$3,111,790	\$0	\$60,311,692				
2043	\$38,310,311	\$7,907,210	\$46,217,521	\$9,577,578	\$1,976,803	\$11,554,380	\$47,887,889	\$9,884,013	\$57,771,901	\$0	\$3,142,908	\$0	\$60,914,809				
2044	\$38,693,414	\$7,986,282	\$46,679,696	\$9,673,354	\$1,996,571	\$11,669,924	\$48,366,768	\$9,982,853	\$58,349,620	\$0	\$3,174,337	\$0	\$61,523,957				
2045	\$39,080,348	\$8,066,145	\$47,146,493	\$9,770,087	\$2,016,536	\$11,786,623	\$48,850,435	\$10,082,681	\$58,933,117	\$0	\$3,206,080	\$0	\$62,139,196				
2020 - 2045 Revenues	\$899,752,941	\$185,708,113	\$1,085,461,054	\$224,938,235	\$46,427,028	\$271,365,263	\$1,524,506,233	\$232,135,141	\$1,756,641,373	\$0	\$73,814,079	\$0	\$1,830,455,452		\$1,830,455,452	\$1,598,320,311	\$232,135,141

* Data provided by GDOT based on a three-year average of the state’s obligation authority and distributions among MPOs. Projection amounts are YOY \$ - (1% inflation per year). Projection only covers the federal portion.

** The committed funds in 2020 and 2021 from FY 2018 - 2021 TIP are used to replace the state's obligation - authority based forecasts.

***The 2045 MTP covers 2020 to 2045, so the 2019 data is not used for revenue projections.

****Local revenues will be used to fund projects, not maintenance.

Highway Project Cost Estimates

The following summarizes the methodology utilized to calculate the highway project cost estimates in YOE dollars for the 2045 MTP.

1. The project phases of each potential 2045 MTP highway project, which include Preliminary Engineering (PE), Right-of-Way acquisition (ROW), Utilities (UTL) and Construction (CST), are reviewed by CORE MPO staff and the 2045 MTP Working Group to determine which of three cost band periods best match the priority and schedule of each phase.
2. Funding source by project phase is not tracked; only the cost totals by phase (PE, ROW, UTL and CST) are calculated.
3. If a project phase was authorized prior to the adoption of the 2045 MTP, the project phase cost is not included in the plan.
4. The annual planning level cost estimating inflation rate is defined as 3.5% based on the National Highway Construction Cost Index (NHCCI) data from 2003 to 2018.
5. Project costs are calculated in YOE dollars for each appropriate time period. The projects' cost estimates for cost band periods are described below.
 - a) Cost Band One (2020 - 2027):
 - i. Overlaps with GDOT's short-range planning period and the current FY 2018 - 2020 Transportation Improvement Program (TIP).
 - ii. For 2020 and 2021 projects, use the projects' phase costs in the TIP that reflect the most current GDOT cost estimates.
 - iii. For 2022 – 2027 projects, use the best available cost estimates from GDOT, local project sponsors or CORE MPO where applicable. The projects' costs should be estimated for the appropriate phase (PE, ROW, UTL and CST). No inflation factor is applied to these projects assuming the cost estimates are already inflation-adjusted.
 - b) Cost Band Two (2028 – 2036)
 - i. Incorporate cost estimates developed for the 2040 MTP, or project sponsor-provided estimates, or estimates based on per mile costs of comparable local projects as expressed in approved concept reports as available.
 - ii. Apply the appropriate escalation inflation factor calculated for YOE 2032 (the midpoint of this time band) for the final cost estimates for each phase.
 - c) Cost Band Three (2037-2045)
 - i. Incorporate cost estimates developed for the 2040 MTP, or project sponsor-provided estimates, or estimates based on per mile costs of comparable local projects as expressed in approved concept reports as available.
 - ii. Apply the appropriate escalation inflation factor calculated for YOE 2041 (the midpoint of this time band) for the final cost estimates for each phase.

Development of Financially Constrained Highway Plan

With the development of the anticipated highway revenues over the planning period, the next step is to decide what projects are to be included in the highway section of the financially constrained 2045 MTP. This step takes into consideration projects' development status and implementation schedule, MTP continuity, projects' prioritization rankings, fiscal constraints, and geographic equity analysis. For highway financially-constrained plan development, the projects are evaluated and selected based on the methodology listed below.

1. The projects included in the current 2040 MTP that are completed, under construction or no longer needed are not included in the 2045 plan.

2. The remaining projects in the 2040 MTP that are in the pipeline for implementation will be carried forward to the financially constrained 2045 MTP. The following projects qualify for this criterion.
3. The long-range projects in the 2040 MTP are evaluated for their project prioritization rankings, fiscal constraints of each cost band, and geographic equity analysis.
4. New highway projects identified through the travel demand modelling process and/or by local sponsors are evaluated for their project prioritization rankings, fiscal constraints of each cost band, and sponsors' commitment. The highway project rankings are listed in Appendix F.
5. Policy statements are developed for category projects to correspond to project revenue category expenditure set-asides and maintenance expenditures. These Policy Statements include the following:
 - a) Maintenance Policy: The Georgia Department of Transportation (GDOT) maintains the state highways in Georgia. Maintenance projects in the Savannah area which have been duly selected for funding by the State Transportation Board are considered to be consistent with the CORE MPO's 2045 Metropolitan Transportation Plan.
 - b) Operational Improvements Set Aside Policy: Any operational improvement project (traffic signals, turn lanes, intersection improvement, etc.) in the Savannah area seeking CORE MPO highway funding is considered to be consistent with the MPO's 2045 Metropolitan Transportation Plan provided that 1) the project is consistent with the MPO's plans (2045 Vision Plan, Freight Plan, Congestion Management Process, etc.) or local Capital Improvement Programs; 2) the project makes improvements to functionally-classified roadways (collectors and above); and 3) the project has a dedicated project sponsor with local match funding commitment.
 - c) Transit Improvements Set Aside Policy: Any transit improvement project seeking CORE MPO highway funding in the Savannah area is considered to be consistent with the MPO's 2045 Metropolitan Transportation Plan provided that 1) the project has an eligible local sponsor with matching fund commitment; 2) the project is consistent with the transit needs identified in the 2045 MTP; and 3) the project is approved by the CORE MPO Board for inclusion in the Transportation Improvement Program.
 - d) Non-Motorized Improvements Set Aside Policy: Any bicycle, sidewalk or trail project seeking CORE MPO highway funding is considered consistent with the MPO's 2045 Metropolitan Transportation Plan provided that 1) the project is consistent with the adopted CORE MPO Non-Motorized Transportation Plan; and 2) the project has a dedicated local sponsor with local match funding commitment

Financially Constrained Highway Plan

The selected priority projects' costs are adjusted for inflation and then the costs balanced against the anticipated revenues in each cost band. In order to balance the anticipated revenues with the project costs for the financially feasible plan, some projects or project phases have to be removed and pushed back into the Vision Plan. The MPO worked closely with the 2045 MTP Working Group and developed a draft fiscally constrained 2045 MTP for highway projects as shown below in Table 13 and Figure 18.

Tabel 13: 2045 Metropolitan Transportation Plan - Cost Feasible Project List

GDOT PI #	Map ID	Identified Projects			2020-2027				2028-2036 (mid-year 2032)				2037-2045 (mid-year 2041)					
		NAME	TERMINI		Thoroughfare Plan Cross Section	PE	ROW	CST	Total Project Cost	PE	ROW	CST	Total Project Cost	PE	ROW	CST	Total Project Cost	
			FROM	TO														
0008358	1	I-516 @ CS/1503/DeRenne Avenue (DeRenne Blvd. Option)	I-516	White Bluff Road	Major Arterial - Suburban		\$ 18,400,000	\$ 33,000,000	\$ 51,400,000									
0008359	2	East DeRenne from SR 204 to Harry S Truman Parkway (East DeRenne Avenue Improvements)	Abercorn St	Truman Pkwy	Major Arterial - Suburban		\$ 4,700,000	\$ 5,600,000	\$ 10,300,000									
0010236	3	SR 21 from CS 346/Mildred Street to SR 204 (West DeRenne Avenue Improvements)	Mildred Street	Abercorn St	Major Arterial - Suburban		\$ 6,800,000	\$ 4,100,000	\$ 10,900,000									
0013741	4	SR 25/US 17 @ SAVANNAH RIVER IN PORT WENTWORTH	Savannah River		Minor Arterial - Suburban		\$80,580	\$30,564,675	\$30,645,255									
0013742	5	SR 25/US 17 @ MIDDLE RIVER IN PORT WENTWORTH	Middle River		Minor Arterial - Suburban		\$72,420	\$30,238,275	\$30,310,695									
0015704	6	SR 404 SPUR/US 17 @ BACK RIVER	Back River		N/A*			\$1,620,000	\$1,620,000									
0015705	7	SR 404 SPUR/US 17 FM NE OF SAVANNAH HARBOR PKWY TO BACK RIVER	NE of Savannah Harbar Pkwy	Back River	N/A*		\$500,000	\$2,000,000	\$2,500,000									
0006700	8	Effingham Parkway from SR 119/Effingham to SR 30/Chatham	Effingham County	Meinhard Road	Minor Arterial - Suburban			\$ 41,879,134	\$ 41,879,134									
0012757	9	I-16 FROM I-95 TO I-516	I-95	I-516	N/A*		\$ 6,100,000	\$ 205,800,000	\$ 211,900,000									
0012758	10	I-16 at I-95 Interchange Reconstruction	---	---	N/A*													
0013727	11	I-16 @ SR 307			N/A*			\$ 28,155,497	\$ 28,155,497									
521855	12	SR 26 From I-516 to CS 188/Victory Drive (US 80 / Ogeechee Rd Widening)	4 Ln E Lynes Pkwy	Victory Dr	Major Arterial - Urban		\$ -	\$ 16,497,481	\$ 16,497,481									
0006328	13	Brampton Road Connector from Foundation Drive to SR 21/SR 25/US 80	SR 25	Georgia Ports Authority	Collector - Suburban	\$ 1,665,671	\$ -	\$ 60,350,423	\$ 62,016,094									
0010560	14	SR 26/US 80 @ Bull River and @ Lazaretto Creek	West of Bull River	East of Lazeretto Creek	Major Arterial - Suburban	\$ 1,000,000	\$ 280,500	\$ 93,719,188	\$ 94,999,688									
None	15	I-16 Interchange at Little Neck Road	Little Neck Road		N/A*	\$ 2,000,000	\$ 813,717	\$ 30,000,000	\$ 32,813,717									
None	16	I-95 at Airways Avenue	Airways Avenue		N/A*	\$ 3,000,000		\$ 30,000,000	\$ 33,000,000									
None	17	I-516 / Lynes Parkway at I-16 Interchange Reconstruction	At I-16		N/A*									\$ 19,788,105.00			\$ 19,788,105	
0013160	18	I-516 / Lynes Parkway Widening	I-16	Veterans Parkway	N/A*					\$ 14,270,550			\$ 14,270,550			\$ 153,863,204	\$ 153,863,204	
None	19	I-516 / Lynes Parkway Widening	Veterans Parkway	Mildred St	N/A*					\$ 12,610,598	\$ 7,991,650	\$ 113,495,380	\$ 134,097,628					
None	20	I-95 at SR 21 / Augusta Rd Interchange Reconstruction			Major Arterial - Suburban					\$ 5,137,479	\$ 83,912,321		\$ 89,049,800			\$ 104,250,067	\$ 104,250,067	
None	21	President Street / Truman Parkway Interchange Bridge and Ramp Reconstruction	HST Parkway		N/A*					\$ 9,820,608	\$ 3,928,243	\$ 84,457,236	\$ 98,206,087					
0015528	22	I-16 Widening	Pooler Pkwy	I-95	N/A*					\$ 4,508,364			\$ 4,508,364			\$ 62,862,317	\$ 62,862,317	
None	23	Old River Road Widening	SR 204	Effingham County / Chatham County line	Collector - Suburban					\$ 1,016,571	\$ 3,909,890	\$ 11,870,426	\$ 16,796,887					
None	24	Gulfstream Widening	SR 21	Airways Avenue	Collector - Suburban									\$ 6,394,535			\$ 6,394,535	
None	25	I-95 at Quacco Road Interchange Study	I-95	Quacco Road	NA	\$ 450,000			\$ 450,000									
None	26	Harris Trail Road Widening	Timber Trail	Port Rayal Road	Collector - Suburban									\$ 1,722,918	\$ 5,709,638	\$ 21,537,789	\$ 28,970,345	
None	27	Port Royal Road Widening	SR 144	Harris Trail	Collector - Suburban									\$ 1,721,515	\$ 5,164,546	\$ 10,329,091	\$ 17,215,152	
Total Cost									\$ 659,387,561	Total Cost				\$ 356,929,316	Total Cost			\$ 393,343,725
Total Highway Project Revenue									\$ 658,937,561	Total Highway Project Revenue				\$ 361,876,186	Total Highway Project Revenue			\$ 396,790,456
Balance									\$ (450,000)	Balance				\$ 4,946,870	Balance			\$ 3,446,731

GDOT PI #	Map ID	Identified Projects				2020-2027				2028-2036 (mid-year 2032)				2037-2045 (mid-year 2041)					
		NAME	TERMINI		Thoroughfare Plan Cross Section	PE	ROW	CST	Total Project Cost	PE	ROW	CST	Total Project Cost	PE	ROW	CST	Total Project Cost		
			FROM	TO															
TBA		Operational Improvements with project sponsors			Operational Improvements			\$ 58,271,837	\$ 58,271,837			\$ 39,120,705	\$ 39,120,705			\$ 42,785,738	\$ 42,785,738		
Total Cost									\$ 58,271,837	Total Cost				\$ 39,120,705	Total Cost				\$ 42,785,738
Total Operational Set Aside									\$ 58,271,837	Total Operational Set Aside				\$ 39,120,705	Total Operational Set Aside				\$ 42,785,738
Balance									\$0	Balance				\$0	Balance				\$0

TBA		Transit Improvements/Bus Replacements			Transit			\$ 5,600,000	\$ 5,600,000			\$ 6,300,000	\$ 6,300,000			\$ 6,300,000	\$ 6,300,000		
Total Cost									\$ 5,600,000	Total Cost				\$ 6,300,000	Total Cost				\$ 6,300,000
Total Transit Set Aside									\$ 5,600,000	Total Transit Set Aside				\$ 6,300,000	Total Transit Set Aside				\$ 6,300,000
Balance									\$0	Balance				\$0	Balance				\$0

0015306	28	TRUMAN LINEAR PARK TRAIL – PHASE II-B	DeRenne Avenue	52nd Street/Bee Road				\$ 4,405,623	\$ 4,405,623										
0010028	29	CS1097/DeLesseps/LaRoche Avenue From Waters Avenue to Skidaway Road (Bike/Ped Facilities)	Waters Ave	Skidaway Road	Collector - Urban	\$ 25,000		\$ 5,907,205	\$ 5,932,205										
TBA		Priotiy bike/ped projects in the Non-Motorized Transportation Plan with local sponsors			Bike/Ped			\$ 3,000,000	\$ 3,000,000			\$ 4,500,000	\$ 4,500,000			\$ 4,500,000	\$ 4,500,000		
Total Cost									\$ 13,337,828	Total Cost				\$ 4,500,000	Total Cost				\$ 4,500,000
Total Non-Motorized Set Aside									\$ 13,337,828	Total Non-Motorized Set Aside				\$ 4,500,000	Total Non-Motorized Set Aside				\$ 4,500,000
Balance									\$0	Balance				\$0	Balance				\$0

TBA		Maintenance Projects			Maintenance			\$ 65,143,240	\$ 65,143,240			\$ 79,759,791	\$ 79,759,791			\$ 87,232,109	\$ 87,232,109		
Total Cost									\$ 65,143,240	Total Cost				\$ 79,759,791	Total Cost				\$ 87,232,109
Total Maintenance									\$ 65,143,240	Total Maintenance				\$ 79,759,791	Total Maintenance				\$ 87,232,109
Balance									\$0	Balance				\$0	Balance				\$0

Band 1 Highway Project Costs	\$ 659,387,561	Band 2 Highway Project Costs	\$ 356,929,316	Band 3 Highway Project Costs	\$ 393,343,725
Operational Set Aside	\$ 58,271,837	Operational Set Aside	\$ 39,120,705	Operational Set Aside	\$ 42,785,738
Transit Set Aside	\$ 5,600,000	Transit Set Aside	\$ 6,300,000	Transit Set Aside	\$ 6,300,000
Non Motorized Set Aside	\$ 13,337,828	Non Motorized Set Aside	\$ 4,500,000	Non Motorized Set Aside	\$ 4,500,000
Maintenance	\$ 65,143,240	Maintenance	\$ 79,759,791	Maintenance	\$ 87,232,109
Total Band One Costs	\$ 801,740,466	Total Band Two Costs	\$ 486,609,812	Total Band Three Costs	\$ 534,161,572
Total Available Revenues	\$ 801,290,466	Total Available Revenues	\$ 491,556,682	Total Available Revenues	\$ 537,608,304
Balance	\$ (450,000)	Balance	\$ 4,946,870	Balance	\$ 3,446,732

Total Project Costs of all Cost Bands	\$ 1,822,511,850
Total Available Revenues of all Cost Bands	\$ 1,830,455,452
Balance	\$ 7,943,602

Notes:

Blue Text: Projects with construction phase included in the current FY 2018 - 2021 TIP.

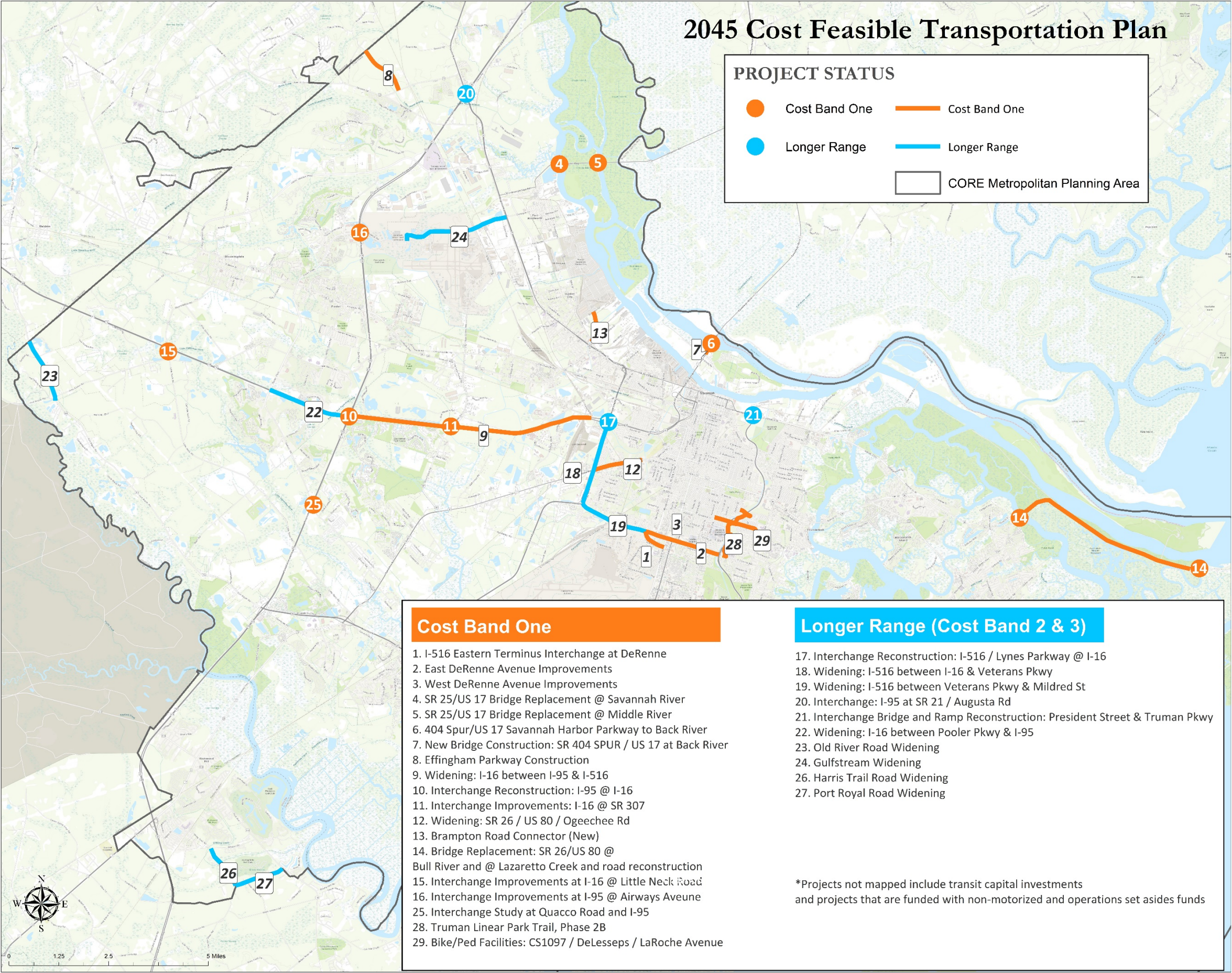
Green Text: some project phases are included in the current FY 2018 - 2021 TIP, but construction is not in the TIP.

Red Text: projects are carried over from 2040 MTP.

Purple Text: newly added projects.

Orange Text: projects to be funded with set-aside revenues.

Figure 18: Mobility 2045 Projects



Mobility 2045 includes projects from the 2040 Total Mobility Plan that are in the pipeline for implementation. A lot of these projects are programmed in the FY 2018 – 2021 TIP as shown below.

2040 MTP Projects In the Pipeline for Implementation to Be Carried Forward to 2045 MTP
PI# 0012757, I-16 FROM I-95 TO I-516
PI# 0012758, I-95/I-16 Interchange Reconstruction
PI# 0013741, SR 25/US 17 @ SAVANNAH RIVER IN PORT WENTWORTH
PI# 0013742, SR 25/US 17 @ MIDDLE RIVER IN PORT WENTWORTH
PI# 0015704, SR 404 SPUR/US 17 @ BACK RIVER
PI# 0015705, SR 404 SPUR/US 17 FM NE OF SAVANNAH HARBOR PKWY TO BACK RIVER
PI# 0015306, TRUMAN LINEAR PARK TRAIL – PHASE II-B
PI# 0008358, I-516 @ CS / 1503 / DeRenne Avenue (DeRenne Blvd Option)
PI# 0008359, EAST DERENNE FROM SR 204 TO HARRY S TRUMAN PKWY
PI# 0010236, SR 21 FROM CS 346/MILDRED STREET TO SR 204
PI# 0010028, CS 1097/DELESSEPS/LA ROCHE AVE FM WATERS AVE TO SKIDAWAY RD
PI# 0013727, I-16 @ SR 307
PI# 0006700, EFFINGHAM PKWY FM CR 156/BLUE JAY/EFFINGHAM TO SR 30/CHATHAM
PI# 0010560, SR 26 FM JOHNNY MERCER TO OLD US 80; INC BULL RVR&LAZARETTO
PI# 0006328, BRAMPTON ROAD CONNECTOR FM FOUNDATION DR TO SR 21/SR25/US80
PI# 521855, SR 26 FROM I-516 TO CS 188/VICTORY DRIVE

Mobility 2045 will also include some longer-range projects from the 2040 Total Mobility Plan based on project prioritization results. These are listed in the table below. The prioritization process is based on the 2045 MTP goals and objectives, as well as achieving the performance measures targets.

Long Range 2040 MTP Projects To Be Carried Forward to 2045 MTP
I-95 at SR 21 / Augusta Rd Interchange Reconstruction
President Street / Truman Parkway Interchange Bridge and Ramp Reconstruction
I-516 / Lynes Parkway Widening from Veterans Parkway to Mildred St
I-516 / Lynes Parkway at I-16 Interchange Reconstruction
I-516 / Lynes Parkway Widening from CR 975/Veterans Pkwy to I-16
PI# 0015528, I-16 Widening from CS 565/Pooler Pkwy to I-95
Harris Trail Road Widening from Timber Trail to Port Royal Road
Port Royal Road Widening from SR 144 to Harris Trail Road

Additional Projects

New highway projects identified through the travel demand modelling process and/or by local sponsors included in Mobility 2045 are listed below.

Additional Projects Added to 2045 MTP	
Projects	Source
Gulfstream Widening from SR 21 to Airways Avenue	Travel demand model
I-16 Interchange at Little Neck Road	Local sponsor (Chatham County)
I-95 at Airways Avenue	Local Sponsor (Savannah Airport Commission)
I-95 at Quacco Road Interchange Study	Local request
Old River Road Widening from SR 204 to Effingham / Chatham County line	Local Sponsor (Chatham County)

Transit Revenues

Mobility 2045 includes transit capital projects only. Transit operating funds will not be a part of the transit revenue projections.

1. Based on the information provided by CAT, the uncertainty of federal grants to be available, and the limited impact the CRC's capital program has on the 2045 MTP, it is assumed that an annual average of \$7.5 million (federal grants + state matching funds + local revenue sources) will be available for transit revenue projections.
2. Using 2020 as the base year, a 1% annual inflation rate is applied to the 2045 MTP transit capital revenue forecasts.
3. Similar to highway revenue projections, the transit capital revenues expressed in YOE dollars will be distributed into short-, mid- and long-term cost bands. Table 14 lists the expected transit capital revenues for the 2045 MTP.

Transit Projects Cost Estimates

For transit capital projects, CAT used cost information developed from the Transit Development Plan/System Re-design, or RFP quotes as the basis; then applied the appropriate escalation inflation factors similar to highway projects for final cost estimates.

Table 14: Transit Capital Revenues

2020 - 2045 Transit Capital Revenue Projections			
Year	Transit Capital	Cost Band	Cost Band Total
2020	\$7,500,000	One	\$62,142,529
2021	\$7,575,000		
2022	\$7,650,750		
2023	\$7,727,258		
2024	\$7,804,530		
2025	\$7,882,575		
2026	\$7,961,401		
2027	\$8,041,015		
2028	\$8,121,425	Two	\$76,085,794
2029	\$8,202,640		
2030	\$8,284,666		
2031	\$8,367,513		
2032	\$8,451,188		
2033	\$8,535,700		
2034	\$8,621,057		
2035	\$8,707,267		
2036	\$8,794,340		
2037	\$8,882,283	Three	\$83,213,913
2038	\$8,971,106		
2039	\$9,060,817		
2040	\$9,151,425		
2041	\$9,242,940		
2042	\$9,335,369		
2043	\$9,428,723		
2044	\$9,523,010		
2045	\$9,618,240		
2020 - 2045 Revenues	\$221,442,236		\$221,442,236

Financially Constrained Transit Plan

The selected priority transit project costs shown in Table 15 are adjusted for inflation and then the costs are balanced against the anticipated transit revenues in each cost band. The MPO worked with CAT and developed a draft fiscally constrained 2045 MTP for transit capital improvement projects as shown below.

Table 15: Transit Capital Improvements

2045 MTP Cost Feasible Transit Capital Improvements			
Project Description	Cost Band One (2020 - 2027)	Cost Band Two (2028 - 2036)	Cost Band Three (2037 - 2045)
Vehicle Replacement/Expansion - Fixed Route	\$33,720,752	\$41,286,865	\$45,154,837
Vehicle Replacement - Paratransit	\$5,255,182	\$6,434,317	\$7,037,117
Intelligent Transit System (ITS)	\$2,715,177	\$3,324,397	\$3,635,844
Upgraded Farebox and Payment System	\$3,722,421	\$4,557,641	\$4,984,625
Electric Vehicle Infrastructure	\$3,503,455	\$4,289,544	\$4,691,412
Passenger Amenities	\$1,751,727	\$2,144,772	\$2,345,706
Facility Improvement Project - ITC	\$1,532,761	\$1,876,676	\$2,052,493
Facility Improvement Project - Gwinnett	\$1,532,761	\$1,876,676	\$2,052,493
Vanpool Capital	\$788,277	\$965,147	\$1,055,568
Park & Ride Capital	\$4,379,318	\$5,361,931	\$5,864,264
Facility Construction - Ferry Maintenance	\$569,311	\$697,051	\$762,354
Facility Construction - Ferry Dock	\$1,270,002	\$1,554,960	\$1,700,637
Ferry Boat Construction	\$1,401,382	\$1,715,818	\$1,876,565
Total	\$62,142,529	\$76,085,794	\$83,213,913

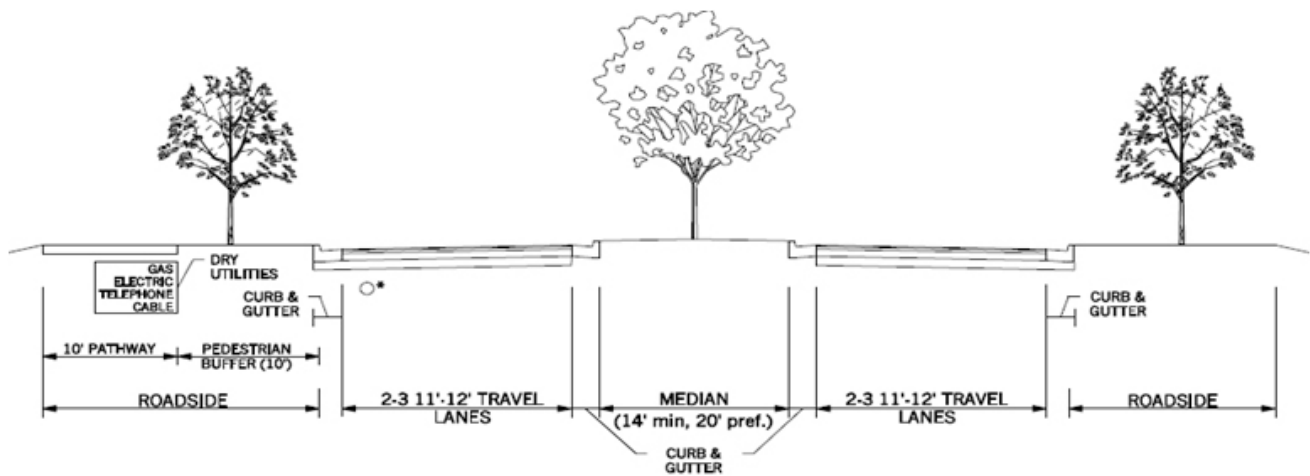
Thoroughfare Plan Coordination

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. Mobility 2045 projects are shown below with the design elements identified in the Thoroughfare Plan. For more information on the Thoroughfare Plan see Appendix B. 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)

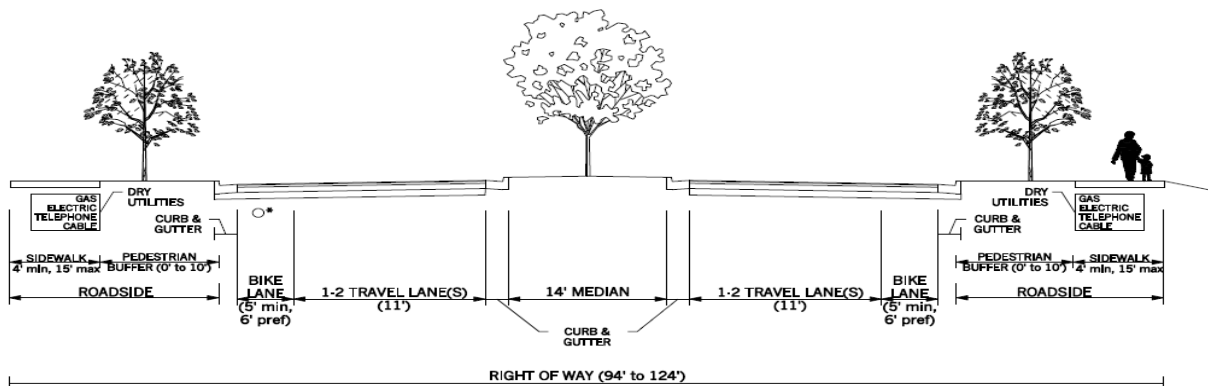
Thoroughfare Plan Cross Section: Major Arterial Suburban

West DeRenne Ave Improvement	ROW 1 CST 1	SR 26/Ogeechee Road Widening	CST 1
I-516 Terminus Interchange at DeRenne (DeRenne Blvd. Option)	ROW 1 CST 2	East DeRenne Avenue Improvements	ROW 1 CST 1
Effingham Parkway	CST 1	SR 26/US 80 Bridges at Bull River and Lazaretto Creek	CST 1
President Street/Truman Parkway Interchange Reconstruction	PE 2 ROW 2 CST 2		



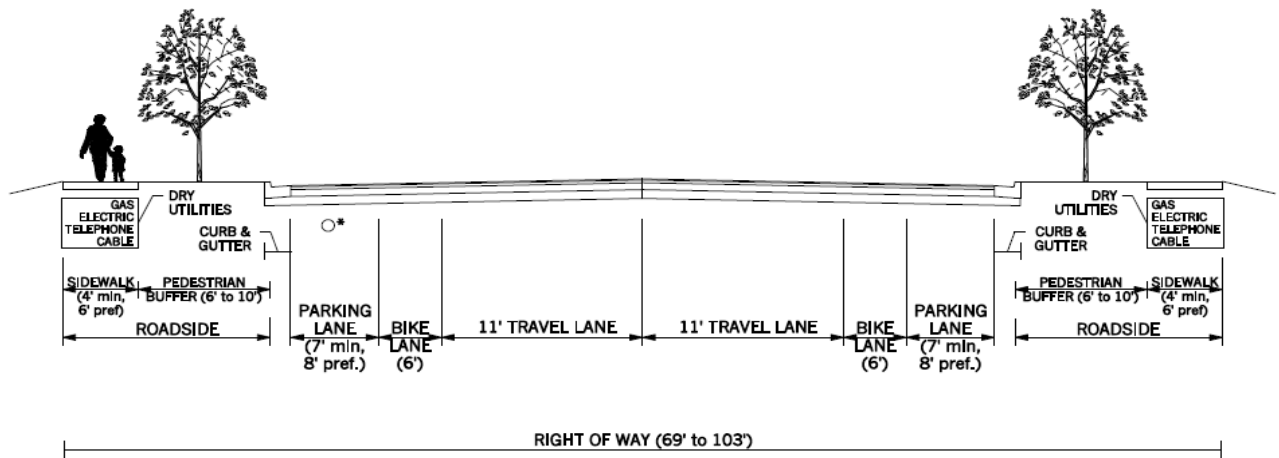
Thoroughfare Plan Cross Section: Minor Arterial Suburban

SR 25/US17 Savannah River	ROW 1 CST 1
SR 25/US 17 Middle River	ROW 1 CST 1



Thoroughfare Plan Cross Section: Collector Suburban

Old River Road Reconstruction	PE 2 ROW 2 CST 2
Gulfstream Widening	PE 3
Brampton Road Connector	CST 1
Harris Trail road Widening	PE 3 ROW 3 CST 3
Port Royal Road Widening	PE 3 ROW 3 CST 3



Thoroughfare Plan Cross Section: Not Applicable

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.

SR 404 Spur Back River	CST 1	Interstate/Interchange
SR 404 Spur Savannah Harbor	ROW 1, CST 1	Interstate/Interchange
I-516 Widening (Veterans Pkwy to Mildred)	PE 2, ROW 2, CST 2	Interstate/Interchange
I-516 Widening (I-16-Veterans Pkwy)	PE 2, CST 3	Interstate/Interchange
I-516 and I-16 Interchange	PE 3	Interstate/Interchange
I-95/SR 21 Interchange Reconstruction	PE 2, ROW 2, CST 3	Interstate/Interchange (SR 21 – Major Arterial Suburban)
	PE 2, ROW 2, CST 3	Interstate/Interchange (Major Arterial Suburban)
I-16 Interchange at Little Neck Interchange	PE 1, ROW 2, CST 1	Interstate/Interchange (Major Arterial Suburban)
I-95 and Airways Avenue Interchange	PE 1, ROW 2, CST 1	Interstate/Interchange (Major Arterial Suburban)
I-16 Widening (I-95 to I-516)	CST 1	Interstate/Interchange
I-16 at SR 307 Interchange	CST 1	Interstate/Interchange
I-16 at I-95 Interchange	CST 1	Interstate/Interchange
I-16 Widening (Pooler Pkwy to I-95)	PE 2, CST 3	Interstate/Interchange

Vision Project List

Although Mobility 2045's primary purpose is to identify affordable regionally significant projects that are consistent with local, state and national priorities, there is also an ongoing need for additional investments that just cannot be funded given expected and reliable revenue sources. Throughout Mobility 2045's development, a large number of projects were identified that could not be funded given today's financial reality; both regionally and locally.

These unfunded project needs are incorporated in the priority Vision Project list. Many of the projects found in the Vision Plan have identified as needs from a variety of sources:

- Travel Demand Model results: corridors with a level of service "E" or "F" not resolved by the financially constrained project investments.
- Congestion Management Process: congestion mitigation strategies
- Locally identified needs: Projects that arose out of a local agency plans or identified needs
- Non-Motorized plan: All projects identified in the non-motorized plan
- Throughout Fare plan: All projects identified in the thoroughfare plan
- Freight Plan: All projects in the freight plan and those identified by the Economic Development and Freight Advisory Committee
- Corridor and Sector studies: Project identified from specific corridor and sector studies

These improvements are important and will be built if we are able if more funding becomes available. If these projects are important to you and you think they should be funded, you can: contact your local elected officials and let them know these projects are important to you and why; visit one of our many public meeting or workshops; and/or contact us directly. For a full list of VISION projects see Appendix E.



SECTION SEVEN: IMPACT ANALYSIS AND MITIGATION



Analysis of Potential Impacts

The roadway projects from the financially-constrained Mobility 2045 have been evaluated for potential impacts upon roadway safety as well as natural and historic resources. Table 16 shows which projects are located along roadway segments designated as high-crash areas; which projects have a potential impact on natural resources (wetlands and conservation lands); which projects have a potential impact on historic resources; and which projects have a potential impact on environmental justice areas. A discussion of coordination and consultation for environmental mitigation follows.

Table 16: 2045 Mobility Plan Roadway Projects and Potential Impacts

GDOT PI Number	Project Name	From	To	High-Crash Area	Potential Impact on Natural Resources	Potential Impact on Historic Resources	EJ Impact
0008358	I-516 @ CS/1503/DeRenne Avenue (DeRenne Blvd. Option)	I-516	White Bluff Road				
0008359	East DeRenne from SR 204 to Harry S Truman Parkway (East DeRenne Avenue Improvements)	Abercorn St	Truman Pkwy				
0010236	SR 21 from CS 346/Mildred Street to SR 204 (West DeRenne Avenue Improvements)	Mildred Street	Abercorn St				
0013741	SR 25/US 17 @ SAVANNAH RIVER IN PORT WENTWORTH	Savannah River		X	X	X	
0013742	SR 25/US 17 @ MIDDLE RIVER IN PORT WENTWORTH	Middle River		X	X	X	
0015704	SR 404 SPUR/US 17 @ BACK RIVER	Back River					
0015705	SR 404 SPUR/US 17 FM NE OF SAVANNAH HARBOR PKWY TO BACK RIVER	NE of Savannah Harbor Pkwy	Back River				
0006700	Effingham Parkway from SR 119/Effingham to SR 30/Chatham	Effingham County	Meinhard Road		X	X	
0006328	Brampton Road Connector	SR 25	Georgia Ports Authority		X	X	
0012757	I-16 FROM I-95 TO I-516	I-95	I-516		X		
0012758	I-16 at I-95 Interchange Reconstruction	---	---				
0013727	I-16 @ SR 307						
521855	SR 26 From I-516 to CS 188/Victory Drive (US 80 / Ogeechee Rd Widening)	4 Ln E Lynes Pkwy	Victory Dr				
0010560	SR 26/US 80 @ Bull River and @ Lazaretto Creek	West of Bull River	East of Lazaretto Creek				
None	I-16 Interchange at Little Neck Road	Little Neck Road					

GDOT PI Number	Project Name	From	To	High-Crash Area	Potential Impact on Natural Resources	Potential Impact on Historic Resources	EJ Impact
None	I-95 at Airways Avenue	Airways Avenue					
None	I-516 / Lynes Parkway at I-16 Interchange Reconstruction	At I-16		X	X	X	
None	I-516 / Lynes Parkway Widening	I-16	Veterans Parkway		X		
None	I-516 / Lynes Parkway Widening	Veterans Parkway	Mildred St		X		
None	I-95 at SR 21 / Augusta Rd Interchange Reconstruction						
None	President Street / Truman Parkway Interchange Bridge and Ramp Reconstruction	HST Parkway					
0015528	I-16 Widening	Pooler Pkwy	I-95				
None	Old River Road Widening	SR 204	Effingham County / Chatham County line				
None	Gulfstream Widening	SR 21	Airways Avenue				
None	Harris Trail Road Widening	Timber Trail	Port Royal Road				
None	Port Royal Road Widening	SR 144	Harris Trail				

As part of federal regulations (23 CFR 450.322), metropolitan and statewide transportation plans are required to include a discussion of environmental mitigation activities developed with Federal, State, and Tribal wildlife, land management, and regulatory agencies.

[illegible]

There are a wide variety of mitigation activities that may be employed to address adverse impacts associated with transportation projects. Environmental mitigation activities are strategies, policies, and programs that serve to minimize or compensate for the disruption of elements of the human and natural environment associated with the implementation of transportation projects. Some of these potential mitigation activities that may be necessary for the CORE MPO transportation projects are discussed below. This list of potential activities is not all inclusive but provides examples of potential strategies available to the CORE MPO.

Wetlands are areas where the water table stands near, at, or above the land surface for at least part of the year and are described according to the degree of wetness and the type of vegetation that the site supports. Wetlands are important elements of a watershed because they serve as the link between land and water resources. Wetlands help to curb flooding by slowing down the flow of excess rainwater and absorbing it. Wetlands also cleanse water as it filters back into the water table and provide natural habitats for a number of plant and animal species.

Often, transportation projects can negatively impact wetland areas. Mitigation measures strive to avoid, minimize, and mitigate impacts to streams and wetlands throughout the project development process as required by regulations. Guidelines for the development of mitigation are followed as required by the United States Army Corps of Engineers (USACE) and the Georgia Environmental Protection Division (GAEPD). Mitigation measures will also be coordinated with the coastal best management practices currently under development by the Georgia Department of Natural Resources.

Mitigation opportunities may include mitigation banking, stream and wetland creation, restoration, and/or preservation. Wetland mitigation banking is a process that helps limit negative impacts to wetland resources. Banking can be used when wetlands affected by development cannot be preserved or preservation would not be environmentally beneficial and typically involves the consolidation of small, fragmented wetland mitigation projects into one large contiguous site.

Noise Mitigation

For noise mitigation, freeway or major roadway projects that add lanes or replace the pavement (such as from asphalt to concrete) should include an investigation of the noise levels. The possibility of mitigation with noise walls or other buffers may be necessary.

The level of highway traffic noise depends on three conditions: (1) the volume of the traffic, (2) the speed of the traffic, and (3) the number of trucks in the flow of traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and greater numbers of trucks.

Potential noise reduction measures include creating buffer zones, planting vegetation, and constructing barriers. Buffer zones are undeveloped open spaces which border a highway. Vegetation barriers consist of vegetation planted along the highway that are dense enough that they cannot be seen over or through. Noise barriers are solid obstructions built between the highway/major roadway and adjacent land use.

Barriers can be formed from earth mounds along the road or can be manmade vertical walls. Earth berms have a natural appearance but can require large amounts of land. Vertical walls take less space and can be built of wood, stucco, concrete, masonry, metal, and other materials. Noise walls require maintenance, and negative reactions may include a restriction of view, a feeling of confinement, a loss of air circulation, a loss of sunlight and lighting, and could be visually displeasing. While noise walls can be effective for decreasing noise levels close to a highway, the sound reflected from these walls can increase noise levels further away from that highway.

Storm Water Mitigation

Storm water runoff occurs when precipitation flows over the ground rather than settling into the ground. Impervious surfaces, such as asphalt and concrete, prevent stormwater runoff from naturally soaking into the ground.

Storm water can pick up debris, chemicals, and other pollutants and flow into a storm sewer system or directly to a lake, stream, river, or wetland. Storm water runoff can pollute water bodies and cause them to overflow and flood.

There are multiple mitigation techniques that can be used to curb storm water runoff. These techniques can include bioretention, detention ponds, grass swales, and filter strips.

- Bioretention is a practice that manages and treats storm water runoff using a conditioned planting soil bed and planting materials to filter runoff stored within a shallow depression. The method combines physical filtering and adsorption with biological processes to retain and treat surface runoff before it leaves a site.
- Detention ponds are used to capture large amounts of water and slowly filter it back into the ground. Detention ponds are usually used in large residential or commercial developments.
- Grass swales are grasses that line a ditch or channel near impervious surfaces that capture storm water runoff and filter it into the ground.
- Vegetative filter strips and buffers are areas of land with vegetative cover that are designed to accept storm water runoff from upstream development. They can be constructed, or existing vegetated buffer areas can be used. Dense vegetative cover facilitates water filtering into the ground. Unlike grass swales, vegetative filter strips are effective only for areas with no defined channels.

Historic Resource Mitigation

Historic and cultural resource reviews during the project development phase are designed to comply with the National Environmental Policy Act (NEPA), the National Historic Preservation Act (NHPA), and applicable Georgia codes and regulations. These laws and regulations require that cultural and historic resources be considered during the development of transportation projects. An element of that consideration involves consulting with various entities including the Federal Highway Administration (FHWA), Advisory Council on Historic Preservation, (ACHP), State Historic Preservation Office (SHPO), local historic preservation groups, local public officials, and the public.

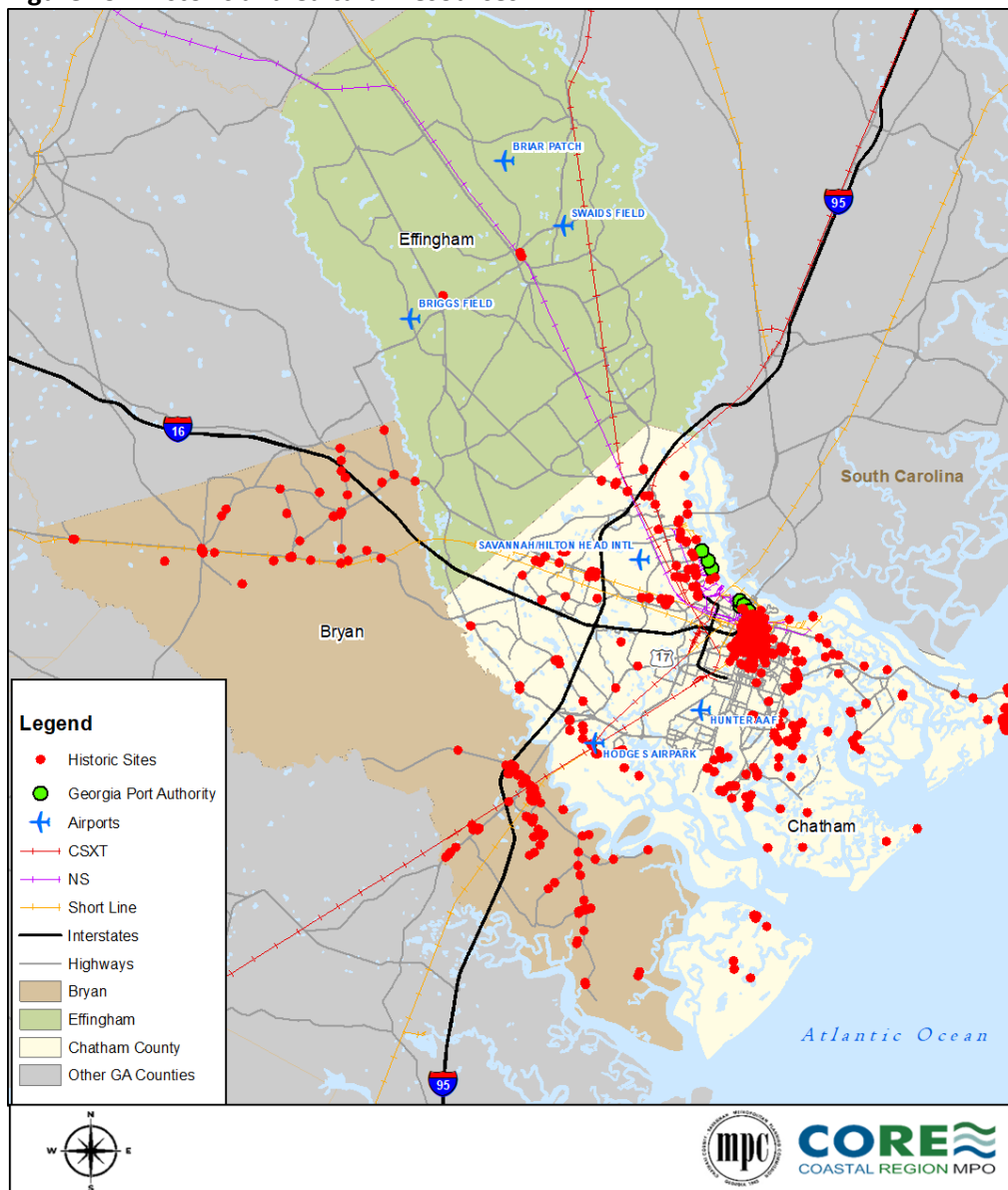
Mitigation measures developed through a Section 106 of the National Historic Preservation Act of 1966 (NHPA) Memorandum Of Agreement (MOA) consultation process provide ways to avoid, minimize, or mitigate adverse effects to historic properties impacted by projects. Historic properties include those listed or are eligible for listing in the National Register of Historic Places (NRHP). The mitigation measures are carried through as environmental document commitments and must be completed and accounted for with SHPO and FHWA (see Figure 19). The MOA will not be closed until all stipulations are fulfilled. A failure to meet all stipulations can potentially jeopardize a project sponsor's funding or other agreements or projects.

A plan for mitigating an adverse effect is site/property specific and requires a separate research design or approach for each historic property impacted by the project. It should be based on the context development and refinement through the environmental assessment and preliminary project design/engineering.



Mitigation measures may involve a variety of methods including, but not limited to: aesthetic treatments, avoidance, archaeological data recovery, creative mitigation, salvage and re-use of historic materials, informing/educating the public, and Historic American Buildings Survey (HABS)/Historic American Engineering Record (HAER) documentation. Approaches vary widely depending on the type of historic property, the qualities that enable the property to meet the NRHP Criteria of Eligibility, the location of the historic property with respect to the project and other criteria specific to the site. Mitigation plans should be developed in consultation with Georgia Department of Transportation, State Historic Preservation Office, Federal Highway Administration, local public officials, local historic preservation groups, and the public, as applicable. In special circumstances consultation may include the Advisory Council on Historic Preservation.

Figure 19: Historic and Cultural Resources



Environmental Justice Analysis

As part of the planning process, any adverse impacts to the defined Environmental Justice (EJ) populations must be considered. These populations include low-income and minorities, which includes the African American, Hispanic, Asian American, American Indian/Alaskan natives, and native Hawaiian/Pacific Island populations.

Mobility 2045 is a multi-modal plan that is based on the socio-economic development of the Savannah region and is intended to provide efficient transportation services to all the residents in this area. Its multi-modal approach incorporates highway development, transit service, bike/pedestrian improvements, and other related transportation investments. The environmental justice (EJ) analysis is performed according to these modes. Each of the projects included in Mobility 2045 was analyzed for any adverse impacts within the context of environmental justice, and on the community and natural environment.

Environmental Justice Impacts

The CORE MPO identified where these traditionally underserved population groups, or environmental justice communities, are located to ensure that there are no disproportionate or adverse impacts from the planned transportation projects. The locations of the environmental justice communities, low income and minority populations, were mapped along with the MTP financially constrained projects (see Figure 20) to better understand the locations and to correlate with the planned improvements. The projects that are in, or adjacent to, those areas incorporate improved multimodal facilities as well as enhancements to improve the character of the adjacent communities.

Highway Project Impacts

The EJ analysis for highway element of the 2045 MTP was performed by reviewing the highway investments and displacements on the financially constrained plan that includes high priority projects. The category expenditures for Maintenance (resurfacing or repaving) and operational improvements are not included in this analysis because roadways of good repair benefit all modes of travel, be it highway, transit or bike/ped travel.

Highway Investments

Highway investments are represented by the construction costs of the highway projects in the 2045 MTP financially constrained plan. A tabulation of the proportion of construction costs proposed in low income and minority neighborhoods against total highway investments in non-EJ areas is shown in table 17.

Table 17: Mobility 2045 Financially Constrained Plan Construction Costs in Neighborhoods

Population	% of Population	% of Total Dollars
E. J. Target Area	57.87%	72.18%
Non E. J. Area	42.13%	27.82%
Savannah Region	100.00%	100.00%

Highway Displacements

Highway projects can have adverse impacts on the quality of life within the EJ target and non-target areas. One measure of negative impact on an area is the amount of real estate actions that are imposed

upon the area, referred to as right-of-way acquisition. Table 18 lists the percentages of right-of-way (ROW) costs in the EJ target areas and non-target areas for the 2045 MTP financially constrained plan.

Table 18: Mobility 2045 Financially Constrained Plan Right-of-Way Costs in Neighborhoods

Population	% of Population	% of Total Dollars
E. J. Target Area	57.87%	71.99%
Non E. J. Area	42.13%	28.01%
Savannah Region	100.00%	100.00%

For the highway system, project costs and displacement costs are approximately proportionate to each other within the EJ target areas. This makes a lot of sense considering that the EJ target areas are located in the Savannah urban core and that there are many limitations for new development or system expansion. In this area the preservation of the existing system weighs more heavily than in the non-target areas. To improve highway traffic flow in the EJ areas, management strategies (signal coordination and synchronization, etc.) and high-tech investments such as ITS measures will be applied. A large percentage of the highway maintenance and operational improvement funds will be invested in the EJ area.

Transit Project Impact

Often low-income populations and some of the minority populations do not have access to motor vehicles, the transit system provides the means for these EJ populations to get to their employment centers, do shopping, and travel to other destinations. The transit system also provides transportation for children to go to school, for the elderly to go to the medical facilities, and for people with mobility limitations to reach their destinations.

Table 19 shows the funding allocation summary of these travel modes in the 2045 MTP. Overall, the transit system is 11.78% of the total MTP funding while its existing work trip mode share is less than 5%. A large portion of the transit system users are EJ target populations thereby receiving a benefit through the MTP transit investments.

Table 19: Mobility 2045 Financially Constrained Plan Transportation Investments

2045 MTP Funding Allocation Summary	Total Investments	% of Total Funding
Highway Projects	\$1,417,604,203	69.09%
Highway Maintenance	\$232,135,141	11.31%
Highway Operational Improvements	\$140,178,281	6.83%
Transit Capital Projects	\$239,642,236	11.68%
Non-Motorized Investments	\$22,337,828	1.09%
2045 MTP Total Investments	\$2,051,897,688	100.00%

The Chatham Area Transit's priority transit capital improvement projects included in the financially constrained 2045 MTP will benefit both EJ target and non-EJ target populations. CORE MPO has also set aside some highway revenues from the 2045 MTP to make transit improvements. Overall, the transit investments will benefit EJ populations more than non-EJ populations.

Non-Motorized Transportation Impact

The Non-Motorized Transportation Plan is an important part of the CORE MPO's MTP. Convenient bikeways and pedestrian sidewalks provide an affordable means of transportation to low-income populations who don't have access to motor vehicles. Bike travel can be combined with transit services to provide means to employment centers, recreational facilities, shopping centers, schools, etc. Most of the bike/ped improvements in the Non-Motorized Transportation Plan are located in EJ target areas. The 2045 MTP financial plan includes a category expenditure of about \$22 million to help implement the bike/ped/trail needs identified in the Non-Motorized Transportation Plan.

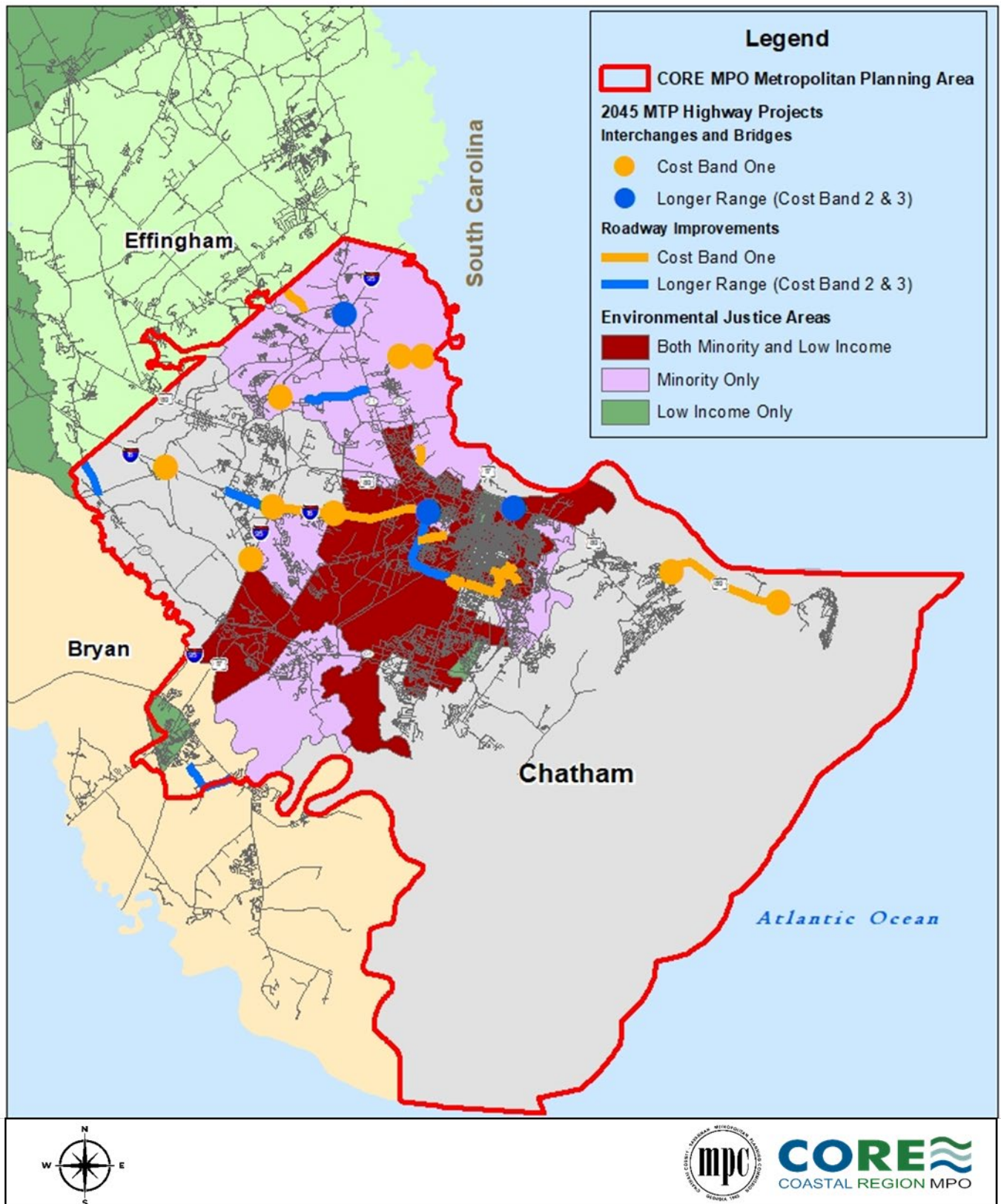
Environmental Justice Mitigation

There are three fundamental principles of environmental justice:

1. The avoidance of unusually high adverse health, social and economic impacts on minority and low-income populations;
2. the inclusion of all potentially affected communities in the decision making process;
3. and to prevent the denial of benefits by minority and low income communities and populations.

MPOs can mitigate the adverse effects of projects on environmental justice communities in a variety of ways, including the utilization of advanced analytical capabilities to ensure compliance; the early identification of impacts on low income and minority populations and to ensure the fair distribution of both the burdens and the benefits associated with transportation investments; and to have an inclusive and active public participation process that does not provide barriers to participation by minority and low income populations in the decision making process.

Figure 20: Environmental Justice Analysis





APPENDIX A: PERFORMANCE BASED PLANNING AND PROGRAMMING



Coastal Region Metropolitan Planning Organization System Performance Report

Background

Pursuant to the Moving Ahead for Progress in the 21st Century Act (MAP-21) Act enacted in 2012 and the Fixing America's Surface Transportation Act (FAST Act) enacted in 2015, state Departments of Transportation (DOT) and Metropolitan Planning Organizations (MPO) must apply a transportation performance management approach in carrying out their federally-required transportation planning and programming activities. The process requires the establishment and use of a coordinated performance-based approach to transportation decision-making to support national goals for the federal-aid highway and public transportation programs.

On May 27, 2016, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) issued the Statewide and Nonmetropolitan Transportation Planning; Metropolitan Transportation Planning Final Rule (The Planning Rule).¹ This regulation implements the transportation planning and transportation performance management provisions of MAP-21 and the FAST Act.

In accordance with The Planning Rule and the Georgia Performance Management Agreement between the Georgia DOT (GDOT) and the Georgia Association of Metropolitan Planning Organizations (GAMPO), GDOT and each Georgia MPO must publish a System Performance Report for applicable performance measures in their respective statewide and metropolitan transportation plans and programs. The System Performance Report presents the condition and performance of the transportation system with respect to required performance measures, documents performance targets and progress achieved in meeting the targets in comparison with previous reports. This is required for the following:

- In any statewide or metropolitan transportation plan or program amended or adopted after May 27, 2018, for Highway Safety/PM1 measures;
- In any statewide or metropolitan transportation plan or program amended or adopted after October 1, 2018, for transit asset measures;
- In any statewide or metropolitan transportation plan or program amended or adopted after May 20, 2019, for Pavement and Bridge Condition/PM2 and System Performance, Freight, and Congestion Mitigation and Air Quality/PM3 measures; and
- In any statewide or metropolitan transportation plan or program amended or adopted after July 20, 2021, for transit safety measures.

The Coastal Region Metropolitan Planning Organization (CORE MPO) Fiscal Year (FY) 2018-2021 Transportation Improvement Program (TIP) was adopted June 28, 2017 and last amended on February 27, 2019. Per the Planning Rule and the Georgia Performance Management Agreement, the System Performance Report for the CORE MPO FY 2018-2021 TIP is included, herein, for the required Highway Safety/PM1, Bridge and Pavement Condition/PM2, and System Performance, Freight.

¹ 23 CFR 450.314

Highway Safety/PM1

Effective April 14, 2016, the FHWA established the highway safety performance measures² to carry out the Highway Safety Improvement Program (HSIP). These performance measures are:

1. Number of fatalities;
2. Rate of fatalities per 100 million vehicle miles traveled;
3. Number of serious injuries;
4. Rate of serious injuries per 100 million vehicle miles traveled; and
5. Number of combined non-motorized fatalities and non-motorized serious injuries.

Safety performance targets are provided annually by the States to FHWA for each safety performance measure. Current statewide safety targets address calendar year 2019 and are based on an anticipated five-year rolling average (2015-2019). Georgia statewide safety performance targets for 2019 are included in Table 1, along with statewide safety performance for the two most recent reporting periods³. The CORE MPO adopted/approved the Georgia statewide safety performance targets on December 12, 2018.

The latest safety conditions will be updated annually on a rolling 5-year window and reflected within each subsequent System Performance Report, to track performance over time in relation to baseline conditions and established targets.

Table 1. Highway Safety/PM1, System Conditions and Performance

Performance Measures	Georgia Statewide Performance (Five-Year Rolling Average 2012-2016)	Georgia Statewide Performance (Five-Year Rolling Average 2013-2017)	2019 Georgia Statewide Performance Target (Five-Year Rolling Average 2015-2019)
Number of Fatalities	1,305.2	1376.6	1,655.0
Rate of Fatalities per 100 Million Vehicle Miles Traveled	1.148	1.172	1.310
Number of Serious Injuries	17,404.6	23,126.8	24,324.0
Rate of Serious Injuries per 100 Million Vehicle Miles Traveled	15.348	19.756	18.900
Number of Combined Non-Motorized Fatalities and Non-Motorized Serious Injuries	1,138.0	978.4	1,126.0

The CORE MPO recognizes the importance of linking goals, objectives, and investment priorities to stated performance objectives, and that establishing this link is critical to the achievement of national transportation goals and statewide and regional performance targets. As such, the FY 2018-2021 TIP planning process directly reflects the goals, objectives, performance measures, and targets as they are available and described in other State and public transportation plans and processes; specifically, the Georgia Strategic Highway Safety Plan (SHSP), the Georgia Highway Safety Improvement Program (HSIP), the current 2040

² 23 CFR Part 490, Subpart B

³ https://safety.fhwa.dot.gov/hsip/spm/state_safety_targets/

Georgia Statewide Transportation Plan (SWTP), and the current CORE MPO Mobility 2045 Regional Transportation Plan (RTP).

- The Georgia SHSP is intended to reduce the number of fatalities and serious injuries resulting from motor vehicle crashes on public roads in Georgia. Existing highway safety plans are aligned and coordinated with the SHSP, including (but not limited to) the Georgia HSIP, MPO and local agencies' safety plans. The SHSP guides GDOT, the Georgia MPOs, and other safety partners in addressing safety and defines a framework for implementation activities to be carried out across Georgia.
- The GDOT HSIP annual report provide for a continuous and systematic process that identifies and reviews traffic safety issues around the state to identify locations with potential for improvement. The ultimate goal of the HSIP process is to reduce the number of crashes, injuries and fatalities by eliminating certain predominant types of crashes through the implementation of engineering solutions.
- The GDOT SWTP summarizes transportation deficiencies across the state and defines an investment portfolio across highway and transit capacity, highway preservation, highway safety, and highway operations over the 25-year plan horizon. Investment priorities reflect optimal performance impacts across each investment program given anticipated transportation revenues.
- The CORE MPO Mobility 2045 Regional Transportation Plan (RTP) increases the safety of the transportation system for motorized and non-motorized users as required by the Planning Rule. The RTP identifies safety needs within the metropolitan planning area and provides funding for targeted safety improvements.

To support progress towards approved highway safety targets, the FY 2018-2021 TIP includes a number of key safety investments. The 2040 Total Mobility Plan assesses existing safety and security conditions, explores planning considerations for safety and security, and provides recommendations for future improvements. The roadway recommendations presented in the plan represent a series of engineering enhancements that should improve traffic flow while increasing safety for all users. The goals adopted for the 2040 Total Mobility Plan explicitly include a focus on ensuring and increasing the safety and security of the transportation system for all users, including motorized vehicles, bicyclists and pedestrians. A total of \$443 has been programmed in the FY 2018-2021 TIP to improve highway safety; averaging approximately \$148 per year.

Pavement and Bridge Condition/PM2

Effective May 20, 2017, FHWA established performance measures to assess pavement condition⁴ and bridge condition⁵ for the National Highway Performance Program. This second FHWA performance measure rule (PM2) established six performance measures:

1. Percent of Interstate pavements in good condition;
2. Percent of Interstate pavements in poor condition;
3. Percent of non-Interstate National Highway System (NHS) pavements in good condition;

⁴ 23 CFR Part 490, Subpart C

⁵ 23 CFR Part 490, Subpart D

4. Percent of non-Interstate NHS pavements in poor condition;
5. Percent of NHS bridges by deck area classified as in good condition; and
6. Percent of NHS bridges by deck area classified as in poor condition.

Pavement Condition Measures

The pavement condition measures represent the percentage of lane-miles on the Interstate or non-Interstate NHS that are in good condition or poor condition. FHWA established five metrics to assess pavement condition: International Roughness Index (IRI); cracking percent; rutting; faulting; and Present Serviceability Rating (PSR). For each metric, a threshold is used to establish good, fair, or poor condition.

Pavement condition is assessed using these metrics and thresholds. A pavement section in good condition if three metric ratings are good, and in poor condition if two or more metric ratings are poor. Pavement sections that are not good or poor are considered fair.

The pavement condition measures are expressed as a percentage of all applicable roads in good or poor condition. Pavement in good condition suggests that no major investment is needed. Pavement in poor condition suggests major reconstruction investment is needed due to either ride quality or a structural deficiency.

Bridge Condition Measures

The bridge condition measures represent the percentage of bridges, by deck area, on the NHS that are in good condition or poor condition. The condition of each bridge is evaluated by assessing four bridge components: deck, superstructure, substructure, and culverts. FHWA created a metric rating threshold for each component to establish good, fair, or poor condition. Every bridge on the NHS is evaluated using these component ratings. If the lowest rating of the four metrics is greater than or equal to seven, the structure is classified as good. If the lowest rating is less than or equal to four, the structure is classified as poor. If the lowest rating is five or six, it is classified as fair.

To determine the percent of bridges in good or in poor condition, the sum of total deck area of good or poor NHS bridges is divided by the total deck area of bridges carrying the NHS. Deck area is computed using structure length and either deck width or approach roadway width. Good condition suggests that no major investment is needed. Bridges in poor condition are safe to drive on; however, they are nearing a point where substantial reconstruction or replacement is needed.

Pavement and Bridge Targets

Pavement and bridge condition performance is assessed and reported over a four-year performance period. The first performance period began on January 1, 2018, and runs through December 31, 2021. GDOT reported baseline PM2 performance and targets to FHWA on October 1, 2018, and will report updated performance information at the midpoint and end of the performance period. The second four-year performance period will cover January 1, 2022, to December 31, 2025, with additional performance periods following every four years.

The PM2 rule requires states and MPOs to establish two-year and/or four-year performance targets for each PM2 measure. Current two-year targets represent expected pavement and bridge condition at the end of calendar year 2019, while the current four-year targets represent expected condition at the end of calendar year 2021.

States establish targets as follows:

- Percent of Interstate pavements in good and poor condition – four-year targets;
- Percent of non-Interstate NHS pavements in good and poor condition – two-year and four-year targets; and
- Percent of NHS bridges by deck area in good and poor condition – two-year and four-year targets.

MPOs establish four-year targets for each measure by either agreeing to program projects that will support the statewide targets, or setting quantifiable targets for the MPO's planning area that differ from the state targets.

GDOT established current statewide two-year and four-year PM2 targets on May 16, 2018. The CORE MPO adopted the Georgia statewide PM2 targets on August 22, 2018. Table 5 presents statewide baseline performance for each PM2 measure as well as the current two-year and four-year statewide targets established by GDOT.

On or before October 1, 2020, GDOT will provide FHWA a detailed report of pavement and bridge condition performance covering the period of January 1, 2018, to December 31, 2019. GDOT and the CORE MPO will have the opportunity at that time to revisit the four-year PM2 targets.

Table 5. Pavement and Bridge Condition/PM2 Performance and Targets

Performance Measures	Georgia Performance (Baseline)	Georgia 2-year Target (2019)	Georgia 4-year Target (2021)
Percent of Interstate pavements in good condition	60%	N/A	≥50%
Percent of Interstate pavements in poor condition	4%	N/A	≤5%
Percent of non-Interstate NHS pavements in good condition	44%	≥40%	≥40%
Percent of non-Interstate NHS pavements in poor condition	10%	≤12%	≤12%
Percent of NHS bridges (by deck area) in good condition	49.1%	≥60%	≥60%
Percent of NHS bridges (by deck area) in poor condition	1.35%	≤10%	≤10%

The ORE MPO recognizes the importance of linking goals, objectives, and investment priorities to stated performance objectives, and that establishing this link is critical to the achievement of national transportation goals and statewide and regional performance targets. As such, the FY 2018-2021 TIP planning process directly reflects the goals, objectives, performance measures, and targets as they are available and described in other State and public transportation plans and processes; specifically, Georgia's Transportation Asset Management Plan (TAMP), the Georgia Interstate Preservation Plan, the current 2040 Georgia Statewide Transportation Plan (SWTP), and the CORE MPO Mobility 2045 Regional Transportation Plan (RTP).

- MAP-21 requires GDOT to develop a TAMP for all NHS pavements and bridges within the state. GDOT's TAMP must include investment strategies leading to a program of projects that would make progress toward achievement of GDOT's statewide pavement and bridge condition targets.

- The Georgia Interstate Preservation Plan applied a risk profile to identify and communicate Interstate preservation priorities; this process leveraged a combination of asset management techniques with risk management concepts to prioritize specific investment strategies for the Interstate system in Georgia.
- The GDOT SWTP summarizes transportation deficiencies across the state and defines an investment portfolio across highway and transit capacity, highway preservation, highway safety, and highway operations over the 25-year plan horizon. Investment priorities reflect optimal performance impacts across each investment program given anticipated transportation revenues.
- The CORE MPO Mobility 2045 Regional Transportation Plan (RTP) addresses infrastructure preservation and identifies pavement and bridge infrastructure needs within the metropolitan planning area, and allocates funding for targeted infrastructure improvements. Transportation Asset Management is a strategic approach to cost-effectively and efficiently manage the physical assets of the transportation system. Preserving assets before they deteriorate extends their useful lives and saves money in the long run. This reduces the financial burden on taxpayers, as well as inconveniences to the traveling public that result from unanticipated asset failure and replacement. The 2040 Total Mobility Plan shows the importance of a system in a state of good repair by having an adopted goals and objectives for system maintenance and state of good repair as shown.

To support progress towards GDOT's statewide PM2 targets, the FY 2018-2021 TIP includes a number of investments that will maintain pavement and bridge condition performance. Investments in pavement and bridge condition include pavement replacement and reconstruction, bridge replacement and reconstruction, new bridge and pavement capacity, and system resiliency projects that improve NHS bridge components (e.g., upgrading culverts).

A total of \$191,184,041 for bridges has been programmed in the FY 2018-2021 TIP to improve conditions; averaging approximately \$47,796,010 per year. A total of \$882,645,530 is available for NHS maintenance for pavement statewide; averaging approximately \$220,661,383 per year.

System Performance, Freight, and Congestion Mitigation & Air Quality Improvement Program (PM3)

Effective May 20, 2017, FHWA established measures to assess performance of the National Highway System⁶, freight movement on the Interstate system⁷, and the Congestion Mitigation and Air Quality Improvement (CMAQ) Program⁸. This third FHWA performance measure rule (PM3) established six performance measures, described below.

National Highway System Performance:

1. Percent of person-miles on the Interstate system that are reliable;
2. Percent of person-miles on the non-Interstate NHS that are reliable;

Freight Movement on the Interstate:

3. Truck Travel Time Reliability Index (TTTR);

⁶ 23 CFR Part 490, Subpart E

⁷ 23 CFR Part 490, Subpart F

⁸ 23 CFR Part 490, Subparts G and H

Congestion Mitigation and Air Quality Improvement (CMAQ) Program:

4. Annual hours of peak hour excessive delay per capita (PHED);
5. Percent of non-single occupant vehicle travel (Non-SOV); and
6. Cumulative two-year and four-year reduction of on-road mobile source emissions for CMAQ funded projects (CMAQ Emission Reduction).

The CMAQ performance measures apply to states and MPOs with projects financed with CMAQ funds whose boundary contains any part of a nonattainment or maintenance area for ozone, carbon monoxide or particulate matter. The [insert MPO name] MPO meets air quality standards, therefore, the CMAQ measures do not apply and are not reflected in the System Performance Report.

System Performance Measures

The two System Performance measures assess the reliability of travel times on the Interstate or non-Interstate NHS system. The performance metric used to calculate reliability is the Level of Travel Time Reliability (LOTTR). LOTTR is defined as the ratio of longer travel times (80th percentile) to a normal travel time (50th percentile) over all applicable roads during four time periods (AM peak, Mid-day, PM peak, and weekends) that cover the hours of 6 AM to 8 PM each day.

The LOTTR ratio is calculated for each segment of applicable roadway, essentially comparing the segment with itself. A segment is deemed to be reliable if its LOTTR is less than 1.5 during all four time periods. If one or more time periods has a LOTTR of 1.5 or above, that segment is unreliable.

The measures are expressed as the percent of person-miles traveled on the Interstate or non-Interstate NHS system that are reliable. Person-miles take into account the number of people traveling in buses, cars, and trucks over these roadway segments. To determine total person miles traveled, the vehicle miles traveled (VMT) on each segment is multiplied by average vehicle occupancy. To calculate the percent of person miles traveled that are reliable, the sum of the number of reliable person miles traveled is divided by the sum of total person miles traveled.

Freight Movement Performance Measure

The Freight Movement performance measure assesses reliability for trucks traveling on the Interstate. A TTTR ratio is generated by dividing the 95th percentile truck travel time by a normal travel time (50th percentile) for each segment of the Interstate system over five time periods throughout weekdays and weekends (AM peak, Mid-day, PM peak, weekend, and overnight) that cover all hours of the day. For each segment, the highest TTTR value among the five time periods is multiplied by the length of the segment. The sum of all length-weighted segments is then divided by the total length of Interstate to generate the TTTR Index.

PM3 Performance Targets

Performance for the PM3 measures is assessed and reported over a four-year performance period. For all PM3 measures the first performance period began on January 1, 2018, and will end on December 31, 2021. GDOT reported baseline PM3 performance and targets to FHWA on October 1, 2018, and will report updated performance information at the midpoint and end of the performance period. The second four-year performance period will cover January 1, 2022, to December 31, 2025, with additional performance periods following every four years.

The PM3 rule requires state DOTs and MPOs to establish two-year and/or four-year performance targets for each PM3 measure. The current two-year and four-year targets represent expected performance at the end of calendar years 2019 and 2021, respectively.

States establish targets as follows:

- Percent of person-miles on the Interstate system that are reliable – two-year and four-year targets;
- Percent of person-miles on the non-Interstate NHS that are reliable – four-year targets;
- Truck Travel Time Reliability – two-year and four-year targets;

MPOs establish four-year targets for the System Performance and Freight Movement measures. MPOs establish targets by either agreeing to program projects that will support the statewide targets or setting quantifiable targets for the MPO's planning area that differ from the state targets.

GDOT established statewide PM3 targets on May 16, 2018. The CORE MPO adopted the Georgia statewide PM3 targets on August 22, 2018. Table 6 presents statewide baseline performance for each PM3 measure as well as the current two-year and four-year statewide targets established by GDOT.

On or before October 1, 2020, GDOT will provide FHWA a detailed report of PM3 performance covering the period of January 1, 2018, to December 31, 2019. GDOT and the CORE MPO will have the opportunity at that time to revisit the four-year PM3 targets.

Table 6. System Performance/Freight Movement/CMAQ (PM3) Performance and Targets

Performance Measure	Georgia Performance (Baseline)	Georgia 2-year Target (2019)	Georgia 4-year Target (2021)
Percent of person-miles on the Interstate system that are reliable	80.4%	73.0%	67.0%
Percent of person-miles on the non-Interstate NHS that are reliable	84.9%	N/A	81.0%
Truck Travel Time Reliability Index	1.44	1.66	1.78

The CORE MPO recognizes the importance of linking goals, objectives, and investment priorities to stated performance objectives, and that establishing this link is critical to the achievement of national transportation goals and statewide and regional performance targets. As such, the FY 2018-2021 TIP planning process directly reflects the goals, objectives, performance measures, and targets as they are available and described in other State and public transportation plans and processes; specifically, the Georgia Statewide Freight and Logistics Action Plan, the current 2040 Georgia Statewide Transportation Plan (SWTP), and the CORE MPO Mobility 2045 Regional Transportation Plan (RTP).

- GDOT's Statewide Freight and Logistics Action Plan defines the conditions and performance of the state freight system and identifies the policies and investments that will enhance Georgia's highway freight mobility well into the future. The Plan identifies freight

needs and the criteria Georgia will use to determine investments in freight, and prioritizes freight investments across modes.

- The GDOT SWTP summarizes transportation deficiencies across the state and defines an investment portfolio across highway and transit capacity, highway preservation, highway safety, and highway operations over the 25-year plan horizon. Investment priorities reflect optimal performance impacts across each investment program given anticipated transportation revenues.
- The CORE MPO Mobility 2045 Regional Transportation Plan (RTP) addresses reliability, freight movement, congestion, and identifies needs for each of these issues within the metropolitan planning area and allocates funding for targeted improvements. The 2040 Total Mobility Plan shows the importance of a system performance by having adopted several goals and objectives which support these targets such as protecting the environment, quality of life, system performance, accessibility, connectivity and mobility. The CORE MPO has also regularly conducted a Congestion Management Process to help identify strategies to improve system efficiencies. In 2016 the CORE PO completed a freight plan to further identify strategies which help identify freight issues and strategies to improve efficiency.

To support progress towards GDOT's statewide PM3 targets, the FY 2018-2021 TIP devotes a significant amount of resources to projects that will address passenger and highway freight reliability and delay.

A total of \$308,110,493 has been programmed in the FY 2018-2021 TIP to address system performance; averaging approximately \$77,027,623 per year.

A total of \$304,170,703 has been programmed in the FY 2018-2021 TIP to address truck travel time reliability; averaging approximately \$76,042,676 per year.



METROPOLITAN PLANNING ORGANIZATION

RESOLUTION BY THE COASTAL REGION METROPOLITAN PLANNING ORGANIZATION (CORE MPO)

ADOPTION OF CORE MPO SAFETY TARGETS (Targets effective at time of adoption through February 27, 2020)

WHEREAS, federal regulations (23 CFR Part 490) require that the Metropolitan Transportation Plans and Transportation Improvement Programs include Safety Performance Management Targets for urbanized areas; and

WHEREAS, the Technical Coordinating Committee (TCC) of the Coastal Region Metropolitan Planning Organization (CORE MPO) in coordination with the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), and the Georgia Department of Transportation (GDOT) has reviewed the requirements to adopt Safety Performance Management Targets for use in the CORE MPO's transportation process; and

WHEREAS, the TCC at its December 6, 2018 meeting recommended that CORE MPO support the Safety Performance Management Targets approved by GDOT as follows:

- To maintain the 5-year moving average traffic fatalities under the projected 1,655 (2015-2019) 5-year average by December 2019.
- To maintain the 5-year moving average traffic fatalities per 100M VMT under the projected 1.31 (2015-2019) 5-year average by December 2019.
- To maintain the 5-year moving average serious traffic injuries under the projected 24,324 (2015-2019) 5-year average by December 2019.
- To reduce the 5-year moving average serious traffic injuries for every 100 million vehicle miles travelled by 3% from baseline 19.6 (2012-2016) 5-year average to 18.9 (2015-2019) 5-year average by December 2019.
- To maintain the 5-year moving average non-motorist fatalities and serious injuries under the projected 1,126 (2017-2021) 5-year average by December 2021.

NOW, THEREFORE, BE IT RESOLVED that the Coastal Region Metropolitan Planning Organization Board concurs with the recommendations of the Technical Coordinating Committee and agrees to support the Safety Performance Management Targets as approved by the Georgia Department of Transportation.

CERTIFICATION

I hereby certify that the above is a true and correct copy of a Resolution adopted by the Coastal Region Metropolitan Planning Organization Board at a meeting held on December 12, 2018.

A handwritten signature in blue ink, reading "Albert J. Scott".

Albert J. Scott, Chairman
Coastal Region Metropolitan Planning Organization



METROPOLITAN PLANNING ORGANIZATION

Resolution to Adopt Bridge and Pavement Conditions Targets for the Coastal Region Metropolitan Planning Organization (CORE MPO)

WHEREAS, federal regulations (23 CFR Part 490) require that the Metropolitan Transportation Plans and Transportation Improvement Programs include Bridge and Pavement Condition Performance Management Targets for urbanized areas; and

WHEREAS, the Technical Coordinating Committee (TCC) of the Coastal Region Metropolitan Planning Organization (CORE MPO) in coordination with the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), and the Georgia Department of Transportation (GDOT) has reviewed the requirements to adopt Bridge and Pavement Condition Performance Management Targets for use in the CORE MPO's transportation planning process; and

WHEREAS, the TCC at its August 16th, 2018 meeting recommended that CORE MPO support the Bridge and Pavement Condition Targets approved by GDOT as follows:

Georgia Targets for Bridge and Pavement Conditions (PM2) Adopted May 2018			
MA	Performance Measure	Description*	Target
Bridge Structures*	Percent of NHS Bridges in Poor condition as a percentage of total NHS bridge deck area.	Bridges rated POOR are safe to drive on; however, they are nearing a point where it is necessary to either replace the bridge or extend its service life through substantial rehabilitation investments	≤ 10% (NHS) in Poor Condition
	Percent of NHS Bridges in Good condition as a percentage of total NHS bridge deck area	Bridges rated as GOOD will be evaluated by cost to maintain GOOD condition. Bridges rated as FAIR will be evaluated by the cost of replacement vs. rehabilitation to bring the structure back to a condition rating of GOOD.	≥ 60% (NHS) in Good Condition
Interstate NHS	Percent of Interstate NHS pavement in POOR condition	Interstate pavements in POOR condition are in need of work due to either the ride quality or due to a structural deficiency.	≤ 5% in Poor Condition
	Percent of Interstate NHS pavement in GOOD condition	Interstate pavements rated as GOOD will be considered for potential pavement preservation treatments to maintain the GOOD rating	≥ 50% in Good Condition
Non-Interstate NHS	Percent of NHS pavements in POOR condition	Non-interstate NHS pavements in POOR condition are in need of major maintenance. These will be evaluated for potential projects	≤ 12% in Poor Condition
	Percent of NHS pavements in GOOD condition	Non-interstate NHS pavements in GOOD condition will be evaluated for potential preservation treatments.	≥ 40% in Good Condition

NOW, THEREFORE, BE IT RESOLVED that the Coastal Region Metropolitan Planning Organization Board concurs with the recommendations of the Technical Coordinating Committee and agrees to adopt Bridge and Pavement Condition Performance Management Targets.



METROPOLITAN PLANNING ORGANIZATION

CERTIFICATION

I hereby certify that the above is a true and correct copy of a Resolution adopted by the Coastal Region Metropolitan Planning Organization Board at a meeting held on August 22, 2018.

A handwritten signature in black ink, which appears to read "Albert J. Scott". The signature is written over a solid black horizontal line.

Albert J. Scott, Chairman
Coastal Region Metropolitan Planning Organization



METROPOLITAN PLANNING ORGANIZATION

Resolution to Adopt System Performance Targets for the Coastal Region Metropolitan Planning Organization (CORE MPO)

WHEREAS, federal regulations (23 CFR Part 490) require that the Metropolitan Transportation Plans and Transportation Improvement Programs include System Performance Targets for urbanized areas; and

WHEREAS, the Technical Coordinating Committee (TCC) of the Coastal Region Metropolitan Planning Organization (CORE MPO) in coordination with the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), and the Georgia Department of Transportation (GDOT) has reviewed the requirements to adopt System Performance Targets for use in the CORE MPO's transportation planning process; and

WHEREAS, the TCC at its August 16th, 2018 meeting recommended that CORE MPO support the statewide System Performance Targets approved by GDOT as follows:

Georgia Targets for System Performance (PM3) Adopted May 2018					
Performance Measure		Geographic Extent	Applicable Roadways	2 Year Target	4 Year Target
System Efficiency	Percent of person-miles traveled on the interstate that are reliable	Statewide	Interstate	73%	67%
	Percent of person-miles traveled on the non-interstate NHS that are reliable	Statewide	Non-Interstate	N/A	81%
	Truck travel Time Reliability (TTTR) Index	Statewide	Interstate	1.66	1.78
Emissions	Total Emissions	Statewide	All Roads	VOC: 205.7 kg/day NOx: 563.3 kg/day	VOC: 386.6 kg/day NOx: 1,085 kg/day

*This does not apply to the Savannah area at this time. GDOT, Atlanta Regional Commission and Cartersville-Bartow

NOW, THEREFORE, BE IT RESOLVED that the Coastal Region Metropolitan Planning Organization Board concurs with the recommendations of the Technical Coordinating Committee and agrees to adopt the System Performance Targets.

CERTIFICATION

I hereby certify that the above is a true and correct copy of a Resolution adopted by the Coastal Region Metropolitan Planning Organization Board at a meeting held on August 22, 2018.



Albert J. Scott, Chairman
Coastal Region Metropolitan Planning Organization



METROPOLITAN PLANNING ORGANIZATION

RESOLUTION

COASTAL REGION METROPOLITAN PLANNING ORGANIZATION

AUTHORIZATION FOR THE GEORGIA ASSOCIATION OF METROPOLITAN PLANNING ORGANIZATIONS (GAMPO) CHAIR TO SIGN THE GEORGIA PERFORMANCE MANAGEMENT AGREEMENT ON BEHALF OF THE CORE MPO

WHEREAS, the United States Department of Transportation promulgated transportation planning regulations in 23 CFR 450.314, and

WHEREAS, Metropolitan Planning Organizations (MPOs) and States are required by 23 CFR 450.314 to cooperatively determine their mutual responsibilities in carrying out the performance-based planning and programming requirements established by federal law, and

WHEREAS, the 23 CFR 450.314(h) requires that MPOs and States shall jointly agree upon and develop specific written procedures for cooperatively developing and sharing information related to transportation performance data, the selection of performance targets, the reporting of performance targets, the reporting of performance to be used in tracking progress toward attainment of critical outcomes for the region of the MPO, and the collection of data for the State asset management plan for the National Highway System (NHS), and

WHEREAS, the Coastal Region Metropolitan Planning Organization (CORE MPO) has been designated by the Governor of Georgia as the Metropolitan Planning Organization for the Savannah urbanized area; and

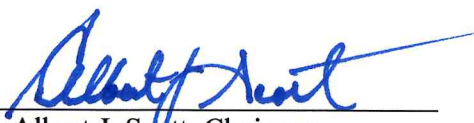
WHEREAS, The Georgia Association of Metropolitan Planning Organizations (GAMPO) is a fifteen-member Board of Directors representing each of the fifteen MPOs in the State of Georgia and provides a streamlined forum for MPOs in the State of Georgia; and

WHEREAS, The GAMPO directors, unanimously voted to approve GAMPO to enter into an agreement with The Georgia Department of Transportation as federally required by 23 CFR 450.314 on behalf of the Georgia State MPOs.

NOW, THEREFORE BE IT RESOLVED, that the Coastal Region Metropolitan Planning Organization authorizes the GAMPO Chairman to sign the Georgia Performance Management Agreement on behalf of the CORE MPO.

CERTIFICATION

I hereby certify that the above is a true and correct copy of a Resolution adopted by the Coastal Region Metropolitan Planning Organization Board at a meeting held on May 22, 2018.


Albert J. Scott, Chairman
Coastal Region Metropolitan Planning Organization

GEORGIA PERFORMANCE MANAGEMENT AGREEMENT

Per 23 CFR 450.314(h)

WHEREAS, the United States Department of Transportation promulgated transportation planning regulations in 23 CFR 450.314, and

WHEREAS, Metropolitan Planning Organizations (MPO(s)), State(s), and providers of public transportation are required by 23 CFR 450.314 to cooperatively determine their mutual responsibilities in carrying out the performance-based planning and programming requirements established by federal law, and

WHEREAS, the 23 CFR 450.314(h) requires that MPO(s), State(s), and providers of public transportation shall jointly agree upon and develop specific written procedures for cooperatively developing and sharing information related to transportation performance data, the selection of performance targets, the reporting of performance targets, the reporting of performance to be used in tracking progress toward attainment of critical outcomes for the region of the MPO, and the collection of data for the State asset management plan for the National Highway System (NHS).

NOW, THEREFORE, BE IT RESOLVED, that the parties do hereby agree to adhere to the following coordination mechanisms to meet performance-based planning and programming requirements for highways in accordance with 23 CFR 450.314(h) and established federal guidance.

1. Development of transportation performance data
 - a. The Georgia Department of Transportation (GDOT) will collect data used in developing statewide targets to meet the federal performance management requirements for highways¹ to include the following:
 - o Targets for assessing the **Highway Safety Improvement Program (PM1)** for the following measures²:
 1. Number of fatalities;
 2. Rate of fatalities per 100 million Vehicle Miles Traveled (VMT);
 3. Number of serious injuries;
 4. Rate of serious injuries per 100 million VMT; and
 5. Number of combined non-motorized fatalities and non-motorized serious injuries.
 - o Targets for assessing **Pavement and Bridge Condition for the National Highway Performance Program (PM2)** for the following measures:
 1. Percentage of pavements on the Interstate System in Good condition;
 2. Percentage of pavements on the Interstate System in Poor condition;
 3. Percentage of pavements on the NHS (excluding the Interstate System) in Good condition;
 4. Percentage of pavements on the NHS (excluding the Interstate System) in Poor condition;
 5. Percentage of NHS bridge deck area classified as in Good condition; and
 6. Percentage of NHS bridge deck area classified as in Poor condition.

¹ 23 CFR Part 490

² PM1/Safety performance measures and targets are applicable to all public roads regardless of ownership or functional classification; 23 CFR Part 924

- Targets for assessing performance of the **National Highway System, Freight Movement on the Interstate System, and Congestion Mitigation and Air Quality Improvement Program (PM3)** for the following performance measures:
 1. Percent of Person-Miles Traveled on the Interstate System That Are Reliable;
 2. Percent of Person-Miles Traveled on the Non-Interstate NHS That Are Reliable;
 3. Percent Change in Tailpipe CO2 Emissions on the NHS from the Calendar Year 2017³;
 4. Percentage of the Interstate System Mileage providing for Reliable Truck Travel Times;
 5. Annual Hours of Peak-Hour Excessive Delay Per Capita;
 6. Percent of Non-Single-Occupant-Vehicle (SOV) Travel; and
 7. Total Emissions Reduction.
 - b. Those MPOs that are currently designated as being in non-attainment or maintenance for air quality⁴ and GDOT will coordinate on the collection and provision of data used in developing targets for the Congestion Mitigation and Air Quality (CMAQ) traffic congestion measures (Annual Hours of Peak-Hour Excessive Delay per Capita and Percent of Non-SOV Travel) and the Total Emission Reduction measures.
 - c. GDOT will coordinate directly with the Georgia Association of Metropolitan Planning Organizations (GAMPO) to distribute transportation performance data used in developing statewide highway targets to each Georgia MPO.
 - GDOT will provide performance data each time a statewide target is established or revised, per Section 2 of this agreement.
 - Where possible and practicable, GDOT will provide performance data for each MPO planning area for purposes of tracking progress towards attainment of critical outcomes for each region's required System Performance Reports, per Section 4 of this agreement.
 - d. If an MPO chooses to develop its own target for any highway measure, it will collect and provide GDOT with the performance target(s) and any supplemental data used in association with the MPO target setting process.
2. Selection of transportation performance targets
- a. GDOT and the MPOs will establish or revise performance targets in coordination with each other.
 - Coordination may include the following opportunities, as deemed appropriate, for each performance measure and target: in-person GAMPO meetings, webinars, conference calls, and email/written communication.

³ This measure and associated target will only be required if it is not repealed. Reference: Federal Register / Vol. 82, No. 215 / Wednesday, November 8, 2017 / Proposed Rules; FHWA Docket No. FHWA-2017-0025.

⁴ As determined through annual *Applicability Determination: CMAQ Traffic Congestion and CMAQ On-Road Mobile Source Emissions Measures*, 23 CFR Part 490.

- MPOs shall be given an opportunity to provide comment on GDOT targets no less than 30-days prior to GDOT's establishment or revision of highway targets.
 - If an MPO chooses to set its own target, the MPO will develop the target in coordination with GDOT. The MPO will provide GDOT the opportunity to comment on MPO targets no less than 30-days prior to MPO adoption of targets.
 - b. GDOT will select statewide performance targets to meet the federal performance management requirements for highways.
 - GDOT will provide written notice to GAMPO (for distribution to each Georgia MPO) when GDOT selects a target. This notice will provide the target and the date GDOT set the target, which will begin the 180-day time-period in which the MPO must set a corresponding performance target.
 - If an MPO chooses to support the statewide target, the MPO will provide written documentation to GDOT that the MPO agrees to plan and program projects that will contribute toward the achievement of the statewide highway performance target.
 - If the MPO chooses to set its own target, the MPO will provide GDOT documentation that includes the target and the date the MPO plans to adopt. Documentation will be provided no less than 30-days prior to MPO adoption of target (consistent with Section 2a).
 - c. Those MPOs currently in non-attainment or maintenance for air quality⁴ and GDOT will coordinate to select single, unified targets for the CMAQ traffic congestion measures (Annual Hours of Peak-Hour Excessive Delay per Capita and Percent of Non-SOV Travel) and to select mobile source emission reduction targets for their respective nonattainment areas for ozone.
3. Reporting of performance targets.
- a. GDOT will report all highway targets to the Federal Highway Administration (FHWA) as applicable and in accordance with 23 CFR Part 490.
 - Through the Highway Safety Improvement Program Annual Report for PM1 measures;
 - Through the required Baseline, Mid and Full Performance Reports and the Transportation Asset Management Plan (TAMP) for PM2 measures; and
 - Through the required Baseline, Mid and Full Performance Period Reports for PM3 measures, to include CMAQ Performance Plans where applicable.
 - b. GDOT will include a description of performance measures and performance targets, along with a System Performance Report, in accordance with 23 CFR 450.216(f) in any statewide transportation plan amended or adopted after May 27, 2018, and in accordance with 23 CFR 450.218(q) in any State Transportation Improvement Program amended or adopted after May 27, 2018.
4. Reporting of performance to be used in tracking progress toward attainment of critical outcomes for the region of the MPO.

- a. Each Georgia MPO will include a description of performance measures and performance targets, along with a System Performance Report, in accordance with 23 CFR 450.324(f)(3-4) in any Metropolitan Transportation Plan amended or adopted after May 27, 2018, and in accordance with 23 CFR 450.326(d) in any Transportation Improvement Program amended or adopted after May 27, 2018, for PM1 measures.
 - b. Each Georgia MPO will include a description of performance measures and performance targets, along with a System Performance Report, in accordance with 23 CFR 450.324(f)(3-4) in any Metropolitan Transportation Plan amended or adopted after May 20, 2019, and in accordance with 23 CFR 450.326(d) in any Transportation Improvement Program amended or adopted after May 20, 2019, for PM2 and PM3 measures.
 - c. Each Georgia MPO will include a description of performance measures and performance targets, along with a System Performance Report, in accordance with 23 CFR 450.324(f)(3-4) in any Metropolitan Transportation Plan amended or adopted after October 1, 2019, and in accordance with 23 CFR 450.326(d) in any Transportation Improvement Program amended or adopted after October 1, 2019, for the GHG measure.
5. The collection of data for the State asset management plans for the NHS.
- a. GDOT will be responsible for collecting bridge and pavement condition data for the NHS. This includes NHS roads that are not on the State highway system, but instead are under the ownership of local jurisdictions, if such roads exist.

All parties agree that email communications shall be considered written notice for all portions of this agreement.

[signature page to follow]

Signature page



GAMPO Chair

4/12/18

Date



GDOT (Commissioner)

4/30/18

Date



METROPOLITAN PLANNING ORGANIZATION

Resolution to Adopt Regional Transit Asset Management Targets for the Coastal Region Metropolitan Planning Organization (CORE MPO)

WHEREAS, the United States Department of Transportation promulgated transit planning regulations in 49 CFR Part 625.45; and

WHEREAS, federal regulations (49 CFR part 625.45) require that the Metropolitan Transportation Plans and Transportation Improvement Programs include Transit Asset Management Performance (TAM) Targets for urbanized areas; and

WHEREAS, the Chatham Area Transit Authority (CAT) has set Transit Asset Management Performance for the CAT transit system and the Georgia Department of Transportation has set Transit Asset Management Performance Targets for the Coastal Regional Commission both of which are transit agencies operating within the CORE boundaries; and

WHEREAS, the CORE MPO has set regional targets which encompass both transit agencies targets and needs for the purposes of metropolitan planning and programming; and

WHEREAS, CAT and GDOT are each responsible for annually setting TAM targets for their respective systems and subrecipients, sharing TAM targets with CORE, collecting data, preparing and updating a TAM Plan every four years and reporting their progress on their targets to the Federal Transit Administration via the National Transit Database (NTD); and

WHEREAS, The CORE MPO is responsible for adopting TAM targets and incorporating TAM targets and practices into the Metropolitan Transportation Plan and the Transportation Improvement Program which support the transit agencies operating within the MPO boundary; and

WHEREAS, the TCC at its August 16th, 2018 meeting recommended that CORE MPO support the following Regional Transit Asset Management Performance Targets and incorporate the TAM targets into the MTP and TIP.

Asset Category	Vehicle Class	Regional Target (% in State of Good Repair)
Rolling Stock	Bus (BU)	85%
	Cutaway bus (CU)	79%
	Minivan (MV)	50%
	Van (VN)	50%
	School Bus (SB)	50%
	Ferryboat (FB)	100%
Equipment	Automobile (AO)	26%
	Trucks and other Rubber Tire Vehicles	45%
	Maintenance	100%
Facilities	Admin/Maintenance Facility	50%
	Passenger & Parking	90%

NOW, THEREFORE, BE IT RESOLVED that the Coastal Region Metropolitan Planning Organization Board concurs with the recommendations of the Technical Coordinating Committee and agrees to adopt the Regional Transit Asset Management Performance Targets.



METROPOLITAN PLANNING ORGANIZATION

CERTIFICATION

I hereby certify that the above is a true and correct copy of a Resolution adopted by the Coastal Region Metropolitan Planning Organization Board at a meeting held on August 22, 2018.

A handwritten signature in black ink, reading "Albert J. Scott", is written over a horizontal line. The signature is fluid and cursive.

Albert J. Scott, Chairman
Coastal Region Metropolitan Planning Organization



METROPOLITAN PLANNING ORGANIZATION RECEIVED

OCT 24 2018

METROPOLITAN PLANNING
COMMISSION

Coastal Region MPO Performance-Based Transit Planning Agreement

WHEREAS, On May 27, 2016, the final rule for statewide and metropolitan transportation planning was published, based on 2012's Moving Ahead for Progress in the 21st Century (MAP-21) Act and 2015's Fixing America's Transportation System (FAST) Act which promulgated transportation planning regulations in 23 CFR 450.314, and

WHEREAS, Metropolitan Planning Organizations (MPOs), States, and providers of public transportation are required by 23 CFR 450.314 to cooperatively determine their mutual responsibilities in carrying out the performance-based planning and programming requirements established by federal law, and

WHEREAS, the 23 CFR 450.314(h) requires that MPO(s), State(s), and providers of public transportation to jointly agree upon and develop specific written provisions for cooperatively developing and sharing information related to transportation performance data, the selection of performance targets, the reporting of performance targets, and the reporting of performance to be used in tracking progress toward attainment of critical outcomes for the region of the MPO, and

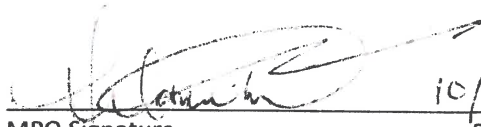
WHEREAS, The Georgia Department of Transportation (GDOT), the Coastal Region Metropolitan Planning Organization (CORE MPO), Chatham Area Transit (CAT) and The Coastal Regional Commission (CRC) hereby agree to share transit asset management data, targets, and plans as follows:

- Providers will share their Transit Asset Management (TAM) Plan and TAM targets with the MPO and GDOT, and report to the National Transit Database.
- Providers will coordinate with the MPO and GDOT during the development of their TAM Plan and targets.
- The MPO will set TAM targets for their planning area in coordination with providers in their planning area and share those targets with providers and GDOT.
- GDOT sponsors a Group TAM Plan for participating Tier 2 transit providers, collects inventory information from these providers, sets targets in coordination with the providers, and shares the TAM Plan with providers and MPOs statewide.
- The CORE MPO will reflect TAM targets in its short range and long range planning documents, and share with those targets with GDOT and providers in the MPO planning area.
- GDOT will provide a Statewide Transportation Improvement Program (STIP) Performance Report reflecting TAM targets set by the GDOT Group Plan and will share this report with MPOs and transit providers statewide.



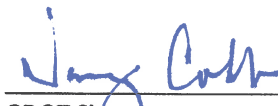
METROPOLITAN PLANNING ORGANIZATION

NOW, THEREFORE, BE IT RESOLVED, that the parties do hereby agree to adhere to the preceding coordination mechanisms to meet performance-based planning and programming requirements for transit in accordance with 23 CFR 450.314(h) and established federal guidance.


MPO Signature
10/17/2018
Date

Melanie Wilson, Executive Director
Print Name and Title

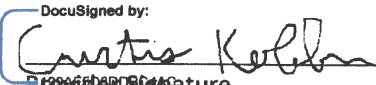
Chatham County – Savannah
Metropolitan Planning Commission
Organization Name


GDQT Signature
10-29-18
Date

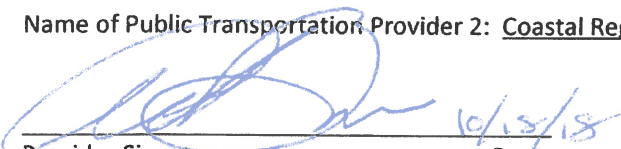
Nancy Cobb - Asst Division Director
Print Name and Title

Georgia Department of Transportation
Organization Name

Name of Public Transportation Provider 1: Chatham Area Transit

DocuSigned by:

Provider Signature
10/18/2018 12:40:39 PM EDT
Date
Curtis Kobleber, Executive Director
Print Name and Title

Name of Public Transportation Provider 2: Coastal Regional Coaches (Coastal Regional Commission)


Provider Signature
10/18/18
Date
Aaron Burns, Ex. Dir.
Print Name and Title

RECEIVED

OCT 24 2018

**METROPOLITAN PLANNING
COMMISSION**



APPENDIX B: CONTRIBUTING STUDIES AND PLANS

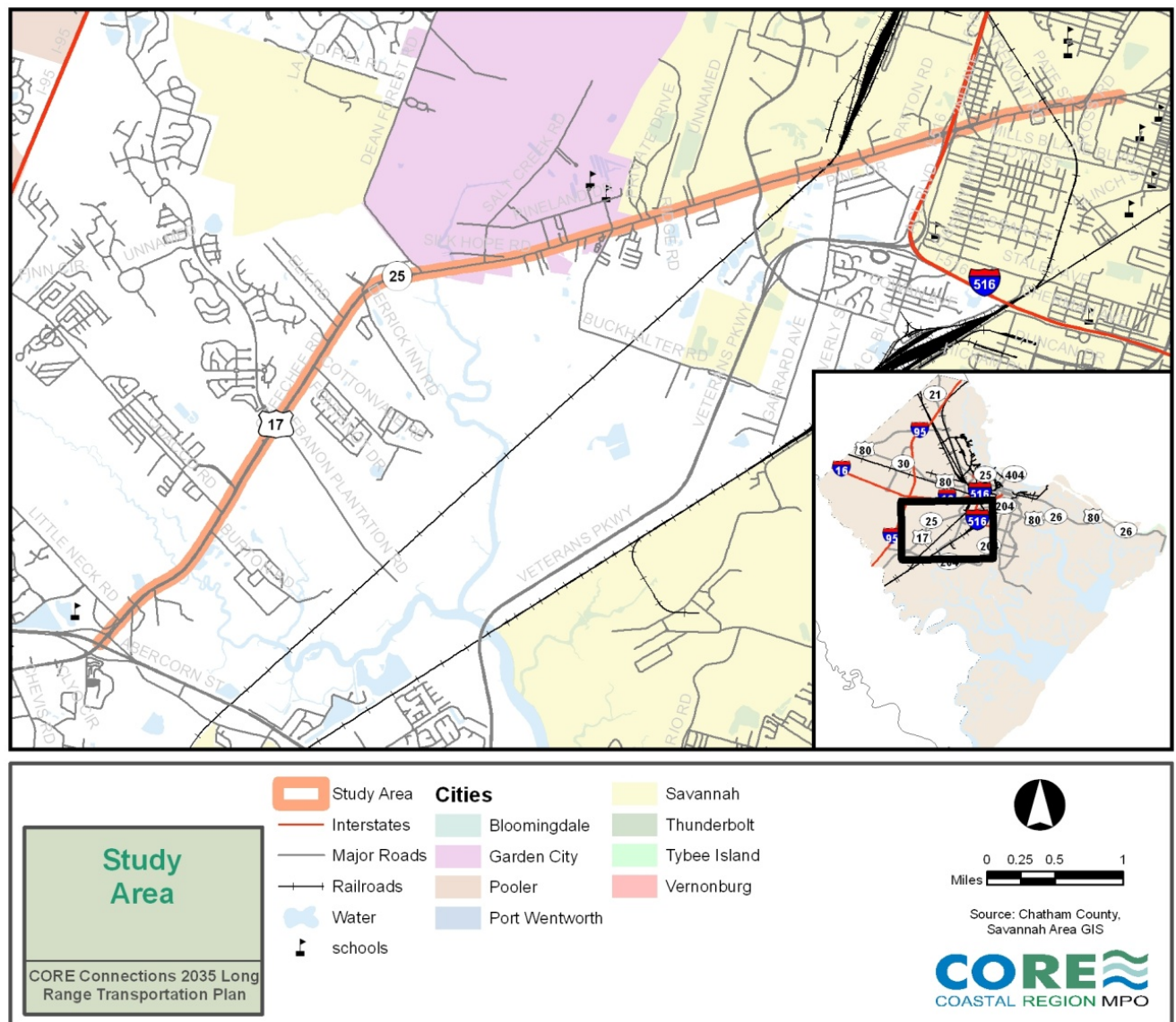


Sector Planning

As part of the Total Mobility Plan, the CORE MPO undertook two specific planning efforts: the Ogeechee Road Sector Plan and the Victory Drive Sector Plan. The sector planning process is one of the tools available to develop a detailed future plan for specific areas and provides a conceptual, long term approach that addresses existing and anticipated needs.

Ogeechee Road / US 17

The Ogeechee Road sector plan assessed the performance of Ogeechee Road/US 17 from Abercorn Extension/SR 204 in southside Savannah to US 80/Victory Drive just west of the downtown historic district. The plan identified the existing conditions, and in coordination with the non-motorized and thoroughfare plans, identified transportation strategies to preserve and enhance community character, accommodate pedestrians and bicyclists, and preserve the capacity of the roadway as the area develops and/or redevelops. The study area for the Ogeechee Road sector plan is shown in the map below.



There are a number of issues that were identified within the corridor as part of the planning process. These issues include the following:

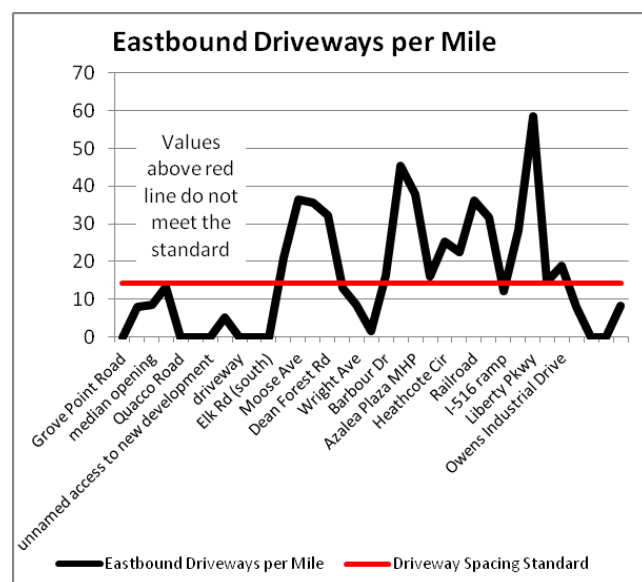
1. Lack of parallel facilities; lack of inter-parcel access
2. Two-way left turn lane conflicts, safety and traffic impacts
3. Density of access points (driveways and intersections) reduces capacity of roadway; some areas with open curbs to parking rather than driveways
4. Some areas of blight, lack of building and site maintenance
5. Corridor aesthetics, signage, and landscaping
6. Lack of pedestrian facilities, in particular a lack of sidewalks linking bus stops with destinations
7. Lack of pedestrian and transit amenities such as shelters, trees, benches, lighting
8. Compatibility of light industrial uses, warehousing, junk yards, auto-oriented uses with residential, recreation, hotel/motels, commercial areas that generate increasing pedestrian trips

In addition, there were also a number of opportunities within the sector area that were identified. These opportunities include:

1. Redevelopment potential of adjacent parcels creates an opportunity to increase access management and provide pedestrian facilities as the area redevelops
2. New or recent developments with frontage roads or other parallel facilities
3. Currently used by autos, transit, bicyclists, and pedestrians
4. Transportation strategies to increase mobility for lower income population (e.g., mobile home parks)
5. Widening project in constrained 2035 LRTP to extend four-lane section from I-516 to Victory Drive
6. Natural resources in area and scenic vista amenity corridor on two segments

To address the issues and take advantage of the opportunities and develop recommendations, the effort was coordinated with the Thoroughfare Plan and projects were identified for implementation of the appropriate complete streets and context sensitive design approach. These projects identified along Ogeechee Road / US 17 were then incorporated into the planning process and the development of the balanced Cost Feasible Plan and the Vision Plan, or

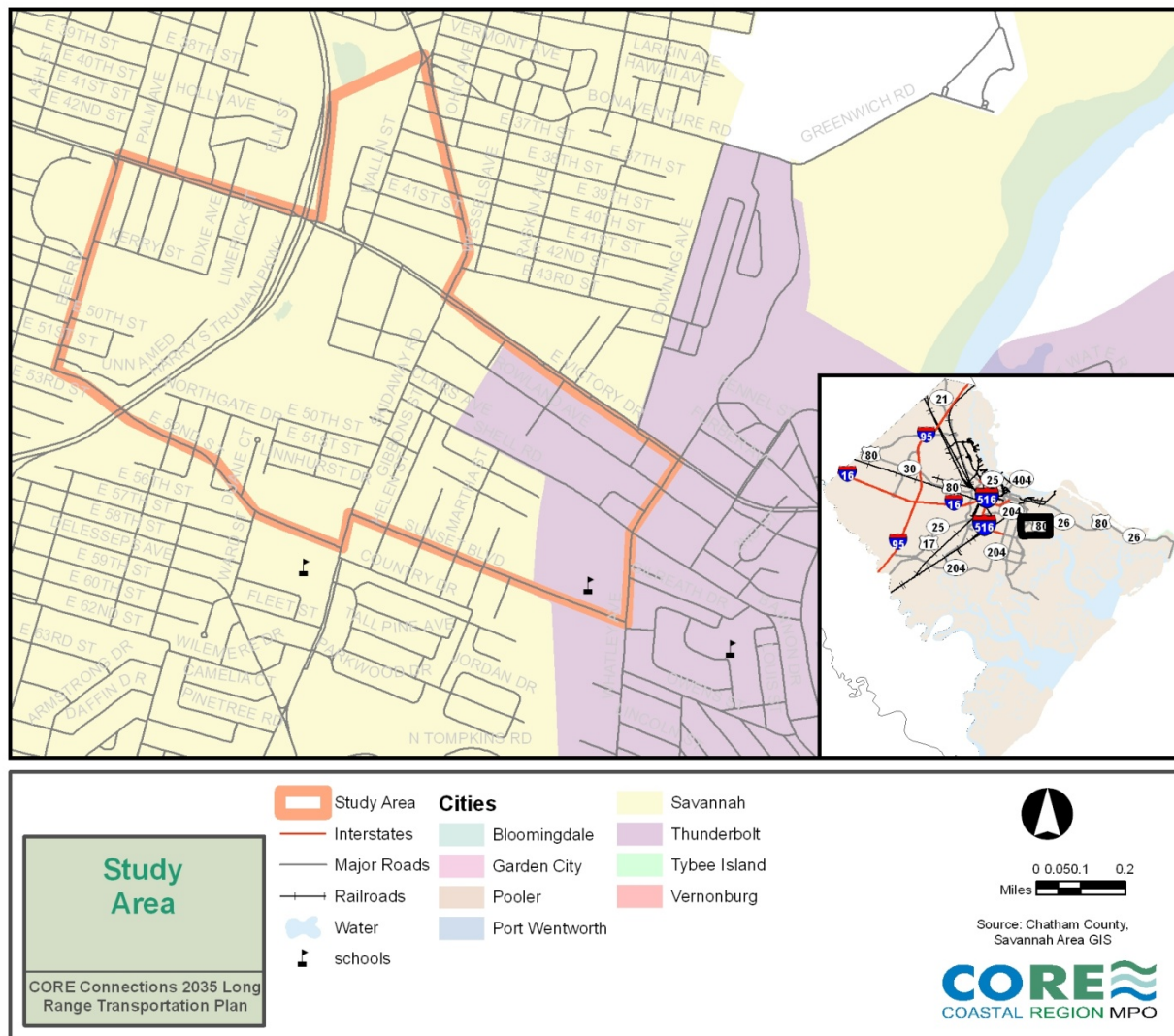
Roadside pedestrian paths in commercial areas indicate that sidewalks would be a welcome improvement for people walking in the sector area. Sidewalks would also improve access to bus stops.



unfunded needs list. Visit <https://www.thempc.org/docs/lit/corempo/studies/OgeecheeUS17.pdf> for more information.

Victory Drive - Skidaway Sector Study

The Victory Drive Area Sector Plan focuses on the area surrounding Victory Drive/US 80 at Truman Parkway due to the key transportation facilities that connect in the area, its role as a gateway between the islands and downtown Savannah, transportation system impacts of recent commercial development, and active development proposals in various stages. The plan resulted in recommended transportation strategies to preserve and enhance community character, accommodate pedestrians and bicyclists, and preserve the capacity of major roadways as the area redevelops. The study area is shown in the map below.



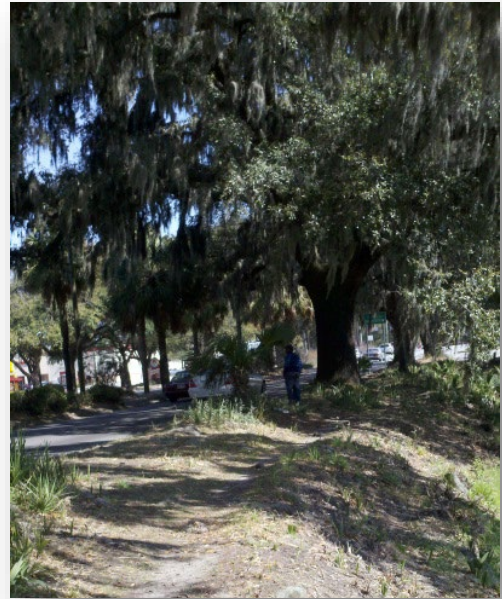
There were a number of issues identified in the sector planning area which include the following:

- Truman Parkway serves as a barrier to traffic, limiting east-west movements to 52nd Street or Victory Drive/US 80.

- High level of access intersections to Victory Drive/US 80 and Skidaway Road via driveways and limits the capacity for through traffic.
- There is a bottleneck at the Truman Parkway and Victory Drive interchange due to traffic volumes, including both local traffic to shopping centers and through traffic between islands and Savannah.
- Constrained land area limits improvements that can be made without significant impacts to natural resources or private property.

In addition, there were also a number of opportunities within the sector area that were identified. These opportunities include:

- Development and redevelopment opportunities
- Proposed and planned bicycle/pedestrian facilities
- Historic character and oak trees make Victory Drive a signature route in Savannah
- City of Savannah Economic Development Department activities to provide detailed plans on strategic corridors
- The County has a planned project to improve Skidaway Road through the study area
- Improved local road connectivity through road projects or redevelopment



Several recommended operational improvements have been completed in the area in order to accommodate the new developments and address any impacts in the area. As with the Ogeechee Road sector plan, this effort was fully coordinated with the Thoroughfare Plan to identify the complete streets/context sensitive design solutions. In addition, the long term option of additional access to the shopping area across Truman Parkway from the west and upgrading facilities for parallel capacity east of Skidaway along Victory Drive were identified for further study. Visit



<https://www.thempc.org/docs/lit/corempo/studies/VictorySkidaway.pdf> for more information.

Summaries of Other Studies and Plans

The CORE MPO has undertaken a number of other planning initiatives to address specific transportation needs within the region. These planning studies have informed for the Total Mobility Plan and are incorporated as part of the planning process. These studies include the following:

SR 21 Corridor Study

The SR 21 corridor is a key thoroughfare in Chatham County that serves commuter traffic between Effingham County and Savannah and provides a primary means of access to major industries and the Port of Savannah. SR 21 is vital to the local and regional economy and serves a strategic purpose as a hurricane evacuation route. Recommended projects from the study include the following:

PROJECT	THROUGHFARE PLAN CROSS SECTION	TERMINI	ESTIMATED COST	WORK TYPE
SR-21 Widening	Major Arterial - Suburban	Effingham Co. to I-95	\$147,463,000	ROW CST
SR 21 Elevated Lanes	N/A	North of SR 30 to Jimmy DeLoach Connector		
Jimmy DeLoach Connector Express Lanes	N/A	Jimmy DeLoach Connector	\$119,897,000	PE ROW CST
SR 21/Augusta Road Improvements	Major Arterial - Suburban	Smith Avenue to SR 307/Bourne		
SR 21 Elevated Lanes	N/A	Bourne Avenue to South of Minus Avenue	\$136,921,000	PE ROW CST
SR 21 Reconstruction	Major Arterial Urban	Smith Avenue to Minus Avenue		

Visit <https://www.thempc.org/Core/Sr21> for more information.

US 80 Bridges Study

The purpose of this study was to identify potential solutions that would improve bridge and roadway conditions in a shorter time frame than was possible with the previous GDOT four-lane concept. The study was conducted to determine the feasibility of:

- Improving emergency access by replacing or modifying the existing bridges to accommodate shoulders,
- Improving access for bicyclists pedestrians to Tybee Island and McQueen's Island Trail,
- Providing additional capacity at specific locations to provide congestion or incident relief,
- Improving conditions of flood prone areas.

Six alternatives were analyzed for feasibility and compared to the GDOT four-lane concept. The evaluation criteria for recommending an alternative were: ability to improve safety, initial project cost, benefit to cost ratio, life cycle cost, maintenance of traffic, potential environmental impacts, bicycle and pedestrian access, constructability and public comment.

The recommended alternative will replace existing bridges at Bull River and Lazaretto Creek with new bridges that have a ten-foot, bikeable shoulders and a ten-foot, barrier-separated multi-use trail. The existing road will be widened with ten-foot paved shoulders. The roadway near Fort Pulaski will be restriped to allow for a left-hand and right-hand turn lane. An 18-space parking area will be constructed at the entrance to McQueen's Island Trail and have a left-hand and right hand turn lanes for improved access. The project is currently under development by GDOT. Visit <https://www.thempc.org/docs/lit/corempo/studies/us80/finalreport.pdf> for more information.

SR 204 Corridor Study

The SR 204 corridor is the key arterial connection across the southern part of Chatham County linking I-95 to US 17, Veterans Parkway, and Truman Parkway. Recommended projects from the study include the following:

PROJECT	THROUGHFARE PLAN CROSS SECTION	TERMINI	ESTIMATED COST	WORK TYPE
SR-204 Reconstruction/Limited Access	Major Arterial - Suburban	I-95 to US 17	\$101,100,000	PE ROW CST
SR 204/Abercorn Interchange Reconstruction	N/A	At I-95	\$57,794,105	PE ROW CST
SR 204 Widening	Major Arterial - Suburban	US 17 to Rio Road	\$125,500,000	PE ROW CST
SR 204 Corridor Improvement/Elevated Lanes	Major Arterial - Suburban	West of Forest River Bridge to Truman Parkway Phase V	\$211,600,000	PE ROW CST

Visit <https://www.thempc.org/Core/Sr204> for more information.

Non-motorized Transportation Plan

Non-motorized transportation includes walking or using a wheelchair, bicycling, skating, and using pedicabs. The Non-motorized Transportation Plan, as part of the Total Mobility Plan, will serve as an update to the MPO's Bikeway Plan of 2000 and provides a plan to address the needs of pedestrians, and other self-powered travelers. The Plan:

- Identifies needed improvements for the non-motorized modes;
- Identifies areas for amenities to help create a human-scaled environment that encourages use of physically active modes;
- Prioritizes improvements and identifying funding opportunities

The resulting prioritized lists will guide the MPO in programming the approximately \$22 million that is set aside for non-motorized transportation over 25 years in the Total Mobility Plan. The lists can also guide local governments in the development of Capital Improvement Programs, and guide organizations applying for grants in the future, under such programs as Transportation Alternatives. Visit <https://www.thempc.org/Core/Bpp> for more information.

Park and Ride Lot Study

The study area of this Park and Ride Study includes Chatham County, Bryan County, Effingham County, Bulloch County, and Liberty County in Georgia as well as Jasper County and Beaufort County in South Carolina. The primary objectives for this study are to:

- Identify major travel shed corridors and trip volumes based on current and anticipated future commuting patterns;
- Identify and evaluate potential park-and-ride lot locations within those corridors;
- Develop regional bus service plans that serve the commute corridors and park-and-ride lot locations, with service plans tailored to meet anticipated demand;
- Determine likely costs, revenues and potential funding sources;
- Identify an implementation strategy for advancing study recommendations; and
- Engage stakeholders through all phases of the project.
-

Five stakeholder meetings were held during the course of this study to solicit input on study findings and recommendations. A series of stakeholder interviews were also held at the beginning of this project. The study presents a summary of the analysis conducted and recommendations developed during completion of this 12-month study. Visit <https://www.thempc.org/Core/Pr> for more information.

Greater Downtown Savannah Mobility and Parking Study

The Chatham County-Savannah Metropolitan Planning Commission (MPC) and City of Savannah Department of Mobility and Parking Services (MPS) led a study of downtown Savannah's parking and transportation systems in 2015 and 2016. The study was intended primarily to understand current conditions in the parking system, to develop new strategic approaches to address current and forthcoming challenges, and to continue to enhance downtown mobility options for the greater downtown Savannah community. Visit <https://www.thempc.org/Core/Pm> for more information.

Chatham Area Transit System Redesign

The Chatham Area Transit Authority kicked off its *Let's Go! Designing Better Transit Together* initiative, which will result in a system-wide redesign of the community's fixed-route bus network. This is very comprehensive and innovative process will help CAT step back from the current transit system, rethink the bus routes within our community, and design a system that reflects the values, needs, and available resources. The *Let's Go! Designing Better Transit Together* system redesign project will rely heavily on input from the community. The initiative will feature a dedicated webpage, three online surveys, and a series of community meetings. The project schedule is anticipated to conclude at the end of 2019. Visit <http://www.catchacat.org/> for more information.

Freight Transportation Plan

This study documented the existing freight assets in the CORE MPO region and identified the needs related to freight movements in the area. Recommendations were developed on how to improve the freight infrastructure and to facilitate economic development. A detailed assessment of freight and goods movement, freight performance measures and regional freight profiles were also completed as part of the study. The study incorporated input from stakeholders and includes an Economic Development and Freight Advisory Committee which provided input and guidance throughout the planning process. Visit <https://www.thempc.org/Core/Fp> for more information.

Advanced Traffic Management Study

The Coastal Region Metropolitan Planning Organization (CORE MPO), the transportation planning agency for the Savannah urbanized area, conducted a regional traffic management study. The study is to build upon the goals and recommendations of previous studies, particularly recommendations from the Congestion Management Process which found that updating and coordinating signal timing could improve travel times and efficiency on 15-23 percent of the congested roadways. The study was completed in two phases.

The Phase I Traffic Control Center Needs Assessment completed in 2014. The Traffic Control Needs Assessment Report summarizes an inventory and high level needs assessment of existing traffic control infrastructure in the city of Savannah, Georgia and in the surrounding region. The needs assessment is the first step toward development of the Chatham County Intelligent Transportation System (ITS) and Traffic Management Center (TMC) Strategic Plan.

The Phase II Strategic Plan is based on a five Year deployment program of a regional traffic management center, operational improvements throughout the region, and the supporting ITS infrastructure. This plan is culmination of the work contained in several technical memorandums described below. The Goals and Objectives Technical Memorandum summarizes the recommended goals and objectives in the development of the Chatham County Intelligent Transportation System (ITS) and Traffic Management Center (TMC) Strategic Plan. The three primary goals were to reduce congestion, enhance travel safety, and to improve regional transportation system operations.

The Traffic Management Improvement Options Technical Memorandum summarizes the both field and central system recommendations in the development of the Chatham County Intelligent Transportation System (ITS) and Traffic Management Center (TMC) Strategic Plan.

This Regional Traffic Management Case Studies Technical Memorandum builds upon the knowledge gathered from Traffic Management Center (TMC) scanning tours, which took place in 2013 and 2014, involving both CORE and Consultant Team. The scanning tours provided information and resources toward the justification for development of a regional traffic management strategy, including a summary of both field and central system recommendations.

Visit <https://www.thempc.org/Core/Atms> for more information.

Urban Circulator Feasibility Study

This effort is a data driven, technical study designed to determine the feasibility of an urban circulator system, such as a modern streetcar or enhanced bus service in Savannah.

The intent and underlying goal of the study was to provide a non-biased, data driven look at the feasibility and benefit of an Urban Circulator System in order to provide the underpinning for future Federal funding applications and to provide the City of Savannah and Chatham Area Transit with the information needed to make a sound business decision. The Urban Circulator Study assessed existing conditions, potential markets for existing and induced transit ridership, feasibility of implementation of an Enhanced Bus or Streetcar system given the physical characteristics of the city and traffic patterns, capital and operating costs and economic development potential.

The results of the analysis demonstrate that Phase I of the study area has existing bicycle and pedestrian infrastructure that provide adequate facilities for the average user. There are existing bus and trolley services provided by both public and private agencies and organizations that combine to address the demand within the historic downtown. Additional analysis is needed to define the existing parking resources and demands within the historic downtown, however observation of travel patterns indicate that parking resources are available and widely utilized by residents and visitors.

The analysis results demonstrate that mobility demands for citizens and visitors are being met by the current modal options and from a transportation mobility standpoint, investment in a supplemental mode such as Streetcar or Enhanced Bus service to serve a transportation need or deficiency is not warranted. With regard to the economic benefits and potential return on investment in the downtown Savannah area, the historic district is largely built out and protected by preservation ordinances. These constraints limit the potential for economic development. While the analysis does demonstrate the potential for significant increases in property value primarily in the western part of the study area, the limitations created in the downtown by current preservation policies, coupled with a scarcity of property available for development, result in overall return on investment projections significantly lower than peer systems.

As the City of Savannah continues to assess the viability of the Savannah Streetcar or Enhanced Bus system, local financial investments will be a critical component for successful Federal and State funding applications. As various funding options are explored, key partnerships with the Chatham County Board of Commissioners, Chatham County School Board, Housing Authority of Savannah, Chatham Area Transit and the CORE MPO will be critical.

Visit <https://www.thempc.org/docs/lit/corempo/studies/urban/2015/feb/report.pdf> for more information.

I-16 Flyover Removal

The I-16 overpass at MLK Jr. Blvd. and Montgomery Street has frequently been seen as a physical and psychological barrier to economic development, pedestrian activity and neighborhood revitalization along the corridor. While the area to the north of the flyover has thrived in recent years, the area to the south has not seen the same rate of revitalization. This study builds on previous studies conducted by the Savannah Development Renewal Authority in 1998, 2002, 2004 and 2009; and the 2008 GDOT study. The project has included a very extensive and comprehensive public participation process.

This planning study developed a preferred concept for the future removal of the I-16 overpass at Martin Luther King, Jr. Boulevard and the extension of the downtown street grid into the reclaimed land. Alternative were developed and vetted through public and stakeholder meetings and charrettes. The resulting Civic Master Plan and implementation strategy outline the desired urban form and the steps necessary for implementation. Visit <https://reclaimingoldwestbroad.org/> for more information.

I-16 Interchange Modification Report

The interchange modification report (IMR) documents the need to modify the interchange located at the terminus of I16 at Martin Luther King (MLK), Jr. Boulevard and Montgomery Street in Savannah, Georgia and to determine the configuration, location and design of proposed improvements.

The I-16 terminal interchange was constructed in the 1960s as a partial Y-interchange with ramps connecting to MLK, Jr. Boulevard and Montgomery Street. Although the I-16 interchange was constructed as an urban renewal program, the ramps have been a barrier to development and economic recovery in the area. The current connections to I-16 are at MLK, Jr. Boulevard and Montgomery Street using Exit 167A and 167B, respectively. The existing terminal ramps begin approximately 1,600 feet south of Gwinnett Street, and extend an additional 1,500 feet to the Exit 167. The MLK, Jr. Boulevard exit ramp (167A) is approximately 700 feet long, terminating at a traffic light at the intersection of MLK, Jr. Boulevard and Gaston Street. The Montgomery Street exit ramp (167B) is approximately 1,800 feet long with a flyover bridge across MLK Jr. Boulevard. The Montgomery Street ramp directly ties into Montgomery Street on a one-way segment just south of Liberty Street.

The feasibility of the ramp removal has been determined through a series of previous planning studies, including Reclaiming Old West Broad Street (2012), studies conducted by the Savannah Development and Renewal Authority (SDRA) in 1998, 2002, 2004 and 2009; and the 2008 Georgia Department of Transportation (GDOT) I-16 Terminus/MLK Jr. Boulevard Flyover Analysis and Concept Development Study.

The purpose of an IMR is to provide the FHWA with all the necessary information to consider modifications to an existing interchange on the Interstate system. The Federal Highway Administration (FHWA) guidance for interchange modifications and justifications are targeted at increasing access or adding new access; however, this report considers removing access and modifying access within the vicinity of the I-16 terminal interchange. To support the proposed modification of the terminal ramps, this report documents:

- Existing transportation network and land use
- Forecasted future conditions
- Environmental screening
- Interchange design alternatives
- Operations, capacity and safety analysis
- Preliminary cost estimates

Visit <https://www.thempc.org/Core/Imr> for more information.

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 Transportation Plan, is intended to:

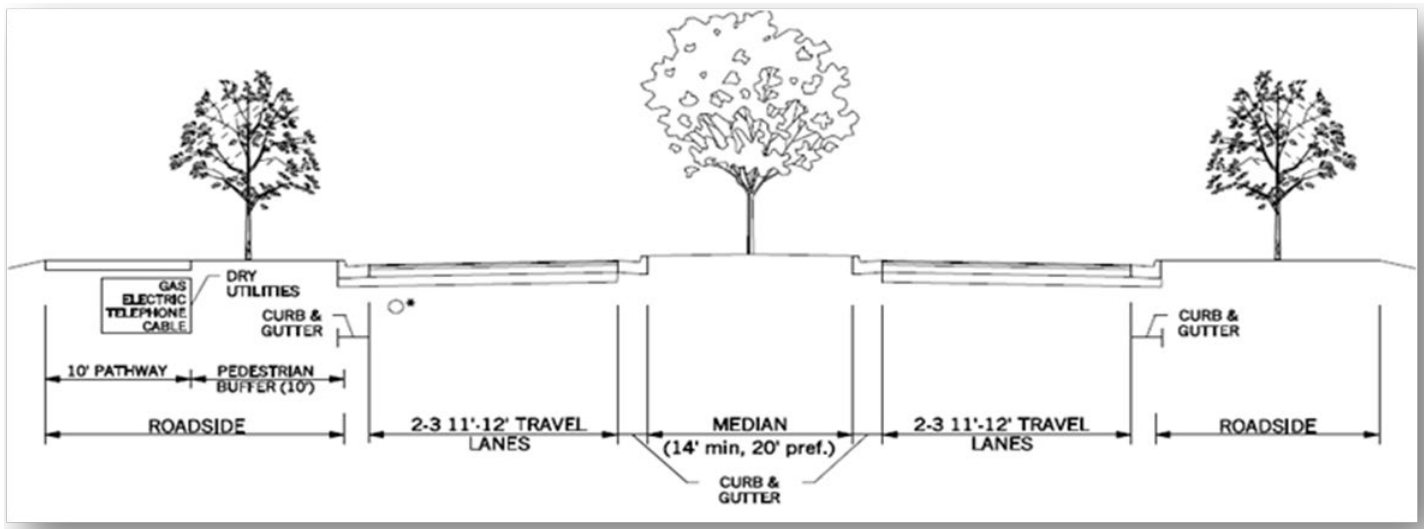
- Ensure/increase accessibility, mobility, and connectivity for people and freight.
- Promote safe and efficient travel for all users and create a framework for common sense trade-offs between automobile capacity and multimodal design elements.
- Support community development and land use goals and promote 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:

"Context Sensitive Solution 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."

Thoroughfare Cross Section Example



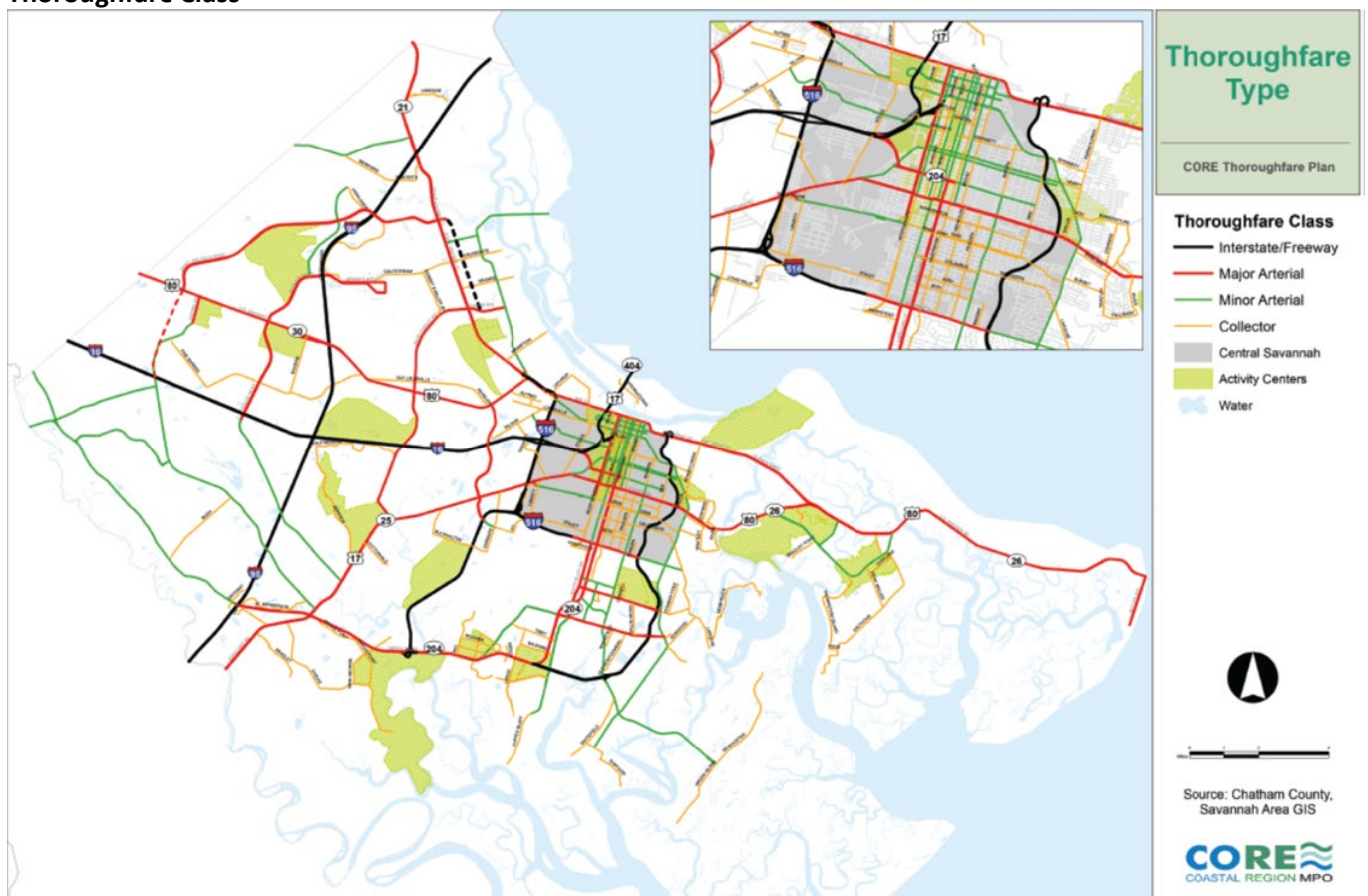
In this planning effort, the CORE MPO worked closely with its local planning partners to identify the appropriate context sensitive parameters for each roadway classification and developed typical sections that incorporated these treatments. These desired typical sections provide the framework for identifying deficiencies in the existing network and a guideline for future infrastructure and can be found in greater detail later in the document. 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 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.

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. In addition, the Vision Plan, or unfunded projects, includes the complete list of projects identified through the Thoroughfare Plan (see Appendix F for a complete list). The Thoroughfare Plan was also coordinated with the Non-motorized Transportation Plan to ensure consistency throughout the planning efforts. Visit <https://www.thempc.org/docs/lit/corempo/studies/Thoroughfare.pdf> for more information.

Thoroughfare Class



Bryan and Effingham County Transportation Plans

For more information visit:

Bryan County:

http://www.dot.ga.gov/BuildSmart/Studies/Documents/Bryan_County_Study/BryanCountyTransportationStudy.pdf

Effingham County:

http://www.dot.ga.gov/BuildSmart/Studies/Documents/effingham_county_study.pdf



APPENDIX C: FINANCIAL PLAN



2045 MTP Financial Plan Development

Federal planning regulations require that the financial plans presented in Metropolitan Transportation Plans (MTPs) be financially constrained (i.e., a balanced budget) where the estimated costs for all transportation improvements presented in the MTP cannot exceed the amount of reasonably expected revenues from identified funding sources. The financial constraint requirement ensures realistic assumptions are made when committing funds for projects. The development of the financially constrained plan is accomplished in several steps, which include projecting both the expected revenues over the time frame of the plan and estimating the costs of the projects. These revenue projections and the project costs are required to be identified in year-of-expenditure (YOE) dollars, rather than in current-year dollars.

1. Revenue Sources

Funding for transportation improvements in the CORE MPO's 2045 MTP comes from a variety of federal, state and local sources. For detailed funding programs, please reference Appendix A.

Federal funds provide the largest share of funding for transportation improvements in the CORE MPO Metropolitan Planning Area (MPA). Federal funds come from the Highway Trust Fund (HTF) and funding allocations are based on authorization legislations, the latest of which is the Fixing America's Surface Transportation Act (FAST Act) which was signed into law in December 2015 and authorized funds for fiscal years 2016 through 2020. For the 2045 MTP financial plan development, it is assumed that as the FAST Act expires, new legislations or continuing resolutions will be authorized to continue federal transportation funding through 2045.

States are major contributors of funds for transportation improvement projects, often the second largest contributor after the Federal Government. The state funds are used to match the federal grant funds or to develop transportation improvement projects without the lengthy federal process. State funds mostly come from Georgia's motor fuel tax and House Bill 170 (HB 170) funds.

In addition, transportation funds generated by local sources, either for a match against federal and state awards, or to advance projects independently of those sources, are also an important part of the 2045 MTP revenues. The local revenues come from local governments' general funds, Special Purpose Local Option Sales Tax (SPLOST), transit sales tax, transit farebox receipts, and transit district tax.

2. Revenue Projections

To assist the revenue and cost estimating process, the MPO staff requested information from GDOT and local jurisdictions/agencies pertaining to recent funding levels for transportation, both revenues and expenditures. The MPO staff has received information from GDOT, CAT, Chatham County, and the City of Savannah. Since CORE MPO plans for the expenditure of federal funds only within the CORE MPO MPA, the received data pertains to

- 1) the information for the roadways that have a functional classification of Collector or above because the local streets are normally not eligible for federal funds; and

- 2) the information for the roadways located within the CORE MPO's MPA which includes all of Chatham County, the City of Richmond Hill in Bryan County, and the census-designated Savannah Urbanized Area in Effingham County.

The CORE MPO's Technical Coordinating Committee (TCC) and its subcommittee - the 2045 MTP Working Group - reviewed the received information and developed the revenue projection methodology in regard to assumptions to be made, revenue sources, inflation factors, and cost bands. It has also been decided that highway revenues and transit revenues should be tabulated separately as they will fund different types of projects.

2.1 Highway Revenue Projections

2.1.1 Revenue Sources and Assumptions

1. The GDOT Office of Financial Management (OFM) provided highway revenue forecasts for 2019 – 2045 based on a three-year average of the state's obligation authority and distributions among MPOs. The forecasted revenues are divided into two parts – funds for projects and funds for maintenance. The project amounts are determined based on the MPO population from the 2010 census, and the maintenance amount was calculated using the MPO's percentage of state route lane miles. These estimates are based on a standard 1% annual inflation.

According to the GDOT forecasts, the Savannah region will receive an annual average of a little over \$30 million. These forecasts only include the federal portion of the expected highway revenues for the Savannah area and will be the basis for the final 2045 MTP highway revenue development. Since the 2045 MTP will cover 2020 to 2045, the GDOT 2019 revenue data will not be included in the final forecast.

To access these federal revenues, the State of Georgia and/or local project sponsors must provide matching funds. Although each federal funding program requires a different percentage of matching funds, the majority require a 20% match. Thus, the assumption is that 20% state/local matching funds would be added to the final highway revenue forecasts of the 2045 MTP.

2019-2045 Savannah Funding Projections *

	Federal		
	<i>Projects Estimate</i>	<i>Maintenance Estimate</i>	<i>Total Estimate</i>
2019	\$30,171,903	\$6,227,451	\$36,399,354
2020	\$30,473,622	\$6,289,725	\$36,763,348
2021	\$30,778,358	\$6,352,623	\$37,130,981
2022	\$31,086,142	\$6,416,149	\$37,502,291
2023	\$31,397,003	\$6,480,310	\$37,877,314
2024	\$31,710,974	\$6,545,113	\$38,256,087
2025	\$32,028,083	\$6,610,565	\$38,638,648
2026	\$32,348,364	\$6,676,670	\$39,025,034
2027	\$32,671,848	\$6,743,437	\$39,415,285
2028	\$32,998,566	\$6,810,871	\$39,809,437
2029	\$33,328,552	\$6,878,980	\$40,207,532
2030	\$33,661,837	\$6,947,770	\$40,609,607
2031	\$33,998,456	\$7,017,247	\$41,015,703
2032	\$34,338,440	\$7,087,420	\$41,425,860
2033	\$34,681,825	\$7,158,294	\$41,840,119
2034	\$35,028,643	\$7,229,877	\$42,258,520
2035	\$35,378,929	\$7,302,176	\$42,681,105
2036	\$35,732,719	\$7,375,198	\$43,107,916
2037	\$36,090,046	\$7,448,950	\$43,538,995
2038	\$36,450,946	\$7,523,439	\$43,974,385
2039	\$36,815,456	\$7,598,673	\$44,414,129
2040	\$37,183,610	\$7,674,660	\$44,858,271
2041	\$37,555,446	\$7,751,407	\$45,306,853
2042	\$37,931,001	\$7,828,921	\$45,759,922
2043	\$38,310,311	\$7,907,210	\$46,217,521
2044	\$38,693,414	\$7,986,282	\$46,679,696
2045	\$39,080,348	\$8,066,145	\$47,146,493
	\$929,924,845	\$191,935,563	\$1,121,860,408

* Projection amounts are YOY \$ - (1% inflation per year)

2. For the 2045 MTP highway revenue projections, the funds for projects and funds for maintenance will be separated from each other.
3. The first two years (2020 and 2021) of the 2045 MTP overlap with the last two years of the current FY 2018 – 2021 Transportation Improvement Program (TIP). The funds included in the TIP are considered “committed”. Thus, the revenues committed in the TIP for 2020 and 2021 will replace the state obligation authority – based revenue forecasts for these two years for projects. These committed revenues include funds allocated to projects included in the Major Mobility Investment Program (MMIP) (MMIP* - see Appendix A for details) and projects programmed with HB 170 funds.
4. Since it is uncertain how much HB 170 funds will be allocated to the Savannah area for the duration of the 2045 MTP, it is assumed that no HB 170 funds would be available after 2020 for the final revenue forecasts.
5. It is assumed that an additional \$2.5 million annual local funds would be included in the final 2045 MTP revenue forecasts. These funds will be used to finance projects’ implementation, not to be spent on maintenance.
6. It is assumed that no other funding sources (bonds, discretionary grant funds, public – private partnership funds, etc.) would be included in the final 2045 MTP revenue forecasts.

2.1.2 Inflation Factor

Federal transportation legislation requires that the 2045 MTP be financially constrained. The development of the financially constrained plan is accomplished in several steps, one of which is to project the expected revenues over the time frame of the plan. These revenue projections are required to be identified in Year-of-Expenditure (YOE) dollars. Thus, an appropriate inflation factor should be identified to project the revenues from current-year dollars to YOE dollars. The MPO staff did some research in this regard.

1. The GDOT obligation authority – based revenue forecasts assumed a 1% annual inflation factor.
2. Other long-range transportation plans for reference assumed different annual revenue inflation factors as listed below.
 - CORE MPO 2040 Total Mobility Plan: 2.5%
 - ARC 2040 Regional Transportation Plan: 2.1%
 - Augusta MPO’s 2040 Vision Long Range Transportation Plan: 1%
3. The Consumer Price Index (CPI) – based Average Annual Inflation Rates compiled by the US Labor Department’s Bureau of Labor Statistics (BLS) (see table below) indicate that 1% or 2% annual revenue inflation rate should be used in a healthy economy under normal conditions.

Annual Inflation Rates by Month and Year

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sen	Oct	Nov	Dec	Ave
2018	2.1	2.2	2.4	2.5	2.8	2.9							2.9
2017	2.5	2.7	2.4	2.2	1.9	1.6	1.7	1.9	2.2	2.0	2.2	2.1	2.1
2016	1.4	1.0	0.9	1.1	1.0	1.0	0.8	1.1	1.5	1.6	1.7	2.1	1.3
2015	-0.1	0.0	-0.1	-0.2	0.0	0.1	0.2	0.2	0.0	0.2	0.5	0.7	0.1
2014	1.6	1.1	1.5	2.0	2.1	2.1	2.0	1.7	1.7	1.7	1.3	0.8	1.6
2013	1.6	2.0	1.5	1.1	1.4	1.8	2.0	1.5	1.2	1.0	1.2	1.5	1.5
2012	2.9	2.9	2.7	2.3	1.7	1.7	1.4	1.7	2.0	2.2	1.8	1.7	2.1
2011	1.6	2.1	2.7	3.2	3.6	3.6	3.6	3.8	3.9	3.5	3.4	3.0	3.2
2010	2.6	2.1	2.3	2.2	2.0	1.1	1.2	1.1	1.1	1.2	1.1	1.5	1.6
2009	0	0.2	-0.4	-0.7	-1.3	-1.4	-2.1	-1.5	-1.3	-0.2	1.8	2.7	-0.4
2008	4.3	4.0	4.0	3.9	4.2	5.0	5.6	5.4	4.9	3.7	1.1	0.1	3.8
2007	2.1	2.4	2.8	2.6	2.7	2.7	2.4	2.0	2.8	3.5	4.3	4.1	2.8
2006	4.0	3.6	3.4	3.5	4.2	4.3	4.1	3.8	2.1	1.3	2.0	2.5	3.2
2005	3.0	3.0	3.1	3.5	2.8	2.5	3.2	3.6	4.7	4.3	3.5	3.4	3.4
2004	1.9	1.7	1.7	2.3	3.1	3.3	3.0	2.7	2.5	3.2	3.5	3.3	2.7
2003	2.6	3.0	3.0	2.2	2.1	2.1	2.1	2.2	2.3	2.0	1.8	1.9	2.3
2002	1.1	1.1	1.5	1.6	1.2	1.1	1.5	1.8	1.5	2.0	2.2	2.4	1.6
2001	3.7	3.5	2.9	3.3	3.6	3.2	2.7	2.7	2.6	2.1	1.9	1.6	2.8
2000	2.7	3.2	3.8	3.1	3.2	3.7	3.7	3.4	3.5	3.4	3.4	3.4	3.4

Conclusion: *The Technical Coordinating Committee made a decision to be conservative by applying 1% annual inflation rate for the 2045 MTP revenue forecasts.*

2.1.3 Cost Bands

The revenues of the 2045 MTP expressed in YOE dollars will be distributed into short-, mid- and long- term cost bands to cover projects included in each band. The TCC has determined to divide the revenues into the following three cost bands.

1. Cost Band One: 2020 – 2027 (8 years; overlaps with current and next TIPs; mid-years are 2023 and 2024)
2. Cost Band Two: 2028 – 2036 (9 years; mid-year is 2032)
3. Cost Band Three: 2037 – 2045 (9 years; mid-year is 2041)

2.1.4 Highway Revenue Forecasts

The table on the next page lists the expected revenues that can be used for highway improvements in the 2045 MTP. \$784,156,593 in Cost Band One, \$491,556,682 in Band Two, and \$537,608,304 in Band Three will be available for highway projects' development and implementation.

The project revenues in each cost band will be divided into revenues for specific projects and revenues for category expenditures. Three categories have been identified:

- Operational Improvements Set Aside: based on the approximate lump sum category percentage of the total revenues in the FY 2018 – 2021 TIP, it is assumed that 9.5% of available project revenues for 2022 - 2045 will be reserved for operational improvements. The 2020 and 2021 lump sum funding amounts in the TIP are used for Operational Improvements for these two years.
- Transit Set Aside: based on historic Z230 funding awards, it is assumed that \$700,000 from project revenues will be reserved each year for bus purchase or transit improvements. Implementation of these transit projects will require funding flexing from FHWA to FTA.
- Non-Motorized Set Aside: based on the annual Z301 funding availability for the Savannah area, it is assumed that \$500,000 each year from project revenues will be reserved for non-motorized projects (bike, ped, trails, etc.) for 2022 – 2045. The 2020 and 2021 funding amounts for programmed bike/ped projects in the TIP are used for these two years.

The table below depicts the anticipated highway revenues for the planning period of 2020 – 2045 for highway projects and category expenditures.

Year	Cost Band	Cost Band Total	Project Revenues					Maintenance Revenues
		Projects + Maintenance	Specific Projects	Operational Improvements Set Aside	Non-Motorized Set Aside	Transit Set Aside	Total	Total
2020 - 2027	One	\$801,290,466	\$658,937,561	\$58,271,837	\$13,337,828	\$5,600,000	\$736,147,226	\$65,143,240
2028 - 2036	Two	\$491,556,682	\$361,876,186	\$39,120,705	\$4,500,000	\$6,300,000	\$411,796,891	\$79,759,791
2037 - 2045	Three	\$537,608,304	\$396,790,456	\$42,785,738	\$4,500,000	\$6,300,000	\$450,376,195	\$87,232,109
Total		\$1,830,455,452	\$1,417,604,203	\$140,178,281	\$22,337,828	\$18,200,000	\$1,598,320,311	\$232,135,141

Table 1: 2020-2045 Highway Revenue Projections Updated August 2019

	Federal*			Matching Funds			Total with Matching Funds			HB 170	Local****	Other	Highway Total Estimates	Cost Band	Cost Band Total	Cost Band Project	Cost Band Maintenance
	Projects Estimate	Maintenance Estimate	Total Estimate	Projects Estimate	Maintenance Estimate	Total Estimate	Projects Estimate	Maintenance Estimate	Total Estimate								
2020**	\$30,473,622	\$6,289,725	\$36,763,348	\$7,618,406	\$1,572,431	\$9,190,837	\$285,949,746	\$7,862,157	\$293,811,903	\$0	\$2,500,000	\$0	\$296,311,903	One	\$801,290,466	\$736,147,226	\$65,143,240
2021**	\$30,778,358	\$6,352,623	\$37,130,981	\$7,694,590	\$1,588,156	\$9,282,745	\$190,430,286	\$7,940,778	\$198,371,064	\$0	\$2,525,000	\$0	\$200,896,064				
2022	\$31,086,142	\$6,416,149	\$37,502,291	\$7,771,536	\$1,604,037	\$9,375,573	\$38,857,678	\$8,020,186	\$46,877,864	\$0	\$2,550,250	\$0	\$49,428,114				
2023	\$31,397,003	\$6,480,310	\$37,877,314	\$7,849,251	\$1,620,078	\$9,469,328	\$39,246,254	\$8,100,388	\$47,346,642	\$0	\$2,575,753	\$0	\$49,922,395				
2024	\$31,710,974	\$6,545,113	\$38,256,087	\$7,927,743	\$1,636,278	\$9,564,022	\$39,638,717	\$8,181,392	\$47,820,109	\$0	\$2,601,510	\$0	\$50,421,619				
2025	\$32,028,083	\$6,610,565	\$38,638,648	\$8,007,021	\$1,652,641	\$9,659,662	\$40,035,104	\$8,263,206	\$48,298,310	\$0	\$2,627,525	\$0	\$50,925,835				
2026	\$32,348,364	\$6,676,670	\$39,025,034	\$8,087,091	\$1,669,168	\$9,756,259	\$40,435,455	\$8,345,838	\$48,781,293	\$0	\$2,653,800	\$0	\$51,435,093				
2027	\$32,671,848	\$6,743,437	\$39,415,285	\$8,167,962	\$1,685,859	\$9,853,821	\$40,839,810	\$8,429,296	\$49,269,106	\$0	\$2,680,338	\$0	\$51,949,444				
2028	\$32,998,566	\$6,810,871	\$39,809,437	\$8,249,642	\$1,702,718	\$9,952,359	\$41,248,208	\$8,513,589	\$49,761,797	\$0	\$2,707,142	\$0	\$52,468,939	Two	\$491,556,682	\$411,796,891	\$79,759,791
2029	\$33,328,552	\$6,878,980	\$40,207,532	\$8,332,138	\$1,719,745	\$10,051,883	\$41,660,690	\$8,598,725	\$50,259,415	\$0	\$2,734,213	\$0	\$52,993,628				
2030	\$33,661,837	\$6,947,770	\$40,609,607	\$8,415,459	\$1,736,942	\$10,152,402	\$42,077,297	\$8,684,712	\$50,762,009	\$0	\$2,761,555	\$0	\$53,523,564				
2031	\$33,998,456	\$7,017,247	\$41,015,703	\$8,499,614	\$1,754,312	\$10,253,926	\$42,498,070	\$8,771,559	\$51,269,629	\$0	\$2,789,171	\$0	\$54,058,800				
2032	\$34,338,440	\$7,087,420	\$41,425,860	\$8,584,610	\$1,771,855	\$10,356,465	\$42,923,050	\$8,859,275	\$51,782,325	\$0	\$2,817,063	\$0	\$54,599,388				
2033	\$34,681,825	\$7,158,294	\$41,840,119	\$8,670,456	\$1,789,574	\$10,460,030	\$43,352,281	\$8,947,868	\$52,300,149	\$0	\$2,845,233	\$0	\$55,145,382				
2034	\$35,028,643	\$7,229,877	\$42,258,520	\$8,757,161	\$1,807,469	\$10,564,630	\$43,785,804	\$9,037,346	\$52,823,150	\$0	\$2,873,686	\$0	\$55,696,836				
2035	\$35,378,929	\$7,302,176	\$42,681,105	\$8,844,732	\$1,825,544	\$10,670,276	\$44,223,662	\$9,127,720	\$53,351,382	\$0	\$2,902,422	\$0	\$56,253,804				
2036	\$35,732,719	\$7,375,198	\$43,107,916	\$8,933,180	\$1,843,799	\$10,776,979	\$44,665,898	\$9,218,997	\$53,884,895	\$0	\$2,931,447	\$0	\$56,816,342	Three	\$537,608,304	\$450,376,195	\$87,232,109
2037	\$36,090,046	\$7,448,950	\$43,538,995	\$9,022,511	\$1,862,237	\$10,884,749	\$45,112,557	\$9,311,187	\$54,423,744	\$0	\$2,960,761	\$0	\$57,384,505				
2038	\$36,450,946	\$7,523,439	\$43,974,385	\$9,112,737	\$1,880,860	\$10,993,596	\$45,563,683	\$9,404,299	\$54,967,982	\$0	\$2,990,369	\$0	\$57,958,350				
2039	\$36,815,456	\$7,598,673	\$44,414,129	\$9,203,864	\$1,899,668	\$11,103,532	\$46,019,320	\$9,498,342	\$55,517,662	\$0	\$3,020,272	\$0	\$58,537,934				
2040	\$37,183,610	\$7,674,660	\$44,858,271	\$9,295,903	\$1,918,665	\$11,214,568	\$46,479,513	\$9,593,325	\$56,072,838	\$0	\$3,050,475	\$0	\$59,123,313				
2041	\$37,555,446	\$7,751,407	\$45,306,853	\$9,388,862	\$1,937,852	\$11,326,713	\$46,944,308	\$9,689,259	\$56,633,567	\$0	\$3,080,980	\$0	\$59,714,546				
2042	\$37,931,001	\$7,828,921	\$45,759,922	\$9,482,750	\$1,957,230	\$11,439,980	\$47,413,751	\$9,786,151	\$57,199,902	\$0	\$3,111,790	\$0	\$60,311,692				
2043	\$38,310,311	\$7,907,210	\$46,217,521	\$9,577,578	\$1,976,803	\$11,554,380	\$47,887,889	\$9,884,013	\$57,771,901	\$0	\$3,142,908	\$0	\$60,914,809				
2044	\$38,693,414	\$7,986,282	\$46,679,696	\$9,673,354	\$1,996,571	\$11,669,924	\$48,366,768	\$9,982,853	\$58,349,620	\$0	\$3,174,337	\$0	\$61,523,957				
2045	\$39,080,348	\$8,066,145	\$47,146,493	\$9,770,087	\$2,016,536	\$11,786,623	\$48,850,435	\$10,082,681	\$58,933,117	\$0	\$3,206,080	\$0	\$62,139,196				
2020 - 2045 Revenues	\$899,752,941	\$185,708,113	\$1,085,461,054	\$224,938,235	\$46,427,028	\$271,365,263	\$1,524,506,233	\$232,135,141	\$1,756,641,373	\$0	\$73,814,079	\$0	\$1,830,455,452		\$1,830,455,452	\$1,598,320,311	\$232,135,141

* Data provided by GDOT based on a three-year average of the state’s obligation authority and distributions among MPOs. Projection amounts are YOY \$ - (1% inflation per year). Projection only covers the federal portion.

** The committed funds in 2020 and 2021 from FY 2018 - 2021 TIP are used to replace the state's obligation - authority based forecasts.

***The 2045 MTP covers 2020 to 2045, so the 2019 data is not used for revenue projections.

****Local revenues will be used to fund projects, not maintenance.

2.2 Transit Revenue Projections

The 2045 MTP will only include transit capital projects to be implemented, so the operating funds will not be a part of the transit revenue projections.

1. Based on the information provided by CAT, the uncertainty of federal grants to be available, and the limited impact the CRC's capital program has on the 2045 MTP, it is assumed that an annual average of \$7.5 million (federal grants + state matching funds + local revenue sources) will be available for transit revenue projections.
2. Using 2020 as the base year, a 1% annual inflation rate is applied to the 2045 MTP transit capital revenue forecasts.
3. Similar to highway revenue projections, the transit capital revenues expressed in YOE dollars will be distributed into short-, mid- and long-term cost bands. The table below lists the expected transit capital revenues for the 2045 MTP.

2020 - 2045 Transit Revenue Projections			
	Transit Capital	Cost Band	Cost Band Total
2019		NA	
2020	\$7,500,000	One	\$62,142,529
2021	\$7,575,000		
2022	\$7,650,750		
2023	\$7,727,258		
2024	\$7,804,530		
2025	\$7,882,575		
2026	\$7,961,401		
2027	\$8,041,015		
2028	\$8,121,425	Two	\$76,085,794
2029	\$8,202,640		
2030	\$8,284,666		
2031	\$8,367,513		
2032	\$8,451,188		
2033	\$8,535,700		
2034	\$8,621,057		
2035	\$8,707,267		
2036	\$8,794,340		
2037	\$8,882,283	Three	\$83,213,913
2038	\$8,971,106		
2039	\$9,060,817		
2040	\$9,151,425		
2041	\$9,242,940		
2042	\$9,335,369		
2043	\$9,428,723		
2044	\$9,523,010		
2045	\$9,618,240		
2020 - 2045 Revenues	\$221,442,236		\$221,442,236

3. Project Cost Estimating Methodology

The forecasted available revenues will be allocated to projects included in the 2045 MTP based on their development timeframe, thus deriving the planning-level project cost estimates is of vital importance. The following summarizes the methodology utilized to calculate the project cost estimates in YOE dollars for the 2045 MTP.

3.1 Planning Level Cost Estimating for Highway Projects

1. The project phases of each potential 2045 MTP highway project, which include Preliminary Engineering (PE), Right-of-Way acquisition (ROW), Utilities (UTL) and Construction (CST), are reviewed by CORE MPO staff and the 2045 MTP Working Group to determine which of three cost band periods best match the priority and schedule of each phase.
 2. Funding source by project phase is not tracked; only the cost totals by phase (PE, ROW, UTL and CST) are calculated.
 3. If a project phase was authorized prior to the adoption of the 2045 MTP, the project phase cost is not included in the plan.
 4. The annual planning level cost estimating inflation rate is defined as 3.5% based on the National Highway Construction Cost Index (NHCCI) data from 2003 to 2018.
 5. Project costs are calculated in YOE dollars for each appropriate time period. The projects' cost estimates for cost band periods are described below.
- Cost Band One (2020 - 2027):
 - Overlaps with GDOT's short-range planning period and the current FY 2018 - 2020 Transportation Improvement Program (TIP).
 - For 2020 and 2021 projects, use the projects' phase costs in the TIP that reflect the most current GDOT cost estimates.
 - For 2022 – 2027 projects, use the best available cost estimates from GDOT, local project sponsors or CORE MPO where applicable. The projects' costs should be estimated for the appropriate phase (PE, ROW, UTL and CST). No inflation factor is applied to these projects assuming the cost estimates are already inflation-adjusted.
 - Cost Band Two (2028 – 2036)
 - Incorporate cost estimates developed for the 2040 MTP, or project sponsor-provided estimates, or estimates based on per mile costs of comparable local projects as expressed in approved concept reports as available.
 - Apply the appropriate escalation inflation factor calculated for YOE 2032 (the midpoint of this time band) for the final cost estimates for each phase.
 - Cost Band Three (2037-2045)
 - Incorporate cost estimates developed for the 2040 MTP, or project sponsor-provided estimates, or estimates based on per mile costs of comparable local projects as

expressed in approved concept reports as available.

- Apply the appropriate escalation inflation factor calculated for YOE 2041 (the midpoint of this time band) for the final cost estimates for each phase.

3.2 Planning Level Cost Estimating for Transit Projects

For transit capital projects, CAT used cost information developed for the Transit Development Plan (TDP) or System Re-design, or RFP quotes as the basis; then apply the appropriate escalation inflation factors similar to highway projects for final cost estimates.

3.3 Planning Level Cost Estimating Inflation factors

The cost estimates for Cost Band Two and Three projects will be expressed in Year-of-Expenditure (YOE) dollars by applying appropriate inflation factors. These inflation factors are normally associated with actual construction costs and are different from the inflation factors for revenue projections. The federal guidance on getting the appropriate inflation factors for YOE cost estimates indicate that:

- It is best to use State and/or local cost data if available;
- In the absence of State and/or local data, FHWA and FTA would be comfortable if MPOs utilize an annual inflation rate of four (4) percent for project costs; and
- The MPO may assume a lower or higher rate based on circumstances.

Based on the National Highway Construction Cost Index (NHCCI) data from 2003 to 2018 (see table on the next page), the annual inflation rate for project cost estimates is 3.5%.

Conclusion: The Technical Coordinating Committee made a decision to apply the 3.5% annual inflation rate to the 2045 MTP cost estimates for longer-term projects.

As indicated by the cost estimating methodology above, no inflation factor will be applied to Cost Band One projects.

Assuming that the Cost Band Two and Three projects will be estimated to the mid-year of each band, the final inflation factors based on the 3.5% annual inflation rate will be as follows.

- Cost Band Two: 2028 – 2036 (mid-year is 2032, inflation factor is 1.51)
- Cost Band Three: 2037 – 2045 (mid-year is 2041, inflation factor is 2.06)

National Highway Construction Cost Index (NHCCI) 2.0

July 20, 2018

YEAR	QUARTER	NHCCI
2003	March	1.0000
	June	1.0096
	September	1.0240
	December	1.0216
2004	March	1.0459
	June	1.1009
	September	1.1431
	December	1.1492
2005	March	1.2409
	June	1.2814
	September	1.3718
	December	1.4125
2006	March	1.4486
	June	1.5213
	September	1.6184
	December	1.5527
2007	March	1.5636
	June	1.5612
	September	1.5375
	December	1.5143
2008	March	1.5686
	June	1.6441
	September	1.7848
	December	1.6267
2009	March	1.5000
	June	1.4398
	September	1.4292
	December	1.4026
2010	March	1.4419
	June	1.4384
	September	1.4465
	December	1.4300
2011	March	1.4568
	June	1.5006
	September	1.5412
	December	1.5411
2012	March	1.5769
	June	1.6270
	September	1.5955
	December	1.6071
2013	March	1.5908
	June	1.6235
	September	1.6448
	December	1.5931
2014	March	1.6278
	June	1.6699
	September	1.7351
	December	1.6938
2015	March	1.7198
	June	1.7048
	September	1.7063
	December	1.6627
2016	March	1.6311
	June	1.6779
	September	1.6798
	December	1.6534
2017	March	1.6172
	June	1.6846
	September ¹	1.7343
	December ¹	1.6621
2018	March ²	1.6647
Notes: 1/ Revised. 2/ Preliminary.		

Source: Federal Highway Administration (FHWA), National Highway Construction Cost Index (NHCCI).

4. Development of the Financially Constrained Plan

With the development of the anticipated revenues and projects' cost estimates over the planning period, the next step is to decide what projects are to be included in the financially constrained 2045 MTP. This step takes into consideration projects' development status and implementation schedule, MTP continuity, projects' prioritization rankings, fiscal constraints, and geographic equity analysis.

4.1 Highway Project Development Methodology

For highway financially-constrained plan development, the projects are evaluated and selected based on the methodology listed below.

- The projects included in the current 2040 MTP that are completed, under construction or no longer needed are not included in the 2045 plan.
- The remaining projects in the 2040 MTP that are in the pipeline for implementation will be carried forward to the financially constrained 2045 MTP.
- The long-range projects in the 2040 MTP are evaluated for their project prioritization rankings, fiscal constraints of each cost band, and geographic equity analysis.
- New highway projects identified through the travel demand modelling process and/or by local sponsors are evaluated for their project prioritization rankings, fiscal constraints of each cost band, and sponsors' commitment.
- Policy statements are developed for category projects to correspond to project revenue category expenditure set-asides and maintenance expenditures. These Policy Statements include the following:
 - Maintenance Policy: The Georgia Department of Transportation (GDOT) maintains the state highways in Georgia. Maintenance projects in the Savannah area which have been duly selected for funding by the State Transportation Board are considered to be consistent with the CORE MPO's 2045 Metropolitan Transportation Plan.
 - Operational Improvements Set Aside Policy: Any operational improvement project (traffic signals, turn lanes, intersection improvement, etc.) in the Savannah area seeking CORE MPO highway funding is considered to be consistent with the MPO's 2045 Metropolitan Transportation Plan provided that 1) the project is consistent with the MPO's plans (2045 Vision Plan, Freight Plan, Congestion Management Process, etc.) or local Capital Improvement Programs; 2) the project makes improvements to functionally-classified roadways (collectors and above); 3) the project is located within the CORE MPO's Metropolitan Planning Area (MPA); and 4) the project has a dedicated project sponsor with local match funding commitment.
 - Transit Improvements Set Aside Policy: Any transit improvement project seeking CORE MPO highway funding in the Savannah area is considered to be consistent with the MPO's 2045

Metropolitan Transportation Plan provided that 1) the project has an eligible local sponsor with match funding commitment; 2) the project is consistent with the needs identified in the cost feasible transit plan of the 2045 MTP, or the project is approved by the CORE MPO Board for inclusion in the Transportation Improvement Program.

- Non-Motorized Improvements Set Aside Policy: Any bicycle, sidewalk or trail project seeking CORE MPO highway funding is considered consistent with the MPO's 2045 Metropolitan Transportation Plan provided that 1) the project is consistent with the adopted CORE MPO Non-Motorized Transportation Plan; and 2) the project has a dedicated local sponsor with local match funding commitment.

In summary, the financial balancing of the 2045 MTP highway projects is accomplished through identifying those projects that are progressing towards implementation in a timely manner and those that are of a high local priority. These projects are candidates for remaining in the Cost Feasible Plan. The selected priority projects' costs are adjusted for inflation and then the costs balanced against the anticipated revenues in each cost band. In order to balance the anticipated revenues with the project costs for the financially feasible plan, some projects or project phases have to be removed and pushed back into the Vision Plan.

4.2 2045 MTP Vs 2040 MTP

As outlined in the methodology above, due to continuity of project development and implementation, there will be project overlaps between the 2045 MTP and 2040 MTP. It is necessary, therefore, to check the development status of the 2040 MTP projects to decide which ones will be carried forward and which ones will not.

The 2045 MTP **WILL NOT** include projects in the 2040 MTP that are completed, removed, under construction, or expected to be let for construction by the end of 2019. These projects are listed below.

2040 MTP Projects Not to Be Carried Forward to 2045 MTP	
Project	Status
PI# 533205, Montgomery Cross Road Bridge Replacement @ Casey Canal	Deleted due to lack of progress and local commitment
PI# 0013281, SR 21 Culvert Replacement at Pipemaker Canal	Deleted (now A local project under development by Chatham County)
PI# 0013273, CAT Bikeshare Expansion in Downtown Savannah	Deleted (Funds re-allocated to CAT ITS)
CAT Bike Share Expansion in Downtown Savannah Phase II	Deleted (City of Savannah will regulate private provider – based bikeshare program)
PI# 0007402, Gwinnett Street Widening from Stiles Avenue to I-16	Deleted (Under development with local funds)
Savannah MPO Strategic Planning Studies (Sector Eleven to Sector Fourteen)	Deleted (new studies will be pursued using discretionary PL funds instead of Z230 funds)

PI# 0012722, SR 21 from SR 30 to I-95; Including Interchange (Diverging Diamond Interchange)	Completed
PI# 0010738, I-95 at Airways Avenue Interim Improvements	Completed
PI# 0010553, CS651/Crossgate Rd from SR 21 to NS#734150L in Port Wentworth	Completed
PI# 0013549, SR 21 @ CS 705/Parkside Blvd in Port Wentworth	Completed
PI# 0007259, JIMMY DELOACH PARKWAY @ SR 17 – INTERCHANGE	Under Construction
PI# 522790, JIMMY DELOACH PARKWAY EXTENSION FM I-16 TO SR 26/US 80	Under Construction
PI# 0007129, Islands Expressway at Wilmington River Bascule Bridge Replacement	Under Construction
PI# 0007885, CS 602/CS 650/Grange Rd from SR 21 to E of SR 25	Under Construction
PI# 0002923, SR 25 Conn / Bay Street From I-516 to the Bay Street Viaduct (West Bay Street Widening)	Under Construction
PI# 532370, SR 144 EB FROM S OF CR 100 TO S OF CR 154	Under Construction
PI# 0007631, Truman Linear Park Trail Phase II-A from Lake Mayer to DeRenne Ave	Under Construction
PI# 0013277, PI# 0013278, PI# 0013279 and PI# 0013280 - CAT Vehicle Purchase for 2015 – 2018	Under Construction
PI# 0015977, CAT- Bus Reliability Initiative	Under Construction
PI# 0015978, CAT - Maintenance Equipment Upgrades	Under Construction
PI# 0015979, CAT - Electric Bus Conversion Initiative	Under Construction
PI# 0013282, SR 25 @ PIPEMAKER CANAL - CULVERT REPLACEMENT	Under Construction
Benton Boulevard from Highlands Blvd to Meinhard Rd	Under Construction
Canebrake Road Improvement Project from Gateway Boulevard to Basin Road	Under development with local funds
Marsh Hen Trail, Phase II from East of Old Highway 80 to Battery Drive	Tybee Island project under development
TAP Project Oversight	One-time GDOT request that was included in the MTP and TIP.
McQueens Island Trail	Contract awarded by Chatham County with alternative funds

The Cost Feasible 2045 MTP **WILL** include projects in the 2040 Total Mobility Plan that are in the pipeline for implementation. A lot of these projects are programmed in the FY 2018 – 2021 TIP as shown below.

2040 MTP Projects In the Pipeline for Implementation to Be Carried Forward to 2045 MTP
PI# 0012757, I-16 FROM I-95 TO I-516
PI# 0012758, I-95/I-16 Interchange Reconstruction
PI# 0013741, SR 25/US 17 @ SAVANNAH RIVER IN PORT WENTWORTH
PI# 0013742, SR 25/US 17 @ MIDDLE RIVER IN PORT WENTWORTH
PI# 0015704, SR 404 SPUR/US 17 @ BACK RIVER
PI# 0015705, SR 404 SPUR/US 17 FM NE OF SAVANNAH HARBOR PKWY TO BACK RIVER
PI# 0015306, TRUMAN LINEAR PARK TRAIL – PHASE II-B
PI# 0008358, I-516 @ CS / 1503 / DeRenne Avenue (DeRenne Blvd Option)
PI# 0008359, EAST DERENNE FROM SR 204 TO HARRY S TRUMAN PKWY
PI# 0010236, SR 21 FROM CS 346/MILDRED STREET TO SR 204
PI# 0010028, CS 1097/DELESSEPS/LA ROCHE AVE FM WATERS AVE TO SKIDAWAY RD
PI# 0013727, I-16 @ SR 307
PI# 0006700, EFFINGHAM PKWY FM CR 156/BLOCK JAY/EFFINGHAM TO SR 30/CHATHAM
PI# 0010560, SR 26 FM JOHNNY MERCER TO OLD US 80; INC BULL RVR&LAZARETTO
PI# 0006328, BRAMPTON ROAD CONNECTOR FM FOUNDATION DR TO SR 21/SR25/US80
PI# 521855, SR 26 FROM I-516 TO CS 188/VICTORY DRIVE

The Cost Feasible 2045 MTP **WILL** also include some longer-range projects in the 2040 Total Mobility Plan based on project prioritization results. These are listed in the table below. The prioritization process is based on the 2045 MTP goals and objectives, as well as achieving the performance measures targets.

Long Range 2040 MTP Projects To Be Carried Forward to 2045 MTP
I-95 at SR 21 / Augusta Rd Interchange Reconstruction
President Street / Truman Parkway Interchange Bridge and Ramp Reconstruction
I-516 / Lynes Parkway Widening from Veterans Parkway to Mildred St
I-516 / Lynes Parkway at I-16 Interchange Reconstruction
I-516 / Lynes Parkway Widening from CR 975/Veterans Pkwy to I-16
PI# 0015528, I-16 Widening from CS 565/Pooler Pkwy to I-95
Harris Trail Road Widening from Timber Trail to Port Royal Road
Port Royal Road Widening from SR 144 to Harris Trail Road

4.3 Additional Projects

New highway projects identified through the travel demand modelling process and/or by local sponsors included in the financial constrained 2045 MTP are listed below.

Additional Projects Added to 2045 MTP	
Projects	Source
Gulfstream Widening from SR 21 to Airways Avenue	Travel demand model
I-16 Interchange at Little Neck Road	Local sponsor (Chatham County)
I-95 at Airways Avenue	Local Sponsor (Savannah Airport Commission)
Old River Road Widening from SR 204 to Effingham / Chatham County line	Local Sponsor (Chatham County)
I-95 at Quacco Road	Local Sponsor (Pooler)

4.4 2045 Financially Constrained Highway Plan

The MPO worked closely with the 2045 MTP Working Group and developed a draft fiscally constrained 2045 MTP for highway projects as shown on the next page.

4.5 2045 Financially Constrained Transit Plan

Priority transit capital improvement projects were identified through the CAT's planning process and included in the financially constrained 2045 MTP as the forecasted transit revenues allow. This project list is listed below.

Draft 2045 MTP Cost Feasible Transit Capital Improvements			
Project Description	Cost Band One (2020 - 2027)	Cost Band Two (2028 - 2036)	Cost Band Three (2037 - 2045)
Vehicle Replacement/Expansion - Fixed Route	\$33,720,752	\$41,286,865	\$45,154,837
Vehicle Replacement - Paratransit	\$5,255,182	\$6,434,317	\$7,037,117
Intelligent Transit System (ITS)	\$2,715,177	\$3,324,397	\$3,635,844
Upgraded Farebox and Payment System	\$3,722,421	\$4,557,641	\$4,984,625
Electric Vehicle Infrastructure	\$3,503,455	\$4,289,544	\$4,691,412
Passenger Amenities	\$1,751,727	\$2,144,772	\$2,345,706
Facility Improvement Project - ITC	\$1,532,761	\$1,876,676	\$2,052,493
Facility Improvement Project - Gwinnett	\$1,532,761	\$1,876,676	\$2,052,493
Vanpool Capital	\$788,277	\$965,147	\$1,055,568
Park & Ride Capital	\$4,379,318	\$5,361,931	\$5,864,264
Facility Construction - Ferry Maintenance	\$569,311	\$697,051	\$762,354
Facility Construction - Ferry Dock	\$1,270,002	\$1,554,960	\$1,700,637
Ferry Boat Construction	\$1,401,382	\$1,715,818	\$1,876,565
Total	\$62,142,529	\$76,085,794	\$83,213,913

Tabel 13: 2045 Metropolitan Transportation Plan - Cost Feasible Project List

GDOT PI #	Map ID	Identified Projects			2020-2027				2028-2036 (mid-year 2032)				2037-2045 (mid-year 2041)					
		NAME	TERMINI		Thoroughfare Plan Cross Section	PE	ROW	CST	Total Project Cost	PE	ROW	CST	Total Project Cost	PE	ROW	CST	Total Project Cost	
			FROM	TO														
0008358	1	I-516 @ CS/1503/DeRenne Avenue (DeRenne Blvd. Option)	I-516	White Bluff Road	Major Arterial - Suburban		\$ 18,400,000	\$ 33,000,000	\$ 51,400,000									
0008359	2	East DeRenne from SR 204 to Harry S Truman Parkway (East DeRenne Avenue Improvements)	Abercorn St	Truman Pkwy	Major Arterial - Suburban		\$ 4,700,000	\$ 5,600,000	\$ 10,300,000									
0010236	3	SR 21 from CS 346/Mildred Street to SR 204 (West DeRenne Avenue Improvements)	Mildred Street	Abercorn St	Major Arterial - Suburban		\$ 6,800,000	\$ 4,100,000	\$ 10,900,000									
0013741	4	SR 25/US 17 @ SAVANNAH RIVER IN PORT WENTWORTH	Savannah River		Minor Arterial - Suburban		\$80,580	\$30,564,675	\$30,645,255									
0013742	5	SR 25/US 17 @ MIDDLE RIVER IN PORT WENTWORTH	Middle River		Minor Arterial - Suburban		\$72,420	\$30,238,275	\$30,310,695									
0015704	6	SR 404 SPUR/US 17 @ BACK RIVER	Back River		N/A*			\$1,620,000	\$1,620,000									
0015705	7	SR 404 SPUR/US 17 FM NE OF SAVANNAH HARBOR PKWY TO BACK RIVER	NE of Savannah Harbar Pkwy	Back River	N/A*		\$500,000	\$2,000,000	\$2,500,000									
0006700	8	Effingham Parkway from SR 119/Effingham to SR 30/Chatham	Effingham County	Meinhard Road	Minor Arterial - Suburban			\$ 41,879,134	\$ 41,879,134									
0012757	9	I-16 FROM I-95 TO I-516	I-95	I-516	N/A*		\$ 6,100,000	\$ 205,800,000	\$ 211,900,000									
0012758	10	I-16 at I-95 Interchange Reconstruction	---	---	N/A*													
0013727	11	I-16 @ SR 307			N/A*			\$ 28,155,497	\$ 28,155,497									
521855	12	SR 26 From I-516 to CS 188/Victory Drive (US 80 / Ogeechee Rd Widening)	4 Ln E Lynes Pkwy	Victory Dr	Major Arterial - Urban		\$ -	\$ 16,497,481	\$ 16,497,481									
0006328	13	Brampton Road Connector from Foundation Drive to SR 21/SR 25/US 80	SR 25	Georgia Ports Authority	Collector - Suburban	\$ 1,665,671	\$ -	\$ 60,350,423	\$ 62,016,094									
0010560	14	SR 26/US 80 @ Bull River and @ Lazaretto Creek	West of Bull River	East of Lazeretto Creek	Major Arterial - Suburban	\$ 1,000,000	\$ 280,500	\$ 93,719,188	\$ 94,999,688									
None	15	I-16 Interchange at Little Neck Road	Little Neck Road		N/A*	\$ 2,000,000	\$ 813,717	\$ 30,000,000	\$ 32,813,717									
None	16	I-95 at Airways Avenue	Airways Avenue		N/A*	\$ 3,000,000		\$ 30,000,000	\$ 33,000,000									
None	17	I-516 / Lynes Parkway at I-16 Interchange Reconstruction	At I-16		N/A*									\$ 19,788,105.00			\$ 19,788,105	
0013160	18	I-516 / Lynes Parkway Widening	I-16	Veterans Parkway	N/A*					\$ 14,270,550			\$ 14,270,550			\$ 153,863,204	\$ 153,863,204	
None	19	I-516 / Lynes Parkway Widening	Veterans Parkway	Mildred St	N/A*					\$ 12,610,598	\$ 7,991,650	\$ 113,495,380	\$ 134,097,628					
None	20	I-95 at SR 21 / Augusta Rd Interchange Reconstruction			Major Arterial - Suburban					\$ 5,137,479	\$ 83,912,321		\$ 89,049,800			\$ 104,250,067	\$ 104,250,067	
None	21	President Street / Truman Parkway Interchange Bridge and Ramp Reconstruction	HST Parkway		N/A*					\$ 9,820,608	\$ 3,928,243	\$ 84,457,236	\$ 98,206,087					
0015528	22	I-16 Widening	Pooler Pkwy	I-95	N/A*					\$ 4,508,364			\$ 4,508,364			\$ 62,862,317	\$ 62,862,317	
None	23	Old River Road Widening	SR 204	Effingham County / Chatham County line	Collector - Suburban					\$ 1,016,571	\$ 3,909,890	\$ 11,870,426	\$ 16,796,887					
None	24	Gulfstream Widening	SR 21	Airways Avenue	Collector - Suburban									\$ 6,394,535			\$ 6,394,535	
None	25	I-95 at Quacco Road Interchange Study	I-95	Quacco Road	NA	\$ 450,000			\$ 450,000									
None	26	Harris Trail Road Widening	Timber Trail	Port Rayal Road	Collector - Suburban									\$ 1,722,918	\$ 5,709,638	\$ 21,537,789	\$ 28,970,345	
None	27	Port Royal Road Widening	SR 144	Harris Trail	Collector - Suburban									\$ 1,721,515	\$ 5,164,546	\$ 10,329,091	\$ 17,215,152	
Total Cost									\$ 659,387,561	Total Cost				\$ 356,929,316	Total Cost			\$ 393,343,725
Total Highway Project Revenue									\$ 658,937,561	Total Highway Project Revenue				\$ 361,876,186	Total Highway Project Revenue			\$ 396,790,456
Balance									\$ (450,000)	Balance				\$ 4,946,870	Balance			\$ 3,446,731

GDOT PI #	Map ID	Identified Projects				2020-2027				2028-2036 (mid-year 2032)				2037-2045 (mid-year 2041)					
		NAME	TERMINI		Thoroughfare Plan Cross Section	PE	ROW	CST	Total Project Cost	PE	ROW	CST	Total Project Cost	PE	ROW	CST	Total Project Cost		
			FROM	TO															
TBA		Operational Improvements with project sponsors			Operational Improvements			\$ 58,271,837	\$ 58,271,837			\$ 39,120,705	\$ 39,120,705			\$ 42,785,738	\$ 42,785,738		
Total Cost									\$ 58,271,837	Total Cost				\$ 39,120,705	Total Cost				\$ 42,785,738
Total Operational Set Aside									\$ 58,271,837	Total Operational Set Aside				\$ 39,120,705	Total Operational Set Aside				\$ 42,785,738
Balance									\$0	Balance				\$0	Balance				\$0

TBA		Transit Improvements/Bus Replacements			Transit			\$ 5,600,000	\$ 5,600,000			\$ 6,300,000	\$ 6,300,000			\$ 6,300,000	\$ 6,300,000		
Total Cost									\$ 5,600,000	Total Cost				\$ 6,300,000	Total Cost				\$ 6,300,000
Total Transit Set Aside									\$ 5,600,000	Total Transit Set Aside				\$ 6,300,000	Total Transit Set Aside				\$ 6,300,000
Balance									\$0	Balance				\$0	Balance				\$0

0015306	28	TRUMAN LINEAR PARK TRAIL – PHASE II-B	DeRenne Avenue	52nd Street/Bee Road				\$ 4,405,623	\$ 4,405,623										
0010028	29	CS1097/DeLesseps/LaRoche Avenue From Waters Avenue to Skidaway Road (Bike/Ped Facilities)	Waters Ave	Skidaway Road	Collector - Urban	\$ 25,000		\$ 5,907,205	\$ 5,932,205										
TBA		Priotiy bike/ped projects in the Non-Motorized Transportation Plan with local sponsors			Bike/Ped			\$ 3,000,000	\$ 3,000,000			\$ 4,500,000	\$ 4,500,000			\$ 4,500,000	\$ 4,500,000		
Total Cost									\$ 13,337,828	Total Cost				\$ 4,500,000	Total Cost				\$ 4,500,000
Total Non-Motorized Set Aside									\$ 13,337,828	Total Non-Motorized Set Aside				\$ 4,500,000	Total Non-Motorized Set Aside				\$ 4,500,000
Balance									\$0	Balance				\$0	Balance				\$0

TBA		Maintenance Projects			Maintenance			\$ 65,143,240	\$ 65,143,240			\$ 79,759,791	\$ 79,759,791			\$ 87,232,109	\$ 87,232,109		
Total Cost									\$ 65,143,240	Total Cost				\$ 79,759,791	Total Cost				\$ 87,232,109
Total Maintenance									\$ 65,143,240	Total Maintenance				\$ 79,759,791	Total Maintenance				\$ 87,232,109
Balance									\$0	Balance				\$0	Balance				\$0

Band 1 Highway Project Costs	\$ 659,387,561	Band 2 Highway Project Costs	\$ 356,929,316	Band 3 Highway Project Costs	\$ 393,343,725
Operational Set Aside	\$ 58,271,837	Operational Set Aside	\$ 39,120,705	Operational Set Aside	\$ 42,785,738
Transit Set Aside	\$ 5,600,000	Transit Set Aside	\$ 6,300,000	Transit Set Aside	\$ 6,300,000
Non Motorized Set Aside	\$ 13,337,828	Non Motorized Set Aside	\$ 4,500,000	Non Motorized Set Aside	\$ 4,500,000
Maintenance	\$ 65,143,240	Maintenance	\$ 79,759,791	Maintenance	\$ 87,232,109
Total Band One Costs	\$ 801,740,466	Total Band Two Costs	\$ 486,609,812	Total Band Three Costs	\$ 534,161,572
Total Available Revenues	\$ 801,290,466	Total Available Revenues	\$ 491,556,682	Total Available Revenues	\$ 537,608,304
Balance	\$ (450,000)	Balance	\$ 4,946,870	Balance	\$ 3,446,732

Total Project Costs of all Cost Bands	\$ 1,822,511,850
Total Available Revenues of all Cost Bands	\$ 1,830,455,452
Balance	\$ 7,943,602

Notes:

Blue Text: Projects with construction phase included in the current FY 2018 - 2021 TIP.

Green Text: some project phases are included in the current FY 2018 - 2021 TIP, but construction is not in the TIP.

Red Text: projects are carried over from 2040 MTP.

Purple Text: newly added projects.

Orange Text: projects to be funded with set-aside revenues.

Appendix: Funding Programs

1. Federal Revenue Sources and Funding Programs

Federal funds provide the largest share of funding for transportation improvements in the CORE MPO Metropolitan Planning Area (MPA). Federal funds authorized by Congress are used to build, improve and maintain multimodal transportation networks and services within the CORE MPO MPA. Federal funds typically come from federal taxes on fuel, heavy-duty trucks, and to a growing extent, general funds. Taxes are charged for each gallon of fuel purchase (18.4 cents per gallon for gasoline and 24.4 cents per gallon for diesel). Tax revenues are paid into the Highway Trust Fund (HTF), which is separated into two accounts – a highway account administered by the Federal Highway Administration (FHWA) and a mass transit account administered by the Federal Transit Administration (FTA). The highway account receives about 84% of the proceeds from gasoline fuel taxes and the transit account receives the rest 16%.

The HTF funding allocations are based on authorization legislations. The latest legislation is the Fixing America's Surface Transportation Act (FAST Act) which was signed into law in December 2015 and authorized funds for fiscal years 2016 through 2020. For the 2045 MTP financial plan development, it is assumed that as the FAST Act expires, new legislations or continuing resolutions will be authorized to continue federal transportation funding through 2045.

The FAST Act includes various funding programs for transportation improvements, the major ones relevant to the CORE MPO area are listed below. It should be noted that these funding programs are listed here only to provide information on what kinds of projects are eligible for which programs, as the revenue projections for the 2045 MTP do not differentiate specific funding programs.

1.1 Federal Highway Administration Grants

The FAST Act consolidated and restructured federal grant programs for transportation and introduced some new financing mechanisms for core program funding.

Highway Safety Improvement Program (HSIP)

HSIP grants fund transportation improvement projects that reduce traffic fatalities and serious injuries on all public roads, including non-state-owned public roads and roads on tribal lands. Eligible projects include highway safety improvements, roadway hazard correction, etc. Eligible projects must be consistent with the State Highway Safety Program (SHSP) while achieving state safety targets.

National Highway Performance Program (NHPP)

NHPP grants provide funding for the construction and maintenance of the National Highway System (NHS). The interstate system and all principal arterials are eligible for NHPP funds.

Surface Transportation Block Grant Program (STBG)

The FAST Act converts the long-standing Surface Transportation Program (STP) into the Surface Transportation Block Grant Program (STBG), acknowledging that this program has the most flexible

eligibilities among all Federal-aid highway programs and aligning the program's name with how FHWA has historically administered it. STBG grants provide flexible funding to states and localities for transportation improvement projects. Eligible projects for STBG grants will preserve or improve the conditions and performance on any Federal-aid highway, bridge and tunnel, on any public road, and on pedestrian and bicycle infrastructure. Funding for transit capital projects, such as intercity bus terminals, are also included in the STBG grants. STBG grants can cover up to 80 percent of the total cost of a project, with the balance covered by states or localities.

Transportation Alternatives Program (TAP)

TAP grants provide funds for alternative transportation projects, such as transportation improvement projects relating to pedestrian and bicycle paths and sidewalks. TAP funds may contribute up to 80% of the total eligible project cost. Local governments, regional transportation authorities, transit agencies, and school districts are some of the agencies eligible to receive TAP funds. Eligible TAP projects can include: sidewalk improvements, traffic calming and speed reduction improvements, pedestrian and bicycle crossing improvements, on- and off- street pedestrian and bicycle facilities, etc.

Railway-Highway Crossings Program

The Railway-Highway Crossings Program provides funds for safety improvements to reduce the number of fatalities, injuries, and crashes at public railway-highway grade crossings. This funding is a set-aside from HSIP.

National Highway Freight Program

The National Highway Freight Program focuses on improving the efficient movement of freight on the National Highway Freight Network.

1.2 Federal Transit Administration Grants

The Federal Transit Administration (FTA) issues various competitive grants and cooperative agreements funding public transit operations, maintenance programs and capital purchases. Depending on the grant, the FTA may fund up to 100% of the project cost. FTA grants relevant to public transit providers in the CORE MPO planning area are presented below.

Section 5307 – Large Urban Public Transportation

The Urbanized Area Formula Funding program makes Federal resources available to urbanized areas (population of 50,000+) for transit capital and operating assistance and transportation related planning. Public transit providers may use Section 5307 grants to provide mobility management services to members of the public. Contracted mobility services may also be funded by Section 5307 grants. The Chatham Area Transit Authority (CAT) is the designated recipient of Section 5307 funds in the Savannah area.

Section 5310 – Enhanced Mobility of Seniors and Individuals with Disabilities

Section 5310 grants are available to transit agencies that provide public transit services improving the mobility for seniors and disabled persons. Section 5310 grants enable public transit providers to go beyond meeting the mobility requirements of the Americans with Disabilities Act (ADA). Eligible projects include: 1) capital projects that improve access to transit for seniors and persons

with disabilities, e.g., specialized vehicle purchase; and, 2) communication equipment, such as two-way radios. The Georgia Department of Human Services (DHS) is the designated recipient of Section 5310 funds in the Savannah area.

Section 5311 – Other than Urbanized Areas

Section 5311 grants are available to transit agencies that provide service in rural areas with population of less than 50,000. Section 5311 grants seek to: 1) Enhance the access of people in rural areas to health care, shopping, education, employment, public services, and recreation; 2) Assist in the maintenance, development, improvement, and use of public transit in rural areas; 3) Assist in the development and support of intercity bus transportation; and 4) Provide for the participation of private transportation providers in rural transportation. Eligible activities using these grant funds include: acquisition of public transportation services and capital, operating, and administrative expenses on providing public transit services in rural areas. GDOT is the designated recipient and the Coastal Regional Commission (CRC) is the sub-recipient of Section 5311 funds in the Savannah area.

Section 5337 – State of Good Repair

Section 5337 grants provide financial assistance to public transit agencies that operate rail fixed-guideway and high-intensity motorbus systems for the maintenance, replacement, and rehabilitation of capital assets, along with the development and implementation of transit asset management plans. These funds reflect a commitment to ensuring that public transit operates safely, efficiently, reliably, and sustainably so that communities can offer balanced transportation choices that help to improve mobility, reduce congestion, and encourage economic development.

Section 5339 – Bus and Bus Facilities Program

Section 5339 discretionary funds provide funding to replace, rehabilitate, and purchase buses and related equipment, and to construct bus-related facilities. Grant funds can be used to purchase shelters and bus stop signs, bicycle infrastructure tied to transit, and electronic communications.

2. State Revenue Sources for Transportation Improvements

States are major contributors of funds for transportation improvement projects, often the second largest contributor after the Federal Government. With reductions in the availability of federal funds for transportation projects, states have had to develop innovative funding programs at the state level to make up for any shortfalls. The state funds are used to match the federal grant funds or to develop transportation improvement projects without the lengthy federal process. Of particular interest in Georgia are the funds from State Motor Fuel Tax and from House Bill 170.

2.1 Georgia State Motor Fuel Tax

The State Excise Tax funds are collected through the licensed distributors (suppliers, wholesalers) on all sales of motor fuel to any purchaser not properly licensed as a Georgia distributor of that fuel type. Sales of aviation gasoline are generally subject to a 1 cent per gallon excise tax so long as the sale is made to a duly licensed aviation gasoline distributor ("AL" license type); if not, a 26.8 cent rate per gallon will apply.

The following rates are in effect from January 1, 2018 until December 31, 2018.

Motor Fuel Type	State Excise Tax Rate
1. Gasoline	\$ 0.268 Per Gallon
2. Diesel	\$ 0.300 Per Gallon
3. Aviation Gasoline	\$ 0.010 Per Gallon
4. Liquefied Petroleum Gas	\$ 0.268 Per Gallon
5. Special Fuel and Compressed Petroleum Gas	\$ 0.268 Per Gallon
Source: Georgia Department of Revenue	

2.2 Georgia House Bill 170

The Transportation Funding Bill, House Bill 170 (HB 170), was passed on March 31, 2015 and made effective on July 1, 2015. The new legislation:

- Established a 26 cent per gallon state excise tax on gasoline and 29 cents per gallon state excise tax on diesel;
- Changed the current indexing formula to include both the Corporate Average Fuel Economy (CAFÉ) standards and Consumer Price Index (CPI) through July 1, 2018;
- Included additional oversight by the Georgia General Assembly, requiring GDOT to annually submit a ten (10) year strategic plan outlining the use of department resources for upcoming fiscal years;
- Created a Special Joint Committee on the Georgia Revenue Structure (i.e., Tax Reform);
- Authorized a cap on the average retail price for fuel that local sales taxes can collect, at a rate of \$3.00 per gallon for motor fuel, including diesel; and
- Allowed counties — either alone or in groups — to ask voters to approve up to a 1 percent sales tax to fund transportation projects close to home.

The new state transportation revenue will ultimately increase funds available statewide by \$750 million to \$1 billion each year. These funds will be used on maintenance and state of good repair and acceleration of some major capacity projects.

3. Local Revenue Sources for Transportation Improvements

Most of the roadways and bridges in the CORE MPO MPA are owned and maintained by a city or county government. Transportation funds generated by local sources, either for a match against federal and state awards, or to advance projects independently of those sources, are an important part of the 2045 MTP revenues.

Local government funding for transportation comes primarily from several sources: Special Purpose Local Option Sales Taxes (SPLOST), local government general fund expenditures, transit sales tax, transit farebox receipts, and transit district tax.

3.1 Special Purpose Local Option Sales Taxes (SPLOST)

A SPLOST is a financing method for funding capital outlay projects in the State of Georgia. It is an optional 1% sales tax levied by a county for the purpose of building parks, schools, roads and other public facilities. The revenue generated cannot be used towards operating expenses or most other maintenance projects, with the exception of roads and bridges.

In the Savannah area, the Counties of Bryan, Chatham and Effingham all have their respective SPLOST program. The local governments receiving SPLOST funds typically dedicate a portion of the revenues to fund transportation, though the percentages vary. All three counties have a long history of approving and renewing SPLOST programs and are planning to increase the portion of funds for transportation improvements. It should be noted that SPLOST programs are subject to voter approval and run for a limited period, usual five to six years. For purposes of the 2045 MTP financial plan development, though, all three counties are assumed to have this revenue stream available through 2045.

3.2 General Funds

Another local funding source for transportation improvements is general funds. However, expenditures for transportation must go through an annual budgeting process and compete against other uses.

3.3 Transit System Revenues and Transit District Revenues

In Georgia, as required by the Georgia Constitution, state motor fuel tax revenues cannot support transit or any transportation purpose other than roadways and bridges. Since there is not a dedicated state funding source for transit, the locally derived transit funds are crucial to the future of the transit systems in the Savannah area. The U.S. Department of Transportation requires a commitment for operating support from state, regional, or local governments before allowing federal funds to be spent on the construction and implementation of transit projects. The majority of transit operating funds must come from state and local funding resources as federal transit operating funds are very limited.

There are two public transit agencies operating within the CORE MPO's MPA – the Chatham Area Transit Authority (CAT) and the Coastal Regional Commission (CRC). CAT is a direct recipient of FTA funds and CRC is a sub-recipient of GDOT.

CAT is the major public transportation provider in the Savannah area. It's capital programs and operations are supported by federal grants, the Special Transit Tax District funds (a levy of 1.0 mill property tax within this district), the county-wide paratransit tax from Chatham County's M&O funds, special purpose local option sales tax allocations, and CAT's system revenues (farebox receipts, advertising sales, etc.).

CRC provides coordinated human service and rural public transit across 10 counties and 35 municipalities within the coastal region that includes the rural areas of the CORE MPO's MPA. The operations of the Coastal Regional Coaches are supported by federal grants, state matching funds, and the CRC's system revenues.

4. Other Revenue Sources for Transportation Improvements

Other revenue sources that can be used to improve the transportation system are listed below.

Bonds: Some transportation improvement projects might be financed through the issuance of bonds, which is a debt security, in which the authorized issuer owes the holders a debt and, depending on the terms of the bond, is obliged to pay interest to use and/or to repay the principal at a later date, termed maturity.

Public-Private Partnerships: Some transportation improvement projects might be financed through public-private partnerships (P3), which involve a contract between a public-sector authority and a private party, in which the private party provides a public service or project and assumes substantial financial, technical and operational risk in the project. There are different types of P3. FHWA encourages the consideration of P3 in the development of transportation improvements.

5. Major Mobility Investment Program (MMIP)

Georgia DOT is advancing the Major Mobility Investment Program across the state in an effort to yield a significant reduction in congestion along key freight and passenger corridors. Once the projects are completed, they will lead to reductions in delay and travel time savings in the year 2030, as compared to doing nothing and allowing traffic congestion to increase. The funding for the MMIP projects is based on statewide priorities and might be in addition to the revenues an MPO receives based on their regular share of the state obligation authority.

Two related projects in the Savannah area are included in the MMIP program - I-16 @ I-95 Interchange Reconstruction and I-16 Widening. These projects will improve traffic flow and enhance safety along I-16 and I-95, one of Georgia's busiest freight corridors as well as the gateway to Georgia's growing port in Savannah. The projects include:

- Widening I-16 from two lanes to three lanes in each direction between I-95 and I-516;
- Rebuilding two congested on/off ramps on the west side of the I-16/I-95 interchange to provide smoother, more direct connections;
- Adding collector-distributor (CD) lanes on I-95 northbound to help eliminate weaving to and from I-16;
- Adding lighting at the I-16@I-95 interchange; and
- Installing Intelligent Transportation System (ITS) technology to link to Georgia NaviGator.



PROJECT PAGES



2045 Cost Feasible Transportation Plan

PROJECT STATUS

Cost Band One

Longer Range

CORE Metropolitan Planning Area

Cost Band One

Longer Range

Cost Band One

1. I-516 Eastern Terminus Interchange at DeRenne
2. East DeRenne Avenue Improvements
3. West DeRenne Avenue Improvements
4. SR 25/US 17 Bridge Replacement @ Savannah River
5. SR 25/US 17 Bridge Replacement @ Middle River
6. 404 Spur/US 17 Savannah Harbor Parkway to Back River
7. New Bridge Construction: SR 404 SPUR / US 17 at Back River
8. Effingham Parkway Construction
9. Widening: I-16 between I-95 & I-516
10. Interchange Reconstruction: I-95 @ I-16
11. Interchange Improvements: I-16 @ SR 307
12. Widening: SR 26 / US 80 / Ogeechee Rd
13. Brampton Road Connector (New)
14. Bridge Replacement: SR 26/US 80 @ Bull River and @ Lazaretto Creek and road reconstruction
15. Interchange Improvements at I-16 @ Little Neck Road
16. Interchange Improvements at I-95 @ Airways Avenue
25. Interchange Study at Quacco Road and I-95
28. Truman Linear Park Trail, Phase 2B
29. Bike/Ped Facilities: CS1097 / DeLesseps / LaRoche Avenue

Longer Range (Cost Band 2 & 3)

17. Interchange Reconstruction: I-516 / Lynes Parkway @ I-16
18. Widening: I-516 between I-16 & Veterans Pkwy
19. Widening: I-516 between Veterans Pkwy & Mildred St
20. Interchange: I-95 at SR 21 / Augusta Rd
21. Interchange Bridge and Ramp Reconstruction: President Street & Truman Pkwy
22. Widening: I-16 between Pooler Pkwy & I-95
23. Old River Road Widening
24. Gulfstream Widening
26. Harris Trail Road Widening
27. Port Royal Road Widening

*Projects not mapped include transit capital investments and projects that are funded with non-motorized and operations set asides funds

PROJECT NAME: I-516 @ CS/1503/DeRenne Avenue (DeRenne Boulevard Option)		GDOT PI #: 0008358	
PROJECT TERMINI: I-516 to White Bluff Road			
PROJECT DESCRIPTION: Reduce traffic congestion on DeRenne Avenue by providing a new four-lane divided connector from I-516 to a realigned White Bluff Road.			
Thoroughfare Type: Major Arterial Suburban		Map Project ID: 1	Total Project Cost: \$51,400,000
Comments: This project, a priority for the City of Savannah, addresses congestion, safety, and includes coordination with adjacent land uses to enhance the visual appearance of the corridor and promote a sense of place while incorporating accommodations for all travel modes. Mobility 2045 Plan Goals addressed by the project: <ul style="list-style-type: none">• Safety & Security• Accessibility, Mobility, and Connectivity• Environment and Quality of Life• System performance			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering			
Right-of-Way	\$18,400,000		
Construction	\$33,000,000		



PROJECT NAME: East DeRenne from SR 204 to Harry S Truman Parkway (East DeRenne Avenue Improvements)		GDOT PI #: 0008359	
PROJECT TERMINI: Abercorn Street to Truman Parkway			
PROJECT DESCRIPTION: Construct a landscaped median and sidewalks, establish a parallel bicycle route along DeRenne Drive and improve signalized intersections			
Thoroughfare Type: Major Arterial Suburban		Map Project ID: 2	
		Total Project Cost: \$10,300,000	
Comments: The project complements the interchange modifications at DeRenne Avenue and I-516 and improvements on West DeRenne. This project addresses multimodal accommodation, safety, and the operational efficiency of the facility. Mobility 2045 Plan Goals addressed by the project: <ul style="list-style-type: none">Safety & SecurityAccessibility, Mobility, and ConnectivityEnvironment and Quality of LifeSystem performance			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering			
Right-of-Way	\$4,700,000		
Construction	\$5,600,000		



PROJECT NAME: SR 21 from CS 346/Mildred Street to SR 204 (West DeRenne Avenue Improvements)		GDOT PI #: 0010236	
PROJECT TERMINI: Mildred Street to Abercorn Street			
PROJECT DESCRIPTION: Improve the raised median, signalized intersections and sidewalks			
Thoroughfare Type: Major Arterial Suburban		Map Project ID: 3	Total Project Cost: \$10,900,000
Comments: The project complements the interchange modifications at DeRenne Avenue and I-516 and improvements on East DeRenne. This project addresses multimodal accommodation, safety, and the operational efficiency of the facility. Mobility 2045 Plan Goals addressed by the project: <ul style="list-style-type: none">• Safety & Security• Accessibility, Mobility, and Connectivity• Environment and Quality of Life• System performance			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering			
Right-of-Way	\$6,800,000		
Construction	\$4,100,000		



PROJECT NAME: SR 25/US 17 @ Savannah River in Port Wentworth		GDOT PI #: 0013741	
PROJECT TERMINI: Savannah River			
PROJECT DESCRIPTION: Bridge replacement			
Thoroughfare Type: Minor Arterial Suburban		Map Project ID: 4	Total Project Cost: \$30,645,255
Comments: Bridge replacement. Mobility 2045 Plan Goals addressed by the project: <ul style="list-style-type: none">• Safety & Security• Accessibility, Mobility, and Connectivity• Intergovernmental Coordination• State of good repair• System performance			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering			
Right-of-Way	\$80,580		
Construction	\$30,564,675		



PROJECT NAME: SR/US 17 @ Middle River in Port Wentworth		GDOT PI #: 0013742	
PROJECT TERMINI: Middle River			
PROJECT DESCRIPTION: Bridge replacement			
Thoroughfare Type: Minor Arterial Suburban		Map Project ID: 5	Total Project Cost: \$30,310,695
Comments: Bridge replacement. Mobility 2045 Plan Goals addressed by the project: <ul style="list-style-type: none">• Safety & Security• Accessibility, Mobility, and Connectivity• Intergovernmental Coordination• State of good repair• System performance			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering			
Right-of-Way	\$72,420		
Construction	\$30,238,275		



PROJECT NAME: SR 404 Spur/US17@ Back River		GDOT PI #: 0015704	
PROJECT TERMINI: Back River			
PROJECT DESCRIPTION: Bridge replacement			
Thoroughfare Type: N/A		Map Project ID: 6	
		Total Project Cost: \$1,620,000	
<p>Comments: Bridge replacement. The South Carolina Department of Transportation (SCDOT) is developing this new bridge project in coordination with the Georgia Department of Transportation (GDOT) as a part of the US 17 Widening project. The bridge is located within Chatham County. A new two lane bridge structure would be constructed over the Back River to accommodate the additional travel lanes. The proposed bridge will consist of a 58.5-foot bridge cross section that features two 12-foot lanes, two 10-foot shoulders, a 10-foot multi-use path, and three 1.5-foot parapets. Upon completion of the proposed project, the existing two-lane bridge would accommodate southbound traffic and the new two-lane bridge would accommodate northbound traffic. Mobility 2045 Plan Goals addressed by the project:</p> <ul style="list-style-type: none">• Safety & Security• Accessibility, Mobility, and Connectivity• Intergovernmental Coordination• State of good repair• System performance			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering			
Right-of-Way			
Construction	\$1,620,000		



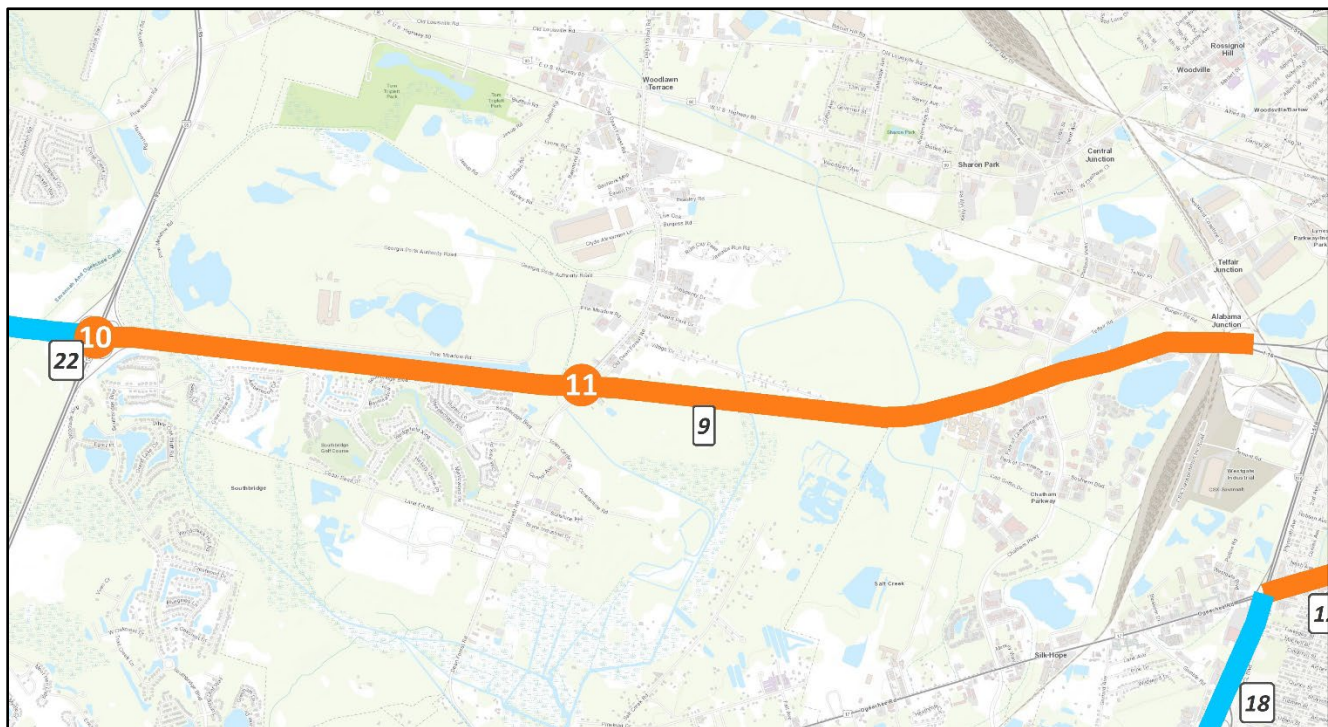
PROJECT NAME: SR 404 Spur/US17@ Back River		GDOT PI #: 0015705	
PROJECT TERMINI: NE of Savannah Harbor Parkway			
PROJECT DESCRIPTION: Bridge replacement			
Thoroughfare Type: N/A		Map Project ID: 7	
		Total Project Cost: \$2,500,000	
<p>Comments: Bridge replacement. SCDOT in cooperation with FHWA and GDOT, proposes widening and improvements of U.S. 17 from Hutchinson Island in Savannah, Chatham County, Georgia to South Carolina (S.C.) 315 located southwest of Bluffton, South Carolina. Approximately 3,000 feet of the project corridor is located in Chatham County, Georgia. The proposed improvements include the widening of U.S. 17 from two to four travel lanes, divided by a grassed median. Mobility 2045 Plan Goals addressed by the project:</p> <ul style="list-style-type: none">• Safety & Security• Accessibility, Mobility, and Connectivity• Intergovernmental Coordination• State of good repair• System performance			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering			
Right-of-Way	\$500,000		
Construction	\$2,000,000		



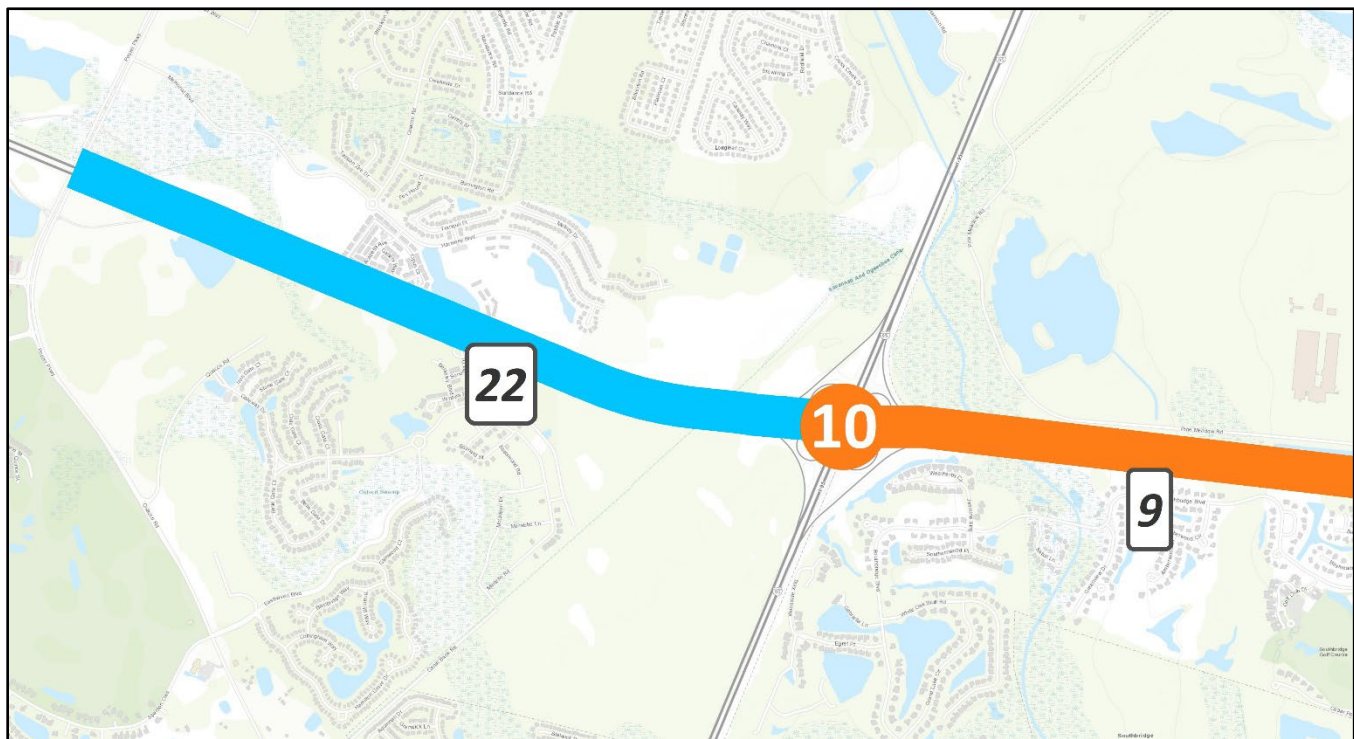
PROJECT NAME: Effingham Parkway from SR 119/Effingham to SR 30/Chatham		GDOT PI #: 0006700	
PROJECT TERMINI: Effingham County to Meinhard Road			
PROJECT DESCRIPTION: New facility extending from Effingham County into Chatham County at Meinhard Road			
Thoroughfare Type: Minor Arterial Suburban		Map Project ID: 8	Total Project Cost: \$26,184,427
Comments: This project provides additional capacity and access into Chatham County from Effingham County, primarily serving commuter traffic. The facility will be built as a two lane facility in Cost Band 1 subsequently expanded to a four lane facility. Mobility 2045 Plan goals addressed by this project: <ul style="list-style-type: none">• System performance• Safety & Security• Accessibility, Mobility, and Connectivity• Intergovernmental Coordination			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering			
Right-of-Way			
Construction	\$41,879,134		



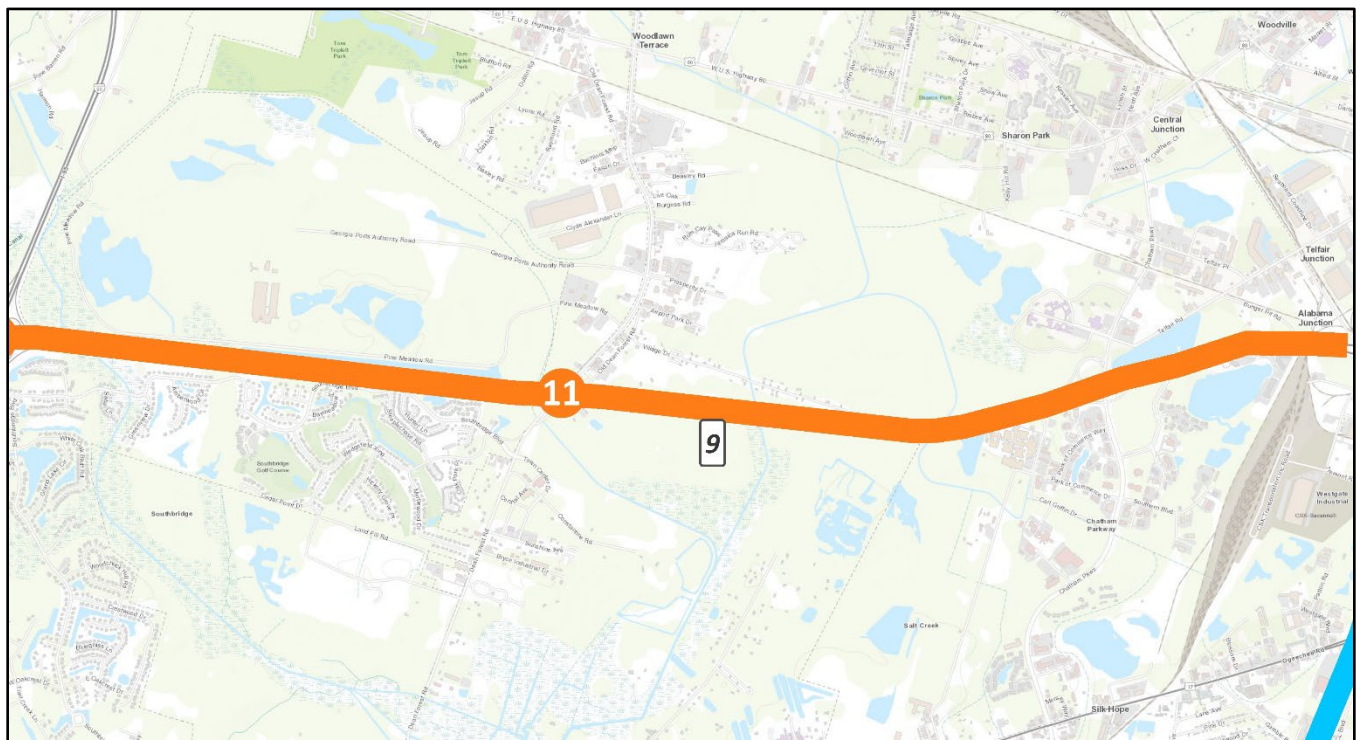
PROJECT NAME: I-16 from I-95 to I-516		GDOT PI #: 0012757	
PROJECT TERMINI: I-95 to I-516			
PROJECT DESCRIPTION: Widening			
Thoroughfare Type: N/A		Map Project ID: 9	
		Total Project Cost: \$211,900,000	
Comments: This is a much-needed widening project identified in both the CORE MPO plan and GDOT’s Chatham County Interstate Needs Analysis and Prioritization Plan and the Statewide Freight and Logistics Plan. Mobility 2045 Plan goals addressed by this project: <ul style="list-style-type: none">• Safety & Security• State of good repair• System performance• Accessibility, Mobility and Connectivity			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering			
Right-of-Way	\$6,100,000		
Construction	\$205,800,000		



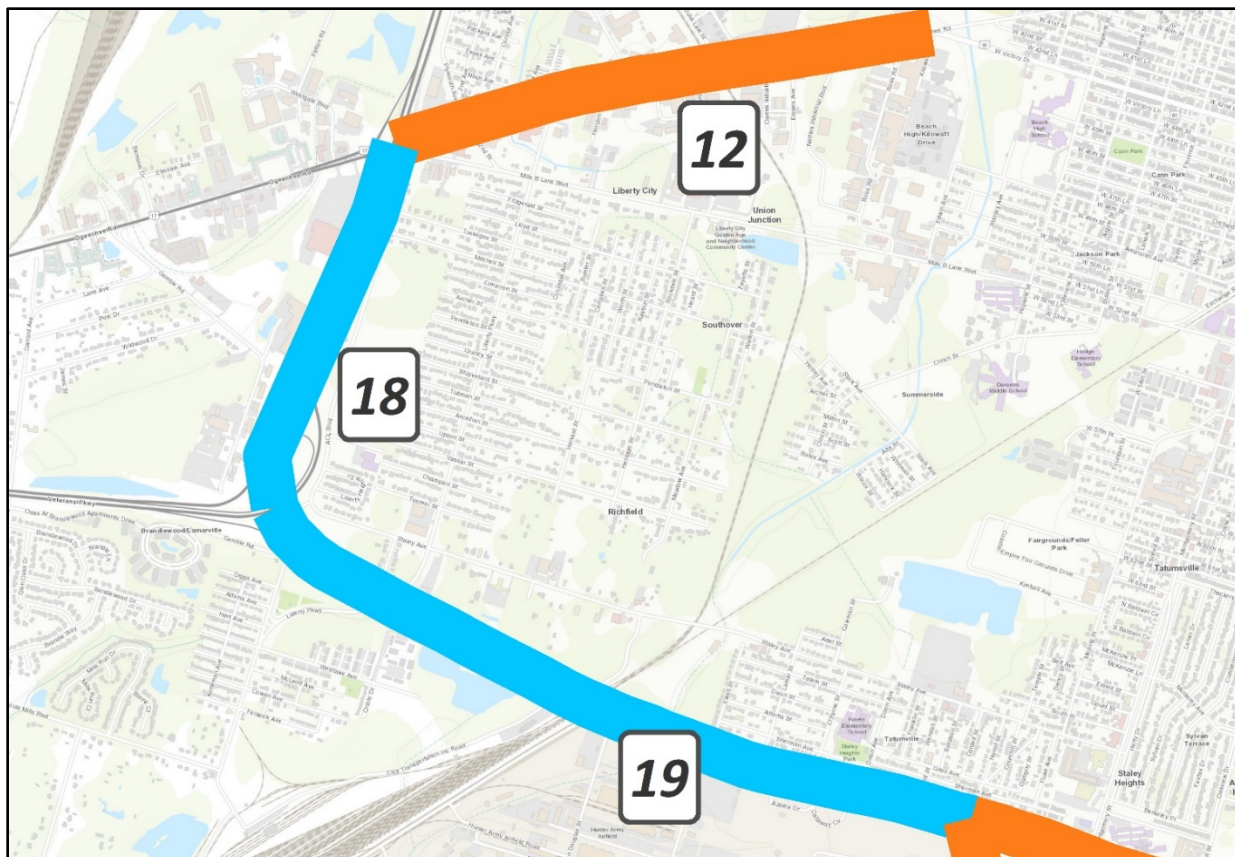
PROJECT NAME: I-16 at I-95 Interchange Reconstruction		GDOT PI #: 0012758	
PROJECT TERMINI: At I-16 and I-95			
PROJECT DESCRIPTION: Interchange Reconstruction			
Thoroughfare Type: N/A	Map Project ID: 10	Total Project Cost: See I-16 Widening I-95 to I-516	
Comments: This project is to reconstruct the interchange at I-95 and I-16. The project will address safety and weaving issues associated with the current configuration and is consistent with the Chatham County Interstate Needs Analysis and Prioritization Plan and the Statewide Freight and Logistics Plan. Mobility 2045 Plan goals addressed by this project: <ul style="list-style-type: none">• Safety & Security• State of good repair• System performance• Accessibility, Mobility and Connectivity			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering			
Right-of-Way			
Construction			



PROJECT NAME: I-16 at SR 307		GDOT PI #: 0013727	
PROJECT TERMINI: at SR 307			
PROJECT DESCRIPTION: Interchange			
Thoroughfare Type: N/A		Map Project ID: 11	Total Project Cost: \$28,155,497
<p>Comments: The proposed project will provide operational improvements to the 1-16 at State Route 307/Dean Forest Road Interchange. The project includes widening and relocation of the existing ramps and reconstruction to a diverging diamond interchange (DDI). The SR 307/Dean Forest Road bridge over 1-16 will also be replaced. Mobility 2045 Plan goals addressed by the project:</p> <ul style="list-style-type: none">• Safety & Security• State of good repair• System performance• Accessibility, Mobility and Connectivity			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering			
Right-of-Way			
Construction	\$28,155,497		



PROJECT NAME: SR 26 From I-516 to CS 188/Victory Drive (US 80 / Ogeechee Rd Widening)		GDOT PI #: 521855	
PROJECT TERMINI: I-516/Lynes Parkway to Victory Drive			
PROJECT DESCRIPTION: Widen SR 26/US 80/Ogeechee Road to four lanes with bicycle lanes and a raised median			
Thoroughfare Type: Major Arterial Urban		Map Project ID: 12	Total Project Cost: \$16,497,481
Comments: This project, a priority for the City of Savannah, will provide additional capacity on an evacuation route, increase bicycle and pedestrian safety, as well as vehicular safety, and mitigate flooding issues. Mobility 2045 Plan goals addressed by this project: <ul style="list-style-type: none">• Safety & Security• System performance• Accessibility, Mobility and Connectivity• Environment and Quality of Life			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering			
Right-of-Way			
Construction	\$16,497,481		



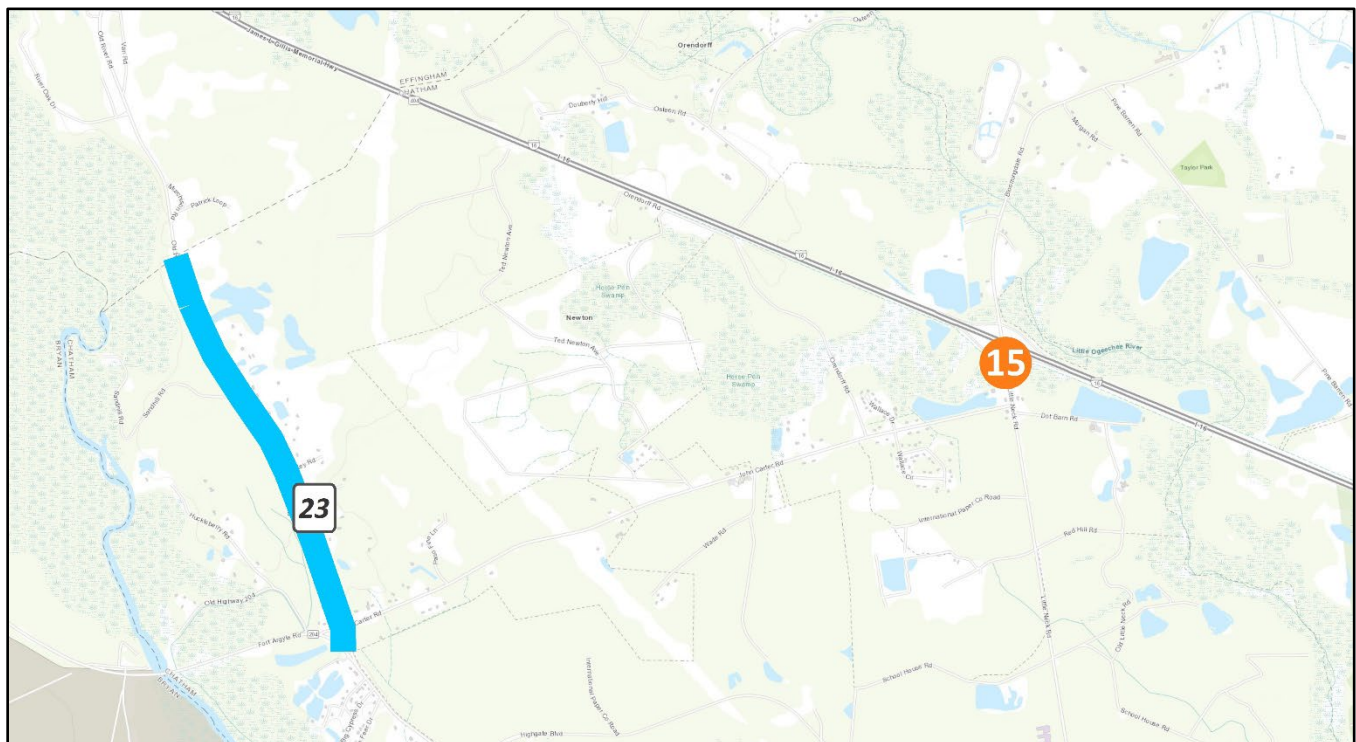
PROJECT NAME: Brampton Road Connector from Foundation Drive to SR 21/SR 25/US 80		GDOT PI #: 0006328	
PROJECT TERMINI: SR 25 to Georgia Ports Authority			
PROJECT DESCRIPTION: New four lane facility connecting Brampton Road, Georgia Ports Authority to SR 25, SR 21 and US 80.			
Thoroughfare Type: Collector Suburban	Map Project ID: 13		Total Project Cost: \$62,016,094
Comments: This project, a priority of the Georgia Ports Authority, provides direct access to the Interstate system for the heavy trucks associated with the Port of Savannah and improves efficiency of the movements of good and freights between the port, intermodal terminal and highway system. This project is consistent with the Statewide Freight and Logistics Plan. Mobility 2045 Plan goals addressed by this project: <ul style="list-style-type: none">• Safety & Security• System performance• Accessibility, Mobility and Connectivity• Environment and Quality of Life			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering	\$1,665,671		
Right-of-Way			
Construction	\$60,350,423		



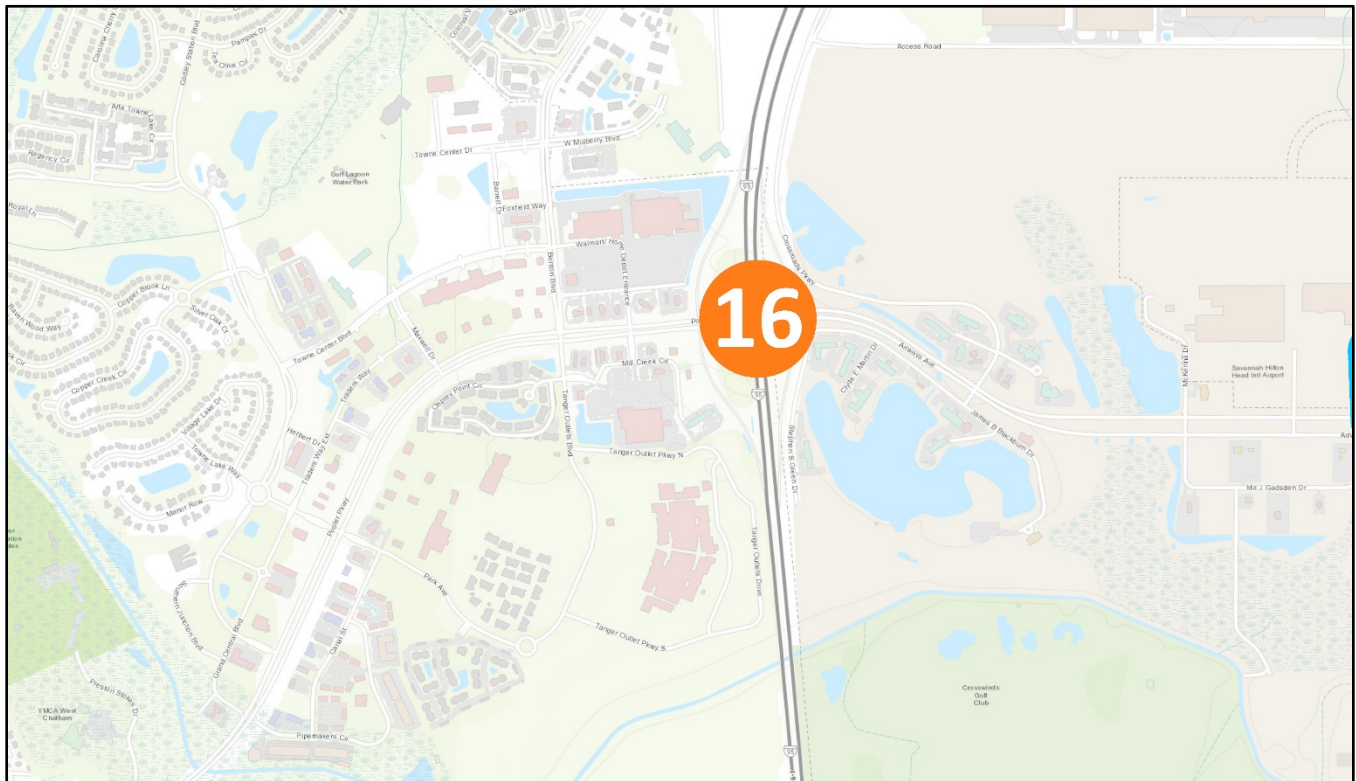
PROJECT NAME: SR 26/US 80 at Bull River and at Lazaretto Creek		GDOT PI #: 0010560	
PROJECT TERMINI: West of Bull River to East of Lazaretto Creek			
PROJECT DESCRIPTION: US 80 bridge replacements at Bull River and Lazaretto Creek and roadway safety improvements between the bridges			
Thoroughfare Type: Major Arterial Suburban		Map Project ID: 14	Total Project Cost: \$94,999,688
<p>Comments: The project improves emergency access and additional capacity for congestion or incident relief; provides access for bicyclists and pedestrian to Tybee Island and McQueens Trail; improves capacity for hurricane or event evacuation and improves conditions of flood prone areas. Mobility 2045 Plan goals addressed by the project:</p> <ul style="list-style-type: none">• Safety & Security• System performance• Accessibility, Mobility and Connectivity• Environment and Quality of Life			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering	\$1,000,000		
Right-of-Way	\$280,500		
Construction	\$93,719,188		



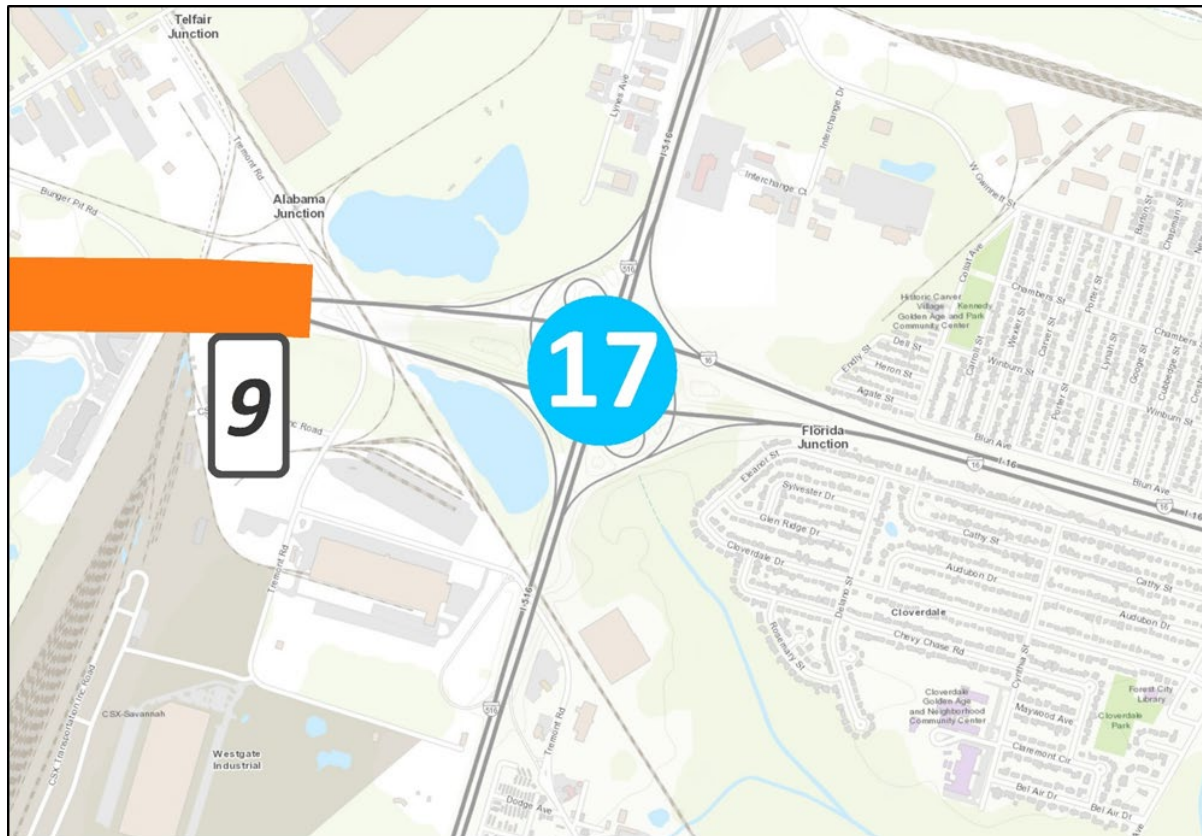
PROJECT NAME: I-16 interchange at Little Neck Road		GDOT PI #: N/A	
PROJECT TERMINI: Little Neck Road			
PROJECT DESCRIPTION: Interchange reconstruction			
Thoroughfare Type: N/A	Map Project ID: 15		Total Project Cost: \$32,813,717
Comments: Interchange reconstruction. Mobility 2045 Plan goals addressed by the project: <ul style="list-style-type: none">• System performance• Accessibility, Mobility and Connectivity			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering	\$2,000,000		
Right-of-Way	\$813,717		
Construction	\$30,000,000		



PROJECT NAME: I-95 at Airways Avenue		GDOT PI #: N/A	
PROJECT TERMINI: Airways Avenue			
PROJECT DESCRIPTION: Interchange reconstruction			
Thoroughfare Type: N/A		Map Project ID: 16	Total Project Cost: \$33,000,000
<div>Comments: Interchange reconstruction. Mobility 2045 Plan goals addressed by the project:</div> <ul style="list-style-type: none">System performanceAccessibility, Mobility and Connectivity			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering	\$3,000,000		
Right-of-Way			
Construction	\$30,000,000		



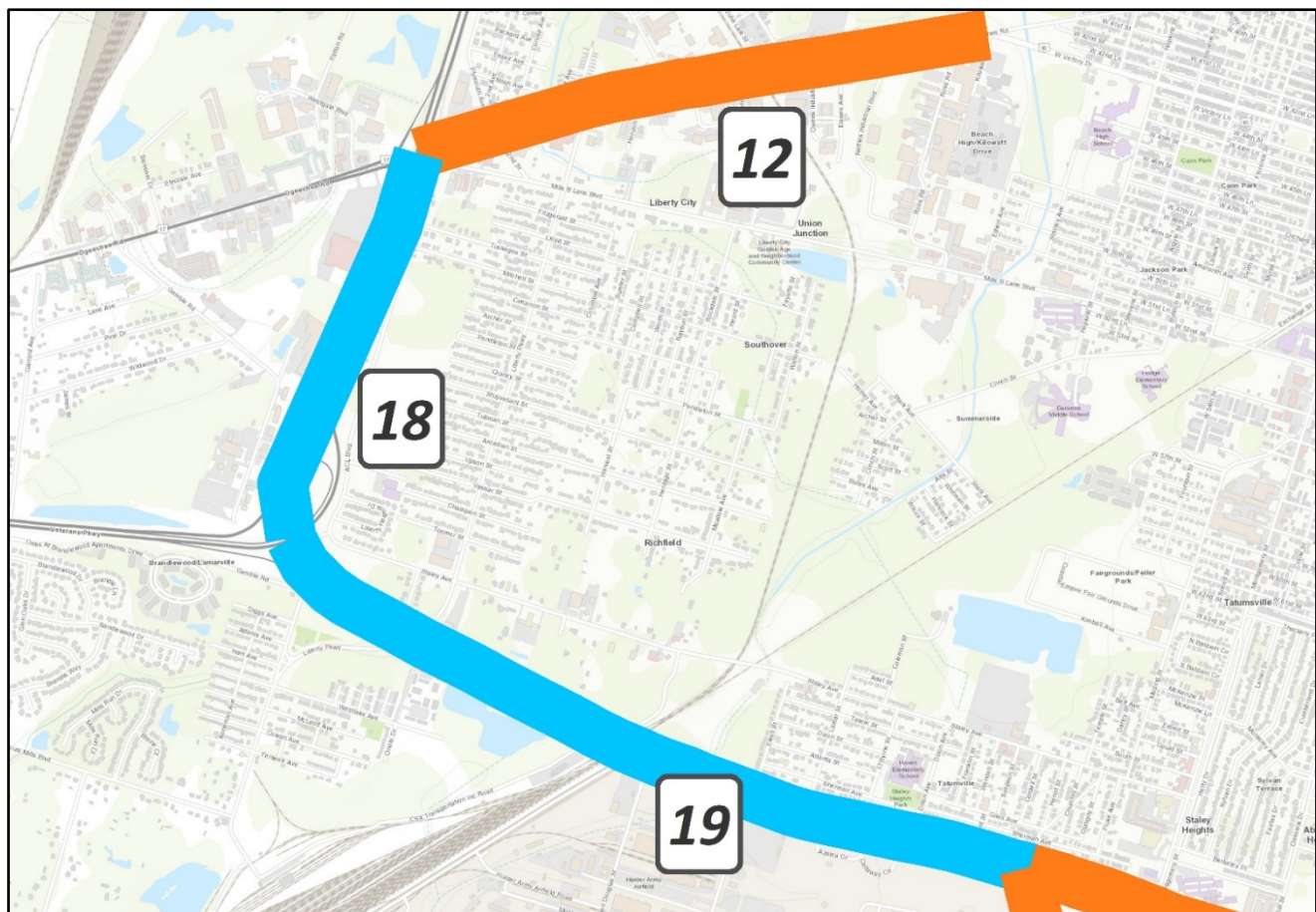
PROJECT NAME: I-516/Lynes Parkway at I-16 Interchange		GDOT PI #: N/A	
PROJECT TERMINI: At I-16 and I-516			
PROJECT DESCRIPTION: Interchange Reconstruction			
Thoroughfare Type: N/A	Map Project ID: 17		Total Project Cost: \$19,788,105
<p>Comments: This project is to reconstruct the interchange at I-516 and I-16. The project will address safety and weaving issues associated with the current configuration and will increase the operational capacity of the interchange, which is utilized by a large number of heavy trucks and is also a designated evacuation facility. Mobility 2045 Plan goals addressed by this project:</p> <ul style="list-style-type: none">• Safety & Security• System performance• Accessibility, Mobility and Connectivity			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering			\$19,788,105
Right-of-Way			
Construction			



PROJECT NAME: I-516/Lynes Parkway Widening		GDOT PI #: N/A	
PROJECT TERMINI: Veterans Parkway to Mildred Street			
PROJECT DESCRIPTION: Widen I-516/Lynes Parkway			
Thoroughfare Type: N/A		Map Project ID: 18	
		Total Project Cost: \$134,097,628	
<p>Comments: This project adds additional capacity in each direction on I-516. I-516 provides access to I-1 for evacuation, as well as access to Hunter Army Air Base. Mobility 2045 Plan goals addressed by this project:</p> <div><ul style="list-style-type: none">Safety & SecuritySystem performanceAccessibility, Mobility and Connectivity</div>			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering		\$12,610,598	
Right-of-Way		\$7,991,650	
Construction		\$113,495,380	



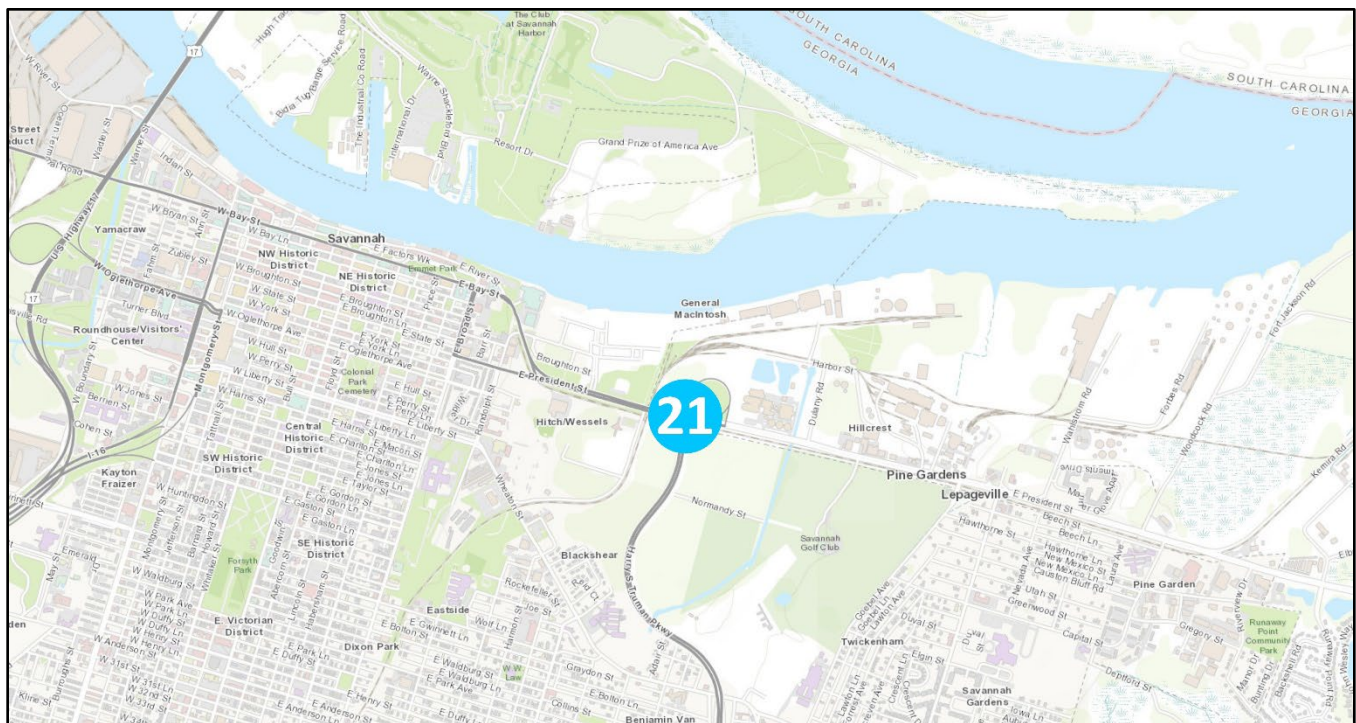
PROJECT NAME: I-516/Lynes Parkway Widening		GDOT PI #: 0013160	
PROJECT TERMINI: I-16 to Veterans Parkway			
PROJECT DESCRIPTION: Widen I-516/Lynes Parkway			
Thoroughfare Type: N/A		Map Project ID: 19	Total Project Cost: \$168,133,754
<p>Comments: This project adds additional capacity in each direction on I-516. I-516 provides access to I-16 for evacuation, as well as access to the Port of Savannah area. Mobility 2045 Plan goals addressed by this project:</p> <ul style="list-style-type: none">• Safety & Security• System performance• Accessibility, Mobility and Connectivity			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering		\$14,270,550	
Right-of-Way			
Construction			\$153,863,204



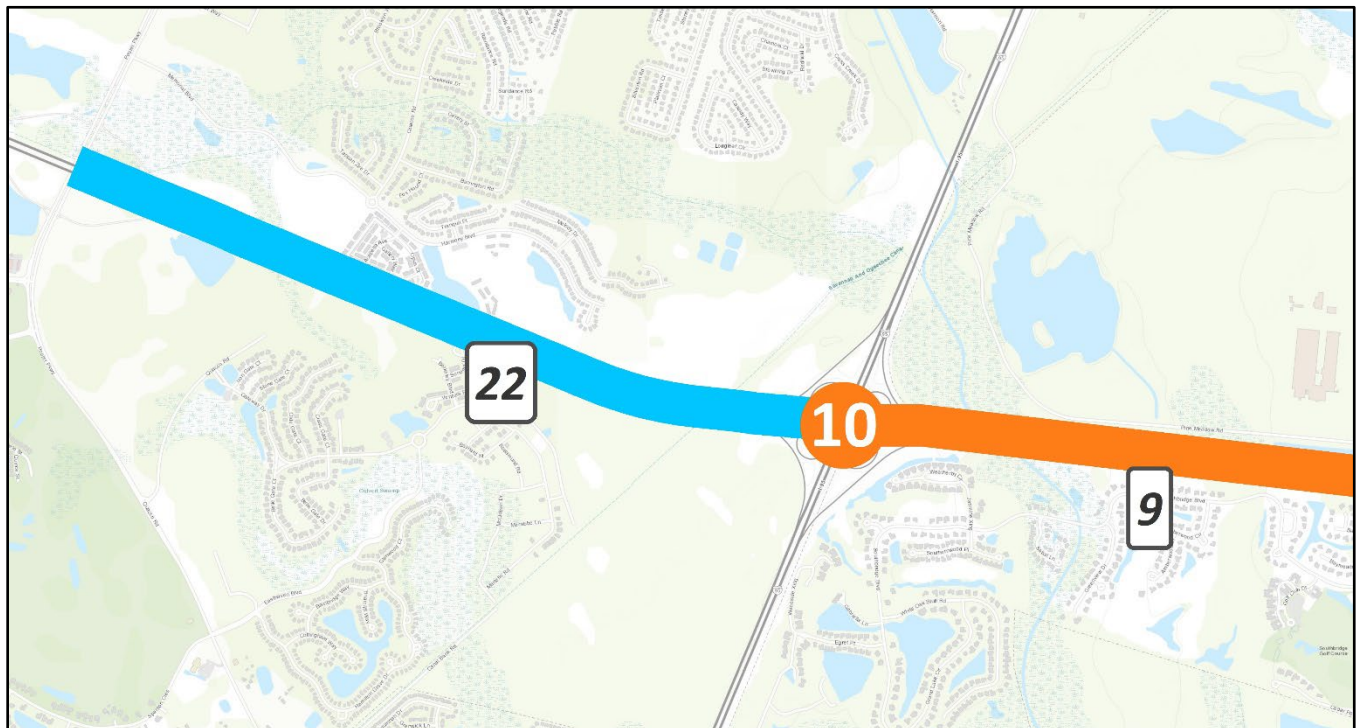
PROJECT NAME: I-95 at SR 21 / Augusta Rd Interchange Reconstruction		GDOT PI #: N/A	
PROJECT TERMINI: I-95 @ SR 21			
PROJECT DESCRIPTION: Full reconstruction of the interchange			
Thoroughfare Type: SR 21: Major Arterial Suburban		Map Project ID: 20	Total Project Cost: \$ 193,299,867
Comments: The project addresses the long term interchange congestion and operational efficiency and increases the ability to move freight more effectively. Preliminary engineering and Right of Way are included in the Cost Feasible Plan; Construction is in the Vision Plan. This project is consistent with the SR 21 study, the Chatham County Interstate Needs Analysis and Prioritization Plan and the Statewide Freight Plan. Mobility 2045 Plan goals addressed by the project: <ul style="list-style-type: none">• Safety & Security• State of good repair• System performance• Accessibility, Mobility and Connectivity			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering		\$5,137,479	
Right-of-Way		\$83,912,321	
Construction			\$104,250,067



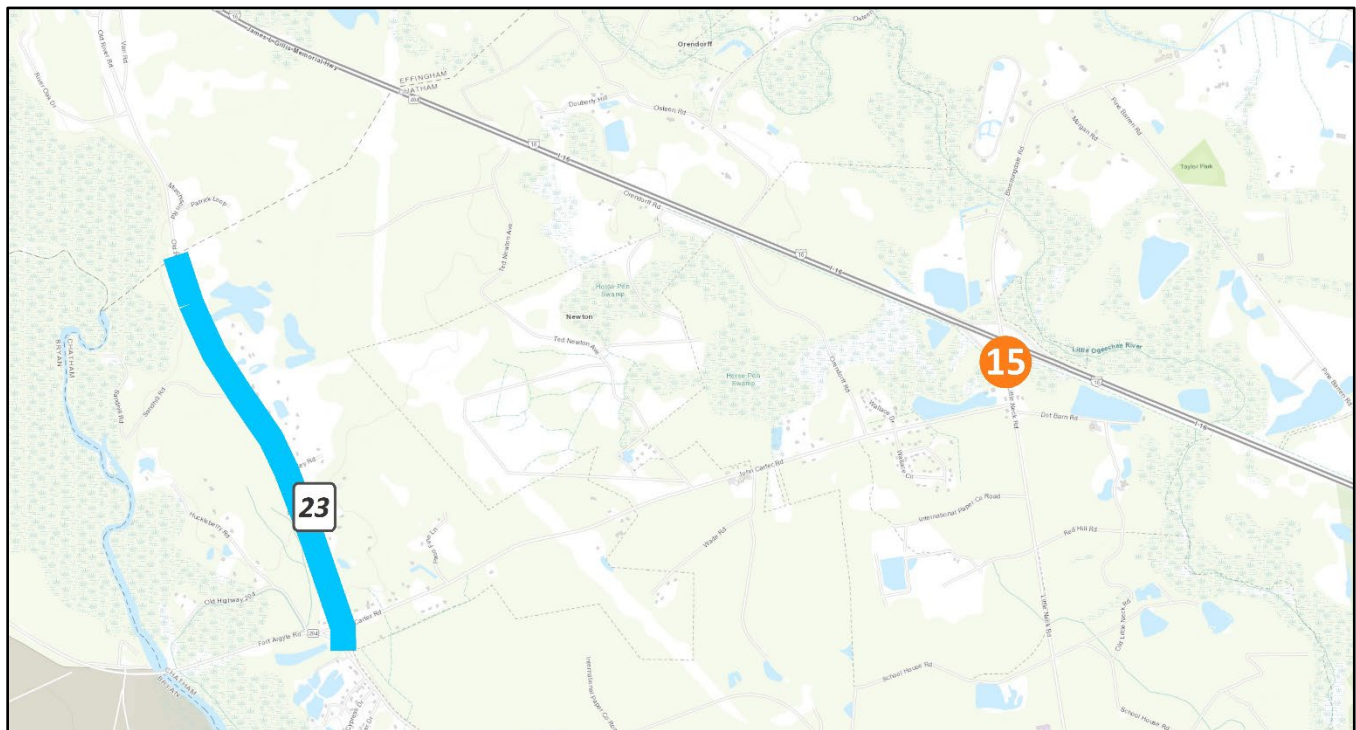
PROJECT NAME: President Street/Truman Parkway Interchange Bridge and Ramp Reconstruction		GDOT PI #: N/A	
PROJECT TERMINI: At President Street / Truman Parkway Interchange			
PROJECT DESCRIPTION: Raise the elevation of President Street and interchange reconstruction			
Thoroughfare Type: Collector Suburban		Map Project ID: 21	
		Total Project Cost: \$98,206,087	
Comments: This project, a priority for the City of Savannah, and in keeping with the civic master plan for the area, addresses capacity issues, congestion, flooding and operational issues along President Street and at the interchange with Truman Parkway. Mobility 2045 Plan goals addressed by this project: <ul style="list-style-type: none">• Safety & Security• System performance• Accessibility, Mobility and Connectivity			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering	\$9,820,608		
Right-of-Way	\$3,928,243		
Construction	\$84,457,236		



PROJECT NAME: I-16 Widening		GDOT PI #: 0015528	
PROJECT TERMINI: Pooler Parkway to I-95			
PROJECT DESCRIPTION: Widening			
Thoroughfare Type: N/A	Map Project ID: 22		Total Project Cost: \$67,370,681
Comments: Widening I-16 between Pooler Parkway and I-95. Mobility 2045 Plan goals addressed by this project: <ul style="list-style-type: none">Safety & SecurityState of good repairSystem performanceAccessibility, Mobility and Connectivity			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering		\$4,508,364	
Right-of-Way			
Construction			\$62,862,317



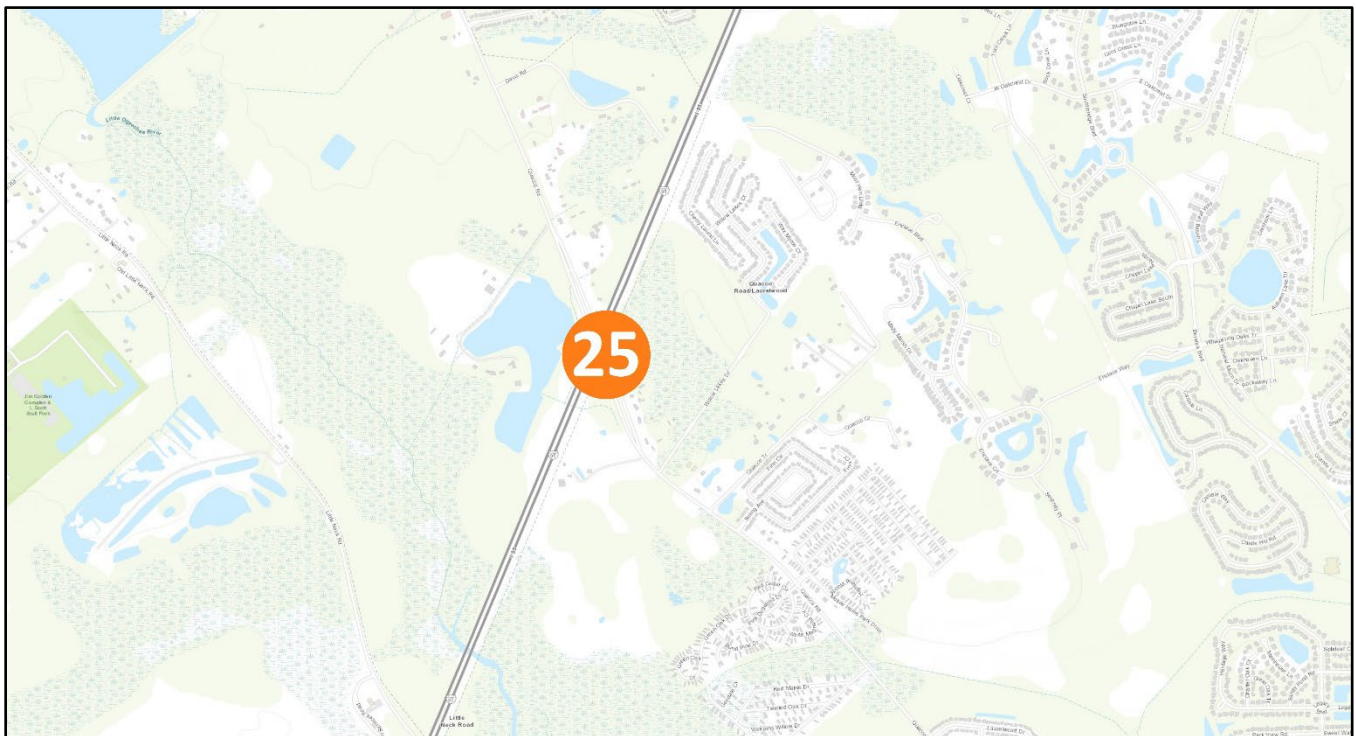
PROJECT NAME: Old River Road		GDOT PI #: N/A	
PROJECT TERMINI: SR 204 and Effingham County/Chatham County line			
PROJECT DESCRIPTION: Roadway improvements			
Thoroughfare Type: Collector - Suburban		Map Project ID: 23	
		Total Project Cost: \$16,796,887	
Comments: Old River Road Improvements would involve both safety and operational improvements. The current two lane section would be widened to accommodate turn lanes, shoulder widening, as well as drainage improvements. Chatham County anticipates purchasing enough right of way to accommodate a future 4 lane section but anticipates a three lane section will be constructed initially. Mobility 2045 Plan goals addressed by this project: <ul style="list-style-type: none">• State of good repair• System performance• Accessibility, Mobility and Connectivity			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering		\$1,016,571	
Right-of-Way		\$3,909,890	
Construction		\$11,870,426	



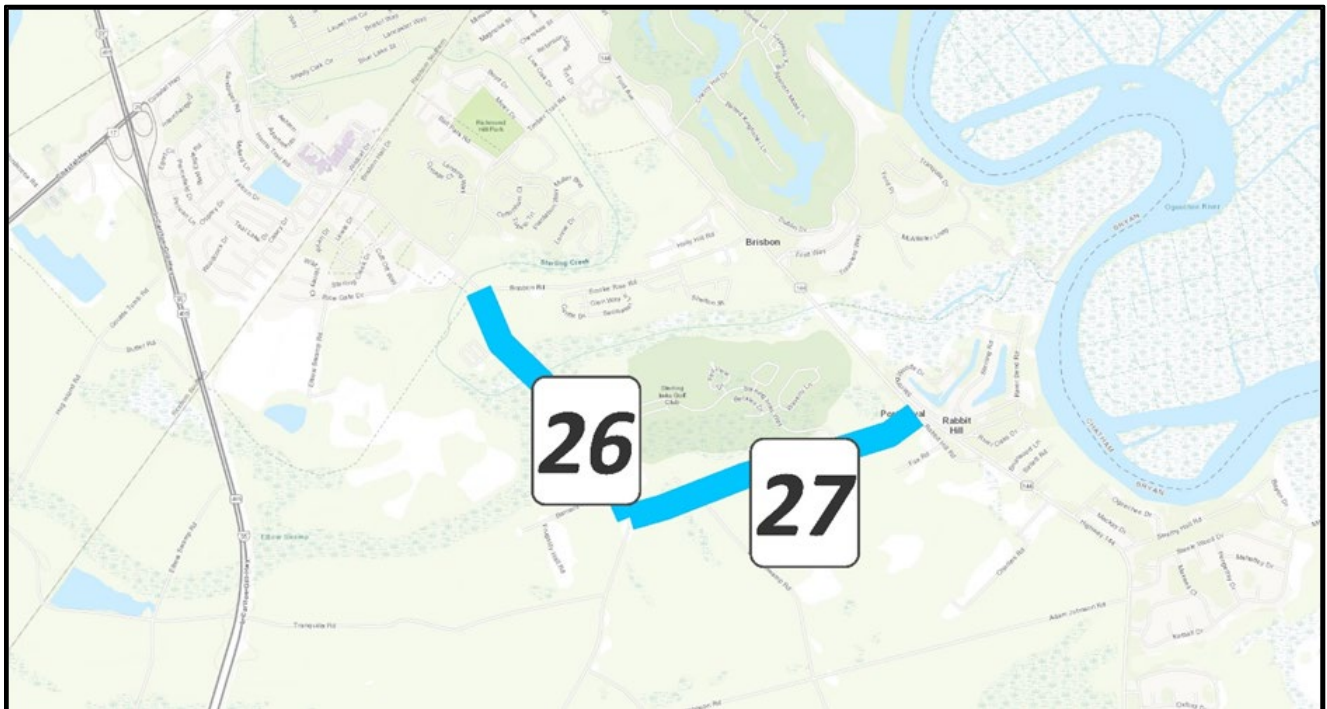
PROJECT NAME: Gulfstream Widening		GDOT PI #: N/A	
PROJECT TERMINI: SR 21 to Airways Avenue			
PROJECT DESCRIPTION: Widening			
Thoroughfare Type: Collector - Suburban	Map Project ID: 24		Total Project Cost: \$6,394,535
<p>Comments: Widening of Gulfstream between Airways Avenue and SR 21. Mobility 2045 Plan goals addressed by this project:</p> <ul style="list-style-type: none">• System performance• Accessibility, Mobility and Connectivity			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering			\$6,394,535
Right-of-Way			
Construction			



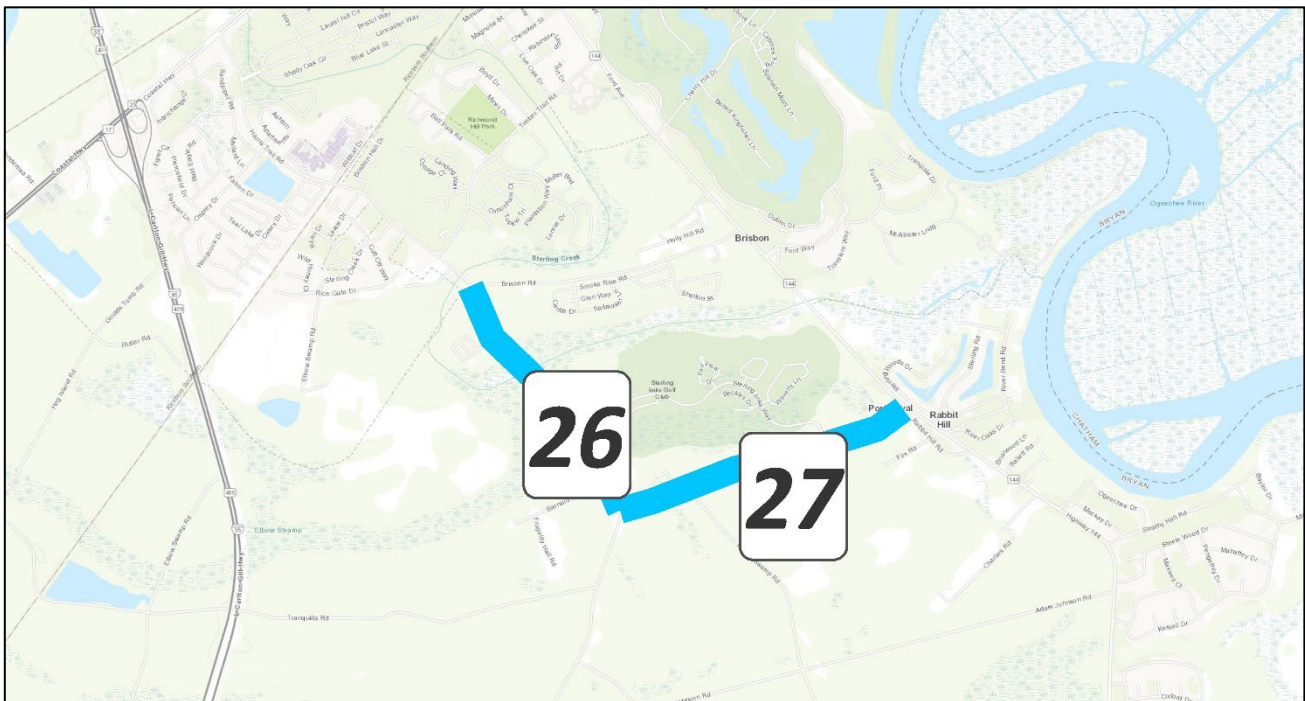
PROJECT NAME: I-95 at Quacco Road Interchange Study		GDOT PI #: N/A	
PROJECT TERMINI: I-95 at Quacco Road			
PROJECT DESCRIPTION: Interchange study			
Thoroughfare Type: N/A	Map Project ID: 25		Total Project Cost: \$450,000
<p>Comments: Interchange study to determine need and alternative improvements. Mobility 2045 Plan goals addressed by this project:</p> <ul style="list-style-type: none">System performanceAccessibility, Mobility and Connectivity			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering	\$450,000		
Right-of-Way			
Construction			



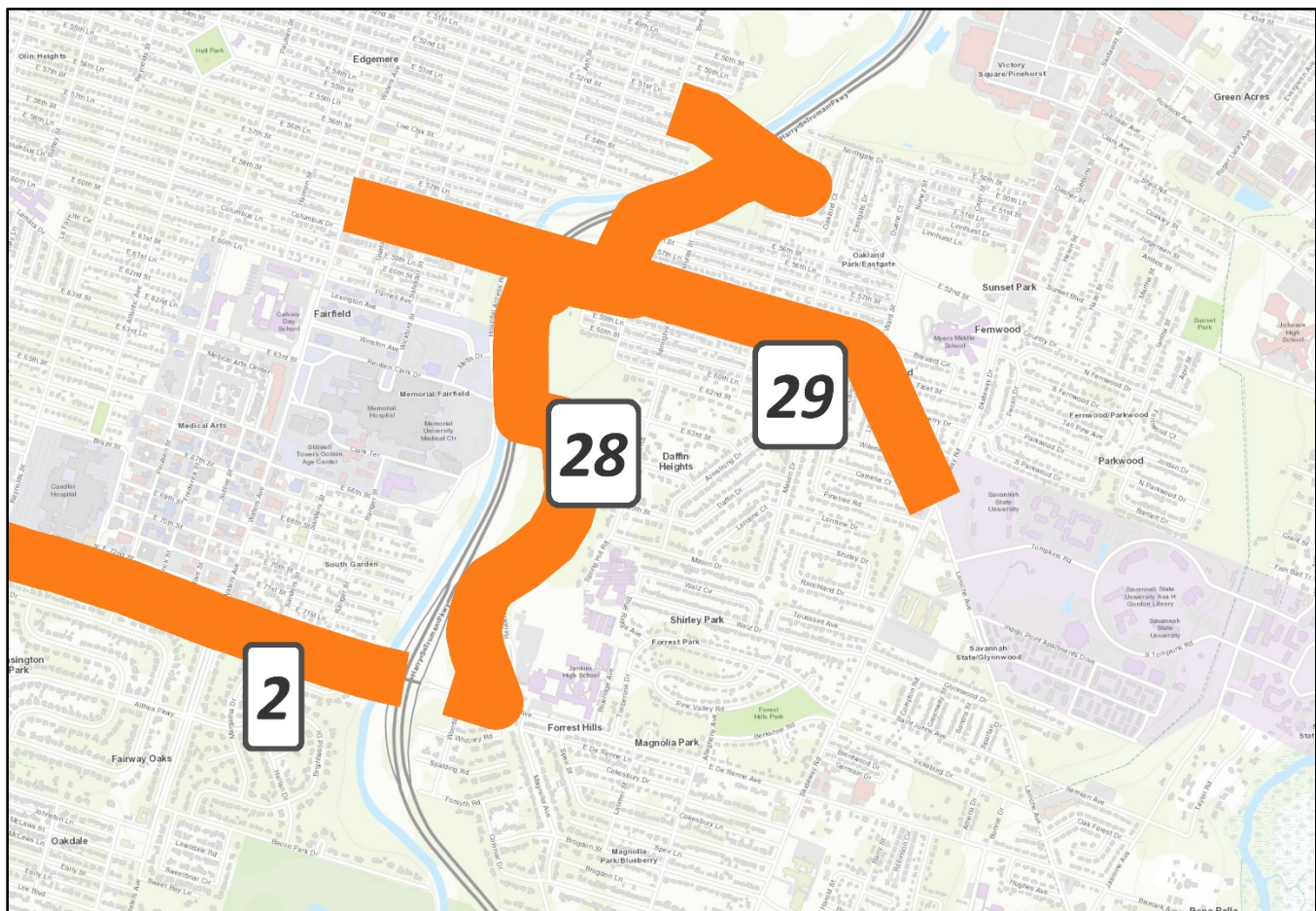
PROJECT NAME: Harris Trail Road Widening		GDOT PI #: N/A	
PROJECT TERMINI: Timber Trail and Port Royal Road			
PROJECT DESCRIPTION: Widening			
Thoroughfare Type: Collector - Suburban	Map Project ID: 26		Total Project Cost: \$28,970,345
Comments: Widen Harris Trail Road from 2 lanes to 4 lanes with 20- ft raised median from Timber Trail to Port Royal Road. Mobility 2045 Plan goals addressed by this project: <ul style="list-style-type: none">• System performance• Accessibility, Mobility and Connectivity			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering			\$1,722,918
Right-of-Way			\$5,709,638
Construction			\$ 21,537,789



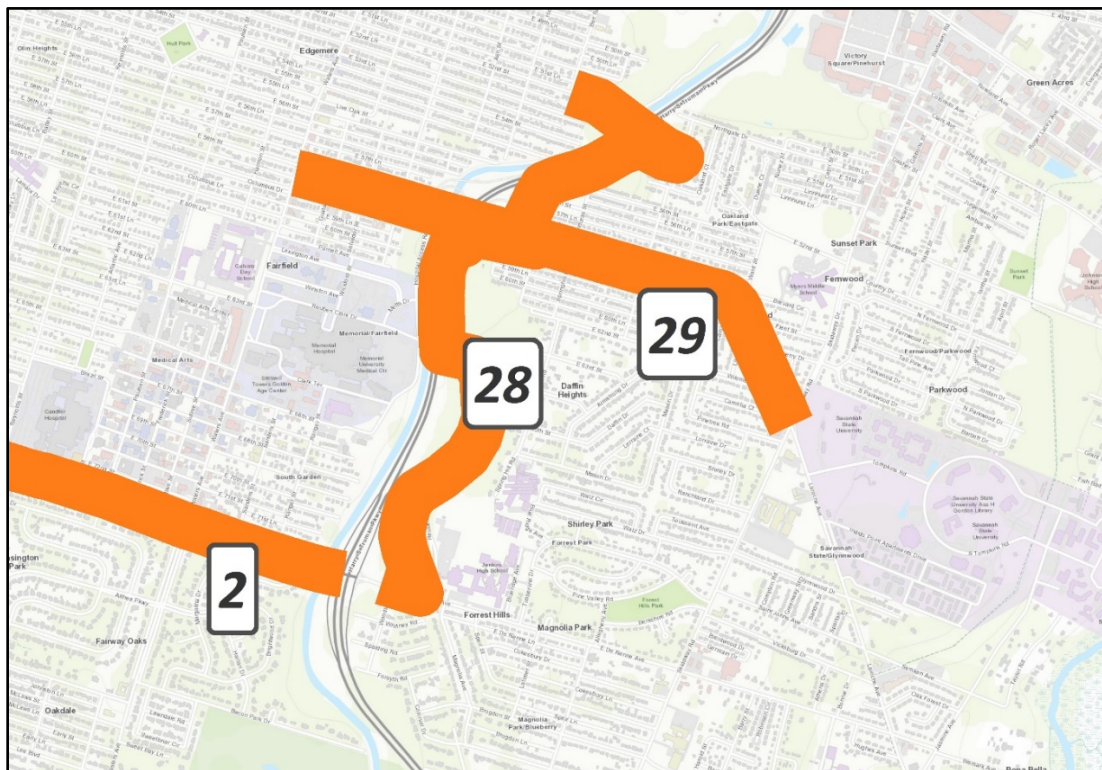
PROJECT NAME: Port Royal Road Widening		GDOT PI #: N/A	
PROJECT TERMINI: SR 144 to Harris Trail			
PROJECT DESCRIPTION: Widening			
Thoroughfare Type: Collector - Suburban	Map Project ID: 27		Total Project Cost: \$17,215,152
Comments: Widen Port Royal Road from 2 lanes to 4 lanes SR 144 to Harris Trail Road. Mobility 2045 Plan goals addressed by this project: <ul style="list-style-type: none">• System performance• Accessibility, Mobility and Connectivity			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering			\$1,721,515
Right-of-Way			\$5,164,546
Construction			\$ 10,329,091



PROJECT NAME: CS 1097/DeLesseps/Laroche Avenue		GDOT PI #: 0010028	
PROJECT TERMINI: Waters Avenue to Skidaway Road			
PROJECT DESCRIPTION: DeLesseps Avenue Road and Sidewalk Improvements			
Thoroughfare Type: N/A		Map Project ID: 28	
		Total Project Cost: \$5,600,000	
Comments: This project involves a minor road widening and curb and gutter for drainage improvements. Sidewalks will be installed, along with crosswalks and pedestrian signals, improving accessibility and safety for pedestrians. Mobility 2045 Plan goals addressed by this project: <ul style="list-style-type: none">• Safety & Security• Accessibility, Mobility and Connectivity• Environment and Quality of Life			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering			
Right-of-Way			
Construction	\$5,600,000		



PROJECT NAME: Truman Linear Park Trail – Phase II-B		GDOT PI #: 0015306	
PROJECT TERMINI: DeRenne to 52 nd Street/Bee Road			
PROJECT DESCRIPTION:			
Thoroughfare Type: N/A		Map Project ID: 29	
		Total Project Cost: \$5,932,205	
<p>Comments: The Truman Linear Park Trail is the demonstration project for initial implementation under the Coastal Georgia Greenway Master Plan. Phase I trail construction is completed. Phase II is proposed as a development of a multiuse trail from Phase I at 52nd Street and Bee Road to Lake Mayer Community Park. Phase II-B will complete the multiuse trail from DeRenne Avenue to 52nd Street/Bee Road, to be implemented by the City of Savannah. The detailed project description is being developed in the concept report. *ADA compliant trail. Mobility 2045 Plan goals addressed by this project:</p> <ul style="list-style-type: none">• Safety & Security• Accessibility, Mobility and Connectivity• Environment and Quality of Life			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering	\$25,000		
Right-of-Way			
Construction	\$5,907,205		



PROJECT NAME: Priority bike/ped projects in the Non-Motorized Plan		GDOT PI #: N/A	
PROJECT TERMINI:			
PROJECT DESCRIPTION:			
Thoroughfare Type: N/A	Map Project ID: Not Mapped		Total Project Cost: \$12,000,000
Comments: Non-Motorized Improvements Set Aside Policy: Any bicycle, sidewalk or trail project seeking CORE MPO highway funding is considered consistent with the MPO’s 2045 Metropolitan Transportation Plan provided that 1) the project is consistent with the adopted CORE MPO Non-Motorized Transportation Plan; and 2) the project has a dedicated local sponsor with local match funding commitment. Mobility 2045 Plan goals addressed by these projects: <ul style="list-style-type: none">• Safety & Security• Accessibility, Mobility and Connectivity• Environment and Quality of Life			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering			
Right-of-Way			
Construction	\$3,000,000	\$4,500,000	\$4,500,000

PROJECT NAME: Maintenance Projects		GDOT PI #: N/A	
PROJECT TERMINI:			
PROJECT DESCRIPTION:			
Thoroughfare Type: N/A	Map Project ID: Not Mapped		Total Project Cost: \$232,135,141
Comments: Maintenance Policy: The Georgia Department of Transportation (GDOT) maintains the state highways in Georgia. Maintenance projects in the Savannah area which have been duly selected for funding by the State Transportation Board are considered to be consistent with the CORE MPO’s 2045 Metropolitan Transportation Plan. Mobility 2045 Plan goals addressed by these projects: <ul style="list-style-type: none">• Safety & Security• Accessibility, Mobility and Connectivity• Environment and Quality of Life• State of Good Repair• System performance			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering			
Right-of-Way			
Construction	\$65,143,240	\$79,759,791	\$87,232,109

PROJECT NAME: Transit Improvements/Bus Replacement Set Aside		GDOT PI #: N/A	
PROJECT TERMINI:			
PROJECT DESCRIPTION:			
Thoroughfare Type: N/A	Map Project ID: Not Mapped		Total Project Cost: \$18,200,000
Comments: Transit Set Aside: based on historic Z230 funding awards, it is assumed that \$700,000 from project revenues will be reserved each year for bus purchase or transit improvements. Implementation of these transit projects will require funding flexing from FHWA to FTA.			
Mobility 2045 Plan goals addressed by these projects: <ul style="list-style-type: none">• Safety & Security• Accessibility, Mobility and Connectivity• Environment and Quality of Life• State of Good Repair• System performance			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering			
Right-of-Way			
Construction	\$5,600,000	\$6,300,000	\$6,300,000

PROJECT NAME: Transit Priority Improvements Using Transit Revenues		GDOT PI #: N/A	
PROJECT TERMINI:			
PROJECT DESCRIPTION:			
Thoroughfare Type: N/A	Map Project ID: Not Mapped		Total Project Cost: \$221,442,236
Comments: Examples of priority projects include: <ul style="list-style-type: none">• Facility Construction - Ferry Maintenance• Facility Construction - Ferry Dock• Ferry Boat Construction• Vehicle Replacement/Expansion - Fixed Route• Vehicle Replacement - Paratransit• Intelligent Transit System (ITS)• Upgraded Farebox and Payment System• Electric Vehicle Infrastructure• Passenger Amenities• Facility Improvement Project - ITC• Facility Improvement Project - Gwinnett• Vanpool Capital• Park & Ride Capital			
Mobility 2045 Plan goals addressed by these projects: <ul style="list-style-type: none">• Safety & Security• Accessibility, Mobility and Connectivity• Environment and Quality of Life• State of Good Repair• System performance			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering			
Right-of-Way			
Construction	\$62,142,529	\$76,085,794	\$83,213,913

PROJECT NAME: Operational Improvements		GDOT PI #: N/A	
PROJECT TERMINI:			
PROJECT DESCRIPTION:			
Thoroughfare Type: N/A	Map Project ID: Not Mapped		Total Project Cost: \$140,178,281
Comments: Operational Improvements Set Aside: based on the approximate lump sum category percentage of the total revenues in the FY 2018 - 2021 TIP, it is assumed that 9.5% of available project revenues for 2022 - 2045 will be reserved for operational improvements. The 2020 and 2021 lump sum funding amounts in the TIP are used for Operational Improvements for these two years. Mobility 2045 Plan goals addressed by these projects: <ul style="list-style-type: none">Safety & SecurityAccessibility, Mobility and ConnectivityEnvironment and Quality of LifeState of Good RepairSystem performance			
PROJECT PHASE	Cost Band 1 2020 - 2027	Cost Band 2 2028 - 2036	Cost Band 3 2037 - 2045
Preliminary Engineering			
Right-of-Way			
Construction	\$58,271,837	\$39,120,705	\$42,785,738



APPENDIX D: PUBLIC OUTREACH



Public Meetings

Meeting	Date	Attendees	Materials Presented
TCC	6/15/17	17	Scope of MTP
MPC	7/11/17	9	MTP kick off and Socioeconomic Data Exercise
Economy Committee	7/27/17	7	MTP kick off and Socioeconomic Data Exercise
Quality of Life Committee	8/15/17	4	MTP kick off and Socioeconomic Data Exercise
TCC	8/17/17	19	MTP kick off and Socioeconomic Data Exercise
Regional Stakeholders and Planning Officials	8/18/17	7	MTP kick off and Socioeconomic Data Exercise
Education Committee	8/23/17	11	MTP kick off and Socioeconomic Data Exercise
CAC	10/5/17	8	Status Update (Timeline and schedule)
TCC	10/11/17	12	Status Update (Timeline and schedule)
ACAT	10/23/17	3	Status Update (Timeline and schedule)
MPO	10/25/17	23	Status Update (Timeline and schedule)
TCC	12/7/17	17	Project List and network Description
Citizen Advisory Committee Meeting	2/1/18	3	Draft MTP goals
TCC	2/22/18	16	Draft MTP goals
TCC	2/22/18	16	Action item: socioeconomic data approved
ACAT	2/26/18	3	Draft MTP goals
MPO	2/28/18	25	Information items socioeconomic data, DRAFT MTP Goals
TCC	4/19/18	12	Status update on socioeconomic data
Coastal Georgia Indicators Coalition	6/6/18	10	Briefing and MTP survey
Citizen Advisory Committee Meeting	6/21/18	8	Status Update (Socioeconomic data, goals, survey)



TCC	6/21/18	16	Status Update (Socioeconomic data, goals, survey)
ACAT	6/27/18	10	Status Update (Socioeconomic data, goals, survey)
MPO	6/27/18	20	Status Update (Socioeconomic data, goals, survey)
Effingham TAB Meeting	7/17/18	15	Briefing on 2045 MTP development and survey
SAGIS TAC	8/1/18	10	Briefing with follow up materials
Citizen Advisory Committee Meeting	8/16/18	11	Status Update (Socioeconomic data, goals, survey)
TCC	8/16/18	20	Status Update (Socioeconomic data, goals, survey)
ACAT	8/20/18	13	Status Update (Socioeconomic data, goals, survey)
MPO	8/22/18	20	Status Update (Socioeconomic data, goals, survey)
MTP Working Group	8/30/18	12	Goals and Finance process
CAT Board Meeting	9/18/18	30	Open House Presentation & Flyers
Richmond Hill City Council	9/18/18	23	Open House Presentation & Flyers
Effingham TAB Meeting	9/18/18	15	Open House Info/Flyer, Survey Follow up, Project list, and MTP development process
Quality of Life Committee	9/19/18	14	Open House Presentation & Flyers
Open House	9/20/18	8	Open house, flyers, posters, presentations, comments
Garden City Council	10/1/18	60	Open House Presentation & Flyers
Open House	10/2/18	11	Open house, flyers, posters, presentations, comments
Open House	10/4/18	12	Open house, flyers, posters, presentations, comments
Citizen Advisory Committee Meeting	12/6/18	6	Status Update (reviewed model results and endorsed acceptance to the board)
TCC	12/6/18	18	Status Update (reviewed model results and endorsed acceptance to the board)

ACAT	12/10/18	9	Status Update (reviewed model results and endorsed acceptance to the board)
MPO	12/12/18	21	Status Update (Adopted resolution to accept model results)
MTP Working Group	1/24/19	14	Reviewed model results and developed project list for 5th network
Citizen Advisory Committee Meeting	2/7/19	8	Status Update (Modeling process, prioritization process)
TCC	2/7/19	18	Status Update (Modeling process, prioritization process)
EDFAC	2/7/19	16	Overview of Plan update and discussed freight projects for the plan update
ACAT	2/25/19	10	Status Update (Modeling process, prioritization process)
MPO	2/27/19	21	Status Update (Modeling process, prioritization process)
MTP Working Group	3/7/19	14	Reviewed model and prioritization results and developed 6th network project list
Effingham TAB Meeting	3/19/19	15	Briefing on 2045 MTP development
MTP Working Group	3/21/19	12	Reviewed model and prioritization results and developed 6th network project list
Citizen Advisory Committee Meeting	4/11/19	6	Status Update (Financial Plan and Draft project List)
TCC	4/11/19	14	Status Update (Financial Plan and Draft project List)
ACAT	4/22/19	13	Status Update (Financial Plan and Draft project List)
MPO	4/24/19	20	Status Update (Financial Plan and Draft project List)
EDFAC	4/11/19	11	Status Update (Financial Plan and Draft project List)

Pooler City Council	4/15/19	38	I-95 and Airways Avenue Study and MTP Update
Effingham TAB Meeting	5/21/19	10	2045 MTP Draft Financially Constrained Highway Project List
West Savannah Community Association Community Meeting	5/28/19	45	2045 MTP Development and Draft Financially Constrained Project Lists
Coastal Georgia Indicators Coalition	6/5/19	63	Brief update and passed out flyers
Gulfstream	6/12/16	21	Presentation and handouts
Open House	6/13/19	3	Open house, Presentation and handouts
Richmond Hill City Council	6/17/19	22	Presentation and handouts
Citizen Advisory Committee Meeting	6/18/19	5	Status Update (Financial Plan and Draft project List)
TCC	6/18/19	19	Status Update (Financial Plan and Draft project List)
EDFAC	6/18/19	16	Status Update (Financial Plan and Draft project List)
ACAT	6/24/19	9	Status Update (Financial Plan and Draft project List)
Open House	6/25/19	8	Open house, Presentation and handouts
MPO	6/26/19	25	Status Update (Financial Plan and Draft project List)
Open House	6/27/19	6	Open house, Presentation and handouts
Garden City Council	7/15/19	20	Open House Presentation & Flyers
TCC	8/1/19	15	Mobility 2045 Endorsement
Citizen Advisory Committee Meeting	8/1/19	10	Mobility 2045 Endorsement
ACAT	8/5/19	12	Mobility 2045 Endorsement
MPO	8/7/19	22	Mobility 2045 Public Hearing and Approval

Public Ads for Community Meetings

Ads ran in Savannah Morning News September 16th, 2019 and September 30th, 2018 both online and in the paper for the fall 2018 public meetings. Ads ran June 9th and June 23rd, 2019 for the spring public meetings.



Mobility 2045 Public Meetings

September 20, 2018
First Presbyterian Church of Savannah
520 Washington Avenue,
Savannah, GA 31405

October 2, 2018
Southwest Chatham Library Auditorium
14097 Abercorn Street,
Savannah, GA 31419

October 4, 2018
St Luke Missionary Baptist Church
418 W 38th Street,
Savannah, GA 31401

Meetings will be 4:30 pm - 6:30 pm with a brief presentation at 5:30 pm.

Do you have ideas about how to improve transportation in our area? Now is the time to talk about it.

The Coastal Region Metropolitan Planning Organization (CORE MPO), which is the transportation planning agency for the Savannah area, is hosting a series of public meetings on the update to the long-range transportation plan. The new plan, Mobility 2045, is being developed to address the transportation needs of the Savannah region in the next twenty plus years.

The meetings will provide the public with information about the plan update process and schedule, and involve community members in the identification of goals and issues to be addressed.

You are cordially invited to attend the meetings and share with us your transportation concerns and vision for the future of transportation in our area.

If you have any questions regarding the public meetings, please contact Stephanie Rossi at 912-651-1476.

Like Us On Facebook at
[Facebook.com/thesavannahtribune](https://www.facebook.com/thesavannahtribune)

**Mobility 2045
Public Meetings**



CORE
COASTAL REGION MPO

June 13, 2019
Armstrong Center
11935 Abercorn St.
Savannah, GA 31419

June 25, 2019
Pooler Recreation
Center
900 S Rogers St.
Pooler, GA 31322

June 27, 2019
First Presbyterian
Church of Savannah
520 Washington Ave.
Savannah, GA 31405

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The meetings will provide the public with information about the draft transportation plan.

You are cordially invited to attend the meetings and provide input.

If you have any questions regarding the public meetings, please contact Stephanie Rossi at 912-651-1476.

An ad ran in the Savannah Tribune the week of September 12th, 2018 advertising fall public meetings. Spring public meetings were advertised in the week of June 5th and 19th 2019.

The Savannah Tribune • Wednesday, September 12, 2018 9



News



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Mobility 2045 Public Meetings

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**Mobility 2045
Public Meetings**



CORE
COASTAL REGION MPO

June 13, 2019
Armstrong Center
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June 25, 2019
Pooler Recreation
Center
900 S Rogers St.
Pooler, GA 31322

June 27, 2019
First Presbyterian
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520 Washington Ave.
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**Open Houses will be
4:30pm-6:30pm**

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Send us your comments at <https://www.thempc.org/Core/Mtp2045>

Legal Ads

Ads ran September 11th, 2018, June 2nd, June 16th and July 28th 2019.

September 2018
PUBLIC NOTICE FOR MTP
PUBLIC OPEN HOUSE

The Coastal Region Metropolitan Planning Organization (CORE MPO), the transportation planning agency for the Savannah urbanized area, is requesting the public input and comments on the Metropolitan Transportation Plan (MTP) Update. The MTP is a comprehensive "blueprint" for area transportation services aimed at meeting mobility needs through the next 20+ years. The current MTP, Total Mobility 2040, was adopted by the Board in 2014. To read the current MTP, visit <https://www.thempc.org/Dept/Plans>

CORE MPO will host three public open houses to gather public input on the MTP Update. Meeting times and locations are listed below:

CORE MTP Open Houses:

- September 20, 2018
 - o Location: First Presbyterian Church of Savannah (Chatham Crescent)
 - o Address: 520 Washington Avenue, Savannah, GA 31405
 - o Time: 4:30pm - 6:30pm with a presentation at 5:30pm
- October 2, 2018
 - o Location: Southwest Chatham Library Auditorium
 - o Address: 14097 Abercorn Street Savannah, GA 31419
 - o Time: 4:30pm - 6:30pm with a presentation at 5:30pm
- October 4, 2018
 - o Location: St Luke Missionary Baptist Church
 - o Address: 418 W 38th Street, Savannah, GA 31401
 - o Time: 4:30pm - 6:30pm with a presentation at 5:30pm

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AFFIDAVIT OF PUBLICATION SAVANNAH MORNING NEWS

CHATHAM

appeared before me, Alaina Fincher, to me known who being sworn, deposes and she is the authorized agent of GateHouse Media, Georgia Holdings, Inc., d. b. a. Savannah Morning News in Chatham County, Georgia;

authorized to make affidavits of publication on behalf of said company; That said of general circulation in said county and in the area adjacent thereto; That said he legal organ for publication in Chatham County, Georgia; That he/she has regular editions of the Savannah Morning News, published:

September 11, 2018

2018

October 2, 2018

2018

the following advertisement to wit:

TR 4.11 LRTP

each of said editions.

subscribed before me;

Al Fincher

(Deponent)

This 11 day of Sept, 2018

Eugene J Cronk

Notary Public; Chatham County, GA.

RECEIVED

SEP 14 2018

METROPOLITAN PLANNING
COMMISSION

EUGENE J CRONK

Notary Public, Chatham County, Georgia
My Commission Expires January 24, 2022

June 2018

**PUBLIC NOTICE for MTP
PUBLIC OPEN HOUSE**

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CORE MTP Open Houses:

• June 13, 2019

- o Location: Armstrong Center
- o Address: 11935 Abercorn
Savannah, GA 31419
- o Time: 4:30pm - 6:30pm with a
presentation at 5:30pm

June 25, 2019

- o Location: Pooler Recreation
Center
- o Address: 900 S. Rogers St.
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- o Time: 4:30pm - 6:30pm with a
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- o Location: First Presbyterian
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- o Time: 4:30pm - 6:30pm with a
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MPO is also committed to taking positive and realistic affirmative steps to ensure the protection of rights and opportunities for all persons affected by its plans and programs.

June 2019

**PUBLIC NOTICE FOR
MTP UPDATE**

The Coastal Region Metropolitan Planning Organization (CORE MPO), the transportation planning agency for the Savannah urbanized area, is requesting the public to review and provide comments on the draft Metropolitan Transportation Plan (MTP) update, Mobility 2045. The MTP is a comprehensive "blueprint" for area transportation services aimed at meeting mobility needs through the next 20+ years. The MTP evaluates transportation system performance and is a source of policies, projects and actions that implement community vision of transportation improvements needed to reach community goals. The draft MTP will be available for review on or before June 17th, 2019 at the Live Oak public libraries, the Chatham County-Savannah Metropolitan Planning Commission (MPC) office, the MPC website at www.thempc.org/Core/Mtp2045, and other public review agencies. Any changes to the report will be posted on the website.

The comment period starts on June 17, 2019 and written comments on the draft plan will be accepted until close of business on July 16, 2019. Please send your comments to Stephanie Rossi, Metropolitan Planning Commission, 110 E. State Street, Savannah, GA 31401, or via email at rossis@thempc.org.

CORE MPO will host a public hearing at the August 7th, 2019 CORE MPO Board meeting for the proposed adoption of the MTP update, Mobility 2045. Meeting time and location are listed below:

CORE MPO Board Meeting
August 7, 2019
10:00 a.m.
County Commission Chamber,
2nd Floor
124 Bull Street, Savannah, GA 31401

This notice of public involvement activities and time established for public review and comment on the MTP will satisfy the Program of Projects (POP) requirements of the Federal Transit Administration (FTA) Section 5307 Program.

For a complete list of public review agencies or additional information regarding the proposed MTP Update, please call (912) 651-1476.

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Press Releases Used for Community Meetings & Public Comment



METROPOLITAN PLANNING ORGANIZATION

September 2018

PUBLIC NOTICE for MTP PUBLIC OPEN HOUSE

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METROPOLITAN PLANNING ORGANIZATION

June 2018

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METROPOLITAN PLANNING ORGANIZATION

June 2019

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10:00 a.m.

County Commission Chamber, 2nd Floor

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This notice of public involvement activities and time established for public review and comment on the MTP will satisfy the Program of Projects (POP) requirements of the Federal Transit Administration (FTA) Section 5307 Program.

For a complete list of public review agencies or additional information regarding the proposed MTP Update, please call (912) 651-1476.

Disclaimer: The Chatham County-Savannah Metropolitan Planning Commission (MPC) and Coastal Region Metropolitan Planning Organization (CORE MPO) are committed to the principle of affirmative action and prohibit discrimination against otherwise qualified persons on the basis of race, color, religion, national origin, age, physical or mental disability, and where applicable, sex (including gender identity and expression), marital status, familial status, parental status, religion, sexual orientation, political beliefs, genetic information, reprisal, or because all or part of an individual's income is derived from any public assistance program in its recruitment, employment, facility and program accessibility or services. MPC and CORE MPO are committed to complying with and enforcing the provisions of the Title VI of the Civil Rights Act and other federal and state non-discrimination authorities. CORE MPO is also committed to taking positive and realistic affirmative steps to ensure the protection of rights and opportunities for all persons affected by its plans and programs.

Brochure Used for Community Meetings


Get Involved

Public involvement is crucial in the 2045 plan update process since you are the transportation system users and all the decisions made will affect your every day life.

Ways to Get involved!

Please Attend one or more of the public meetings listed on the back

Scan to send us your comments



Or go to
www.thempc.org/Dept/Mobility2045

Mobility 2045
METROPOLITAN TRANSPORTATION PLAN UPDATE

You can also contact the MPO staff
directly at 912.651.1476

Public Open House

September 20, 2018
Location: First Presbyterian Church of Savannah (Chatham Crescent)
Address: [520 Washington Avenue, Savannah, GA 31405](#)
Time: 4:30pm - 6:30pm with a presentation at 5:30pm

October 2, 2018
Location: Southwest Chatham Library Auditorium
Address: [14097 Abercorn Street, Savannah, GA 31419](#)
Time: 4:30pm - 6:30pm with a presentation at 5:30pm

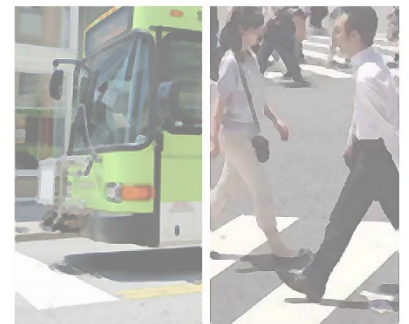
October 4, 2018
Location: St Luke Missionary Baptist Church
Address: [418 W 38th Street, Savannah, GA 31401](#)
Time: 4:30pm - 6:30pm with a presentation at 5:30pm

CORE
COASTAL REGION MPO
For More Information Visit corempo.org

CHATHAM COUNTY - SAVANNAH
METROPOLITAN PLANNING COMMISSION
For More Information Visit thempc.org



Mobility 2045 METROPOLITAN TRANSPORTATION PLAN UPDATE



CHATHAM COUNTY - SAVANNAH
METROPOLITAN PLANNING
COMMISSION
For More
Information
Visit thempc.org

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COASTAL REGION MPO
For More Information Visit corempo.org



Mobility 2045

METROPOLITAN TRANSPORTATION PLAN UPDATE

WE NEED YOUR HELP!

The Coastal Region Metropolitan Planning Organization (CORE MPO) is in the process of developing the 2045 Metropolitan Transportation Plan (MTP) called Mobility 2045 for the Savannah metropolitan area.

The 2045 MTP is a comprehensive “blueprint” for the Savannah area’s transportation services aimed at meeting mobility needs through the next 20+ years.

CORE MPO needs your input on updating the MTP for the Savannah metropolitan area.

YOU know best what your community needs! Your input provides recommendations that reflect real world solutions to improve the overall quality of life for you and other residents in the area.

Article Publications

MOBILITY 2045: KEEPING THE REGION MOVING

Over the past year and half, the Coastal Region Metropolitan Planning Organization (CORE MPO) has been working on the development of Mobility 2045 the Metropolitan Transportation Plan (MTP) the region's transportation blue print for the next 20+ years.

One of the initial steps was to develop the goals and vision for the plan. Residents were asked what the most important aspects of transportation were to them and where they saw the biggest issues. CORE staff collected over 700 survey responses and comments. Based on that input, CORE staff drafted a set of goals representing a broad statement of our region's desired future conditions. These goals and objectives are targeted to ensure that the transportation system helps the region attain their overall vision for the future. The goals provide a framework for the provision of a safe, secure, efficient, multimodal transportation network that meets the mobility needs of both people and freight.

CORE staff has assessed the current transportation system deficiencies and future needs based upon projected population and employment growth and identified a list of projects based on the Mobility 2045 goals and financial constraints.

Several open houses will be held in June to roll out the draft plan and project list to share with the public and collect comments.

- Thursday, June 13 from 4:30-6:30 p.m. @ Armstrong Center
- Tuesday, June 25 from 4:30-6:30 p.m. @ Pooler Recreation Center
- Thursday, June 27 from 4:30-6:30 p.m. @ First Presbyterian Church of Savannah (Chatham Crescent)

For more information on Mobility 2045 Open Houses visit <https://www.thempc.org/Core/OHouses>

CORE MPO STAFF

Mark Wilkes
Director

Wykoda Wang
TIP Administrator

Stephanie Rossi
Principal Planner

James Small
Coordinator





Chatham County Connection

February 17, 2018



Albert J. Scott
Chairman



Helen L. Stone
District 1



James J. Holmes
District 2



Bobby Lockett
District 3



Patrick K. Farrell
District 4



Tabitha Odell
District 5



James "Jay" Jones
District 6



Dean Kicklighter
District 7



Chester A. Ellis
District 8

For more information on the current district lines visit:

www.chathamcountygov.gov



Al Scott, Chairman

MESSAGE FROM THE CHAIRMAN

The Holiday Season and 2019 are approaching quickly. I would like to take this opportunity to wish everyone a joyous holiday season from myself, the Chatham County Board of Commissioners and the County staff.

It might be the end of the year but the Chatham County Commission and the staff are looking ahead to the future. Infrastructure is always one of the needs that is in the forefront of our planning. The Special Purpose Local Option Sales Tax (SPLOST) is a way for the County and its municipalities to fund those needs throughout the community. Many of the public buildings, road resurfacing and drainage projects, and recreational facilities have been completed thanks to SPLOST funding.

Over the past two years, planning has been underway on a new Emergency Operations Center (EOC). The new facility located on Savannah Hilton Head Airport property will house the Chatham Emergency Management Agency (CEMA), Chatham County E911 Communications Services, the Savannah Hilton Head Airport Authority Police Department, and a Traffic Management Center. Building designs are underway now and the building will be completed in late 2020.

In the past 5 years, over 45 miles of roads have been paved in various Commission Districts. To determine which roads are resurfaced, Chatham County has been a pilot program community using software developed to rate roads (worst to best) and make sure that the best life cycles possible were generated on our road system. COPACES (Computerized Pavement Condition Evaluation System) is based on ratings of the pavement condition and developing a "score". This numerical evaluation is then ranked to allow staff to get the most of our paving dollars.

In 2019, Chatham County will begin improvements to Quacco Road from HWY 17 to the I-95 overpass. Improvements will include providing dual turn lanes from Quacco Road to US 17 and dual left turns into Quacco Road from US 17. Other improvements will be: right and left turn lanes at all major intersections; sidewalks and multi-use paths; and pull off areas for Chatham Area Transit will be created at each bus stop along the road. The project is being constructed in two phases. Right of way acquisitions are underway on the first phase. Residents can expect construction to begin in the summer of 2019.

The last phase of Memorial Stadium is nearing completion. The multiuse facility will provide office space for Parks and Recreation and serve as a meeting facility for public use. The new Memorial Plaza will be dedicated to our fallen service members on December 7th. Other recreational improvements can be seen at the Jennifer Ross Complex where an expansion of three new synthetic turf fields will increase play time for area youth. This past year the County Manager and Parks and Recreation staff have worked diligently with a consultant to identify recreational needs countywide. Not just what the unincorporated area needs, but to come to a common ground with cities to prevent redundancy in our programs.

Chatham County and its municipalities are four years into the six year collection cycle for SPLOST VI, and we know there will be many infrastructure projects needed in the years to come for our community. Work is underway by County Staff to prepare for the next referendum for SPLOST which will be on the ballot in November 2019.



LIVE OAK
Public Libraries

Serving the Community

In 2018 Live Oak Public Libraries provided services valued at a total of \$25,357,578 across 12 library locations in Chatham County.

The library system is a free community resource and is open to all, with or without a library card. This year in Chatham County the Library hosted 977,000 patron visits and was open to the public 26,000 hours.

"Our libraries are wise community investments and we are pleased to share the value of our services in terms of dollars-and-cents," said Charlotte Welch, Chair of the Live Oak Public Libraries Regional Board of Trustees. "With this community report we show library services are in great demand, cost effective, and essential in promoting reading and lifelong learning for people of all ages," added Welch.

"For every dollar our counties invest in our libraries, the community realizes more than four dollars in service value," said Tom Sloan, Executive Director of Live Oak Public Libraries. "Using the best of business practices, including economy of scale and resource sharing, our libraries efficiently manage resources to build and support a more sustainable community," noted Sloan.

The 2018 Live Oak Public Libraries Community Report for Chatham County highlights patron use of library services including:

- More than 970,000 items borrowed with a service value of more than \$20 million
- More than 419,000 questions asked on a wide array of topics with a service value of more than \$2.9 million
- More than 340,000 computer/online sessions conducted with a service value of more than \$1.8 million
- More than 80,000 attendances at library sponsored programs with a service value of more than \$540,000

Learn more about the 2018 Community Report at www.liveoakpl.org/services/value.

Live Oak Public Libraries

Live Oak Public Libraries is a system of 16 libraries and one bookmobile providing programs and services in Chatham, Effingham, & Liberty Counties. Our mission is to provide excellent, responsive service to enrich peoples' lives, support lifelong learning and build and enhance our communities.

Mobility 2045: Keeping the Region Moving



a safe, secure, efficient, multimodal transportation network that meets the mobility needs of both people and freight.

CORE MPO staff is currently working with the Technical Coordinating Committee (TCC) assessing the current transportation system deficiencies and future needs based upon projected population and employment growth. Once the deficiencies are identified a list of projects will be compiled based on the Mobility 2045 goals and financial constraints.

In spring 2019 CORE MPO staff will host a series of public open houses to encourage public review and comment on the draft plan and project list. Following a review and comment period, any necessary revisions to the plan will be made prior to the CORE MPO meeting in August.

Transportation helps connect people to the places where they live, work, and play. Moreover, efficient, reliable transportation is essential to improving quality of life and economic vitality. Every five years, Metropolitan Planning Organizations (MPOs) are required to update the Metropolitan Transportation Plan (MTP) which serves as the blueprint for the region's multimodal transportation system. The MTP will guide regionally significant transportation investments designed to develop a well-balanced transportation system that promotes a good quality of life and supports a prosperous economy for the region.

Over the past year and a half, the Coastal Region Metropolitan Planning Organization (CORE MPO) has been working on the development of the next MTP, Mobility 2045, which will be adopted in August 2019.

One of the initial steps was to develop the goals and vision for the plan. Residents were asked what the most important aspects of transportation were to them and where they saw the biggest issues. CORE staff collected over 700 survey responses and comments. Some of the areas of concern included safety concerns, a need for improved opportunities for biking and walking, improved transit service and overall transportation options and connectivity. Based on the input the CORE staff drafted a set of goals representing a broad statement of our region's desired future conditions. These goals and objectives are targeted to ensure that the transportation system helps the region attain its overall vision for the future. The goals provide a framework for the provision of

For more information on Mobility 2045 update, visit www.corempo.org or www.thempc.org.

Games and Interactive Activities from Open Houses

Mobility 2045 Project Funding Interactive Exercise Using “CORE Bucks”

Please use your CORE Bucks to “vote” on which type of projects should receive funding. Place the desired amount of CORE Bucks in various labeled buckets.



the

Widen or Construct New Roadways: Widen existing roadway such as I-95 or construct new roadways to provide greater mobility in the region.

Improve Transit Service: Improve existing CAT service and provide service to adjacent areas with commuter van and/or bus/rail service, including the construction of park-and-ride lots.

Improve Traffic Operations: Add turn lanes, traffic signals, or other improvements at intersections in order to improve traffic flow / reduce bottle necks and better accommodate truck-related traffic.

Improve Safety: Identify unsafe transportation facilities (roadways, sidewalks, and/or conflict areas) and invest in improvements that enhance safe operation for all modes.

Construct / Improve Sidewalks, Bicycle Lanes, Trails, etc.







Improve non-motorized transportation connections within municipalities and to activity centers, around schools and connections to the unincorporated parts of the region.

Transportation Maintenance: Invest funding in maintaining current transportation assets (i.e. more frequent paving, fixing pot-holes, rebuilding bridges and roads to meet current design standards).

Mobility 2045 Dot Exercise

*Shows us where you experience transportation and traffic issues.
Place a corresponding color dot on the map.*



-  **Widen or Construct New Roadways:** Widen existing roadway such as I-95 or construct new roadways to provide greater mobility in the region.
-  **Improve Transit Service:** Improve existing CAT service and provide service to adjacent areas with commuter van and/or bus/rail service, including the construction of park-and-ride lots.
-  **Improve Traffic Operations:** Add turn lanes, traffic signals, or other improvements at intersections in order to improve traffic flow / reduce bottle necks and better accommodate truck-related traffic.
-  **Improve Safety:** Identify unsafe transportation facilities (roadways, sidewalks, and/or conflict areas) and invest in improvements that enhance multi-modal safe operation.
-  **Construct / Improve Sidewalks, Bicycle Lanes, Trails, etc.:** Improve multimodal connections within municipalities and to activity centers, around schools and connections to the unincorporated parts of the region.
-  **Transportation Maintenance:** Maintenance and repairs needed.

Online Survey

The survey ran from June to July and was offered in English and Spanish.

The Coastal Region (CORE) MPO is in the process of developing our Metropolitan Transportation Plan, for the Savannah metropolitan region. As part of the public input process, we want to know your thoughts on several issues that will affect development of the plan, and the selection of projects to implement. The results of your feedback will be incorporated into the final plan. For more information on the Metropolitan Transportation Plan, please visit: www.thempc.org/Dept/Tran

This survey is short, and should take less than 5 minutes to complete.

Funding for transportation projects is limited. How should the Metropolitan Transportation Plan allocate available funding? Please rank the following projects from most (1) to (5) least important.

Maintaining the current roadway system (i.e. fixing potholes, maintenance and repair of bridges, etc.)

Widening roads and building new roads and expressways

Creating new bike lanes and sidewalks

Enhancing/expanding the existing bus system (Chatham Area Transit)

Improving intersections to improve traffic flow

What do you see as the biggest transportation problem facing the region?

- ☐ Lack of transportation options
- ☐ Traffic congestion
- ☐ Unsafe conditions
- ☐ Lack of roadway maintenance
- ☐ Other/additional comment (please specify)

Please rate the following elements, and how important it is that these measures be included as part of the Metropolitan Transportation Plan

- Lower transportation costs
- Improving truck travel time reliability
- Ensuring transportation benefits and cost are evenly distributed throughout the region
- Reducing roadway congestion
- Maximizing private investment in transportation
- Maximizing transit ridership
- Improving travel time reliability
- Reducing air pollution
- Maintaining current infrastructure
- Building projects more quickly and efficiently
- Promoting new development
- Improving accessibility for all users of the transportation system
- Reducing transportation system vulnerability to climate change and extreme weather
- Maintaining or reducing travel time to economic job centers
- Improving safety

Not at all important

Slightly important

Moderately important

Important

Very important

No opinion

When coordinating improvements with adjacent counties and states, which are the most important to you? (Pick 2)

- ☐ Improved travel for pedestrians/bicyclists
- ☐ Improved roadway travel (such as I-95 and US17) for vehicles
- ☐ Improved public transportation
- ☐ Improved connections between major regional destinations (airports, beaches, major shopping malls, etc.)

When looking at providing additional mass transit options, what areas should the CORE MPO focus on? (Choose 1 or more)

- ☐ Expanding the current bus system (greater frequency, additional routes, longer hours, etc.)
- ☐ Bus-Rapid Transit on key routes
- ☐ Additional "park and ride" commuter options
- ☐ Expanding transit technology (electric buses, bus arrival and location information)
- ☐ Encourage transit orientated development
- ☐ Expand bike share
- ☐ Other (please explain)

Please share any other thoughts on improving transportation in Broward:

How did you hear about this survey?

- ☐ Social Media
- ☐ Broward MPO website
- ☐ Presentation/word of mouth
- ☐ Outreach event
- ☐ Mail (postcard)
- ☐ Other (please specify)

What zip code do you live in?

If you would like to receive more information and updates about the CORE MPO's Metropolitan Transportation Plan, please leave your email below:

Mobility 2045 Comments	Response
<p>I would love to see some of the very busy and dangerous streets (Drayton, Whittaker, 52nd Street, etc) reduced to one car lane and one bike lane, or switched to counterflow traffic. I would also love to see the bike roads throughout the coastal region improved. Lastly, crosswalks and stop lights and other ways to make sections of the city, especially midtown/Thomas square, more pedestrian friendly are long overdue.</p>	<p>Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.</p>
<p>(This is a repeated answer from an earlier question! I'd like to make sure it goes through. Thank you so much.) I wish that major roads in Savannah had a bike lane and sidewalk. Without a car, it is virtually impossible to go from my home to work. The bus is tardy and the bike lanes start and end in inconvenient and abrupt manners. Having a bike path would create a quick and healthy way to commute. Id like to suggest more bike paths on major roads (Abercorn, Waters, Montgomery cross, Whitebluff...). These paths would allow those living in nearby neighborhoods to commute. Having a bike lane on major roads could also be beneficial to scooter riders and wheelchair riders. In Montreal, Canada, a bike lane runs throughout the entire city, on a road parallel to the main road. This road is safe and seclusive and allows many to travel freely. I've seen many in wheelchairs be so happy that they could get around safely and independently. This not only freed up the main road (people biked instead of driving, less vehicles) but the mental benefits of excercise and the feeling of doing so safely and freely were mentally beneficial. Montreal also provides rental bikes (much like the yellow SCAD bikes) that can be borrowed at a rate of two dollars an hour. This encourages many tourists to enjoy the city. A safe bike path could be a positive change for Savannah that</p>	<p>The long range plan includes set aside funds for non motorized projects that include local sponsorship.</p>

not only promotes exercise, leisure, and tourism, but that allows the everyday commuter a chance to get to work without needing a car.	
1 don't have any choice but to drive, which is frustrating at times, considering how much larger cities handle public transit. 2. We need more direct roadways in some places to expedite traffic. 3. DeRenne needs traffic lights to sync up! This is the source of so much congestion. It would make the road faster by 200%. I have no choice but to use DeRenne coming home. It takes me almost as long to get through DeRenne as it does driving from Rincon to Savannah.	DeRenne is being studied for improvements and future projects sponsored by the City of Savannah are noted in the plan.
A better park and ride system for events in the area.	Comment noted and shared with Chatham Area Transit
A better rail system and a better incoming out going from the city, I-16 3 lanes to county lines, Better on/off ramps at major intersections	The projects and strategies identified in the plan address many of these issues.
A better transit system that even people who own cars would like to use should be the top priority.	Comment noted and shared with Chatham Area Transit
A rapid transportation option between downtown and the airport would be greatly beneficial. This could move much of the traffic to and from Pooler and the surrounding area off of I95 and I16.	Comment noted and shared with Chatham Area Transit
A regional commuter bus system similar to GRATA	Comment noted and shared with Chatham Area Transit
A traffic engineer could probably alleviate some of the traffic at some intersections by simply changing the time length of certain lights.	Operational improvements are one of the priorities identified in the plan with designated funds set aside for such projects.

Accessibility to waterways via public right of way is under utilized. These facilities promote eco-tourism, marine conservation and recreation.	Comment noted
Add taxi, bus routes to rural areas. Such as, Effingham	Comment noted, the plan is designed to serve all people, freight and goods.
Additional bike lanes for commuters please!	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
Additional crosswalk support (signage, lights, road paint, etc.)	
Addressing street parking at intersections downtown- poor visibility of pedestrians. Require pedestrians/joggers to stop at corner crossings rather than just blindly crossing, banning joggers in parking garages, free shuttle loop expansion from parking garages for WORKERS vs tourists, fix the traffic jamming at the Liberty garage (am & at graduations)	Commented noted and will be shared with city staff.
Affordable pricing	
Anything to encourage walking and biking would, I believe, be beneficial in the long run for everyone. Bikes and feet cause a lot less wear on roads than cars.	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
Are more roundabouts (traffic circles) in semi busy intersections being considered	Comment noted and shared with the technical coordinating committee.
As a whole, we need to expand and connect several areas. Making additional access routes.	
As our city expands it is crucial to expand our public transportation system. When I moved here from Seattle, where I did not need a car, I was forced to buy a car to get to my job at Gulfstream. Biking the 1 mile to downtown Savannah feels dangerous. Our roads are congested and there is no efficient alternative. Please support alternative transportation to progress our growing city. Thank you.	The long range plan includes set aside funds for non motorized projects that include local sponsorship.

<p>Basic road system is more than adequate ... Could use some sidewalk and bike lane improvements ... any new road reconstruction should allow for higher ocean levels / bigger storms ... bridges over canals should be raised - (upon rebuilding) canals - viable transportation and tourist infrastructure should be redeveloped - (raising/lowerting ? - gas/water/sewer/... pipes -) Biking, strolling, jogging ... trails along the canal areas . ----- ----- (Chicago / San Antonio / France / ...)</p>	<p>The long range plan includes set aside funds for non motorized projects that include local sponsorship.</p>
<p>Because parking is such an issue and difficult to find, reduce the cost have some free city lots like Greenville for example and keep pay for parking in the downtown North of Forsyth areas only.</p>	<p>Comment noted</p>
<p>Begin planning for autonomous vehicles. Consider a regional transportation authority to plan and implement multi-modal program.</p>	<p>Comment noted and autonomous vehicles are mentioned in the plan and we continue to monitor how this will affect transportation in Georgia and the Savannah area.</p>
<p>Better bicycle lanes along streets throughout Savannah</p>	<p>The long range plan includes set aside funds for non motorized projects that include local sponsorship.</p>
<p>Better waiting areas, and later hours for working adults including sundays.</p>	<p>Comment noted and shared with Chatham Area Transit</p>
<p>Bicycle paths that are safe and true bicycle route</p>	<p>The long range plan includes set aside funds for non motorized projects that include local sponsorship.</p>
<p>Bike lanes and sidewalks PLEASE!</p>	<p>The long range plan includes set aside funds for non motorized projects that include local sponsorship.</p>
<p>Bike Lanes in Effingham would be great Access to public transit/park and ride in Effingham would also be great</p>	<p>The long range plan includes set aside funds for non motorized projects that include local sponsorship. Comment noted and shared with Chatham Area Transit</p>
<p>bike lanes.....</p>	<p>The long range plan includes set aside funds for non motorized projects that include local sponsorship.</p>

Bike share has worked well in other cities. I think down the road this area should be thinking about a light rail system especially for commuters in surrounding areas like Pooler. In the meantime the bus service should expand to all the outlying areas like Pooler and cover more neighborhoods so workers with limited travel options can have more employment options.	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Biking	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
Bring back a new and improved "Nancy Hanks" rail system from Atlanta to Savannah and points in between.	Comment noted, please see the Urban Circulator Feasibility study https://www.thempc.org/Core/Studies
Bring back electric cable cars. Run them into downtown from the surrounding region to maximize walking culture.	Comment noted, please see the Urban Circulator Feasibility study https://www.thempc.org/Core/Studies
Bryan county needs better roads and access . Particularity Richmond Hill, Belfast Keller road area	Comments noted and will e shared with Richmond Hill Staff
Build to move people not just cars	Comment noted, the plan is designed to serve all people, freight and goods.
Building another transit center in the Midtown area of Savannah.	Comment noted and shared with Chatham Area Transit
Building bigger roads to combat traffic congestion is like fighting obesity by buying bigger pants. (IE -- it doesn't solve the problem)	Comment noted
Bus stops need improvement and buses should go all the way to Tybee.	Comment noted and shared with Chatham Area Transit
Buses are terrible for most commuters and costs go up with more ridership (unlike for trains/light rail). Bikes are great and Whitaker and Drayton need to be 1 lane with a bike lane and parking	Comment noted and shared with Chatham Area Transit
Can one lane each of Drayton and Whitaker be turned into parking with bus stops? Henry and Anderson also need improvements.	Comment noted and shared with Chatham Area Transit

CAT needs to become more reliable. I also think downtown road congestion is a problem. Additionally, there are many places where sidewalks and cross walk lights are in terrible condition, especially as you get further from downtown. In general, the further you get from downtown the more deteriorated conditions are.	Comment noted and shared with Chatham Area Transit
CAT should not be continued to operate with huge subsidies and therefore operating losses year after year. CAT is a complete waste of tax payer money. UBER could provide a superior service at less cost than CAT. Get rid of the bus system in Chatham county and replace it with something that will work - UBER. If you want to subsidize riders than let them use Uber. CAT is the worst bus service I've ever seen and if it losses so much money than shut it down. Come up with an alternative plan such as subsidized Uber for all low income citizens. That's a plan I can get behind.	Comment noted and shared with Chatham Area Transit
Connectivity needs to be improved in lower income areas especially through sidewalks, crosswalks, bike paths, and bus stops to economic centers.	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
coordination with outer communities. expand CAT routes and locations	Comment noted and shared with Chatham Area Transit
Could more biking resources include showers? That's the only reason I don't commute to downtown Savannah on my bike	Comment noted and shared with Chatham Area Transit
Covered transit locations to protect riders from the weather	Comment noted and shared with Chatham Area Transit
creating new routes and improving the existing roadways to better handle more traffic safer	Comment noted and shared with Chatham Area Transit
Currently, the bus system is less convenient than driving- there's no incentive to ride the bus unless you don't have another option. If bus routes were more frequent and accessed more areas, it would encourage more people to use them. Also, route times are incredibly long	Comment noted and shared with Chatham Area Transit

making it difficult for those who must ride the bus to get to work or to access other job opportunities that are not close to their home.	
Dean Forest and I-16 congestion	The plan includes \$28,155,497 for improvements to the I-16 at SR 307 interchange.
Dedicated bike lanes to travel downtown from Midtown would be great to see. I'd love to be able to park my car further out and enjoy riding downtown for brunch on the weekends or similar outings.	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Do not spend money on projects like downtown Savannahs Rail system, it's like good money down a rat hole, even if federal money!!!!	Comment noted
do not sacrifice the historic brick streets and oak trees as road 'improvements' we all know those historic areas were not designed for auto traffic and should not be re-purposed to accommodate.	The plan addresses mitigation on historic and culturally resources.
Electric buses	Comment noted and shared with Chatham Area Transit
Enforce the speed limit to reduce speeding and accident.	Comment noted
Ensuring the accessibility and availability of sidewalks throughout Savannah should be a priority (keeping them in repair and traversable by wheelchair). Additionally, continued work on bringing CAT Mobility into compliance with ADA requirements regarding scheduling should remain a focus.	The long range plan includes set aside funds for non motorized projects that include local sponsorship. Comment noted and shared with Chatham Area Transit
Establish a law/regulation that would require a traffic-impact study (and subsequent action based on the study) to be done for all new commercial construction at the expense of the property owner, not the taxpayers	Traffic studies are required of development which generate over a defined threshold of traffic. The studies are done at the expense of the developer.
Expand and encourage public transportation, green energy, biking and walking. Discourage gas-guzzling vehicles, car-centric development.	The long range plan includes set aside funds for non motorized projects that include local sponsorship.

Expand availability of shared use paths and sidewalks, and connect them to the most used transit stops.	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Expand bike trails east/west and north/south (using canal system as first option - especially in mid-town/southside communities	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Expand bus routes into Bryan and Effingham counties.	Comment noted and shared with Chatham Area Transit
Expand free shuttles to Victory Blvd shopping areas.	Comment noted and shared with Chatham Area Transit
Expand public transport throughout the area and include Tybee and Southside. The focus of only the Historic District is frustrating for visitors!	Comment noted and shared with Chatham Area Transit
Expansion and frequency throughout the county	Comment noted and shared with Chatham Area Transit
Favor residents over tourists.	Comment noted, the plan is designed to serve all people, freight and goods.
Find a way to reduce large trucks on Bay st.	Comment noted and will be shared with representatives from the city.
Finish projects quickly. Put an exit for I-95 at Belfast Keller in Bryan County.	Comments noted and will e shared with Richmond Hill Staff/GDOT
Focus on maintaining our current system and not facilitating suburban growth patterns. Maximize improvements for bike and pedestrian infrastructure.	The plan includes over 1.8 billion in transportation investments over the next 25 years to help accommodate growth and maintenance. The plan includes set aside funds for non motorized projects that include local sponsorship.
Focus on public transport, bicycle commuting, pedestrian access. Reducing speed limits. Creating more cyclist and pedestrian infrastructure and access.	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Funding	Comment noted
Future transportation improvements should be focused on solutions that are not automobile-centric. Creating a city that is supportive of bike/ped commuters and transit users should be of the utmost importance.	The long range plan includes set aside funds for non motorized projects that include local sponsorship. Comment noted and shared with Chatham Area Transit

Get people riding CAT. This will improve traffic congestion. Biggest single thing for this would be adding Park n Ride so people can drive a mile or two to the Park n Ride then hop on the bus. This is a great success up north and out west and encourages transit-oriented development. Stores and restaurants around the Park n Rides usually do very well. Commuters arrive, get groceries or dinner, then go home from there. Lead by example: add MPC as CAT partner for employee ridership like City of Savannah. Improve the CAT mobile app for more reliable bus tracking and add a route planner.	Comment noted and shared with Chatham Area Transit
Get smaller transit buses. There are too many large, empty buses	Comment noted and shared with Chatham Area Transit
Get the DOT to allocate sufficient funds south of Macon.	Comment noted
Go east to Fort Pulaski and Tybee	Comment noted
Greater connectivity between CAT and CRC to cover balance of service area	Comment noted and shared with Chatham Area Transit
Have the GA DOT stop doing stupid things like making people stop on interstate off ramps to get killed. (Richmond Hill & Port Wentworth) no finishing roads in timely manor. Work on new project 24 hours to complete them faster.	Comment noted and will be shared with GDOT staff.
help seniors be able to get around to places,they may not be able to, such as medical, shopping, just a nice ride.	
High speed train to Atlanta, and Jacksonville, and Charlotte.	Comment noted
How about a passenger train to Atlanta?	Comment noted
How can we get a better way for people trying to catch the bus to be seen by the bus driver, especially if they have a hard full items	Comment noted and shared with Chatham Area Transit

I am tired of downtown businesses getting to dictate how street traffic,speed,lanes are done ,esp going thru residential areas. People who work downtown need to use the freeways to get home west of Derenne. People who live in the burbs,are NOT going downtown to shop and eat! They shop and eat where they live. Downtown is used by residents who live east of Derenne,SCAD students and TOURISTS. I'm tired of businesses downtown always trying to accommodate people who currently are not ,nor going to be ,their customers.	Comment noted and shared with Chatham Area Transit
I feel that road maintenance is needed. It's terrible watching out for pedestrians and pot holes at the same time	Comment noted, the plan is designed to serve all people, freight and goods.
I think our surrounding communities could benefit from golf cart trails(similar to peach tree city). People drive their golf carts to the store/school/community events/etc and it helps keep down in-city traffic congestion	Comment noted
I think there needs to be a big push for tourists and students to use public transit. Buses could make trips to and from Tybee every 30 minutes on weekends, more bike rentals in the historic district, etc.	The long range plan includes set aside funds for non motorized projects that include local sponsorship. Comment noted and shared with Chatham Area Transit
I think there should be bike lanes and side walks everywhere, even on the islands. When I ride my bike home from work I know I have the right of way but feel the frustration of those in vehicles. I feel that frustration could put me in danger. Not everyone can afford 2 vehicles, my bike is my primary mode of transportation. Thank you.	The long range plan also includes set aside funds for non motorized projects that include local sponsorship.
I would love to extend the Truman Linear Park Trail further north, up to President's Street, and further south to Abercorn St.	The plan currently includes \$4.4 million for the Truman Linear Park Trail II-B. The long range plan also includes set aside funds for non motorized projects that include local sponsorship.
I would love to see a park and ride option for people who live outside the city. The problem right now is the buses take a very long time to actually arrive in the city. If this could be	Comment noted and shared with Chatham Area Transit

improved I would love not spending a bunch of extra time and money trying to find a place to park.	
I've heard reducing Drayton and Whitaker to single lanes is an idea getting some traction. Strongly opposed to this. These are major arteries in and out of downtown Savannah. We need more such arteries not fewer!	Comment noted and will be shared with representatives from the city.
I-16 needs to be at least 4 lanes to highway 280 for normal and truck traffic for the port. Need better enforcement of left lane slow drivers.	The plan includes several improvements for I-16 within the region's boundaries.
If you want less people to use their cars, then more reliable, safe, efficient mass transportation must be made available. You can't rely on current bus system to get you anywhere in a timely manner.	Comment noted and shared with Chatham Area Transit
I'm interested in seeing traffic calming measures on throughways in residential/high foot traffic areas, i.e. Drayton and Whitaker Streets.	Comment noted and will be shared with representatives from the city.
Improve access to Tybee Island	The long range plan include projects to improve US 80 and the bridges out to Tybee.
improve bike routes, it dangerous to bike on most of the core streets. I've never seen a bus that has been even 30% full, size transportation to market demand, smaller buses	The long range plan includes set aside funds for non motorized projects that include local sponsorship. Comment noted and shared with Chatham Area Transit
Improve cycling lanes and routes	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
Improve frequency on bus routes	Comment noted and shared with Chatham Area Transit
Improvement pick up times for those using the system for appointments.	Comment noted and shared with Chatham Area Transit
Improving bike and pedestrian safety is a must. It's low cost transportation & has very little environmental impact.	The long range plan includes set aside funds for non motorized projects that include local sponsorship.

improving road surfaces. Widen roads to prevent traffic delays downtown behind tour buses and carriages, and designated bike lanes to improve safety	The plan includes over 1.8 billion in transportation investments over the next 25 years to help accommodate growth and maintenance.
Incentivize electrification of vehicles and lower transportation vulnerability to sea level rise.	Comment noted. CAT is in the process of purchasing several electric vehicles.
It is very important to focus on mobility for people with special needs (disAbled, low-income, young, old, etc). I don't see that addressed in this survey.	Comment noted.
It would be so nice if River Street did not allow cars and was a pedestrian-friendly zone only. We need more spaces that cars are not allowed to infiltrate.	Comment noted
Lets bring the cycling infrastructure in Savannah up to speed with other great American cities!	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
Long term solutions please! Age of cheap fossil fuels is over, so we need to encourage non-motorized transport and public transit for efficient use of these more costly fuels	The plan includes over 1.8 billion in transportation investments over the next 25 years to help accommodate growth and maintenance.
look at privatizing Public transportation and encouraging business to develop their own for employees and customers.	Comment noted
Look to the future. We need to be investing in long term projects that will sustain our community through possible difficulties in access to natural resources and oncoming climate change as well as protecting our beautiful coast and historical area. Heavy trucks and cars take a great toll on our roads and subsequently on our pockets, lets limit their presence and create a system of smooth running, safe, trains and buses.	The plan takes into account environmental concerns and mitigation.
Maintenance and increasing access should be leading priorities.	The plan includes over 1.8 billion in transportation investments over the next 25 years to help accommodate growth and maintenance.

Make it a more pleasant experience to take public transit.	Comment noted and shared with Chatham Area Transit
Make it safer; police need to give more tickets for speeding and reckless, distracted driving.	Comment noted
Make more and better use of smart traffic lights. Change more intersections to roundabouts.	The city/county and GDOT have plans to expand the signal coordination program SRTOP. Pooler has a system in place. The plan include over \$140 million for operational improvements over the life of the plan.
Make transit more assessible and safer for those using public transport and those with disabilities.	Comment noted and shared with Chatham Area Transit
Make walkways safer for pedestrians, including those in wheelchairs.	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
Making more bike lanes safe and accessible in the downtown is important. Finding ways to encourage people to use the mass transit systems in place currently by expanding hours, locations and covered buss stops will help. Park and ride options to be increased. Slow down traffic to increase safety on major roads by using more stop signs or more frequent traffic lights.	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
Making people who don't follow proper driving laws accountable.	Comment noted
Many of the survey options listed can easily fit within each other. I encourage the CORE MPO to look at how ideas can be merged to create the best priorities for our region. We need to create a region that is safe, connected and predictable for people, no matter their mode of transportation. This means a combination of well-maintained roads, visible signage, protected bike lanes, bus only lanes and priority signalization, better maintained vehicles, and accessible sidewalks and visible crosswalks for people who walk, among all the other amenities that people in our region deserve.	The plan includes over 1.8 billion in multimodal transportation investments over the next 25 years to help accommodate growth and maintenance an improve accessibility and connectivity.

More alternative routes than I-95, I-16, and 516.	The plan includes over 1.8 billion in transportation investments over the next 25 years to help accommodate growth and maintenance.
More bicycle lanes. Safer bicycle travel out to Tybee Island. Mass Transit options to Fort Pulaski National Monument and Tybee Island.	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
More bike lanes and sidewalks are greatly needed. Hwy 80 out to Tybee needs a complete over haul. There have been more fatalities and unsafe travel in the last 3 years. Roads throughout the Wilmington Island area have been severely neglected and need repaving as well as sidewalks.	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
More bike lanes on properly paved streets.	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
More bike lanes would be extremely helpful! Electric buses would also help reduce noise pollution particularly in the Savannah Historic District- it would also help reduce carbon footprints.	The long range plan includes set aside funds for non motorized projects that include local sponsorship. CAT is in the process of purchases several electric vehicles and the plan includes funding for over \$222.6 million in transit improvements.
More bike lanes. More "share the road signs" with bike image. More questions on driver test about cyclist allowed on the roads.	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
More bus routes to growing areas such as Pooler, Richmond Hill, Georgetown	Comment noted and shared with Chatham Area Transit
More bus/transportation service between municipalities within the region.	Comment noted and shared with Chatham Area Transit
More commuter options!	The plan includes over 1.8 billion in transportation investments over the next 25 years to help accommodate growth and maintenance.
More consideration for those with disabilities and mobility issues is needed, along with more public transportation options	Comment noted and shared with Chatham Area Transit
More dedicated bike lanes and lengthy N/S E/W greenways would be a major improvement. Alternative transit should be	The long range plan includes set aside funds for non motorized projects that include local sponsorship. CAT is in the process of purchases

heavily encouraged in the downtown area: reduced parallel parking, park & ride options, more shuttle routes in the business district, and safety improvements for pedestrians would improve the quality of the downtown area.	several eclectic vehicles and the plan includes funding for over \$222.6 million in transit improvements.
More options from Airport to downtown	There are a few projects identified in the plan that will address connectivity to the airport such as the I-95 and Airways Avenue study as well as the I-16 and I-95 projects. There is a project identified to widened Gulfstream .
More parking options as well as working towards Solar Roadways throughout the area.	Please see the Greater Savannah Parking and Mobility Study https://www.thempc.org/Core/Pm
More pedestrian and bike trails in west chatham county. Specifically, bridges for bikes, runners, pedestrians to cross major roads (Jimmy Deloach, Pooler Parkway, Benton Blvd., US-80)	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
More police enforcement. Speed limits and traffic signals appear to be a suggestion to most drivers in Savannah!!	Comment noted
More trees, bikes, and buses. Fewer cars and congestion.	The plan includes over 1.8 billion in multimodal transportation investments over the next 25 years to help accommodate growth and maintenance an improve accessibility and connectivity.
Move towards more modern options - alternative fuels, smaller buses due to rider volume, better maintenance of roads and signals, bike lanes, bike lanes, bike lanes. You take your life in your hands as a cyclist in Savannah.	The plan includes over 1.8 billion in multimodal transportation investments over the next 25 years to help accommodate growth and maintenance an improve accessibility and connectivity.
Must improve means to move people instead of cars and trucks only.	Comment noted
Need a better plan for preventing the flooding of streets in downtown Savannah.	Comment noted
Need more frequency on main travel routes, improved bus stop waiting areas.	Comment noted and shared with Chatham Area Transit

Need REAL bike lanes - not just a slightly wider shoulder but real safe bike lanes. And they need to be maintained so that cyclists will actually use them.	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
New projects should always include accommodation for people who ride bikes and walk.	Comment noted
Now that you've built the Harry S. Truman Parkway as a north-south freeway through Savannah to give the island residents an easy way to get to the southside and downtown, please please please do the same for the West Chatham residents! We need east-west parkway so that West Chatham can also get to the southside and downtown easily and not have to deal with I-16 and 5-16. West Chatham/Pooler is growing way faster than the islands and we desperately need to fix the traffic problems out there.	The plan includes over 1.8 billion in multimodal transportation investments over the next 25 years to help accommodate growth and maintenance an improve accessibility and connectivity. Several projects are aimed at improving traffic on the westside: I-95 at SR 21, I-95 at I-16, Effingham Parkways, I-16 widening, I-16 at SR 307, I-16 at Little neck, I-16 at Quacco Road and Old River Road.
Open up a YMCA of Coastal Georgia Downtown, someone should donate a building to them.	Comment noted
Options for Effingham County	Currently only a small portion of Effingham County is within the boundary of the MPO. Several of the projects on the Westside of Chatham County will provide benefit to Effingham County commenters.
Our lanes are too small on county roads, 17 is good, but the shoulder width changes far too much. Keep it wide everywhere	Comment noted
Paratransit is beyond horrendous in Chatham and can we get a damn bus to Tybee?	Comment noted and shared with Chatham Area Transit. A pilot shuttle service to Tybee in circulation.
Parking continues to be problematic. While I think there should be a push to encourage public transportation and accessibility, a lot of traffic would improve if people didn't have to loop around areas as they look for available spaces.	Please see the Greater Savannah Parking and Mobility Study https://www.thempc.org/Core/Pm

Pass legislation to bring every municipality in Chatham County into the system to help fund public transportation. Also consistently monitor all routes and times to make adjustments so transportation dollars are spent more efficiently.	Comment noted and shared with Chatham Area Transit
Pass ordinance that requires new building development to include providing sidewalks and bike lanes within 5 miles of the development site.	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Paved, protected, bike routes	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
people who don't live in cities have very few transportation options	The plan includes over 1.8 billion in multimodal transportation investments over the next 25 years to help accommodate growth and maintenance an improve accessibility and connectivity.
Perhaps more incentives to complete projects on time or faster but just a safe	Comment noted
Please ... no more stupid spending like a study for bike and walk paths on highways. The communities of bike-able and walk-able of the past don't exist in the same context they did years ago. Attempting to force these elements on suburban environments is a waste of money. There are constructive environments where these elements fit (ie downtown). Use tax money more wisely. In that light this survey alone is likely a waste of taxpayer money. The MPO is a waste of money.	Comment noted
Please bring transit to pooler	Comment noted and shared with Chatham Area Transit
Please enforce the one-way bike lanes. Price street is very dangerous when some one is riding backwards down the bike lane and basically 'hiding' behind parked cars. Please do not allow large vehicles to park near the intersections. I can't see around these vehicles to see the cyclists. Please give tickets to parked	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.

vehicles that are parked half in Broad street and half in the parking space.	
Please fix the unreliability and caustic personalities at the Teleride office in Chatham! They are leaving people out in the cold (literally) and making them late for work and appointments (making them even further dependent on others because they can't keep jobs if their transport is late). There's no recourse for bad performance either.	Comment noted and shared with Chatham Area Transit
Pooler is hurting its businesses by not participating in CAT.	Comment noted and shared with Chatham Area Transit
Preserve the great places and plant new trees!	Comment noted
Promote carsharing	Comment noted
Promote rail travel. Not only is it convenient, people can be productive.	Comment noted, please see the Urban Circulator Feasibility study https://www.thempc.org/Core/Studies
Promote use of cross - town parkway as much as possible or look at the possibility of adding additional on and off ramps to the parkway.	Comment noted
Protected bike lanes are needed to increase rider numbers	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Protected/safe biking/jogging routes interconnecting Chatham County to downtown Savannah.	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Provide more ways for commuter traffic to get into and out of savannah	The plan includes over 1.8 billion in multimodal transportation investments over the next 25 years to help accommodate growth and maintenance an improve accessibility and connectivity.
Public transportation hours of operation needs to be expanded so that people who work 2nd and 3rd shift jobs have a means of getting to and from work. It also needs to focus less on transporting tourists in downtown Savannah and focus more on helping residents get to jobs	Comment noted and shared with Chatham Area Transit

outside of the city limits, as these jobs tend to be higher paying jobs.	
rail	Comment noted, please see the Urban Circulator Feasibility study https://www.thempc.org/Core/Studies
Ramp up maintenance and quality repairs instead of wasting time and money patching problems.	The plan includes over 1.8 billion in multimodal transportation investments over the next 25 years to help accommodate growth and maintenance.
Redesign certain two-lane one-way streets such as Drayton/Whitaker and Henry/Anderson to the Complete Streets model. Use bus rapid transit to remove cars from arterial roads.	The plan emphasizes a complete streets model which can be found in the Thoroughfare Plan in Appendix B. Comment noted and shared with Chatham Area Transit
Reduce number of cat buses on road to help reduce congestion.	Comment noted and shared with Chatham Area Transit
reduce number of trucks with either Rail or dedicated roads for trucks. limit trucks to right lane only on 2 lane roads, too many wrecks	
Regularly Share existing route utilization with the public...be self critical...illustrate Change over time...	The performance Based Planning and Programming System Performance Report is shared annually and the next Congestion Management Report will be available in 2020/2021.
Road maintenance, and bike pedestrian right of ways	The plan includes over 1.8 billion in multimodal transportation investments over the next 25 years to help accommodate growth and maintenance.
safe bicycle accommodation is essential to encourage and facilitate more people to commute to town by bicycle, which reduces the amount of cars going into savannah and promotes public wellness	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Safer running/biking options. Better signage and education for both motorists and cyclists and runners.	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
safety for those walking and cycling as well as those driving	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.

Safety regulations for bikers -- helmets required / attention to roadway and drainage	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Savannah and Chatham County is ideally suited for bike transportation. I am not one of those bike evangelists...but know many people that would rather bike than drive but decide to drive due to the lack of dedicated bike lanes. Bike lanes are cheap...and help to remove cars from traffic areas.	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
Savannah needs a light rail system!	Comment noted, please see the Urban Circulator Feasibility study https://www.thempc.org/Core/Studies
Savannah would benefit from a bike trail that went from downtown to Southside, near Armstrong, and one that would let people ride their bikes to Tybee safely. Protected bike lanes and bike trails are the future of tourism and local transportation. On top of that cars are anachronistic to the period that the downtown is curated to look like. The less cars downtown the more people will enjoy our great buildings and gardens without fear of being ran over by a lost tourist in an oversized car. Bike transportation will lighten general traffic because people will feel more comfortable taking their bikes to run short errands, and not add another car to the already busy street.	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Security	Security and safety are identified as goals of the plan.
Senior Citizen free ride pass to build ridership and safety	Comment noted and shared with Chatham Area Transit
Slow traffic down, especially downtown and Victorian residential areas, by eliminating dual-lane one-way streets (add bike lanes w/street parking, like on Price) and by synchronizing traffic lights to stop the build-up of speed by drivers. These are inexpensive fixes that yield huge improvement in quality of residents' lives, of biking, and of walking.	Operational improvements are one of the priorities identified in the plan with designated funds set aside for such projects.

Some Main roads - (Abercorn - S of main town ...) nonexistent sidewalks ... though not directly ... mke old canal systems usable again -	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
Something needs to be done with traffic congestion on major streets such as Abercorn, Derenne, Montgomery, 516, I-95, hwy 21 & many more.	The plan includes over 1.8 billion in multimodal transportation investments over the next 25 years to help accommodate growth and maintenance an improve accessibility and connectivity.
Start by fixing/maintaining existing roads. Need an alignment for vehicle every time you travel around Savannah. I've been here over 12 years and have rarely seen any main streets repaved.	The plan includes over 1.8 billion in multimodal transportation investments over the next 25 years to help accommodate growth and maintenance.
Stop building hotels downtown.	Comment noted.
stop doing it piecemeal - the roads are always under construction - figure out what needs to be done and get it over with	Comment noted.
Street signs and lights need to always be functional. Many stop/go light up signs do not work or are not long enough to cross safely. Public transit needs to be way more reliable and easy to use. Additional sidewalks and dedicated bike lanes would also be amazing!	Operational improvements are one of the priorities identified in the plan with designated funds set aside for such projects.
Stricter enforcement of traffic rules Solutions to deathly intersections eg cor 37th/Abercorn Traffic slowing in urban residential streets, eg Midtown and Thomas Square	The plan include over \$140 million for operational improvements over the life of the plan.
Supporting the roads for sufficient truck traffic on HWY 80 and HWY 280/ I16. The Exit ramps and overpass are in deplorable condition and a truck stop has been approved to break ground.	The plan includes over 1.8 billion in multimodal transportation investments over the next 25 years to help accommodate growth and maintenance an improve accessibility and connectivity.
Synchronize traffic signals. Blinking yellow left turn signal. More bike lanes. Connect the Truman to I-95.	Operational improvements are one of the priorities identified in the plan with designated funds set aside for such projects.
Teleride is very important to those with disabilities especially to get to and from employment. People are loosing there jobs because this service doesn't show up.	Comment noted and shared with Chatham Area Transit

The area around the airport (Jimmy Deloach specifically) could use bicycle lanes. One person was killed due to lack of safety and the current increase in truck volume has made it worse. Savannah and Pooler city should coordinate together on improving the quality of public transportation for the area around the airport - bus waiting stations should have at least a small stand with a roof.	Comment noted and shared with Chatham Area Transit
The CORE MPO has a responsibility to develop safe and connected roadway networks for ALL transportation users, including people who bike, walk, use public transit, and drive. While it is important to begin the process of finally repairing our dilapidated roadways and infrastructure, it is even more important to do so in a way that provides safe places for our most vulnerable roadway users and establishes a robust implementation plan for years to come.	The plan includes over 1.8 billion in multimodal transportation investments over the next 25 years to help accommodate growth and maintenance an improve accessibility and connectivity.
the downtown area has become to costly for those living in the area. The increase in parking fees and the extended time to pay for parking does not make it cost effective to visit the area	Comment noted.
The East Coast Greenway and a connected network of local shared use paths should be a priority planning, design and construction project.	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
The Midtown/Mall area needs a Master Plan that focuses on transportation options. there are thousands of jobs, activities, and services in that area but it's only accessible by personal vehicle. Buses go there, but bus stops are unsafe and it's not walkable at all. The amount of surface parking in this area is a giant waste of potentially very valuable property.	The plan includes over 1.8 billion in multimodal transportation investments over the next 25 years to help accommodate growth and maintenance an improve accessibility and connectivity.
The transit for the elderly and sick should be improved	Comment noted and shared with Chatham Area Transit
the transit system should be enhanced to readily serve all citizens in their daily travels;	Comment noted and shared with Chatham Area Transit

for bike share to be successful there must be more stations	
There are major road maintenance issues in Savannah.	The plan includes a set aside of \$232 million for maintenance needs.
There are some places that are near impossible to get to on a bike without risking your safety (Tybee Island being #1). Savannah is set up to be a bike friendly city with our grid streets and our flat landscape and it is completely a missed opportunity that we haven't tried to make ourselves more like the Amsterdam of the south. Invest in bike infrastructure and promote it as an option. I live in Midtown and work downtown and get there exclusively on bike. Not only do I often get to work sooner than my housemate, I don't have to deal with paying for parking. People need to feel safe on a bike and know it's an option. The current lack of bike parking and lack of bike lanes (there is no east to west bike lane north of 37th!) makes it uncomfortable to bike since so many people speed and run red lights/blow through stop signs etc. Savannah is full of dangerous drivers!	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
this is not the time for expensive proof of concept "Eco" solutions. There are 1000s of new jobs and the current system needs to support access to those jobs.	The plan includes over 1.8 billion in multimodal transportation investments over the next 25 years to help accommodate growth and maintenance and improve accessibility and connectivity.
Too often, I have seen Cat buses flying down the road, and leaving/passing people clearly waiting at marked bus stops. This isn't a race. If driver's have to leave commuters behind, then clearly more vehicles and less speed trained operators are needed.	Comment noted and shared with Chatham Area Transit
Traffic calming using bump outs and trees. Bike infrastructure. Safe sidewalks. Reduced speeds around pedestrian areas	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
traffic congestion going on and off of Tybee needs to be addressed. Major safety concern.	The plan includes \$95 million for improvements on US 80 and the bridges out to Tybee.

<p>Transportation in the area is mostly based on cars. There must be a shift in paradigm in order to sustainably move forward. Georgia is a great place to use a bike, with very scenic landscape. However, not many people choose to do so. Mostly because it is dangerous to ride your bike in certain areas with so many vehicles. Integrating different forms of mass transportation with bicycles, wherever feasible would be grand for the city. Selling the city as a "green" place would attract more tourists, and also make the lives of the residents more pleasant.</p>	<p>The long range plan includes set aside funds for non motorized projects that include local sponsorship.</p>
<p>Transportation is interdependent with the public health, crime reduction, and livability of our city. Designing transportation options and urban design to encourage walking and cycling options has been proven increase the health and happiness of urban populations.</p>	<p>The long range plan includes set aside funds for non motorized projects that include local sponsorship. In addition the plan also encourages complete streets through the Thoroughfare Plan which can be found in Appendix B.</p>
<p>Turn the Truman limited-access Parkway into a true parkway with slightly slower speed limits and many more cross street intersections as roundabouts.</p>	<p>Comment noted.</p>
<p>Uh....bikes. Safe and comprehensive bike routes clearly marked and separated from car traffic. We have the perfect terrain and climate, we just need the paths.</p>	<p>The long range plan includes set aside funds for non motorized projects that include local sponsorship.</p>
<p>Use more efficient smaller buses such as airport type buses.</p>	<p>Comment noted and shared with Chatham Area Transit</p>
<p>Use more traffic circles. Atlanta is putting more and more traffic circles in key intersections to keep traffic moving.</p>	<p>The plan include over \$140 million for operational improvements such as this over the life of the plan.</p>
<p>Want to see emphasis on creating a network of protected, connected greenways and paved trails for bicycle & pedestrian travel.</p>	<p>The long range plan includes set aside funds for non motorized projects that include local sponsorship.</p>
<p>Ways to improve road structure to prevent flooding.</p>	

We are not bike friendly and as a tourist town we should be	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
We desperately need to get our focus away from cars. Please consider a light rail system someday! In the meantime, collaborating with cities to favor non-car oriented development, increased sidewalks, and better traffic flow on our existing roads (victory/Truman/Wall in really needs some help!) Would be a step in the right direction. Thank you!	Comment noted, please see the Urban Circulator Feasibility study https://www.thempc.org/Core/Studies
We desperately need to improve bike lanes and bike accessibility because Savannah is not only a good walking town but also one that could be a shining example of bike riding around its beauty.	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
We have a population that will use public transit if availability increases. Also providing bike & alternate friendly lanes would be nice	Comment noted and shared with Chatham Area Transit. The long range plan includes set aside funds for non motorized projects that include local sponsorship.
We live along the Whitaker corridor and are tired of the whining that Whitaker nd Drayton NEED to be 1way so people can get in md out of the city more quickly. That is what the Truman and east President are for. It appears that all of the planners have failed to take into account that the area from Victory north to Liberty had undergone a major change with people moving into the area and spending combined millions of dollars on renovations. The only voice that seems to be heard is that of developers and downtown businesses. The reality is people living south of Victory and clearly those loving south of DeRenne rarely travel downtown unless ther jobs are there. If a persons concern is that they can't get to work on time they need to do two things. Leave earlier and come to grips with the reality that a city founded in 1733 is designed around the speed of a horse.	Comment noted

We need more (and better visible) bike lanes -- especially those heading east and west within Savannah. New development in the Arena & Canal district should incorporate this into the design.	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
We need more options to not take a car. Bike lanes. Cart lanes. Buses.	Comment noted, The plan includes over 1.8 billion in multimodal transportation investments over the next 25 years to help accommodate growth and maintenance an improve accessibility and connectivity.
We need more sidewalks and bike lanes. For a city that is so "walker friendly" we are not bike friendly enough. We also need to improve the DOT bus system. There should be collaboration with the homeless service agencies and with the city to provide transportation into downtown thats primarily for low income individuals to access services, so that the DOT buses can be used within the city to transport the general public around.	Comment noted and shared with Chatham Area Transit. The long range plan includes set aside funds for non motorized projects that include local sponsorship.
We NEED public transportation on Thanksgiving, Christmas, and New Year's Day! The city still has to run, people still have to work, tourist are still in the city as well! CAT should be running on a holiday schedule on those days. Believe it or not! It is no longer 1950! Savannah has grown, and so has tourism! Please grow with it!	Comment noted and shared with Chatham Area Transit
WE need to education more and more people everyday on how to respect each other either on bikes or cars and any kind of vehicle seriously safety wise. Too many drivers on their phones or doing something while driving and not paying any attention to others.	Comment noted.
We need to make it easier for people to use alternative transportation. Right now it only seems like an option if you live in the downtown area. Otherwise you have to get into your car for everything.	Comment noted and shared with Chatham Area Transit. The long range plan includes set aside funds for non motorized projects that include local sponsorship.

Weather and topography make biking ideal here. Make it safer...and why not have 3 hours on Sunday afternoon where some key roads are for recreational biking only! This is successful/popular in other cities.	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
When planning anything new, or if something needs total replacement, incorporate the grid system used downtown as much as possible. Especially in chaotic West Savannah and Southside.	Comment noted
Why are 18 wheelers driving through the middle of this city along Bay Street. Improved rail crossings. Reduced horn noise from trains.	Comment noted and will e shared with city staff.
Why can't we plan for a light rail system? One route could go east/west between Effingham County and Tybee Island, with stops in Pooler, downtown Savannah and Wilmington Island. Another could go north/south from the Savannah River to Richmond Hill with stops in midtown, Southside and Georgetown. We need to think long-term about transit and not focus on a car-centric transportation system! And we need WAY more bike-friendly streets, preferably with dedicated bike lanes protected from automobiles. We are a flat city where it rarely snows or sleets, so we have no excuses. Savannah should be the bike friendliest town in the southeast!	Comment noted, please see the Urban Circulator Feasibility study https://www.thempc.org/Core/Studies
Widen all the existing major corridors	Comment noted, The plan includes over 1.8 billion in multimodal transportation investments over the next 25 years to help accommodate growth and maintenance an improve accessibility and connectivity. The includes funds to widen I-16 and I-516.
Widen Hwy 80 to improve traffic in emergency situations	the plan includes \$95 million for improvements on us and the bridges out to Tybee.
Widen I-16 from downtown to I95, at least. The 5:30 congestion is ridiculous.	The plan includes \$211 millions to widen I-16.

Widen US80 to Tybee!	the plan includes \$95 million for improvements on us and the bridges out to Tybee.
With a high number of households without access to cars, and a population that is interested in healthy ways to travel, we must invest in better bicycle and pedestrian infrastructure such as trail networks.	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
Worry more about residents - not just tourists!	Comment noted, The plan includes over 1.8 billion in multimodal transportation investments over the next 25 years to help accommodate growth and maintenance an improve accessibility and connectivity.
Would be awesome if Whitaker was one lane with protected bike lanes running north and south. The Price st bike lane is a good example of how changing a road can improve the community. Also, downtown needs a safe east/west bike route.	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
You can't build your way out of congestion. It will take a combination of land use planning, interconnected transportation alternatives, and dis-incentivization to change the present arc of transportation development.	The plan includes over 1.8 billion in multimodal transportation investments over the next 25 years to help accommodate growth and maintenance an improve accessibility and connectivity.
Better roads in Savannah Area	The plan includes over 1.8 billion in multimodal transportation investments over the next 25 years to help accommodate growth and maintenance an improve accessibility and connectivity.
We will need something great for the citizens who works downtown and have a car. They need a lift from a parking site, share ride, or options on parking fees while working downtown.	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
There has to be additional ways to access Chatham from Bryan and Effingham counties. You're losing residents but many still work in Savannah. It is so difficult to travel to and from either place. Been hearing about new roads for over 20 years. Fix the problems !	The plan includes over 1.8 billion in multimodal transportation investments over the next 25 years to help accommodate growth and maintenance an improve accessibility and connectivity.

Safety is the most important issue. It must be the driving factor for all considerations. Maintenance is critical to maintain safety, but new construction can also enhance safety.	The plan includes over 1.8 billion in multimodal transportation investments over the next 25 years to help accommodate growth and maintenance an improve accessibility and connectivity.
Driver education and behavior creates a lot of unnecessary problems in our area. If "slower traffic keep right" laws were enforced locally, a lot of congestion and accidents would be avoided. We must also be willing to try new design improvements like roundabouts and other interchange designs.	Comment noted
The biggest is a lack of available funds. Our only saving grace is the fact the Ports bring in money for transit projects related to their expansion.	Comment noted
Savannah needs something like Atlanta's Beltline, safe paved trails connecting the whole city.	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
Pay closer attention to needs of residents and particularly those who live in poverty and depend daily on public transportation.	Th plan includes over \$222 million in funds for transit improvements. Areas of poverty are analyzed as part of the environmental justice analyzed.
Regional Marta with large parking garage areas connecting statesboro to west Chatham to downtown and south side. I think with fast trains you could have greater use from the college as well as those that work at the port and at the hospitals. But short term a tram would be nice in the historic district from bay to victory and MLK to east broad is foreseeable	Comment noted, please see the Urban Circulator Feasibility study https://www.thempc.org/Core/Studies
east to west limited access road connect 516 to truman to possibly the islands.	The plan includes over 1.8 billion in multimodal transportation investments over the next 25 years to help accommodate growth and maintenance an improve accessibility and connectivity. This includes several projects which improve east-west access.
Safe bike lanes & sidewalks throughout city	The long range plan includes set aside funds for non motorized projects that include local sponsorship.

Completing the region's portion of the Coastal Greenway bike route.	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
expand free shuttle system as it is working well	Comment noted and shared with Chatham Area Transit
There is a very strong precedent for car travel in this region that is beginning to have impacts for those who live in the immediate surroundings of downtown Savannah. It would absolutely change my life if I had access to a protected bike lane to downtown from my neighborhood. Instead, developments are being allowed that enforce car-bound behaviors. Please look beyond the transportation systems themselves, to development, including city and state legislation, and consider how development outside of the city center is primarily sprawl and significantly car-dependent. How can developers be encouraged to support denser growth and more mixed-used developments? How can the public be tapped to increase use of existing public trans (there is a stigma for bus use, and an education campaign could address it, or begin to! People need to know how they can use the bus in their daily lives.) So 1) build protected bike lanes from the eastside of Savannah to downtown please, and 2) dive into development policy-- the case of Johnny Harris is a great example-- residents of the neighborhood next to Whole Foods don't want additional sprawl. They want walkability, they want human-scale development, and the developers seem to be deaf to this. Can the MPO (and partners) help to bridge this gap, and translate for developers how they can do human-scale development without sacrificing their oh-so-precious profit margins?Thank you for taking the time to read these comments!	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
improve roads and exit (turning and merging into traffic	Operational improvements are one of the priorities identified in the plan with designated funds set aside for such projects.

<p>We are 20 years behind in developing safe road ways - example Hwy 144, Hwy 17/25, I-95 interchanges (Belfast...). These problems that were identified 20 years ago are now finally under improvement - this is intolerable. For the safety of the citizens better coordination with developing authorities, county, city and state must form a checklist to prevent safety issues from being overlooked</p>	<p>Safety is a priority of the plan as well as at the federal level. To learn more about how safety is addressed in the plan see the chapter on safety and security as well as review the Performance Based Planning Program.</p>
<p>As the downtown area increases in traffic, it is important to ensure pedestrian safety and alternate means of transportation to minimize congestion. It is not the responsibility of residents in the City of Savannah to subsidize roads and highways for commuters to travel in to the City. It is also the responsibility to protect the residents with the increased traffic. For example, there needs to be a pedestrian cross-walk with light at the intersection of Atlantic and Victory for the students walking to Savannah Arts Academy and for the residents of the surrounding neighborhoods. Development needs to be comprehensive.</p>	<p>Safety is a priority of the plan as well as at the federal level. To learn more about how safety is addressed in the plan see the chapter on safety and security as well as review the Performance Based Planning Program.</p>
<p>There are some places at impossibke to bike to! I wish you could bike to Tybee Island safely of get to the south side safely</p>	<p>The long range plan includes set aside funds for non motorized projects that include local sponsorship.</p>
<p>There very few options besides driving and we see lots of folks who don't have cars sitting in the hot sun waiting for the bus. MPC should make greening and shading bus shelters a priority to catch the runoff, clean the air, and make it nicer environment for users. Another point is the noisy deisel buses for tourists - why aren't those electric?! I know those are lots of small businesses who run the ghost tours and such but damn they're loud and smelly. We live in midtown and find it easier to bike downtown but honestly have more trouble finding a bike parking spot than a car spot.</p>	<p>Comment noted and shared with Chatham Area Transit. The long range plan includes set aside funds for non motorized projects that include local sponsorship.</p>

Traffic flow is always the phrase used, as if the goal is to increase speed FOR cars. What about traffic calming instead, safety FOR pedestrians and cyclists in neighborhoods? More speed tables - Hull/Atlantic/56th/54th, for instance, near parks. More bike lanes in all directions. Easy inexpensive passenger train transit to Atlanta, Charleston, similar to what existed in the early part of the 20th Century. More restrictions on driver's license access i.e. more rigorous driver training.	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
We need High Speed Rail to Atlanta. The Atlanta mayor says he wants it. We should too.	Comment Noted
To assist with traffic calming in the midtown area, we need raised crosswalks that will force cars to slow down in residential areas.	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Bus shelters and seats for every bus stop! More dedicated bike lanes. Cross walks with lighting in the pavement.	Comment noted and shared with Chatham Area Transit
The highways need to have added lanes and better engineered on and off ramps to assist with the flow of traffic.	
Make transit more attractive to general public, choice rider, not just needs rider; Better maintenance of roadways	Comment noted and shared with Chatham Area Transit. The plan includes \$222.6 million for transit improvements over the life of the plan.
Follow the plan.	Comment noted
Growth and congestion is in the western Chatham and Effingham quadrant. Please focus on improving safety and congestion. When wrecks happen they are crippling to transportation. The affect of added trucks from port expansions is a continued stress on these roadways	The plan includes over 1.8 billion in multimodal transportation investments over the next 25 years to help accommodate growth and maintenance an improve accessibility and connectivity.
There are so many jobs in Savannah/Chatham seeking people to hire but many would have to depend on public transportation which, in many cases, does not get folks to work on time thus causing them to lose their jobs.	Comment noted and shared with Chatham Area Transit. The plan includes \$222.6 million for transit improvements over the life of the plan.

Need more and ongoing public education about the value of density and smart planning.	Comment noted
Top priorities for planning and funding should be given to public transportation and bicycle and pedestrian facilities. More money spent on road facilities for automobiles only contributes to furthering transportation inequities, and will in the end result in more traffic and congestion. Today we need to create viable and sustainable alternatives to the automobile.	Comment noted and shared with Chatham Area Transit. The plan includes \$222.6 million for transit improvements over the life of the plan.
All of the old neighborhoods north of DeRenne are dense and would be well served by CAT bike share stands. It would make more territory accessible to both locals and tourists.	CAT is no longer operating the bike share program with the anticipation that private companies will offer this service in the Savannah area in the future.
I enjoy cycling in Savannah, both for leisure and as a bicycle commuter. Please continue to value cyclists as an important part of transportation in Savannah. A bike lane out to Tybee Island can and should be a top priority for making Savannah as better city for work and play. Thank you.	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Poverty levels in Savannah will continue until affordable, reliable and more frequent transportation options are available where the jobs are... Expand the routes	Comment noted and shared with Chatham Area Transit
Have more buses on popular routes	Comment noted and shared with Chatham Area Transit
I'd be thrilled to never park down town again	Comment noted
Better roads in the Savannah area.	The plan includes over 1.8 billion in multimodal transportation investments over the next 25 years to help accommodate growth and maintenance and improve accessibility and connectivity.
There has to be additional ways to access Chatham from Bryan and Effingham counties. You're losing residents but many still work in Savannah. It is so difficult to travel to and from either place. Been hearing about new roads for over 20 years. Fix the problems !	Comment noted, The plan includes over 1.8 billion in multimodal transportation investments over the next 25 years to help accommodate growth and maintenance and improve accessibility and connectivity.

We will need something great for the citizens who works downtown and have a car. They need a lift from a parking site, share ride, or options on parking fees while working downtown.	Please see the Greater Savannah Parking and Mobility Study https://www.thempc.org/Core/Pm
Safety is the most important issue. It must be the driving factor for all considerations. Maintenance is critical to maintain safety, but new construction can also enhance safety.	Safety is a priority of the plan as well as at the federal level. To learn more about how safety is addressed in the plan see the chapter on safety and security as well as review the Performance Based Planning Program.
Driver education and behavior creates a lot of unnecessary problems in our area. If "slower traffic keep right" laws were enforced locally, a lot of congestion and accidents would be avoided. We must also be willing to try new design improvements like roundabouts and other interchange designs.	Comment noted
better urban planning needed and tourism considerations. Lack of parking garages.	Comment noted
Unsafe flow of traffic due to a flawed design (i.e. 95/16 intersection)	There is \$211 million in the plan to address widening I-16 and making improvement to I-16 at I-95 interchange.
For future thinking. Relyin less on gas would help. Surprised there is not thoughts geared toward a downtown tram cutting from MLK to the new apartment area on president. With an additional tram track going from downtown Bay Street to deRenne. Main reason easy grid system and multiple roadways that could be transformed without too much redevelopment. Two it may have high intitial capital costs but faster transit times and more frequent travel would really be a benefit to the hospital staff and even possible base employees. It would be well suited with the grid system and activity in this area. It would also in the long term cost	Comment noted, please see the Urban Circulator Feasibility study https://www.thempc.org/Core/Studies

less and earn more revenue than the current bus system.	
Very limited safe bike routes	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Development in this area is making cars a necessity-- we need pedestrian-focused development!	The long range plan includes set aside funds for non motorized projects that include local sponsorship. Comment noted and shared with Chatham Area Transit
Government Reacts to problems - should be more proactive in finding issues to that need modifications to meet safety of citizens	Comment noted.
Biking options are dangerous!	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
1)pedestrian and bike safety, then 2)need more options	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
Impact of expanded port on the flow of traffic and safety around the Dean Forest/I16/I95 corridors. Current infrastructure at Dean Forrest is incredibly insufficient and cause wrecks and bottlenecks daily.	The includes \$28 million in improvement for I-16 and SR 307.
The buses don't cover enough areas for workers.	Comment noted and shared with Chatham Area Transit
No bike lane from downtown out to Tybee.	The long range plan includes set aside funds for non motorized projects that include local sponsorship. Comment noted and shared with Chatham Area Transit
No sidewalks on main roads. Example Montgomery xroads towards lake mayer	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
Lack of sidewalks and bike lanes in areas where people bike, walk and wait at bus stops, particularly in the Georgetown area	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.

Driver Behavior	Comment noted
Other issues are parking and road flooding	Comment noted
Pave the lanes	Comment noted
Need more bike lanes and crosswalks	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
remove the free cat shuttle	Comment noted and shared with Chatham Area Transit
And the missuse of funds like the Victory Corridor Study	Comment noted
Cars not yielding to pedestrians in crosswalks, poor night lighting drivers can't see pedestrians in crosswalks.	Comment noted
Of the roads that are not riddle with potholes, many streets lack proper reflective paint and markers	The plan includes \$232 million for maintenance through the life of the plan.
Corrupt enforcement of existing regulations	Comment noted
Lack of transportation between airport and Savannah.	There are a few projects identified eh plan that will address connectivity to the airport such as the I-95 and Airways Avenue study as well as the I-16 and I-95 projects. There is a ls a project identified to widened Gulfstream .
Unsafe conditions for cyclists due to lack of bike lanes	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Lack of focus on implementation when funding is available	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Terrible road conditions and worse driver skills	The plan includes \$232 million for maintenance through the life of the plan.
Affordable/Free Parking Downtown	Please see the Greater Savannah Parking and Mobility Study https://www.thempc.org/Core/Pm
Too much money spend on CAT	Comment noted and shared with Chatham Area Transit
Available parking	Comment noted

not enough bike lanes	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Rude drivers in a hurry.	Comment noted
Stop wasting \$\$\$\$!!! Waste of money spent on the Chatham Area Transit system. The system should be required to survive on its own without subsidies from local, state or federal governments.	Comment noted and shared with Chatham Area Transit
road flooding makes it near impossible to travel during rain	Comment noted
Lack of parking and street parking is overpriced	Please see the Greater Savannah Parking and Mobility Study https://www.thempc.org/Core/Pm
No way to get from many of the suburbs to downtown except by car or bus, we need a comprehensive bike system outside of the historic district	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Need better biking, walking, transit options.	The long range plan includes set aside funds for non motorized projects that include local sponsorship. Comment noted and shared with Chatham Area Transit. The plan includes \$222.6 million for transit improvements over the life of the plan.
Lack of support for biking, walking and public transportation. It's too car focused.	The long range plan includes set aside funds for non motorized projects that include local sponsorship. Comment noted and shared with Chatham Area Transit. The plan includes \$222.6 million for transit improvements over the life of the plan.
Compassion from those who are providing the service	Comment noted
bike lanes / sidewalks	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
we need rail, bike lanes, and electric scooter lanes. Room for more cars is not the long term solution.	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.

Fuel Price Increases and Environmental Costs	Comment noted
Combine assets of SCAD, CAT, SCPSD TO IMPROVE UTILIZATION ON A SCALE THAT FITS THE DEMAND.	Comment noted
safe bike options! 60% of Copenhagen commutes by bike!! Give people healthy transportation options and allow people who can't afford a car to get where they need to go for work and school. Look at the success of Atlanta's Beltline! And consider bike infrastructure an important and extremely cost effective part of our tourism infrastructure.	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
We need complete streets for pedestrians and bikes!!!	The plan includes the Thoroughfare Plan in Appendix B
I wish train and/or trolley could be expanded downtown and then high speed train to ATL	Comment noted, please see the Urban Circulator Feasibility study https://www.thempc.org/Core/Studies
Expanded shuttles to Metropolitan Starland Districts	Comment noted and shared with Chatham Area Transit
Some streets' traffic lights are obscured by the low limbs of live oak trees such as portions of Abercorn and 37th St.	Comment noted and will be shared with the city.
Lack of dedicated bike lanes	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Drivers still texting and talking on phones	Comment noted
Lack of speed enforcement, consistent speed limits thru out metro area ,speeding thru yellow red lites	Comment noted
Lack of real handicap accessibility	Comment noted and shared with Chatham Area Transit
Make it easier to walk/bike. Crosswalks on Victory, for example	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
More bike lanes are needed	The long range plan includes set aside funds for non motorized projects that include local sponsorship.

Unsafe drivers unsafe speeds	Comment noted
Traffic flow and efficiency	Operational improvements are one of the priorities identified in the plan with designated funds set aside for such projects.
Shared-use paths	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
Safe and accessible off-road bike and pedestrian paths that connect all parts of the city	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Lack of political will towards non-auto oriented transportation infrastructure	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
Support for biking infrastructure	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
The bus doesn't travel to Pooler, the ports, and areas where low income people could access better paying jobs	Pooler is out side the CAT taxing district. Comment noted and shared with Chatham Area Transit
flood irrigation	Comment noted
Insufficient investment in bike and pedestrian infrastructure	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
No bike Lanes (Effingham could definitely use this!)	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Making pedestrian and bicycle transportation more accessable, especially on southside.	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Not enough bike/pedestrian roadways	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Bike riders ignoring traffic laws & no enforcement/ticketing	Comment noted

Many associates can't work the hours Walmart has available 2-11p and Sunday's because the buses do not run late enough on many routes.	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
Need speed train	Comment noted
difficult for senior citizens to access services and shopping	Comment noted
A red-light at Belfast Keller and 17 would help tremendously.	Operational improvements are one of the priorities identified in the plan with designated funds set aside for such projects.
Poor bicycle commuting opportunities	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Lack of safe cycling lanes	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Roads are unsafe. Wide lane roads, either single or multiple lane, encourage excess speeds and desire to be distracted. ie cellphone use.	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Lack of safe bike lanes	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Unsafe drivers	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Too much growth and roadways are lagging to catch up	The plan includes over 1.8 billion in transportation investments over the next 25 years to help accommodate growth and maintenance.
Idiot drivers	Comment noted
No public transportation in West Chatham county	Comment noted and shared with Chatham Area Transit
Slowing traffic down, especially Henry, Anderson, Drayton, etc.	Comment noted and will be shared with the city.
Savannah desperately needs a light rail system like they have in most civilized countries	Comment noted, please see the Urban Circulator Feasibility study https://www.thempc.org/Core/Studies

Frequency time and day. Sunday should offer full service	Comment noted and shared with Chatham Area Transit
Disability mobility is terrible. Bus stops uncovered,	Comment noted and shared with Chatham Area Transit
We need better public transportation	The plan update support advancement in transit and includes not only traditional transit funding but also a set aside of additional transit dollars to support transit initiatives in the region.
We need more and better bike lanes.	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Left lane merging on to 16 at the 37th street connector and cloverleaf at 95 and 16, Large Trucks on Bay street	Comment noted and shared with the appropriate agencies.
insufficient bike/pedestrian infrastructure	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Need safe, well maintained bike lanes.	Comment noted the non motorized plan will be updated in 2020.
Lack of sidewalks for disabled commuters is priority. They have to use road space which is dangerous for everyone.	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Roadway maintenance, traffic congestion	The plan includes over 1.8 billion in transportation investments over the next 25 years to help accommodate growth and maintenance.
Too many cars.	Comment noted
unsafe for bikes, and need more mass transit. Park n Ride, and maybe on-demand mass transit (subsidize uber pool or make CAT app work better)	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
improving areas/intersections with high accident rates	Operational improvements are one of the priorities identified in the plan with designated funds set aside for such projects.
Poor Public transportation frequency	Comment noted and shared with Chatham Area Transit

Lack of funding across the board. Lack of maintenance on local streets.	The plan includes over 1.8 billion in transportation investments over the next 25 years to help accommodate growth and maintenance.
improve bus stop waiting areas within the county for safety and quality of living	Comment noted and shared with Chatham Area Transit. The plan includes \$222.6 million for transit improvements over the life of the plan.
while disappointed that the group does not see other solutions than road widening and alternative routes to transit problems. There are several key areas that are only going to have highly trafficked areas at two to four times a day and the need to have alternative transportation would play a better role rather than not suggesting to the public to car pool, use public transportation, or find more reliable mass transit other than just more environmentally friendly buses. The consumer at the port, hotels downtown, or at the hospitals could truly benefit from a Marta system here in Savannah. It would be a strong intitial cost but such a benefit to reducing parking downtown for workers, and reducing traffic congestion that only occurs at certain times of the day. Wider roads are not always the answer. Especially if you are truly looking at such a long way down the road.	Comment noted and shared with Chatham Area Transit. The plan includes \$222.6 million for transit improvements over the life of the plan.
Synchronizing all traffic lights on major roads like in NY	Operational improvements are one of the priorities identified in the plan with designated funds set aside for such projects. GDOT, Chatham County and Savannah plan to expand the SRTOP program.
Improving bike access across the region	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
protected bike lanes both north/south and east/west directions	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Providing safety for pedestrians with increased transportation	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.

Improve quality and quantity of transit for residents. The first question is phrased poorly, reduce costs for who? Residents? The government?	Comment noted and shared with Chatham Area Transit. The plan includes \$222.6 million for transit improvements over the life of the plan.
this survey's questions are biased toward car and truck travel and development	Comment noted
E.Broad should be two way. We need an East West quick way to get across the city. From i16 to Truman	Comment noted
Public transportation should be reliable, convenient and dignified, and a viable option for all commuters regardless of income/class	Comment noted and was shared with Chatham Area Transit.
Pave the lanes	Comment noted
Improve walkability of communities	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Improve Bike Lanes	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Biking lanes!	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Improving the connection between Savannah and its airport.	There are a few projects identified in the plan that will address connectivity to the airport such as the I-95 and Airways Avenue study as well as the I-16 and I-95 projects. There is a project identified to widen Gulfstream .
Driver education/accountability, drainage, potholes/tree roots, confusing roadways for out of towners	Comment noted
Work towards Solar Roadways	Comment noted
Too many bike lanes	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Better enforcement of current traffic and parking laws	Comment noted

Uber is more cost effective than the CAT bus system. Please shut down non profitable routes. You are wasting money on this bus system. Uber is cheaper and more cost effective.	Comment noted and was shared with Chatham Area Transit.
reducing the parking fee	Please see the Greater Savannah Parking and Mobility Study https://www.thempc.org/Core/Pm
Bike infrastructure	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Maximizing safety for people who walk or bike	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
reduce courtesy routes of public transportation and increase work friendly speedy routes (Workers need to be at work by 8 and should not have to get up at 4 a.m. to make that option)	Comment noted and was shared with Chatham Area Transit.
We need more bus routes and/or a light rail system to the areas around Chatham County.	Comment noted, please see the Urban Circulator Feasibility study https://www.thempc.org/Core/Studies
Open up a ferry from Richmond Hill to Savannah	Comment noted
Improving drainage at intersections so cars can pass and pedestrians can pass when there is a rain storm. Like at Jefferson and 38th and Abercorn and 32nd.	Comment noted
Bike and pedestrian infrastructure! I don't ride but would LOVE to park my car and do so. It's just not safe now.	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
CAT Teleride services are unreliable and dangerous for a disabled population (ppl outside for 1 hr in heat waiting for their late teleride)	Comment noted and shared with Chatham Area Transit
Improving safety of walkers	The long range plan includes set aside funds for non motorized projects that include local sponsorship.

People getting places on time is their problem. Leave earlier, plan for delays. The government taxes can't pay for your responsibilities. Take a bus, scooter, bike or live closer. Grow up!	Comment noted and will be shared with the city.
Removing trucks from Bay Street downtown	Comment noted
More public transportation for opt in riders. Washington DC a good example	Comment noted and shared with Chatham Area Transit
More bike lanes - thus taking cars off the road and improving traffic	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
Bike lanes and paths!!!	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
we need more bike lanes	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
What roadway congestion? This isn't Atlanta.	Comment noted
Increasing transportation options for the disabled	Comment noted and shared with Chatham Area Transit. The plan includes \$222.6 million for transit improvements over the life of the plan.
Need bike/pedestrian lanes on Johnny Mercer Blvd	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Bike paths, bike paths, bike paths, bike paths	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Safe cycling lanes very important	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
# I wish that major roads in Savannah had a bike lane and sidewalk. Without a car, it is virtually impossible to go from my home to work. The bus is tardy and the bike lanes start and end in inconvenient and abrupt manners. Having a bike path would create a quick and healthy way to commute. I'd like to suggest more bike paths on major roads (Abercorn, Waters, Montgomery cross, Whitebluff...).	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.

<p>These paths would allow those living in nearby neighborhoods to commute. Having a bike lane on major roads could also be beneficial to scooter riders and wheelchair riders. In Montreal, Canada, a bike lane runs throughout the entire city, on a road parallel to the main road. This road is safe and seclusive and allows many to travel freely. I've seen many in wheelchairs be so happy that they could get around safely and independently. This not only freed up the main road (people biked instead of driving, less vehicles) but the mental benefits of excercise and the feeling of doing so safely and freely were mentally beneficial. Montreal also provides rental bikes (much like the yellow SCAD bikes) that can be borrowed at a rate of two dollars an hour. This encourages many tourists to enjoy the city. A safe bike path could be a positive change for Savannah that not only promotes excercise, leisure, and tourism, but that allows the everyday commuter a chance to get to work without needing a car.</p>	
<p>Increase bicycle lanes and bike safety, particularly with separated bike Lanes!</p>	<p>Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.</p>
<p>Additional bike lanes would be nice(and safer!)</p>	<p>Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.</p>
<p>Electric car friendly should be top priority</p>	<p>Comment noted</p>
<p>Improve walking and biking alternatives</p>	<p>Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.</p>
<p>Improve intersections and interchanges</p>	<p>The plan includes several project to improve interchanges: I-95 at SR 307, I-19 at I-16, I-16 at I-516 and I-91 at SR 21.</p>
<p>Turn all one-way dual lane streets into one lane travel with bike lane and street parking added</p>	<p>Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.</p>

Savannah needs a light rail system!	Comment noted, please see the Urban Circulator Feasibility study https://www.thempc.org/Core/Studies
Bike lanes and scooter lanes	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
Widen US80 to Tybee!	The plan includes almost \$95 million in roadway and abridge improvements for US 80 out to Tybee.
Bike shares and bike lanes!	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
When roads / bridges are rebuilt - plan for 4' ++ sea level rise	Comment noted
Reducing greenhouse gas emissions and addressing climate change	Comment noted
Adding more shelters at bus stops	Comment noted and shared with Chatham Area Transit
reduce Port truck travel on feeder roads (RT 307)	Comment noted
Considering permeable services in development is very important.	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
add more bike lanes	Comment noted the non motorized plan will be updated in 2020 and will take comments into consideration.
The most important thing is to create safe, reliable and connected networks where all road users feel comfortable — not just single occupancy motor vehicle drivers.	The plan includes over 1.8 billion in multimodal transportation investments over the next 25 years to help accommodate growth and maintenance an improve accessibility and connectivity.
Rides for the disabled	Comment noted and shared with Chatham Area Transit
Drainage during heavy rainstorms causing flooding in our streets prohibiting citizens to travel on certain streets on the east and west sides of Savannah.	Comment noted

Lack of capacity/driver education	Comment noted
Relieve traffic congestion at 37th and I-16	Comment noted and project is identified in the Vision Project List
there is a need for public transit between Pooler and Mid-town Savannah for work	Pooler is not inside the taxing district for CAT service. Comment noted and shared with Chatham Area Transit. The plan includes \$222.6 million for transit improvements over the life of the plan.
Expand free CAT shuttle service to other areas in Savannah	Comment noted and shared with Chatham Area Transit. The plan includes \$222.6 million for transit improvements over the life of the plan.
Better walking and bike trails around the park in mid-town Savannah	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
The West Bay Street improvements need to include and audible at the light beacon. This is an safety issues of for the vision impaired.	Comment noted and shared with GDOT
Regarding West Bay Street improvements. The improvements should be more neighborhood friendly like a boulevard instead of a highway. The road is too wide to cross safely. The road needs to serve the neighborhood and be safer.	Comment noted and shared with GDOT
The light beacon pole at Britney and Touten is not placed well and is too far west of the corner	Comment noted and shared with GDOT
I would like to see potholes repaired and widen roads such as I-95	The plan included funding for \$232 million in maintenance over the life of the plan.
Connect I-16 and Truman Pkwy	Comment noted.
I would like to see a wider CAT system with longer run time hours, not 1 hour intervals and in more areas such as Richmond Hill/Bryan County, Effingham and other areas so everyone has the opportunity to get to school and works etc.	Comment noted and shared with Chatham Area Transit
I'd like to see a focus on transit deficiencies in Savannah.	Comment noted and shared with Chatham Area Transit

Expand the free downtown DOT shuttle further south with a terminus at the Habersham Village Shopping Center.	Comment noted and shared with Chatham Area Transit
Bike lanes and sidewalks are desperately needed throughout the city and a comprehensive bike networks must be established to encourage smart growth through Savannahs environs.	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
Sidewalks, sidewalks, sidewalks please	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
I discourage any widening or expansion of roadways systems in Savannah. We possess over 700 miles of roadway within the city limits and it places an enormous fiscal burden on the tax payers.	The financial assumptions and project identified in the plan to not necessarily increase the financial burden of the residents.
The MPO can be of the greatest assistance financing and designing a mobility study for a sustainable fiscal future	The plan is based on conservative financial estimates and assumptions that are typical for the region.
Thanks for the budget emphasis on improving the safety problems along I-16	Comment noted
Priorities for Pooler: safety improvements at local exits along I-95, I-16, US 80 and Pooler Parkway	The plan includes improvements on I-95 at SR 21, Quacco Road and I-16.
Priorities for Pooler: preparing roads for expected continuation of population growth and business expansion	The plan includes over 1.8 billion in multimodal transportation investments over the next 25 years to help accommodate growth and maintenance and improve accessibility and connectivity.
Priorities for Pooler: increase bus and alternate transportation access for increasing complexity of transportation needs in Pooler	Pooler is not inside the taxing district for CAT service. Comment noted and shared with Chatham Area Transit. The plan includes \$222.6 million for transit improvements over the life of the plan.
MTP 2045 Figure 12: Proposed Pedestrian and Shared Use Path Network does not identify a continuous bike facility linking South Carolina to Bryan County as recommended as the East	The map currently included MTP DRAFT is from the currently adopted non-motorized plan. We intend to update the non motorized plan immediately following the MTP update. The draft

<p>Coast Greenway/Coastal Georgia Greenway (co-terminus).</p>	<p>list of updates includes the greenway and tide to town for example.</p>
<p>I-95/I-16 Project: I'm the President of the Steeple Run Neighborhood Association (at Southbridge, Chatham County). Our Neighborhood, of 50 town home units, is situated along the southern boundary of the 1-16 right of way just west of the Dean Forest overpass. We are concerned that the traffic increase from this project will result in a substantial increase in noise throughout our neighborhood, and particularly at the eastern end where there is no earthen berm. Also, we fear that the improvements to the eastbound exit to Dean Forest Road will result in a loss or thinning of the existing vegetation in that area, and additional noise impact. On behalf of our 50 residents, I am requesting a re-assessment of the noise impact on our neighborhood. In reviewing the GDOT Noise Study, I noticed that there was only one test site (R240) in our neighborhood, and I couldn't see where it's reading was reported in the findings. More importantly, as far as I can determine, there were no noise measurements taken at the east end of our neighborhood, where there is no berm. This area impacts approximately 14 town home units (Steeple Run Units 1-10, 13, 17, 19 and 21). It is easy to perceive that the noise increases as you approach the east end of our existing berm. It appears that the GDOT measurement location R240 was the location least impacted by current traffic noise. If nothing else, this seems to justify a re-evaluation of the impact on our neighborhood.</p>	<p>Comments were forwarded to the GDOT (Project Manager for I-16 Widening, GDOT Planning Office, GDOT District Office) and the Chatham County Engineering Department (local sponsor for I-16/SR 307 Interchange Improvements) for their attention and consideration.</p>

<p>I-95/I-16 GDOT Project</p> <p>My husband and I (Steve and Deborah Bowen) are residents of 8 Steeple Run Way at Southbridge, Chatham County. Our neighborhood consists of 50 town homes. They are situated along the southern boundary of the I-16 right of way just west of the Dean Forest Road overpass.</p> <p>Some of our concerns are listed below:</p> <p>-At this point, the truck (tractor trailer) noise coming from the on and off ramps is particularly loud and will be even more with the widening of I-16.</p> <p>-Where, when and how were the original GDOT noise impact studies made and scheduled?</p> <p>-In the very near future, due to new warehouses being built on Dean Forest Road, there will be increased truck traffic noise and safety issues. With land readily available on Dean Forest, more warehouse developments will follow due to the Savannah Port's proximity.</p> <p>-The intersection which includes the Dean Forest overpass is already extremely busy. Even now the trucks at many times during the day are backed up on I-16. Definitely a safety hazard!</p> <p>-Also, close to the Dean Forest Road overpass, land is being cleared for a large apartment complex with possibly some light commercial or retail shops which will further congest the area with traffic.</p> <p>-Due to the amount of traffic, its composition, the noise situation, and the most important issue, the safety of our Chatham County citizens, please re-visit the noise impact studies and the eastbound ramp issue. Both need your immediate attention.</p>	<p>Comments were forwarded to the GDOT (Project Manager for I-16 Widening, GDOT Planning Office, GDOT District Office) and the Chatham County Engineering Department (local sponsor for I-16/SR 307 Interchange Improvements) for their attention and consideration.</p>
<p>I-95/I-16 Southbridge concerns</p> <ul style="list-style-type: none"> • The sound study needs to be redone. • The amount of traffic, its composition, and the locations of the field readings need to be revisited • The I-16 eastbound exit ramp at Dean Forest 	<p>Comments were forwarded to the GDOT (Project Manager for I-16 Widening, GDOT Planning Office, GDOT District Office) and the Chatham County Engineering Department (local sponsor for</p>

<p>Road needs to be included in this project for safety reasons</p>	<p>I-16/SR 307 Interchange Improvements) for their attention and consideration.</p>
<p>I-95/I-16 Project: I strongly believe that the sound study should be redone. The first sound study was done in 2016, the week that Hurricane Matthew was approaching Savannah. Since that time, the corridor has experienced substantial changes in tree cover, foliage and traffic density. The standard used for this project, 23 CFR, has several sections that support the desire of the Southbridge community to get relief from the existing and future noise levels of I16 and I-95 in this project. Section 772.11 Noise Abatement (d) When noise abatement measures are being considered, every reasonable effort shall be made to obtain substantial noise reductions. (f) The views of the impacted residents will be a major consideration in reaching a decision on the reasonableness of abatement measures to be provided. The need to make every reasonable effort and to consider the views of impacted residents imply an effort should be made to provide noise abatement—not find ways to avoid providing abatement! This study was developed using 15-minute sound readings which were multiplied by 4 to get an equivalent sound level ((Leq(h)) for a one-hour period. We submit that the heavy density of homes backing up to I-16 eastbound, the heavier truck traffic and the fact that many of the locations were close to being designated as “impacted” warrants a full one-hour measurement of noise to give a true reading. The traffic input in the TNM model was based on LOS C capacities received from the Savannah Metropolitan Planning Commission from a period prior to 2015. Many factors have changed in the 4+ years since that time. A current count of traffic, including the number and types of vehicles, is critical for the accuracy of this study. The residents in this area have listened to the noise</p>	<p>Comments were forwarded to the GDOT (Project Manager for I-16 Widening, GDOT Planning Office, GDOT District Office) and the Chatham County Engineering Department (local sponsor for I-16/SR 307 Interchange Improvements) for their attention and consideration.</p>

<p>from I-16 since the development was started in 1988, and this is their only opportunity to get relief from current and future noise. The statement that “noise generated from sources other than traffic is not included in the model” causes concern to the residents: having major exits (I-95 northbound to I-16 eastbound and I-16 east bound to Dean Forest Road) in the area is the source of “Jake brake” noise which should be illegal near these residential areas.</p>	
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A proposed “barrier #3” was deemed “feasible.” However, since “only three” residents would be “benefited” by construction of this barrier, it was deemed “not reasonable”! If there were different readings or a different “estimated cost” where four or more residents were averaged into the benefit, or if the “estimated cost” is actually estimated vs using \$25 per sq. ft. or using a lower height for a barrier vs the maximum, all the residents in this area would have seen a reduction in the noise at their home! Another option for review is in this section: How recently has the “allowable cost for abatement” been revised? Has it been within the 5-year limit? Section 772.13 Analysis of noise abatement (d)(2) (ii) Cost effectiveness of the highway traffic noise abatement measures. Each highway agency shall determine, and receive FHWA approval for, the allowable cost of abatement by determining a baseline cost reasonableness value. This determination may include the actual construction cost of noise abatement, cost per square foot of abatement, the maximum square footage of abatement/benefited receptor and either the cost/benefited receptor or cost/benefited receptor/dB(A) reduction. The highway agency shall re-analyze the allowable cost for abatement on a regular interval, not to exceed 5 years. A highway agency has the option of justifying, for FHWA approval, different cost allowances for a particular geographic area(s) within the State, however, the highway agency must use the same cost reasonableness/construction cost ratio statewide. Section (k) allows cost averaging with a common noise environment which could easily be the Southbridge community, and would allow all three barriers to be “reasonable”. (k) On a Type I or Type II projects, a highway agency has the option to cost average noise abatement among benefited receptors within common noise environments if no single common noise environment exceeds

Comments were forwarded to the GDOT (Project Manager for I-16 Widening, GDOT Planning Office, GDOT District Office) and the Chatham County Engineering Department (local sponsor for I-16/SR 307 Interchange Improvements) for their attention and consideration.

<p>two times the highway agency's cost reasonableness criteria and collectively all common noise environments being averaged do not exceed the highway agency's cost reasonableness criteria. There are several locations where the dirt berms are non-existent or very low. These are locations where field measurements should be taken for a full hour and with current actual or at least updated LOS C data. They are: 1. Lot 455 (602 Southbridge Blvd) 2. Lot 408 (114 Whispering Pines Court) 3. Lot 208 (6 Baysprings Court) 4. Lot 215 (6 Baysprings Point) 5. Lot 232 (129 Baymeadow Point) 6. Lot 2 (2 Steeple Run Way)</p>	
<p>I-95/I-16 Project: In conclusion, the residents of Southbridge have been impacted by the increased traffic on I-16 since 1988. This increase is documented by the fact that the DOT has deemed a need for TWO additional lanes in this area. We ask that you reconsider and: (a) re-establish the sound study with updated traffic information (LOS C), a full 1-hour "LEQ" time study and different locations for the actual sound readings that reflect the points where the berms are low, non-existent or where the homes are at the end of a berm; (b) add signage restricting the use of "jake braking" in this section of I-16 and I-95, and (c) add the exit ramp upgrade for I-16 eastbound onto Dean Forest Road to this project for safety concerns.</p>	<p>Comments were forwarded to the GDOT (Project Manager for I-16 Widening, GDOT Planning Office, GDOT District Office) and the Chatham County Engineering Department (local sponsor for I-16/SR 307 Interchange Improvements) for their attention and consideration.</p>

<p>Biggest transportation need: Vehicular congestion on Derene Ave between Waters Ave and Montgomery Traffic backups on Victory Drive Bee Road to Skidaway Lack of connectivity for bicycles from Savannah south side to downtown Lack of safe bicycle connectivity to Tybee from downtown Lack of safe bicycle connectivity from Savannah to Pooler and westside</p>	<p>There are several projects in the plan that included improvements on DeRenne to improvements operations and traffic flow.</p> <p>Improvement for Victory Drive are identified on the Vision Project list.</p> <p>The long range plan includes set aside funds for non motorized projects that include local sponsorship.</p>
<p>the biggest transportation need: Sidewalks, protected bike lanes, trails.</p>	<p>The long range plan includes set aside funds for non motorized projects that include local sponsorship.</p>
<p>In my opinion, the biggest long-range transportation need in Savannah is a new bridge running from the north end of the Truman Parkway to US Hwy 17 in South Carolina, across the Savannah River and the Back River. Because the Savannah River Bridge (Talmadge Bridge) will need to be replaced before long to accommodate larger ships entering the Port of Savannah, it should be replaced with a taller and longer bridge at the north end of the Truman Parkway so that traffic coming from South Carolina on US Hwy 17, and heading east or southeast, will not be routed through the Savannah Historic District. Traffic exiting from the eastern end Interstate 16 should also be re-routed to avoid the Savannah Historic District. The current heavy traffic on Bay Street, which includes many large and noisy semi-trailer trucks, has created a traffic nightmare for tourists in cars and on foot, as well as for local residents who would like to be able to visit the Historic District without battling bumper to bumper traffic composed largely of trucks and passenger cars that are just trying to get through the Historic District to destinations east or southeast of the downtown area. Thank you!</p>	<p>Consideration for replacing the Talmadge Bridge are in the very preliminary stages. At this point the concept of replacing the bridge is identified on the Vision project list.</p> <p>We will share comments regarding Bay Street with the city.</p>

<p>The effect of sound on the residents in communities needs to be considered in expansion and new projects specially the I-16 and Dean Forest ramp. The sound study needs to be redone. The amount of traffic and its composition, along with the location of the field readings need to be revisited. Also, the exit ramp off I-16 eastbound at Dean Forest Road needs to be included in this project for safety reasons.</p>	<p>Comments were forwarded to the GDOT (Project Manager for I-16 Widening, GDOT Planning Office, GDOT District Office) and the Chatham County Engineering Department (local sponsor for I-16/SR 307 Interchange Improvements) for their attention and consideration.</p>
<p>I'm the President of the Steeple Run Neighborhood Association (at Southbridge, Chatham County). Our Neighborhood, consisting of 50 townhome units, is situated along the southern boundary of the I-16 right of way just west of the Dean Forest Road overpass. We are concerned that the traffic increase resulting from the current GDOT I-16 Widening Project on the northern boundary of our neighborhood will result in a substantial increase in noise throughout our area, and particularly at the eastern end where there is no existing earthen berm. Also, we fear that the improvements to the eastbound exit to Dean Forest Road will result in a loss or thinning of the existing vegetation in that area, and additional noise impact. We feel that a sound barrier wall in our area is the only way to effectively mitigate the anticipated increase in traffic noise. On behalf of our 50 residents, I am requesting an assessment of the noise impact on our neighborhood. In reviewing the GDOT Noise Study, I noticed that there was only one test site (R240) in our neighborhood, and I couldn't see where it's reading was reported in the findings. More importantly, as far as I can determine, there were no noise measurements taken at the east end of our neighborhood, where there is no existing berm. This area impacts approximately 14 town home units (Steeple Run Units 1-10, 13, 17, 19 and 21. It is easy to perceive that the noise increases as you approach the east end of our existing berm. It appears that the GDOT measurement location</p>	<p>Comments were forwarded to the GDOT (Project Manager for I-16 Widening, GDOT Planning Office, GDOT District Office) and the Chatham County Engineering Department (local sponsor for I-16/SR 307 Interchange Improvements) for their attention and consideration.</p>

R240 was the location least impacted by current traffic noise. If nothing else, this seems to justify a re-evaluation of the impact on our neighborhood. Please let me know if there is anything we can provide to assist in making our neighborhood's concerns known.	
The biggest transportation need: Traffic congestion and speed mitigation, primarily through traffic calming and comprehensive efforts to make 25% of all trips taken by transit, bike, and on foot.	The long range plan includes set aside funds for non motorized projects that include local sponsorship. The nonmotorized plan will be updated in 2020. The plan also includes \$222 million for transit improvement over the life of the plan. Comment noted and shared with Chatham Area Transit
The biggest transportation need: Walking and biking trails	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
The biggest transportation need: wait times	The plan also include a\$222 million for transit improvement over the life of the plan. Comment noted and shared with Chatham Area Transit
Decrease reliance on cars, especially single occupant vehicles by increasing level of service to pedestrians, cyclists, and high volume occupancy modes of transit	The long range plan includes set aside funds for non motorized projects that include local sponsorship. The nonmotorized plan will be updated in 2020. The plan also includes \$222 million for transit improvement over the life of the plan. Comment noted and shared with Chatham Area Transit
Improved bike/ped facilities	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
A significant investment in implementing the Complete Streets initiative across the city is a huge immediate need. There has been no movement to increase sidewalks or cycling sharing of roadways (particularly in the form of protected bike lanes), since the Complete Streets initiative was adopted several years	

ago. Bike lanes remain in bad repair. I would also argue that a significant public outreach campaign to help people understand how to better use public transportation in their daily lives, would be a secondary transportation need. (Make the bus cool again ;)	
Create safe bicycling pathways with protective barriers connecting downtown Savannah to south side, Pooler and Tybee islands.	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
Slow traffic on Drayton and Whittier Streets (two ways?)	Comment noted
Make Bull Street a pedestrian walkway 10:00 AM to 6:00 PM from Forsyth Park to Bay Streets promoting safer passages for tourists and open opportunities for sidewalk restaurants and shops.	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
Continue to develop the Canal district with pathways for pedestrians and bicyclists between river street and points west and south	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
Synchronize traffic signals on major one way streets as Henry and Anderson to encourage slower speeds.	Operational improvements are one of the priorities identified in the plan with designated funds set aside for such projects.
Promote safe bicycling as a means to decrease vehicular dependence in historic downtown areas and open up more parking spaces	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
Lessen dependence on cars.	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
I agree with your survey results: Improvements need to be made to existing sidewalks in Savannah, and new sidewalks and bicycle lanes or paths need to be constructed around the city to allow residents to more safely and efficiently walk and bicycle around the city.	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
The effect of sound on the residents in communities needs to be considered in expansion and new projects specially the I-16 and Dean Forest ramp. The sound study needs to be redone. The amount of traffic and its	Comments were forwarded to the GDOT (Project Manager for I-16 Widening, GDOT Planning Office, GDOT District Office) and the Chatham County Engineering Department (local sponsor for

composition, along with the location of the field readings need to be revisited. Also, the exit ramp off I-16 eastbound at Dean Forest Road needs to be included in this project for safety reasons.	I-16/SR 307 Interchange Improvements) for their attention and consideration.
Savannah needs a robust transit system offering regular, frequent service 7 days a week. Savannah needs a connected, protected network of paved paths and greenways, e.g. Tide to Town and a completed segment of the East Coast Greenway, to enable safe non-motorized travel from River Street to the south side.	The long range plan includes set aside funds for non motorized projects that include local sponsorship. The nonmotorized plan will be updated in 2020. The plan also includes \$222 million for transit improvement over the life of the plan. Comment noted and shared with Chatham Area Transit
Reduce reliance on private automobile use. Increase incentive for use of walking, bicycling, and use of public transportation. Invest in infrastructure that supports and enhances the use of these.	The long range plan includes set aside funds for non motorized projects that include local sponsorship. The nonmotorized plan will be updated in 2020. The plan also includes \$222 million for transit improvement over the life of the plan. Comment noted and shared with Chatham Area Transit
More trails and walking options for those in low income communities	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
reduce speed limit city wide, increase traffic enforcement, increase parking fees, create pedestrian only zones (river street, bull street).	The long range plan includes set aside funds for non motorized projects that include local sponsorship. The plan also include a\$222 million for transit improvement over the life of the plan. Comment noted and shared with Chatham Area Transit
Improved bike/ped facilities, in particular, an interconnected system of multi-purpose trails that can provide a viable network of active transportation facilities (not just for recreation)	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
Additional sidewalks and road improvements to include protected cycle lanes.	The long range plan includes set aside funds for non motorized projects that include local sponsorship.
The effect of sound on the residents in communities needs to be considered in expansion and new projects specially the I-16 and Dean Forest ramp. The sound study needs	Comments were forwarded to the GDOT (Project Manager for I-16 Widening, GDOT Planning Office, GDOT District Office) and the Chatham County Engineering Department (local sponsor for

<p>to be redone. The amount of traffic and its composition, along with the location of the field readings need to be revisited. Also, the exit ramp off I-16 eastbound at Dean Forest Road needs to be included in this project for safety reasons.</p>	<p>I-16/SR 307 Interchange Improvements) for their attention and consideration.</p>
<p>It is disappointing to see no major bike-ped projects on the list.</p>	<p>The long range plan includes set aside funds for non motorized projects that include local sponsorship. Two projects are currently identified (Truman Linear Park Trail and the DeLessep project). Additional non motorized projects are eligible to use the set-aside funds if the proposed project is consistent with the non motorized plan.</p>
<p>I see that page 34 states "Increasing public awareness of the issues and understanding the impacts on infrastructure and mobility is an important focus for the MPO. " The idea that we should look at "the impacts on infrastructure" is flawed. I would argue that infrastructure (the promotion and continuation of single-occupant private automobiles as the primary source of travel) should be seen as cause, not effect. Plenty of data supports this. I would also wish to see verbiage different from "nuisance flooding" as nuisance is defined as "an inconvenience and an annoyance". This is obviously a much bigger problem than this word conveys.</p>	<p>Comment noted and review language.</p>

CORE MPO 2045 Draft Mobility Plan: GDOT/FHWA Comments

SECTION I. OVERVIEW	1. Change “Regional Conditions and Future Trends” subtitle to “Demographics and Future Trends”	1. Done
SECTION II. REGIONAL GOALS AND PERFORMANCE MEASURES	2. Section should be titled <u>Regional Goals and Performance Measures</u> 3. Move any language about Performance Measures into this section.	2. Done 3. For the exception of measures being identified in the prioritization section all specific performance measures (to goals) should be in the section. There is a general discussion in the intro but no measures are included and is only intended to be laying the overall groundwork of PBPP/TPM.
SECTION III. REGIONAL TRANSPORTATION NETWORK	4. Add an introduction to this section.	4. Done
SECTION IV. PUBLIC ENGAGEMENT	5. Section was Plan Development and Project Selection. Change this section to <u>Public Engagement</u> and move relevant content to support this section.	5. Done and added a some (new) additional information. The section will be completed after the public comment period ends.
SECTION VI. PROJECT SELECTION PROCESS	6. Section was Public Engagement. Change this section to <u>Project Selection Process</u> 7. Use this section to discuss project selection process, i.e. the model and network lists, TCC working group, surveys and stakeholder engagement and how the process relates to performance based planning.	6. By splitting the original section 4 into Projects Section Process (5), Public Engagement (4) and Finance (6) This section will be Section 5. 7. Done, some additional language added to express process and PBPP. 8. Studies were simplified. Two of the studies are not complete and do not have web links at this time so there is a brief discussion. This can be modified later

	<p>8. Special Studies Contributing to Mobility 2045: List the projects and provide links instead.</p> <p>9. Include the Project Prioritization Matrix in this section.</p>	<p>once the studies are complete.</p> <p>9. Done</p>
SECTION VII. FINANCIAL PLAN AND PROJECT RECOMMENDATIONS	<p>10. This is a new section. The <u>Financial Plan and Project Recommendations</u> should have its own section within the main body of the document. Place Cost Feasible Plan from the previous Section IV here and all relevant financial planning activities. Move Financial Plan from Appendix to this section.</p> <p>11. A recommendation is that the MPO staff take a look at the Warner Robins MPO's Financial Plan in the current MTP for an example of what to include in the Financial Plan section.</p> <p>12. Briefly discuss the Thoroughfare Plan and provide a link in the document</p>	<p>10. This is now section 6. Some additional information and tables were added to the section from Appendix C.</p> <p>11. Staff reviewed as suggested and made some modifications to the section.</p> <p>12. Done.</p>

Additional observations and comments:

- **Vision Plan:** The MPO can rename Vision Plan to reflect what is actually occurring in this section. Based on conversations, the Vision Plan title is where the MPO staff place unfunded/Illustrative Projects. Vision Plan should consist of 5ht network projects that were not added to financially constrained list, in addition to other projects. Describe the criteria for placing these projects in this list. **Modifications were made to the Visions section to clarify the purpose and content. The list was reviewed and some projects were removed.**
- As the MPO staff reorganize the draft Plan, it is important that they highlight and take credit for their work on bringing the MTP in-line with PBPP. As such, the MPO should transition from the last update (2040 Plan) to the 2045 Plan with a strong focus/emphasis on Performance

Management. Document the **what, where, and how** this MTP is addressing PBPP, such as the process to include coordination/collaboration and public engagement to the tools used in selecting projects for funding in the 2045 MTP. The Plan does not need as much background information on PBPP as we have been capturing and documenting this process for some time now. Just a little overview of why we are doing PBPP then transition and highlight how the Savannah MPO is currently addressing PBPP and how the 2045 Plan will continue to address PBPP from needs assessment to reporting. **Language was added to clarify to better call out Mobility 2045 and PBPP and remove references to 2040.**

- Make sure to do spelling and grammar check as well as check for correct spacing in final document. **Will do**
- Figure 20: 2045 Cost Feasible Transportation Plan: PI 0015704 and PI 0015705 are not highlighted on the map. **Corrected in the document and the online interactive map.**
- PI: 0012758 is incorrectly listed as PI 00012758 throughout the document (Financial Plan, Page, 80, etc.) **Corrected in the document and the online interactive map.**
- Figure 21: Historic and Cultural Resources (Pg. 85): Image is not visible in the document. **Noted and we will make sure the next PDF file created includes the map. Seems to have been a PDF error.**
- Table 9: Cost Feasible Project List:
 - I-516 widening from I-16 to Veterans Pkwy has a PI # 0013160 **Corrected in the document and the online interactive map.**
 - PI 0012757 & PI 0012758: Merge together. CST cost under 0012757 also includes the CST for 0012758. Showing \$0 for CST under 0012758 may cause confusion. **Done**



APPENDIX E: VISION PROJECT LIST



VISION PROJECT LIST Roadway/Operations Projects						
Project Name	Thoroughfare Plan Cross Section	From	To	Estimated Cost (in 2020 \$)	Work Type	Project Source
I-516 / I-16 Interchange	N/A	--	--	\$121,470,917	Const.	PE in Constrained 2045
Gulfstream widening	Major Collector - Suburban	SR 21	Airways Avenue	\$31,050,000	Const.	PE in Constrained 2045
SR 204/ Reconstruction Limited Access	Major Arterial -Suburban	At I-95	US 17	\$124,353,000	PE, ROW, Const.	Unconstrained Mobility 2045 Project List
SR 204 / Abercorn Interchange Reconstruction	N/A	At I-95	--	\$71,086,750	PE, ROW, Const.	Unconstrained Mobility 2045 Project List
SR 204 Widening	Major Arterial -Suburban	US 17	Rio Road	\$154,365,000	PE, ROW, Const.	Unconstrained Mobility 2045 Project List
I-95 Widening	N/A	I-16	Effingham Co./S.C.	\$362,736,434	PE, ROW, Const.	Unconstrained Mobility 2045 Project List
I-95 Widening	N/A	I-16	Bryan County	\$207,314,659	PE, ROW, Const.	Unconstrained Mobility 2045 Project List
I-95 Widening	N/A	Bryan County	US 17	\$127,561,423	PE, ROW, Const.	Unconstrained Mobility 2045 Project List
I-95 Interchange	N/A	At SR 21/Augusta Rd		\$367,410,192	PE, ROW, Const.	Unconstrained Mobility 2045 Project List
US 80/Victory Drive Improvements	Major Arterial -Suburban	Home Depot	Kerry Street	\$47,989,375	PE, ROW, Const.	Unconstrained Mobility 2045 Project List
Little Neck Road Widening	Minor Arterial - Suburban	John Carter Road	I-16	\$65,981,609	PE, ROW, Const.	Unconstrained Mobility 2045 Project List
Pooler Parkway/Qualco Road Widening 4 to 6 lanes	Minor Arterial - Suburban	I-95	South Godley Station	\$41,342,167	PE, ROW, Const.	Unconstrained Mobility 2045 Project List
Fort Argyle/SR 204 Widening 2 to 4 lanes	Minor Arterial - Suburban	I-95	John Carter Road	\$76,053,316	PE, ROW, Const.	Unconstrained Mobility 2045 Project List
I-95 Interchange Improvements and Bridge Replacement	N/A	At SR 144		\$79,954,814	PE, ROW, Const.	Unconstrained Mobility 2045 Project List
Airway Avenue flyover to Gulfstream	Minor Arterial - Suburban	EB Airways Avenue	Flyover to EB Gulfstream	\$18,795,203	PE, ROW, Const.	Unconstrained Mobility 2045 Project List
Airways Avenue Widening	Minor Arterial - Suburban	I-95	SR21	\$7,191,041	PE, ROW, Const.	Unconstrained Mobility 2045 Project List
I-16 Exit Ramp Removal	N/A	I-16 and MLK		\$28,820,000	PE, ROW, Const.	Unconstrained Mobility 2045 Project List
I-95 Frontage Road		SR 144 to SR 100 or CR 154	US 17	\$23,253,722	PE, ROW, Const.	Unconstrained Mobility 2045 Project List
Qualco Rd / Little Neck Rd New Interchange	N/A	At I-95	--	\$19,472,519	PE, ROW, Const.	Unconstrained Mobility 2045 Project List
SR 26/US 80 Operational Improvements	N/A	At Johnny Mercer Blvd	--	\$7,809,671	PE, ROW, Const.	Unconstrained Mobility 2045 Project List
SR 307/Dean Forest Rd Interchange Reconstruction @ 16	N/A	At I-16	--	\$84,047,738	PE, ROW, Const.	Freight Plan
Chatham Parkway Improvements from I-16 to US 80	Major Arterial - Suburban	I-16	US 80	\$2,669,100	PE, ROW, Const.	Freight Plan
Intersection Operational Improvements Ogeechee Road (US 17/SR 25)	N/A	At Chatham Parkway	--	\$461,250	PE, ROW, Const.	Freight Plan
Operations and Safety Enhancements – Dean Forest Road/Bourne Road (SR 307)	Major Arterial - Suburban	Port Authority	I-163	\$861,000	PE, ROW, Const.	Freight Plan
Intersection Safety Beacon – SR 25 N Coastal Highway	N/A	At Main Mill Entrance (Port Entrance)2	--	\$33,825	PE, ROW, Const.	Freight Plan
Safety Improvements – South of SR 25	Major Arterial - Suburban	At Cross gate intersection in Port Wentworth (On-street angled parking on truck route) 2	--	\$615,000	PE, ROW, Const.	Freight Plan
Safety Improvements – South of SR 25	Major Arterial - Suburban	At Avertedly Street intersection in Port Wentworth (On-street angled parking on truck route) 2	--	\$615,000	PE, ROW, Const.	Freight Plan
Intersection Safety Beacon – SR 17	Major Arterial - Suburban	At SR 302	--	\$33,825	PE, ROW, Const.	Freight Plan
Safety Improvements – North of SR 17	Major Arterial - Suburban	At 2nd Avenue intersection in Guyton (On-street angled parking on truck route) 2	--	\$615,000	PE, ROW, Const.	Freight Plan
Wayfinding – US 280 At Strickland in Pembroke	N/A	Sign to I-16 through residential street (shortcut_ need to add sign no trucks allowed ²	--	\$12,300	PE, ROW, Const.	Freight Plan
Wayfinding – US 280	N/A	At SR 67 – need truck signage to I-162	--	\$12,300	PE, ROW, Const.	Freight Plan
Operations and Safety Enhancements – SR 21 Corridor1	Major Arterial - Suburban	SR 21 Corridor ²	--	\$4,305,000	PE, ROW, Const.	Freight Plan
Operations and Safety Enhancements - US 80 Corridor1	Major Arterial - Suburban	US 80 Corridor ²	--	\$4,305,000	PE, ROW, Const.	Freight Plan
Intersection Operational Improvements - SR 25	Major Arterial - Suburban	At SR 302	--	\$461,250	PE, ROW, Const.	Freight Plan
Intersection Operational Improvements - SR25	Major Arterial - Suburban	At Brampton Road2	--	\$461,250	PE, ROW, Const.	Freight Plan
Intersection Operational Improvements - SR 25 – Right Turn Lane1	Major Arterial - Suburban	At SR 21	--	\$246,000	PE, ROW, Const.	Freight Plan
Intersection Operational Improvements - SR 119 N Laurel Street	N/A	At SR 119 E Madison Street – Right Turn southwest crosses over into the opposite lane2	--	\$246,000	PE, ROW, Const.	Freight Plan
Intersection Operational Improvements - SR 119	N/A	At SR 17 – Four way improvements2	--	\$922,500	PE, ROW, Const.	Freight Plan
Intersection Operational Improvements – SR 30	N/A	At SR 21 – Right hand turn from US 80 eastbound to SR 21 southbound2	--	\$246,000	PE, ROW, Const.	Freight Plan
Intersection Operational Improvements – SR 30 – add right hand turn lane (westbound) across	N/A	from Dublin Road into Fleet Pride property entrance ²	--	\$461,250	PE, ROW, Const.	Freight Plan
Intersection Operational Improvements – US 80	N/A	At SR 307 – Widen right hand turn from US 80 eastbound to SR 307 southbound2	--	\$461,250	PE, ROW, Const.	Freight Plan
Intersection Operational Improvements – US 80	N/A	At US 80 eastbound to 8th Street/Alfred Street southbound; right hand turn form 8th Street/Alfred Street to US 80 eastbound2	--	\$461,250	PE, ROW, Const.	Freight Plan
Intersection Operational Improvements – US 80 Right hand turn	N/A	At West Lathrup Avenue2	--	\$461,250	PE, ROW, Const.	Freight Plan
Operational Improvements - Jimmy DeLoach Pkwy – add right hand turn lane	Major Arterial - Suburban	At westbound Jimmy DeLoach Pkwy to Expansion Blvd northbound2	--	\$461,250	PE, ROW, Const.	Freight Plan
Operational Improvements - Jimmy DeLoach Pkwy – add right hand turn lane	Major Arterial - Suburban	At westbound Jimmy DeLoach Pkwy to Logistics Way northbound2	--	\$461,250	PE, ROW, Const.	Freight Plan
Operational Improvements - Jimmy DeLoach Pkwy – add right hand turn lane	Major Arterial - Suburban	At eastbound Jimmy DeLoach Pkwy to Port Logistics Center Crossroads southbound (near SR 21) 2	--	\$461,250	PE, ROW, Const.	Freight Plan
Operational Improvements - Jimmy DeLoach Pkwy – add right hand turn lane	Major Arterial - Suburban	At westbound Jimmy DeLoach Pkwy to Port City entrance northbound2	--	\$461,250	PE, ROW, Const.	Freight Plan

VISION PROJECT LIST Roadway/Operations Projects						
Project Name	Thoroughfare Plan Cross Section	From	To	Estimated Cost (in 2020 \$)	Work Type	Project Source
US 17/Ogeechee Road Widening and Intersection with US 80	Major Arterial - Suburban	Lynes Parkway	Springfield Canal	\$46,740,000	PE, ROW, Const.	Freight Plan
LaRoche Ave. Operational Improvements	Collector - Suburban	Skidaway Rd.	So. City Limits	\$15,859,215	PE, ROW, Const.	Freight plan
I-16 At Chatham Parkway Interchange	N/A	Chatham Parkway	--	\$66,727,500	PE, ROW, Const.	Freight Plan
Truman Parkway Widening	N/A	Victory Drive	Montgomery Crossroads	N/A	PE, ROW, Const.	Model Results
Rio Road improvements	Minor Arterial - Suburban	At Base	--	N/A	PE, ROW, Const.	EDFAC
US 17 park and ride	N/A	Bryan County boundary, 144, SR 100	I-95 (Partially Outside of MPA)	N/A	PE, ROW, Const.	CMP Strategy
US 17 Widening to 6 lanes	Major Arterial - Suburban	SR 144	Chatham Parkway	N/A	PE, ROW, Const.	CMP
US 17/25 Operational Improvements	Major Arterial - Suburban	I-16	I-95	N/A	PE, ROW, Const.	Model Results
Belfast Keller Widening	Minor Arterial - Suburban	South of US 17	Belfast River Road	N/A	PE, ROW, Const.	Model Results
SR 204 SRTOP	N/A	Veteran's Parkway	De Rene Avenue	N/A	PE, ROW, Const.	CMP Strategy
Durene Ave SRTOP	N/A	I-516	East of SR 204	N/A	PE, ROW, Const.	CMP Strategy
SR 144 park and ride lot	N/A	US 17		N/A	PE, ROW, Const.	CMP Strategy
I-95 park and ride lots	N/A	Pooler Pkwy and SR 21		N/A	PE, ROW, Const.	CMP Strategy
I-16 park and rides	N/A	At US 80/Bloomingdale Road, I-16/US 280/SR 30	--	N/A	PE, ROW, Const.	CMP Strategy
Island Expressway SRTOP	Major Arterial - Suburban	Islands Expressway corridor		N/A	PE, ROW, Const.	SRTOP Expansion
President Street SRTOP	Major Arterial - Urban	President Street	General McIntosh	N/A	PE, ROW, Const.	SRTOP Expansion
Bay Street SRTOP	Major Arterial - Urban	To west city limits of Savannah		N/A	PE, ROW, Const.	SRTOP Expansion
Hwy 21 corridor SRTOP	Major Arterial - Suburban	Chatham County	Effingham County line	N/A	PE, ROW, Const.	SRTOP Expansion
SR 26 SRTOP	Major Arterial - Suburban	Pooler Parkway	Jimmy De Loach	N/A	PE, ROW, Const.	SRTOP Expansion
Pooler Parkway SRTOP	Major Arterial - Suburban	Durham park	Lowes	N/A	PE, ROW, Const.	SRTOP Expansion
Savannah River Bridge (Talmadge replacement)	Major Arterial -Suburban	Savannah River Bridge		N/A	PE, ROW, Const.	GPA, EDFAC
I-16 ramps SRTOP	N/A	at Pooler Parkway		N/A	PE, ROW, Const.	SRTOP Expansion
Green: Freight Plan, for a complete list visit www.thempc.org/Core/Fp Blue: Congestion Management Strategies/Committee Input/Model Results						

VISION Plan Thoroughfare/Non-Motorized Projects

Project Location	Functional Classification	From	To	Estimated Cost (in 2020 \$)	Project	Length	Project Source	
3rd Street	Local	in Garden City		\$104,041	SW (1)	0.51	Thoroughfare Plan	
37th Street	Minor Arterial - Urban	Price Street	Bee Road	\$1,131,909	Bike Lanes (2)	1.21	Thoroughfare Plan	
52nd Street	Minor Arterial - Urban	I-516	Montgomery Street	\$3,861,399	Median; SW(1); Bike Lanes (2)	1.9	Thoroughfare Plan	Non-motorized Plan
52nd Street	Collector - Urban	Waters Avenue	Ash Street	\$327,411	Bike Lanes (2)	0.35	Thoroughfare Plan	
52nd Street	Collector - Urban	Ash Street	Skidaway	\$1,930,722	SW; Bike Lanes	1.31	Thoroughfare Plan	Non-motorized Plan
63rd Street	Local	Existing SW	Waters Ave	\$4,080	SW (1)	0.02	Nonmotorized Plan	
Abercorn Street	Major Arterial - Suburban	DeRenne	Middleground	\$493,680	SW (1)	2.42	Thoroughfare Plan	Non-motorized Plan
Abercorn Street	Major Arterial - Suburban	DeRenne	I-95	\$12,123,592	Bike Lanes (2)	12.96	Thoroughfare Plan	Non-motorized Plan
Abercorn Street	Major Arterial - Urban	DeRenne	56th St	\$350,881	SW (2)	0.86	Nonmotorized Plan	
ACL Blvd	Collector - Suburban	Louis Mills Blvd	Liberty Pkwy	\$442,150	SW (2); Bike Lanes (2)	0.3	Thoroughfare Plan	Non-motorized Plan
Airways Avenue	Major Arterial - Suburban	I-95	Airport	\$2,254,965	SW (2); Bike Lanes (2)	1.53	Thoroughfare Plan	Non-motorized Plan
Al Henderson Blvd	Collector - Suburban	Gateway Blvd	Little Neck Rd	\$1,709,194	SW (1); Bike Lanes (2)	1.5	Thoroughfare Plan	
Alfred St	Collector - Suburban	US 80	Hopper St	\$1,400,142	SW (2); Bike Lanes (2)	0.95	Thoroughfare Plan	
Anderson Street	Minor Arterial - Urban	MLK Boulevard	Ash St	\$781,112	Bike Lanes (1)	1.67	Thoroughfare Plan	Non-motorized Plan
Anderson Street	Minor Arterial - Urban	Ash St	Skidaway Road	\$446,623	SW (2); Bike Lanes (1)	0.51	Thoroughfare Plan	Non-motorized Plan
Apache Avenue	Collector - Suburban	Roger Warlick Dr	Abercorn St	\$383,196	SW (2); Bike Lanes (2)	0.26	Thoroughfare Plan	
Apache Avenue	Collector - Urban	Abercorn St	Mohawk St	\$911,571	SW (1); Bike Lanes (2)	0.8	Thoroughfare Plan	
Augusta Ave	Local	US 80	Graham St	\$168,383	Bike Lanes (2)	0.18	Nonmotorized Plan	
Bannon St/Tuberson Ave	Local	Whatley Ave	River Dr.	\$85,680	SW (1)	0.42	Nonmotorized Plan	
Beaumont Drive	Collector - Suburban	Skidaway Rd	Robin Hood Dr	\$355,476	Bike Lanes (2)	0.38	Thoroughfare Plan	Non-motorized Plan
Nottingham Dr	Collector - Suburban	Robin Hood Dr	LaRoche Ave	\$48,960	SW (2)	0.46	Thoroughfare Plan	Non-motorized Plan
Bee Rd	Local	Kerry St	Anderson St	\$626,760	Bike Lanes (2); Shared Lanes	0.67	Nonmotorized Plan	
Berwick Blvd	Collector - Urban	US 17/Ogeechee Rd	Trail Creek Lane	\$2,301,714	SW (1); Bike Lanes (1-2)	2.02	Thoroughfare Plan	
Bloomington Road	Minor Arterial - Suburban	I-16	Railroad	\$5,254,326	Median; SW (2); Bike Lanes (2)	1.87	Thoroughfare Plan	Non-motorized Plan
Bonna Bella Ave	Local	Skidaway Rd	Jasmine Ave	\$533,214	Bike Lanes (2)	0.57	Nonmotorized Plan	
Bonnybridge Rd	Minor Arterial - Suburban	Augusta Rd	Coastal Highway	\$1,385,403	SW (2); Bike Lanes (2)	0.94	Thoroughfare Plan	Non-motorized Plan
Dean Forest/Bourne Ave	Major Arterial - Suburban	Commerce Blvd	Coastal Highway	\$4,018,014	Median; SW (2); Bike Lanes (2)	1.43	Thoroughfare Plan	Non-motorized Plan
Bradley Blvd	Collector - Suburban	Saybrook Point	17/Ogeechee Rd	\$1,580,932	Bike Lanes (2)	1.69	Thoroughfare Plan	
Bradley Blvd	Collector - Suburban	Grayson Ave	17/Ogeechee Rd	\$501,841	SW (2)	1.23	Thoroughfare Plan	
Brampton Ave	Collector - Suburban	US 80	I-516/SR 21	\$530,580	SW (2); Bike Lanes (2)	0.36	Thoroughfare Plan	
Brampton Rd	Collector - Suburban	Augusta Rd/SR 21	Green St	\$1,812,816	SW (2); Bike Lanes (2)	1.23	Thoroughfare Plan	Non-motorized Plan
Bryan Woods Rd	Minor Arterial - Suburban	Johnny Mercer Blvd	US 80/Islands Expwy	\$2,613,114	Median; SW (2); Bike Lanes (2)	0.93	Thoroughfare Plan	
Buckhalter Rd	Collector - Suburban	Garrard Ave	US 17/Ogeechee Rd	\$3,537,201	SW (2); Bike Lanes (2)	2.4	Thoroughfare Plan	
Bush Rd	Collector - Suburban	Fort Argyle Rd	Little Neck Rd	\$3,728,799	SW (2); Bike Lanes (2)	2.53	Thoroughfare Plan	Non-motorized Plan
Butler Avenue	Major Arterial - Urban	16th Street	1st Street	\$3,293,571	Median; Bike Lanes (2)	1.45	Thoroughfare Plan	
Center Dr	Collector - Suburban	McAlpin Dr	Sullivan Dr	\$427,412	SW (2); Bike Lanes (2)	0.29	Thoroughfare Plan	
Chatham Parkway	Major Arterial - Suburban	Garrard	US 80	\$10,536,751	Median; SW (2); Bike Lanes (2)	3.75	Thoroughfare Plan	Non-motorized Plan
Cherry St	Local	RR Track	US 80	\$1,105,376	SW (2); Bike Lanes (2)	0.75	Nonmotorized Plan	
Chevis Rd	Collector - Suburban	Wild Heron Rd	US 17/Ogeechee Rd	\$3,389,817	SW (2); Bike Lanes (2)	2.3	Thoroughfare Plan	Non-motorized Plan
Coffee Bluff Rd	Collector - Suburban	E Back St	Mill Court	\$2,505,518	SW (2); Bike Lanes (2)	1.7	Thoroughfare Plan	Non-motorized Plan
Commercial Drive	Collector - Suburban	Hodgson Memorial Dr	Eisenhower Dr	\$648,486	SW (2); Bike Lanes (2)	0.44	Thoroughfare Plan	
Concord Rd	Collector - Urban	Penn Waller Rd	Walthour Rd	\$729,661	Bike Lanes (2)	0.78	Thoroughfare Plan	
Cornell Avenue	Collector - Urban	Eisenhower Dr	Waters Ave	\$774,835	SW (1); Bike Lanes (2)	0.68	Thoroughfare Plan	
Cottonvale Rd	Collector - Suburban	Salt Landing Way	US 17/Ogeechee Rd	\$1,061,160	SW (2); Bike Lanes (2)	0.72	Thoroughfare Plan	
Crossgate Rd	Collector - Suburban	SR 21	end	\$2,269,704	SW (1-2); Bike Lanes (2)	1.54	Thoroughfare Plan	Non-motorized Plan
Crossroads Parkway	Collector - Suburban	Airways Ave	Jimmy Deloach Pkwy	\$4,937,343	SW (2); Bike Lanes (2)	3.35	Thoroughfare Plan	
Deerfield Rd	Collector - Urban	Abercorn St	Collingwood Dr.	\$1,230,620	SW (1); Bike Lanes (2)	1.08	Thoroughfare Plan	

VISION Plan Thoroughfare/Non-Motorized Projects

Project Location	Functional Classification	From	To	Estimated Cost (in 2020 \$)	Project	Length	Project Source	
Deerwood Rd	Local	Cromwell	Penn Waller	\$1,271	Bike Lanes (2)	0.9	Nonmotorized Plan	
Dutchtown Rd	Collector - Urban	Abercorn St	Apache Ave	\$1,385,403	SW (2); Bike Lanes (2)	0.94	Thoroughfare Plan	Non-motorized Plan
E Gateway Blvd	Collector - Suburban	Abercorn St	Al Henderson Blvd	\$663,225	SW (2); Bike Lanes (2)	0.45	Thoroughfare Plan	
Edgewater	Local	Dunwoody Dr	Montgomery Cross Rd.	\$181,560	SW (1-2)	0.89	Nonmotorized Plan	
Eisenhower Drive	Major Arterial - Urban	Waters Avenue	Skidaway Road	\$3,589,372	Median; SW (1); Bike Lanes (2)	1.45	Thoroughfare Plan	Non-motorized Plan
Exchange St	Local	Florance St	MLK Blvd	\$307,654	SW (1); Bike Lanes	0.27	Nonmotorized Plan	
Fair St	Collector - Suburban	Louisville Rd	Alfred St	\$294,767	SW; Bike Lanes	0.2	Thoroughfare Plan	
Falligant Ave	Local	College St	River Dr.	\$504,451	SW (1); Bike Lanes (2)	0.5	Nonmotorized Plan	
Fell St	Local	Stratford St	Bay St	\$61,200	SW (1)	0.3	Nonmotorized Plan	
Ferguson Avenue	Minor Arterial - Suburban	Shipyards Rd	Skidaway Rd	\$5,291,064	SW (2); Bike Lanes (2)	3.59	Thoroughfare Plan	
Ford Ave	Local	Constitution Way	Cedar St	\$219,219	Path	0.35	Nonmotorized Plan	
Garrard Ave	Collector - Suburban	Buckhalter Rd	US 17/Ogeechee Rd	\$2,608,686	SW (2); Bike Lanes (2)	1.77	Thoroughfare Plan	
Grange Rd	Collector - Suburban	SR 21/Augusta Rd	end	\$2,461,302	SW (2); Bike Lanes (2)	1.67	Thoroughfare Plan	
Green Island Rd	Collector - Suburban	Lufburrow Way	Diamond Causeway	\$3,036,098	SW (2); Bike Lanes (2)	2.06	Thoroughfare Plan	
Grimball Point Rd	Collector - Suburban	Hopecrest Ave	Waite Dr	\$633,749	SW (2); Bike Lanes (2)	0.43	Thoroughfare Plan	
Grove Point Rd	Collector - Suburban	Grovepoint Island Rd	Georgetown Grove Apt	\$3,434,033	SW (1-2); Bike Lanes (2)	2.33	Thoroughfare Plan	
Gulfstream Rd	Collector - Suburban	Ida J Gadsden Dr	Augusta Rd/SR 21	\$3,890,922	SW; Bike Lanes	2.64	Thoroughfare Plan	
Gwinnett Street	Collector - Urban	Habersham St.	Wheaton Street	\$823,207	Bike Lanes (2)	0.88	Thoroughfare Plan	
Hendley Drive	Collector - Suburban	Monteith Rd	Augusta Rd/SR 21	\$751,656	SW (2); Bike Lanes (2)	0.51	Thoroughfare Plan	
Henry Street	Minor Arterial - Urban	MLK Boulevard	Truman Parkway	\$879,335	Bike Lanes (1)	1.88	Thoroughfare Plan	Non-motorized Plan
Henry Street	Minor Arterial - Urban	Truman Parkway	Skidaway Road	\$524,223	SW (2); Bike Lanes (1)	0.27	Thoroughfare Plan	
Highlands Blvd	Collector - Suburban	Jimmy DeLoach Pkwy	Benton Blvd	\$922,964	SW (1); Bike Lanes (2)	0.81	Thoroughfare Plan	
Hodgson Memorial Drive	Minor Arterial - Suburban	Montgomery Crossroads	Stephenson Ave	\$3,168,743	SW (2); Bike Lanes (2)	2.15	Thoroughfare Plan	
Hodgeville Rd	Local	NW MPO Boundary	SR 30	\$853,267	Rural Bike Lanes (2)	0.85	Nonmotorized Plan	
Hopecrest Ave	Collector - Suburban	LaRoche Ave	Grimball Point Rd	\$265,290	SW (2); Bike Lanes (2)	0.18	Thoroughfare Plan	
Hopkins St	Local	48th St	41st St	\$346,121	Bike Lanes (2)	0.37	Nonmotorized Plan	
Howard Foss Dr.	Collector - Suburban	Beaumont Dr	Bona Bella Ave	\$1,341,189	SW (2); Bike Lanes (2)	0.91	Thoroughfare Plan	
Islands Expressway	Major Arterial - Urban	President Street	US 80	\$7,546,029	SW (2); Bike Lanes (2)	5.12	Thoroughfare Plan	Non-motorized Plan
Joe St	Local	Burton Ct	Harmon St	\$24,480	SW (1)	0.12	Nonmotorized Plan	
Johnny Mercer Blvd	Minor Arterial - Suburban	US 80	US 80	\$7,044,926	SW (2); Bike Lanes (2)	4.78	Thoroughfare Plan	
Kessler Ave	Collector - Suburban	US 80	Old Louisville Rd	\$1,002,207	SW (2); Bike Lanes (2)	0.68	Thoroughfare Plan	
King George Blvd	Collector - Suburban	Wild Heron Rd	Westminster Way	\$2,092,844	SW (1-2); Bike Lanes (2)	1.42	Thoroughfare Plan	
Lakeside Blvd	Collector - Suburban	SR 21/Augusta Rd	Moonlight Trail	\$954,171	Bike Lanes (2)	1.02	Thoroughfare Plan	
Largo Drive	Collector - Suburban	Spanish Moss Rd	Windsor Rd	\$1,606,479	SW (2); Bike Lanes (2)	1.09	Thoroughfare Plan	Non-motorized Plan
Largo Drive	Collector - Urban	Windsor Rd	Abercorn St	\$138,721	SW (1)	0.68	Thoroughfare Plan	Non-motorized Plan
Largo Drive	Collector - Urban	Abercorn St	Wilshire Blvd	\$183,599	SW (2)	0.45	Thoroughfare Plan	Non-motorized Plan
Largo Drive	Collector - Suburban	Wilshire Blvd	Tibet Ave	\$501,363	SW (1); Bike Lanes (2)	0.44	Thoroughfare Plan	Non-motorized Plan
Laroché Ave	Collector - Suburban	W Bluff Dr	Derenne Ave	\$3,890,922	SW (2); Bike Lanes (2)	2.64	Thoroughfare Plan	
Lathrop Ave	Local	Louisville Rd	Bay St	\$87,719	SW (1)	0.43	Nonmotorized Plan	
Liberty Parkway	Collector - Suburban	ACL Blvd	US 80/Ogeechee Rd	\$2,210,751	SW (1-2); Bike Lanes (2)	1.5	Thoroughfare Plan	
Louis Mills Blvd	Collector - Suburban	Garrard Ave	ACL Blvd	\$869,562	SW (2); Bike Lanes (2)	0.59	Thoroughfare Plan	
Louisville Road	Minor Arterial - Urban	US 17	MLK	\$3,989,917	Median; SW (2); Bike Lanes (2)	1.42	Thoroughfare Plan	
Louisville Road	Collector - Urban	I-516	US 17	\$569,731	SW (1); Bike Lanes (2)	0.5	Thoroughfare Plan	
Main Street	Major Arterial - Suburban	Foundation Dr	Brampton Avenue	\$2,023,056	Median; SW (2); Bike Lanes (2)	0.72	Thoroughfare Plan	
Main Street (Bloomingdale)	Local	Hickory St	Oak St	\$273,358	SW (2)	0.67	Nonmotorized Plan	
Mall Blvd	Minor Arterial - Suburban	Waters Avenue	Abercorn St	\$2,753,602	Median; SW (1 - 2); Bike Lanes (2)	0.98	Thoroughfare Plan	Non-motorized Plan

VISION Plan Thoroughfare/Non-Motorized Projects

Project Location	Functional Classification	From	To	Estimated Cost (in 2020 \$)	Project	Length	Project Source	
McAuley Dr	Local	Dutchtown Rd	Mercy Blvd	\$34,679	SW (1)	0.17	Nonmotorized Plan	
McIntyre St	Local	Augusta Ave	Hudson St	\$51,000	SW (1)	0.25	Nonmotorized Plan	
McWhorter Drive	Collector - Suburban	Diamond Cswy	Modena Island Dr	\$6,101,672	SW (2); Bike Lanes (2)	4.14	Thoroughfare Plan	
Meinhard Rd	Collector - Suburban	I-95	SR 30	\$2,549,733	SW (2); Bike Lanes (2)	1.73	Thoroughfare Plan	
Memorial Blvd	Local	Pooler Pkwy	Quacco Rd	\$157,080	Bike Facility	0.77	Nonmotorized Plan	
Mercy Blvd	Collector - Suburban	Woodley Rd	McAuley Dr	\$455,785	SW (1); Bike Lanes (2)	0.4	Thoroughfare Plan	
Middle Landing Road	Minor Arterial - Suburban	Fort Argyle Rd	New Hampstead	\$4,480,455	SW (2); Bike Lanes (2)	3.04	Thoroughfare Plan	
Middleground Road	Minor Arterial - Suburban	Abercorn St	W Montgomery Cross Rd	\$1,655,768	Bike Lanes (2)	1.77	Thoroughfare Plan	
Minus Ave	Local	3rd St	Shopping Center	\$38,760	SW (1)	0.19	Nonmotorized Plan	
Mohawk Street	Collector - Urban	Rio Rd	Abercorn St	\$1,326,450	SW (1-2); Bike Lanes (2)	0.9	Thoroughfare Plan	
Monteith Rd	Collector - Suburban	I-95	E of Hendley Rd	\$1,046,421	SW (2); Bike Lanes (2)	0.71	Thoroughfare Plan	
Montgomery Crossroads	Major Arterial - Suburban	Middleground Rd	Abercorn St	\$2,217,046	Bike Lanes (2)	2.37	Thoroughfare Plan	
Montgomery Crossroads	Major Arterial - Suburban	Abercorn St	White Bluff Rd	\$227,893	SW (1); Bike Lanes (2)	0.2	Thoroughfare Plan	Non-motorized Plan
Montgomery Crossroads	Major Arterial - Suburban	White Bluff Rd	Truman Parkway	\$2,430,428	Median; Bike Lanes (2)	1.07	Thoroughfare Plan	Non-motorized Plan
Montgomery Crossroads	Major Arterial - Suburban	White Bluff Rd	Waters Avenue	\$2,332,134	Median; SW (1-2); Bike Lanes (2)	0.83	Thoroughfare Plan	Non-motorized Plan
Montgomery Street	Collector - Urban	Victory Drive	W. 61st Street	\$991,589	Bike Lanes (2)	1.06	Thoroughfare Plan	Non-motorized Plan
Montgomery Street	Collector - Urban	W. 61st Street	DeRenne	\$717,862	SW (1); Bike Lanes (2)	0.63	Thoroughfare Plan	Non-motorized Plan
Montgomery Street	Collector - Suburban	Mildred St	Derenne Ave	\$574,795	SW (2); Bike Lanes (2)	0.39	Thoroughfare Plan	
Montgomery Street	Collector - Urban	DeRenne	Gwinnett	\$340,679	SW Continuity and Upgrades	1.67	Nonmotorized Plan	
Nevada Street	Local	Capital St	Beech St	\$63,241	SW (1)	0.31	Nonmotorized Plan	
New Mexico Street	Local	Nevada St	Capital ST	\$71,400	SW (1)	0.35	Nonmotorized Plan	
Norwood Ave	Collector - Suburban	Skidaway Rd	LaRoche Ave	\$1,709,647	SW (2); Bike Lanes (2)	1.16	Thoroughfare Plan	Non-motorized Plan
Ogeechee Road	Major Arterial - Suburban	County Line	South of Dean Forest	\$2,733,603	SW (2)	6.7	Thoroughfare Plan	Non-motorized Plan;
Ogeechee Road	Major Arterial - Suburban	South of Dean Forest Road	I-516	\$11,267,299	Median; SW (2); Bike Lanes (2)	4.01	Thoroughfare Plan	Non-motorized Plan;
Ogeechee Road	Major Arterial - Urban	I-516 / Liberty Parkway	Victory Drive	\$5,868,737	2 Lanes; Median; SW (2); Bike Lanes (2)	0.9	Thoroughfare Plan	Sector Plan
Ogeechee Road	Local	Plymouth Ave	Stiles Ave	\$150,960	SW (1)	0.74	Nonmotorized Plan	
Old Louisville Rd	Collector - Suburban	US 80	Kessler Ave	\$4,465,716	SW (2); Bike Lanes (2)	3.03	Thoroughfare Plan	
Old Montgomery Rd	Collector - Suburban	Whitefield Ave	E Montgomery	\$1,458,513	SW (1); Bike Lanes (2)	1.28	Thoroughfare Plan	
Osca Dr	Local	McWhorter Dr	end	\$1,013,881	Rural Bike Lanes (2)	1.01	Nonmotorized Plan	
Paulsen St	Local	DeRenne	51st St	\$232,560	SW (1-2)	1.14	Nonmotorized Plan	
Pennsylvania Avenue	Local	Skidaway Rd	Kinzie Ave	\$1,731	Stripe paved shoulders	0.57	Nonmotorized Plan	
Penn Waller Rd	Collector - Suburban	Walthour Dr	Johnny Mercer Blvd	\$1,871,769	SW (1-2); Bike Lanes (2)	1.27	Thoroughfare Plan	Non-motorized Plan
Pine Street	Local	RR Track	US 80	\$134,641	SW (1)	0.66	Nonmotorized Plan	
Pine Barren Rd	Collector - Suburban	Bloomingtondale Rd	US 80	\$4,804,698	SW (1-2); Bike Lanes (2)	3.26	Thoroughfare Plan	Non-motorized Plan
Pooler Parkway	Major Arterial - Suburban	Durham Park Blvd	Benton Blvd	\$795,453	Path	1.27	Nonmotorized Plan	
President Street	Major Arterial - Urban	East Broad	Truman Parkway	\$1,452,107	Median; Path	0.74	Thoroughfare Plan	Non-motorized Plan
President Street	Major Arterial - Urban	Bilbo Canal	Goebel Ave	\$613,814	Path	0.98	Nonmotorized Plan	
Quarterman Drive	Collector - Urban	Johnny Mercer Blvd	Islands Expressway	\$957,992	SW (2); Bike Lanes (2)	0.65	Thoroughfare Plan	
Rio Rd	Collector - Urban	Abercorn St	end	\$781,131	SW (2); Bike Lanes (2)	0.53	Thoroughfare Plan	Non-motorized Plan
Robert B Miller Rd	Collector - Suburban	Dean Forest Rd	Gulfstream Rd	\$2,019,153	SW (2); Bike Lanes (2)	1.37	Thoroughfare Plan	Non-motorized Plan
Rogers St	Local	Pine Barren Rd	US 80	\$2,476,041	SW (2); Bike Lanes (2)	1.68	Nonmotorized Plan	
Roger Warlick Dr	Collector - Suburban	Apache Ave	Windsor Rd	\$1,059,700	SW (1); Bike Lanes (2)	0.93	Thoroughfare Plan	
Rowland Ave	Local	Shuptrine Ave	Whatley Ave	\$439,667	Bike Lanes (2)	0.47	Nonmotorized Plan	
S Cherry Street	Major Arterial - Urban	Bloomingtondale Rd	US 80	\$5,503,464	2 Lanes; Median; SW (2); Bike Lanes (2)	0.77	Thoroughfare Plan	

VISION Plan Thoroughfare/Non-Motorized Projects

Project Location	Functional Classification	From	To	Estimated Cost (in 2020 \$)	Project	Length	Project Source	
S Gateway Blvd	Collector - Suburban	Abercorn St	end	\$442,150	SW (2); Bike Lanes (2)	0.3	Thoroughfare Plan	
S Rogers St	Collector - Suburban	Pine Barren Rd	US 80/Louisville Rd	\$1,834,535	SW (1); Bike Lanes (2)	1.61	Thoroughfare Plan	
Sallie Mood Dr	Collector - Suburban	Montgomery Crossroads	Eisenhower Dr	\$1,370,666	SW (1-2); Bike Lanes (2)	0.93	Thoroughfare Plan	
Shawnee St	Collector - Urban	Rio Rd	Middleground Rd	\$900,176	SW (1); Bike Lanes (2)	0.79	Thoroughfare Plan	
Shell Rd	Local	W of Placentia Canal	Johnson High School	\$24,480	SW (1)	0.12	Nonmotorized Plan	
Shipyard Rd	Collector - Suburban	Center Dr	Whitefield Ave	\$2,313,919	SW (2); Bike Lanes (2)	1.57	Thoroughfare Plan	
Skidaway Road	Minor Arterial - Suburban	Parkersburg Rd	DeRenne	\$8,429,401	Median; SW (2); Bike Lanes (2)	3	Thoroughfare Plan	Non-motorized Plan
Skidaway Road	Minor Arterial - Urban	DeRenne	Victory Dr	\$1,664,190	Paths	1.63	Nonmotorized Plan	
Southbridge Blvd	Collector - Urban	Berwick Blvd	Trail Creek Lane	\$113,846	SW (2); Bike Lanes (1)	0.13	Thoroughfare Plan	
Southbridge Blvd	Collector - Urban	Trail Creek Lane	Golf Club Dr	\$2,806,387	Bike Lanes (2)	3	Thoroughfare Plan	
Southbridge Blvd	Collector - Suburban	Golf Club Dr	Wedgefield Crossing	\$136,736	SW (1); Bike Lanes (2)	0.12	Thoroughfare Plan	Non-motorized Plan
Southbridge Blvd	Collector - Suburban	Wedgefield Crossing	Dean Forest	\$235,813	SW (2); Bike Lanes (2)	0.16	Thoroughfare Plan	Non-motorized Plan
SR 21	Major Arterial - Suburban	I-516	Minis Ave	\$840,085	SW (2); Bike Lanes (2)	0.57	Thoroughfare Plan	Non-motorized Plan
SR 21	Major Arterial - Urban	Minis Ave	Smith Ave	\$3,384,428	Median; Bike Lanes (2)	1.49	Thoroughfare Plan	Non-motorized Plan;SR
SR 21	Major Arterial - Suburban	Smith Avenue	County Line	\$12,837,093	SW (2); Bike Lanes (2)	8.71	Thoroughfare Plan	Non-motorized Plan
SR 30	Minor Arterial - Suburban	County Line	SR 21	\$9,581,418	Median; SW (2); Bike Lanes (2)	3.41	Thoroughfare Plan	Non-motorized Plan
Staley Ave	Local	Liberty City Parkway	W. of RR bridge	\$569,731	SW (1); Bike Lanes (2)	0.5	Nonmotorized Plan	
Stephenson Avenue	Minor Arterial - Suburban	White Bluff Rd	Abercorn St	\$449,567	Median; SW (2); Bike Lanes (2)	0.16	Thoroughfare Plan	
Stephenson Avenue	Minor Arterial - Suburban	Abercorn St	Hodgson Memorial	\$427,509	Median	0.32	Thoroughfare Plan	
Stephenson Avenue	Minor Arterial - Suburban	Hodgson Memorial Dr	Waters Ave	\$1,158,429	Median; Bike Lanes (2)	0.51	Thoroughfare Plan	
Stiles Avenue	Local	US 17	Louisville Rd	\$1,027,186	SW (1): Bike Lanes (2); Shared Lanes	1.74	Nonmotorized Plan	
Stratford St	Local	Lily St	Augusta Ave	\$81,600	SW (1)	0.4	Nonmotorized Plan	
Sunset Blvd	Local	Victory Drive	Whatley Ave	\$1,445,149	SW (2); Bike Lanes (2); Path	0.66	Nonmotorized Plan	
Telfair Rd	Collector - Suburban	Chatham Pkwy	Louisville Rd	\$2,593,947	SW (2); Bike Lanes (2)	1.76	Thoroughfare Plan	
Tibet Ave	Collector - Suburban	Middleground Rd	Leeds Gate Rd	\$869,980	Bike Lanes (2)	0.93	Thoroughfare Plan	Non-motorized Plan
Tibet Ave	Collector - Suburban	Leeds Gate Rd	White Bluff Rd	\$648,486	SW (2); Bike Lanes (2)	0.44	Thoroughfare Plan	Non-motorized Plan
Todd St	Collector - Suburban	Wilmington Island Rd	Walthour Rd	\$353,721	SW (2); Bike Lanes (2)	0.24	Thoroughfare Plan	
Tremont Rd	Collector - Suburban	I-516	Telfair Rd	\$1,798,077	SW (2); Bike Lanes (2)	1.22	Thoroughfare Plan	
US 17 A	Minor Arterial - Suburban	Main Street	Brampton Avenue	\$2,107,350	Median; SW (2); Bike Lanes (2)	0.75	Thoroughfare Plan	
US 17 A	Minor Arterial - Suburban	Brampton Avenue	Blackburn Street	\$5,166,287	2 Lanes; Median; SW (1); Bike Lanes (2)	0.65	Thoroughfare Plan	
US 17 A	Minor Arterial - Suburban	Blackburn Street	State Line	\$9,581,418	Median; SW (2); Bike Lanes (2)	3.41	Thoroughfare Plan	Non-motorized Plan
US 80	Major Arterial - Suburban	County Line	I-95	\$12,447,415	Median; SW (2); Bike Lanes (2)	4.43	Thoroughfare Plan	Non-motorized Plan
US 80	Major Arterial - Suburban	I-95	Louisville Rd	\$6,795,971	2 Lanes; Median; SW (2); Bike Lanes (2)	1.23	Thoroughfare Plan	
US 80	Major Arterial - Suburban	East of Bull River	East of Lazaretto Creek	\$19,675,682	SW (2); Bike Lanes (2)	13.35	Thoroughfare Plan	Non-motorized Plan
US 80	Major Arterial - Suburban	East of Lazeretto Creek	Curb	\$1,304,996	Rural Bike Lanes (2)	1.3	Nonmotorized Plan	
W. Bay St	Major Arterial - Urban	Graham	MLK Blvd	\$582,654	Path: Cycle Track	1.81	Nonmotorized Plan	
W. Gateway Blvd	Collector - Suburban	Fort Argyle Rd	end	\$766,394	SW (2); Bike Lanes (2)	0.52	Thoroughfare Plan	
Waite Dr	Collector - Suburban	Grimball Point Rd	Herb River Dr	\$294,767	SW (2); Bike Lanes (2)	0.2	Thoroughfare Plan	
Wallin St	Local	Victory Drive	38th St	\$54,194	SW; Stripe Paved Shoulders	0.38	Nonmotorized Plan	
Walthour Rd	Collector - Suburban	Wilmington Island Rd	Johnny Mercer Blvd	\$7,207,047	SW (1-2); Bike Lanes (1-2)	4.89	Thoroughfare Plan	Non-motorized Plan
Washington St	Collector - Suburban	Central Ave	Garfield St	\$309,505	SW (2); Bike Lanes (2)	0.21	Thoroughfare Plan	
Waters Avenue	Minor Arterial - Suburban	Whitefield Ave	E Montgomery Cross Rd	\$2,033,891	SW (2); Bike Lanes (2)	1.38	Thoroughfare Plan	
Waters Avenue	Minor Arterial - Urban	E Montgomery Cross Rd	DeRenne	\$1,783,338	SW (1-2); Bike Lanes (2)	1.21	Thoroughfare Plan	Non-motorized Plan
Waters Avenue	Minor Arterial - Urban	Memorial Hospital	53rd St	\$104,041	SW (1)	0.51	Nonmotorized Plan	

VISION Plan Thoroughfare/Non-Motorized Projects								
Project Location	Functional Classification	From	To	Estimated Cost (in 2020 \$)	Project	Length	Project Source	
Whatley Avenue	Local	Falligant Ave	Rowland Ave	\$617,405	Bike Lanes (2)	0.66	Nonmotorized Plan	
Wheaton Street	Minor Arterial - Urban	East Broad	Skidaway	\$3,111,857	Median; Bike Lanes (2)	1.37	Thoroughfare Plan	
White Bluff Road	Major Arterial - Suburban	Willow Road	DeRenne	\$5,512,139	SW (2); Bike Lanes (2)	3.74	Thoroughfare Plan	Non-motorized Plan
Whitefield Ave	Collector - Suburban	Montgomery Crossroads	Cartwright Street	\$4,053,044	SW (1-2); Bike Lanes (2)	2.75	Thoroughfare Plan	
Whitemarsh Island Rd	Collector - Suburban	Johnny Mercer Blvd	Dolphin Lane	\$489,969	SW (1); Bike Lanes (2)	0.43	Thoroughfare Plan	Non-motorized Plan
Whitemarsh Island Rd	Collector - Suburban	Dolphin Lane	US 80	\$149,674	Bike Lanes (2)	0.16	Thoroughfare Plan	Non-motorized Plan
Wild Heron Rd	Collector - Suburban	Chevis Rd	Grove Point Rd	\$2,137,059	SW (1-2); Bike Lanes (2)	1.45	Thoroughfare Plan	
Wilmington Island Rd	Collector - Suburban	Todd St	Wilmington Island	\$3,728,799	SW (2); Bike Lanes (2)	2.53	Thoroughfare Plan	Non-motorized Plan
Wilmington Island Village Rd	Collector - Urban	Wilmington Island Rd	Johnny Mercer Blvd	\$368,459	SW (2); Bike Lanes (2)	0.25	Thoroughfare Plan	Non-motorized Plan
Wilshire Blvd	Collector - Urban	Largo Dr	White Bluff Rd	\$1,414,881	SW (2); Bike Lanes (2)	0.96	Thoroughfare Plan	
Windsor Rd	Collector - Suburban	Science Dr	White Bluff Rd	\$2,254,977	SW (1-2); Bike Lanes (2)	1.53	Thoroughfare Plan	Non-motorized Plan
Total Project Cost				\$ 398,922,614				

VISION PLAN Non-Motorized Multiuse Path Facilities (For full list see the Non Motorized Plan)							
Multiuse Path Facilities	Functional Classification	From	To	Estimated Cost (in 2020 \$)	Project	Length	Project Source
Springfield Canal Path	N/A	Clinch St	Louisville Rd	\$ 1,476,738	Path	2.90	Non motorized Plan
Truman Greenway Ext, Northern Phase 2	N/A	Paulsen St	Wheaton Street	\$ 193,504	Path	0.38	Non motorized Plan
Truman Greenway Ext, Northern Phase 2	N/A	Wheaton St	President St	\$ 285,163	Path	0.56	Non motorized Plan
Truman Greenway Ext, Northern Phase 1	N/A	Police Memorial Trail	Wheaton Street	\$ 787,234	Path	1.59	Non motorized Plan
Truman Greenway Ext, Southern	N/A	White Bluff	Whitefield Ave	\$ 3,937,090	Path (cantilevered)	1.50	Non motorized Plan
Truman Greenway Ext, Southern	N/A	Abercorn St	White Bluff Rd	\$ 127,305	Path	0.25	Non motorized Plan
Placentia Canal Path	N/A	Laroche Ave	Bonaventure Ave	\$ 1,186,483	Path	2.33	Non motorized Plan
Coastal Georgia Greenway along S&O Canal	N/A	I-516	Louisville Rd	\$ 1,812,823	Path	3.56	Non motorized Plan
Coastal Georgia Greenway along S&O Canal	N/A	Chatham Parkway	Telfair Rd/Amtrak	\$ 458,298	Path	0.90	Non motorized Plan
Coastal Georgia Greenway along S&O Canal	N/A	Dean Forest Rd	Chatham Parkway	\$ 1,150,837	Path	2.26	Non motorized Plan
Coastal Georgia Greenway along S&O Canal	N/A	Tom Triplett Park	Dean Forest Rd	\$ 916,596	Path	1.80	Non motorized Plan
Coastal Georgia Greenway along S&O Canal	N/A	Fort Argyle Rd	Little Neck Rd	\$ 1,142,585	Path	1.40	Non motorized Plan
Coastal Georgia Greenway along Pine Barren Rd	N/A	Pooler Parkway	Cross Creek Dr	\$ 809,660	Path	1.59	Non motorized Plan
Coastal Georgia Greenway along Harris Trail Rd	N/A	US 17	Sterling Creek	\$ 117,121	Path	0.23	Non motorized Plan
Coastal Georgia Greenway along Sterling Creek	N/A	Haris Trail Rd	Maple St	\$ 712,908	Path	1.40	Non motorized Plan
SR 204 and Gateway Blvd Path	N/A	W of I-95	Canebrake Rd	\$ 249,518	Path	0.49	Non motorized Plan
Path near Oglethorpe Charter School	N/A	Central Ave	Beaumont Dr	\$ 224,057	Path	0.44	Non motorized Plan
Path	N/A	Benton Drive	Durham Park Blvd	\$ 392,099	Path	0.77	Non motorized Plan
Railroad Bed Path	N/A	US 80	Dean Forest Rd	\$ 1,222,128	Path	2.40	Non motorized Plan
US 80 Path	N/A	Parsons Rd	Dean Forest Rd	\$ 1,553,121	Path	3.05	Non motorized Plan
Connecting Path	N/A	Reuben Clark Dr/Truman Greenway	65th St/	\$ 30,553	Path	0.06	Non motorized Plan
Path	N/A	End of Tennessee St	Bonaventure Ave	\$ 162,950	Path	0.32	Non motorized Plan
Railroad Bed Path	N/A	Western MPO Boundary	Osteen Rd (realigned)	\$ 595,787	Path	1.17	Non motorized Plan
Railroad Bed Path	N/A	Ash St	Lynn St.	\$ 168,043	Path	0.33	Non motorized Plan
Total Project Cost				\$ 19,712,601			
US 17 South Sidewalk	Major Arterial - Suburban	Mulberry	Harris trail	\$ 1,767,510.00			Expanded MPA
Harris Trail Sidewalk	Collector - Suburban	Timber Trail	Cypress Point	\$ 202,950.00			Expanded MPA
Frances Meeks Way - Sidewalk	Collector - Suburban	Sidewalk Ford Avenue	Maple Street	\$ 27,538.47			Expanded MPA
Ivey Street - Sidewalk	Collector - Suburban	Ford Avenue	Laurel Hill Circle	\$ 380,141.34			Expanded MPA
Maple Street - Sidewalk	Collector - Suburban	Constitution Way	Pre-K Center Walkway	\$ 85,531.74			Expanded MPA
Constitution Way - Sidewalk	Collector - Suburban	Cherry Street	Ford Avenue	\$ 332,623.98			Expanded MPA
Cherry Street - Sidewalk	Collector - Suburban	Ford Avenue	Constitution Way	\$ 123,546.12			Expanded MPA
Port Royal Road Sidewalk	Collector - Suburban	SR 144	Sterling Links Way	\$210,330			Expanded MPA
	Collector - Suburban	Sterling Links Way	Demorest				Expanded MPA
Ford Avenue - Sidewalk Railroad Tracks I-95	Collector - Suburban	Railroad Tracks	I-95	\$ 1,615,602.54			Expanded MPA
Ford Avenue - Sidewalk Ford Avenue Timber Trail	Collector - Suburban	Ford Avenue	Timber Trail	\$ 114,041.91			Expanded MPA
Total Project Cost				\$ 24,572,417			



APPENDIX F: TECHNICAL ANALYSIS



Table 1: Project Prioritization Matrix

				Yes = 5; No = 0										Yes = 0; No = 5			TOTAL PROJECT SCORE	Yes/No	
Project Name			Project Cost (\$2014 unless in Freight plan \$2016, I-16 Widen, I- 16 little Neck, Truman)	NEED SCREEN								SUSTAINABILITY SCREEN			In Total Mobility 2040 Constrained Plan	Alternate Funding Source in 2040 Plan			
	From	To		System Performace		Safety and Security		Accessibility, Mobility, Connectivity					State of Good Repair	Environment/Quality of Life					
				Facility LOS E or F	High Truck Volumes	Facility Crash Rate Above State Average	Designated Evacuation Route	Connects Population Centers to Activity Centers	Does the proejct connect major freight generators with infrastructure	Is the project identified in the Freight Plan?	Is the project identified in the CAT TDP?	Non- Motorized Priority	Bridge Suffiency of less than 50 or poor conditions	Environmental Impacts	Adverse Cultural, Historic, Community Resources	Adverse Environmental Justice Impacts			
I-516 / I-16 Interchange	--	--	\$116,477,947	5	5	0	5	5	5	5	0	0	0	5	5	5	45.00	✓	
I-95 at SR 21 / Augusta Interchange Reconstruction	--	--	\$114,242,793	5	5	0	5	5	5	5	0	0	0	5	5	5	45.00	✓	
President Street / Truman Parkway Interchange Bridge and	President Street / Truman Parkway		\$108,883,056	5	0	0	5	5	5	5	0	0	0	5	5	5	40.00	✓	
I-516/Lynes Parkway Widening (6 lanes)	Veteran Parkway	Mildred Street	\$139,815,951	0	5	0	5	5	5	5	0	0	0	5	5	5	40.00	✓	
I-516/Lynes Parkway Widening (6 lanes)	I-16	Veterans Parkway	\$95,746,503	0	5	0	5	5	5	5	0	0	0	5	5	5	40.00	✓	
US 80/Victory Drive Improvements	Home Depot	Kerry Street	\$39,015,752	5	0	0	5	5	5	5	0	5	0	5	5	0	40.00	✓	
I-95 Widening	I-16	Effingham Co./S.C.	\$294,907,670	5	5	0	0	5	5	0	0	0	0	5	5	5	35.00		
I-95 Widening	I-16	Bryan County	\$168,548,503	5	5	0	0	5	5	0	0	0	0	5	5	5	35.00		
I-95 Widening	Bryan County	US 17	\$103,708,474	5	5	0	0	5	5	0	0	0	0	5	5	5	35.00		
I-95 Interchange	At SR 21/Augusta Rd		\$298,707,473	5	5	0	0	5	5	0	0	0	0	5	5	5	35.00		
I-16 Widening	Pooler Parkway	I-95	\$26,600,000	0	5	0	5	5	5	0	0	0	0	5	5	5	35.00	✓	
I-95 Interchange Improvements and Bridge Replacement	at SR 144		\$65,003,914	5	5	0	0	5	5	0	0	0	0	5	5	5	35.00		
Airways Avenue Wideing	I-95	SR21	\$5,846,375	5	0	0	0	5	5	5	0	5	0	5	5	0	35.00		✓
I-95 at Airways Avenue			\$80,000,000	5	5	0	0	5	5	5	0	0	0	5	5	0	35.00		✓
I-16/Little Neck/ JDL Interchange			\$20,400,000	5	5	0	5	5	5	0	0	0	0	0	5	0	30.00		
Airway Avenue flyover to Gulfstream	EB Airways Avenue	Flyover to EB Gulfstream	\$15,280,653	5	0	0	0	5	5	5	0	0	0	5	5	0	30.00		✓
SR 204 / Abercorn Interchange Reconstruction	At I-95	--	\$57,794,105	5	0	0	5	5	0	0	0	0	0	0	5	5	25.00		
Harris Trail Road Widening	Timber Trail	Port Royal Road	\$16,707,369	5	0	0	0	5	0	0	0	0	0	5	5	5	25.00	✓	
Port Royal Widening	SR 144	Harris Trail	\$9,928,080	5	0	0	0	5	0	0	0	0	0	5	5	5	25.00	✓	
Gulfstream Imrprovements	SR 21 Corridor	Airport	\$70,339,882	5	5	0	0	5	0	0	0	0	0	5	5	0	25.00		
SR 204 Widening	US 17	Rio Road	\$125,500,000	0	0	0	5	5	0	0	0	5	0	0	5	0	20.00		
Pooler Parkway/Quacco Road Widening 4 to 6 lanes	I-95	South Godley Station	\$33,611,518	0	0	0	0	5	5	0	0	5	0	0	5	0	20.00		
Fort Argyle/SR 204 Widening 2 to 4 lanes	I-95	John Carter Road	\$61,831,964	0	0	0	5	5	0	0	0	5	0	5	0	0	20.00		
Truman Parkway Widening	Victory Drive	Montgomery Crossroads	\$87,500,000	5	0	0	0	5	0	0	0	0	0	5	5	0	20.00		
Quacco Rd Widening	Pooler Pkwy	I-95	\$29,934,566	0	0	0	0	5	0	0	0	5	0	0	5	0	15.00		
SR 204/ Reconstruction Limited Access	At I-95	US 17	\$101,100,000	0	0	0	5	5	0	0	0	0	0	0	5	0	15.00		
Little Neck Road Widening	John Carter Road	I-16	\$53,643,585	0	0	0	0	5	0	0	0	5	0	0	5	0	15.00		
US 17 Widening to 6 lanes	SR 144	Chatham Parkway	\$0	0	0	0	0	5	0	0	0	5	0	0	0	0	10.00		
Belfast Keller Widening	South of US 17	Belfast River Road	\$0	0	0	0	0	5	0	0	0	0	0	0	5	0	10.00		



METROPOLITAN PLANNING ORGANIZATION

Resolution of the Coastal Region Metropolitan Planning Organization to Accept the Base Year and 2045 "Do Nothing" Traffic Demand Models

WHEREAS, the Coastal Region Metropolitan Planning Organization (CORE MPO) has been designated by the Governor of Georgia as the Metropolitan Planning Organization for the Savannah urbanized area; and

WHEREAS, it is necessary to project the long term population growth patterns and resulting traffic volumes using existing traffic counts for 2015 for the purpose of calibrating with the findings for the traffic model for the year 2045; and

NOW, THEREFORE, BE IT RESOLVED that The CORE MPO Board accepts the 2015 base year and 2045 do nothing travel demand models based upon the information presented by GDOT staff at the meeting held on December 12, 2018, with the understanding that the model files and supporting documentation will be provided at a later date. The travel demand model will serve as the primary analytical tool to evaluate the performance of potential highway capacity projects for inclusion in the Metropolitan Transportation Plan.

CERTIFICATION

I hereby certify that the above is a true and correct copy of a Resolution adopted by the Coastal Region Metropolitan Planning Organization Board at a meeting held on December 12, 2018.

A handwritten signature in blue ink, reading "Albert J. Scott", written over a horizontal line.

Albert J. Scott, Chairman
Coastal Region Metropolitan Planning Organization

Long Range Transportation Plan (LRTP) – Travel Demand Model (TDM) Networks

Below is a list of TDM Networks adopted by the GDOT Office of Planning. The networks will be used during the TDM process of LRTP Updates for all of the 14 MPOs¹ in the state of Georgia. A short description of what each network entails follows.

I. Base Year Network – 1st Network

This network is the first one to be developed and serves as a foundation for developing the additional networks used in the LRTP Update TDM process. The Base Year Network consists of the existing MPO modeling area network updated to incorporate the following:

- a. The base year socio-economic data developed and submitted by each MPO,
- b. Any recent changes to the functional classification and number of lanes within that MPO modeling boundary, and
- c. Any projects completed or authorized from FY or CY2010 until 2015.

II. Do-Nothing System Projects – 2nd Network

This network includes the Base Year Network for any given MPO in addition to any projects recently completed and opened to traffic, or under construction since the Base Year within the MPO TDM modeling area.

III. Existing + Committed System Projects – 3rd Network

This network encompasses the Base Year Network, the Do-Nothing System Projects Network, and all projects within a given MPO TDM modeling area with a construction phase listed in the current Statewide Transportation Improvement Plan (STIP). The STIP is revised and adopted every one to four years.

IV. Completion of STIP System Projects – 4th Network

This network includes the Base Year Network, the Do-Nothing System Projects Network, the E+C System Projects Network, and any projects with preliminary engineering and right of way funding reflected in the current STIP.

V. Long Range Transportation Plan System Projects – 5th Network

This network contains the Base Year Network, the Do-Nothing System Projects Network, the E+C System Projects Network, the Completion of STIP System Projects Network, and all projects that were identified by the particular MPO and listed on their draft LRTP that will address future transportation deficiencies through the planning horizon year.

VI. Financially Constrained Network – 6th Network

This network contains the Base Year Network, the Do-Nothing System Projects Network, the E+C System Projects Network, the Completion of STIP System Projects, and projects that are likely to receive funding from different sources and are of higher priority to any MPO.

¹ List of MPOs for which the TDM process is managed by GDOT

Albany / Athens / Augusta / Brunswick / Cartersville / Columbus / Dalton / Gainesville / Hinesville / Macon / Rome / Savannah / Valdosta / Warner Robins.



EFFINGHAM

BRYAN

CHATHAM


Legend


 MPO Boundary


 Model Area

2015 LOS

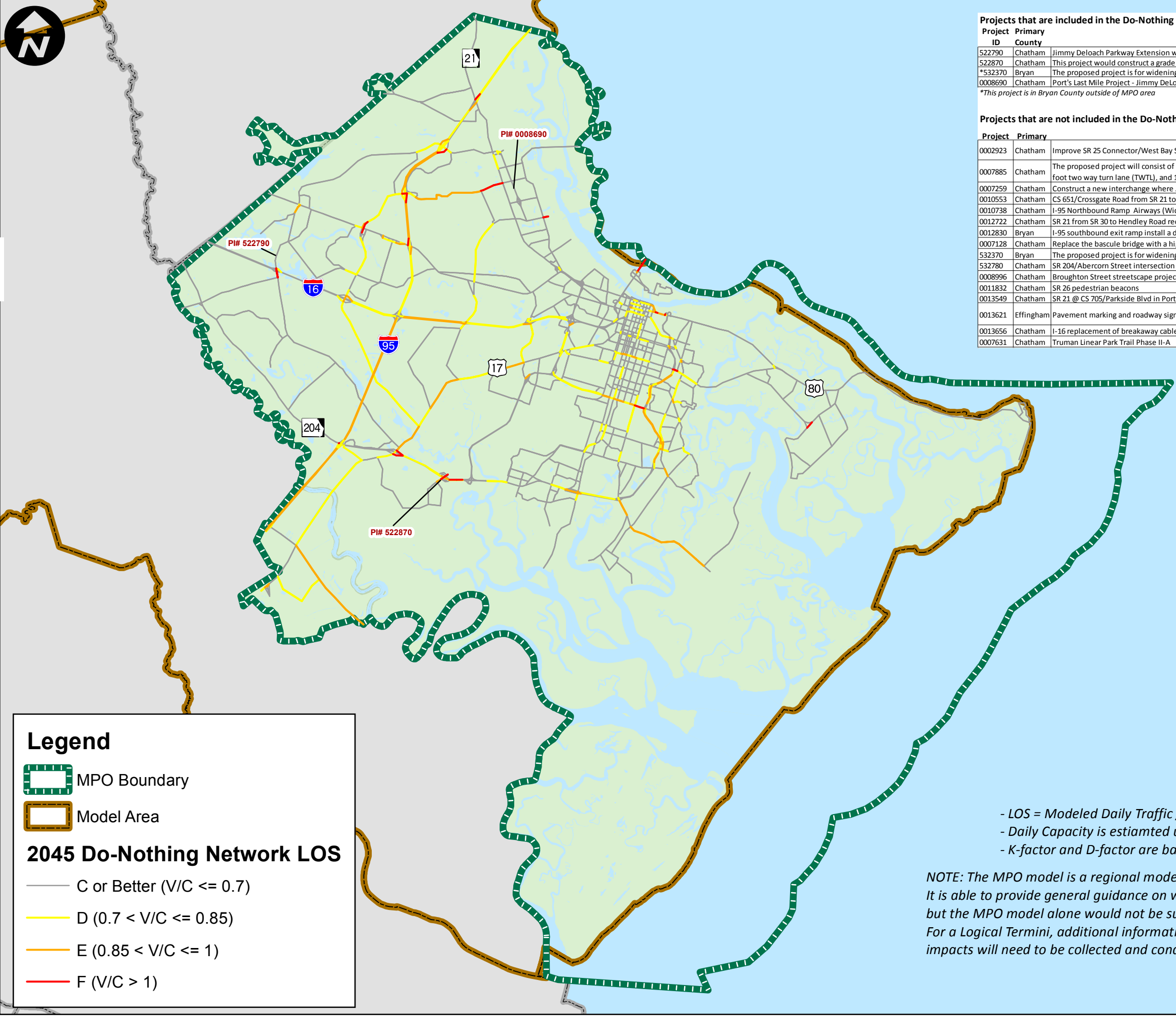
 C or Better ($V/C \leq 0.7$)

 D ($0.7 < V/C \leq 0.85$)

 E ($0.85 < V/C \leq 1$)

 F ($V/C > 1$)

0 2.5 5 10
Miles



Legend

MPO Boundary

Model Area

2045 Do-Nothing Network LOS

C or Better (V/C <= 0.7)

D (0.7 < V/C <= 0.85)

E (0.85 < V/C <= 1)

F (V/C > 1)

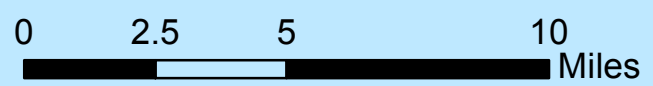
Projects that are included in the Do-Nothing network:			
Project ID	Primary County	Short Description	Primary Work Type
522790	Chatham	Jimmy DeLoach Parkway Extension widening and new location re/construct to four lanes divided	New Road
522870	Chatham	This project would construct a grade separated interchange at SR 204 and King George Blvd.	New Interchange
*52370	Bryan	The proposed project is for widening and reconstruction of SR 144	Widening
0008690	Chatham	Port's Last Mile Project - Jimmy DeLoach Connector 4 lane Freeway	New Road
*This project is in Bryan County outside of MPO area			
Projects that are not included in the Do-Nothing network:			
Project	Primary	Short Description	Reasons why they are not
0002923	Chatham	Improve SR 25 Connector/West Bay Street (add median)	No additional capacity
0007885	Chatham	The proposed project will consist of widening the existing typical section from two 9-foot lanes to four 12-foot lanes, one 16-foot two way turn lane (TWTL), and 10-foot rural shoulders.	No additional capacity
0007259	Chatham	Construct a new interchange where Jimmy DeLoach Parkway currently intersects US 80/SR 26/SR17 at grade.	No additional capacity
0010553	Chatham	CS 651/Crossgate Road from SR 21 to NS#734150L in Port Wentworth related to port's last mile project	No additional capacity
0010738	Chatham	I-95 Northbound Ramp Airways (Widen and extend storage)	No additional capacity
0012722	Chatham	SR 21 from SR 30 to Hendley Road reconfiguring the exiting I-95/SR 21 interchange to a diverging diamond interchange.	No additional capacity
0012830	Bryan	I-95 southbound exit ramp install a dual left turn lane adding additional storage, modify signal timing	No additional capacity
0007128	Chatham	Replace the bascule bridge with a high level fixed span	No additional capacity
52370	Bryan	The proposed project is for widening and reconstruction of SR 144	No additional capacity
532780	Chatham	SR 204/Abercorn Street intersection improvement at Largo Drive	No additional capacity
0008996	Chatham	Broughton Street streetscape project	No additional capacity
0011832	Chatham	SR 26 pedestrian beacons	Non Motorized
0013549	Chatham	SR 21 @ CS 705/Parkside Blvd in Port Wentworth pedestrian crossing	Non Motorized
0013621	Effingham	Pavement marking and roadway signs at 44 highway at rail crossings.	No additional capacity
0013656	Chatham	I-16 replacement of breakaway cable terminal anchors on guardrail	No additional capacity
0007631	Chatham	Truman Linear Park Trail Phase II-A	Non Motorized

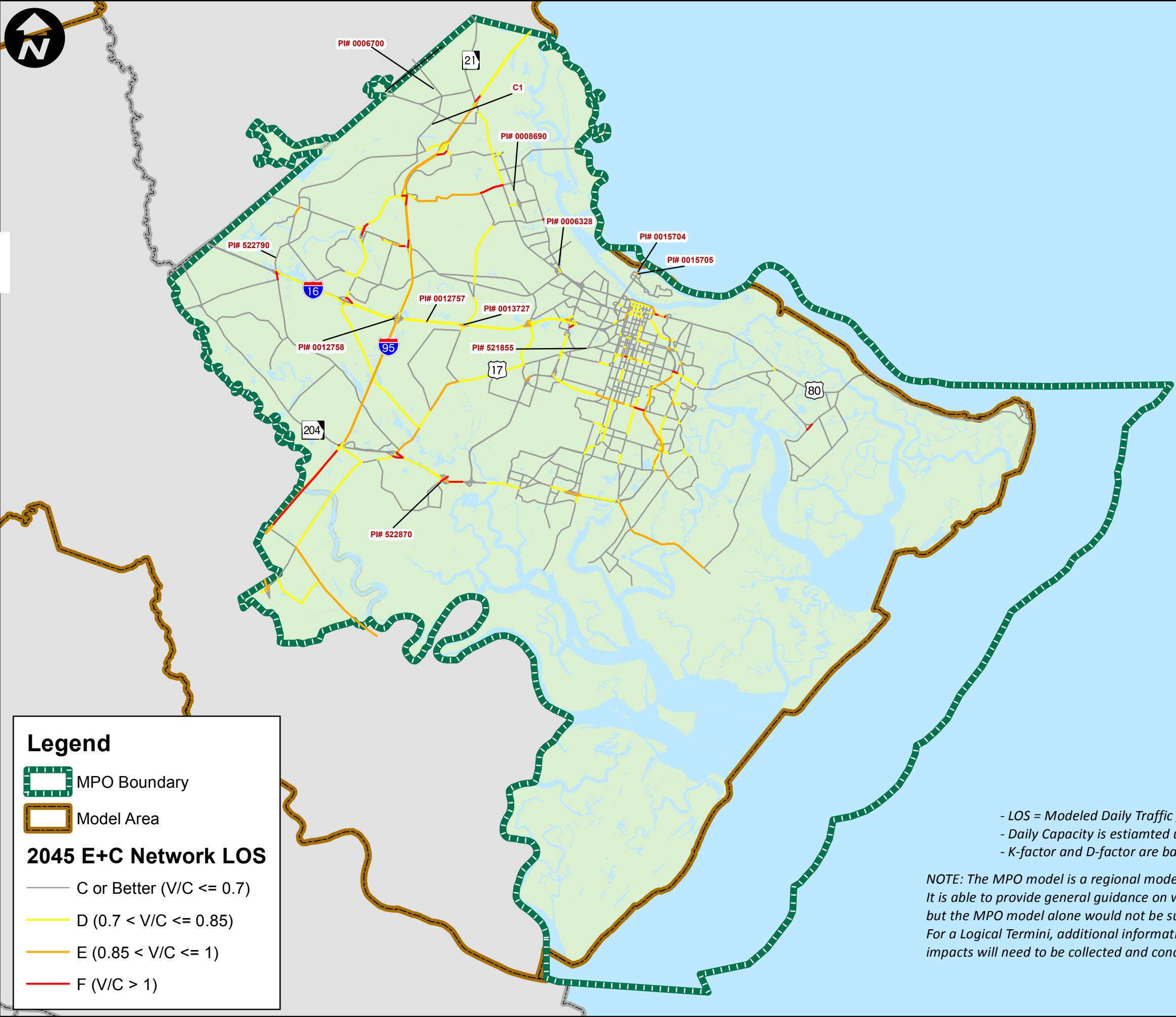
- LOS = Modeled Daily Traffic / Daily Capacity

- Daily Capacity is estiamted using peak hour factor (K-factor) and directional split factor (D-factor)

- K-factor and D-factor are based on Highway Capaci Manual 2016.

NOTE: The MPO model is a regional model that is validated on the regional basis and not for specific corridors. It is able to provide general guidance on where the volume is exceeding the capacity, but the MPO model alone would not be sufficient for determining/confirming a Logical Termini. For a Logical Termini, additional information like traffic counts, sub-area validation and environmental impacts will need to be collected and conducted.





Legend

- MPO Boundary
- Model Area

2045 E+C Network LOS

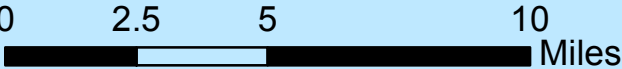
- C or Better (V/C <= 0.7)
- D (0.7 < V/C <= 0.85)
- E (0.85 < V/C <= 1)
- F (V/C > 1)

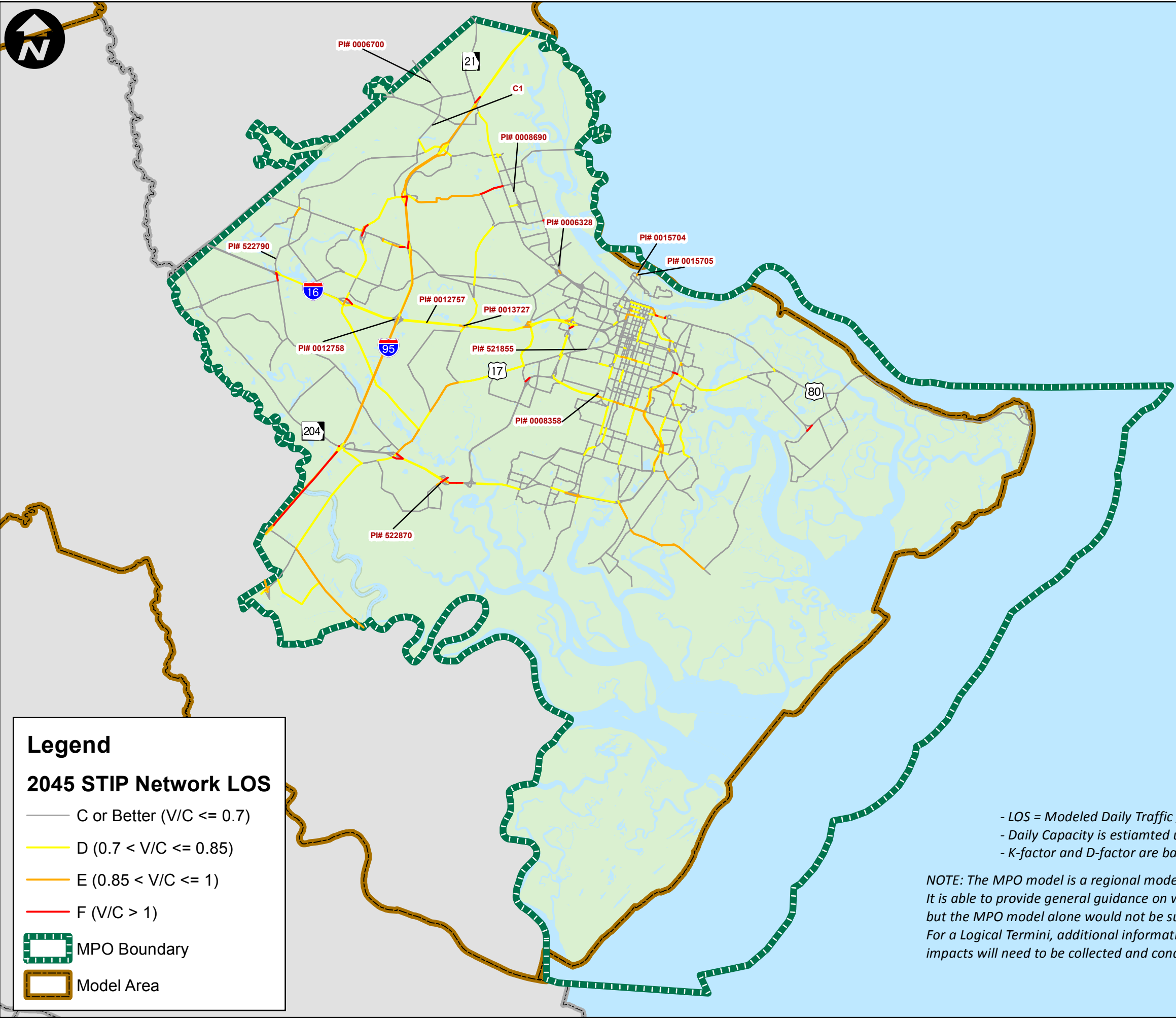
Projects that are included in the E+C network:			
Project ID	Primary County	Short Description	Primary Work Type
0006328	Chatham	Brampton Road Connector to Ports (grade separated rail crossing)	New Road
*0006700	Effingham	This project is a part of the Effingham Parkway that will extend from Effingham County to northwest of Chatham County.	New Road
0012757	Chatham	Widen I-16 from I-95 to I-536	New Road
0012758	Chatham	I-16/I-95 interchange reconstruction (WB-SB and SB-EB directional ramps w/ NB CD Roadway)	Widening
0013727	Chatham	The proposed project will provide operational improvements to the I-16 at State Route 307/Dean Forest Road Interchange.	Diverging Diamond Interchange
0015704	Chatham	New bridge over the Back River SR 404 Spur/US 17 at Back River	Widening
0015705	Chatham	Widening and improvements of U.S. 17 from Hutchinson Island in Savannah, Chatham County, Georgia to South Carolina	Widening
521855	Chatham	Widening of SR 26/US 80/Ogeechee Road to 4 lane	Widening
C1	Chatham	Benton Blvd Extension	New road
522790	Chatham	Jimmy Deloach Parkway Extension widening and new location to construct to four lanes divided	New Road
522870	Chatham	This project would construct a grade separated interchange at SR 204 and King George Blvd.	New Interchange
0008690	Chatham	Port's Last Mile Project - Jimmy Deloach Connector 4 lane Freeway	New Road
**524270	Bryan	The proposed project is for widening and reconstruction of SR 144	Widening
* This project is majorly in Effingham County outside of MPO area			
* * This project is in Bryan County outside of MPO area			

Projects that are not included in the E+C network:			
Project ID	Primary County	Short Description	Reasons why they are not included
0007402	Chatham	Gwinnett Street Improvements	No additional capacity
0010028	Chatham	Deleesup Avenue Road and Sidewalk Improvements project involves a minor road widening to 11' travel lanes and curb and gutter to improve drainage from Waters Avenue to Skidaway Road.	No additional capacity
0010739	Bryan	SR 144 intersection improvements at I-95 ramps	No additional capacity
0013282	Chatham	SR 25/Dismale Canal bridge needs to be replaced with one which spans the connection between the wider channel on	No additional capacity
0013743	Chatham	SR 26/US 17 @ Savannah River in Port Wentworth	No additional capacity
0013742	Chatham	SR 25/US 17 @ Savannah River in Port Wentworth	No additional capacity
0015306	Chatham	Truman Linear Park Trail Phase II-B	Non Motorized
0015980	Chatham	McQuens Island trail restoration	Non Motorized
	Chatham	CAT Bike Share Expansion	Non Motorized
	Chatham	SR 307 Median Beautification and enhancement program	No additional capacity
	Chatham	This project will include roadway widening and operational improvements to intersections, drainage features, and	No additional capacity
	Chatham	Skidaway Road Improvements with an upgrade of the existing traffic signal at Ferguson/ Norwood Avenue and roadway drainage and sidewalks on both sides of Skidaway Road.	No additional capacity
	Chatham	Johnny Mercer Corridor Improvements	No additional capacity
	Chatham	This is a project to rebuild the existing two lanes on Little Neck Road between U.S. 17/Ogeechee Road and the Landfill Entrance just northwest of I-95. The reconstruction will allow for a future four lane section between U.S. 17 and I-95 to be built at a later date.	No additional capacity
0002923	Chatham	Improve SR 25 Connector/West Bay Street (add median)	No additional capacity
0007885	Chatham	The proposed project will consist of widening the existing typical section from two 9-foot lanes to four 12-foot lanes, one 16-foot two-way turn lane (TWTL) and 10-foot rural shoulders.	No additional capacity
0007259	Chatham	Construct a new interchange where Jimmy Deloach Parkway currently intersects US 80/SR 26/SR17 at grade.	No additional capacity
0010553	Chatham	CS 651/Crossgate Road from SR 21 to NSR74150L in Port Wentworth related to port's last mile project	No additional capacity
0010738	Chatham	I-95 Northbound Ramp, Airways (Widen and extend storage)	No additional capacity
0012722	Chatham	SR 21 from SR 30 to Hendley Road reconfiguring the exiting I-95/SR 21 interchange to a diverging diamond interchange.	No additional capacity
0012830	Bryan	I-95 southbound exit ramp install a dual left turn lane adding additional storage, modify signal timing	No additional capacity
0007128	Chatham	Replace the bascule bridge with a high level fixed span	No additional capacity
52370	Bryan	The proposed project is for widening and reconstruction of SR 144	No additional capacity
522780	Chatham	SR 204/Abercom Street intersection improvement at Largo Drive	No additional capacity
0008996	Chatham	Broughton Street street scape project	No additional capacity
0011832	Chatham	SR 26 pedestrian beacons	Non Motorized
0013549	Chatham	SR 21 @ CS 705/Parkside Blvd in Port Wentworth pedestrian crossing	Non Motorized
0013621	Effingham	Pavement marking and roadway signs at 44 highway at rail crossings.	No additional capacity
0013656	Chatham	I-16 replacement of breakaway cable terminal anchors on guardrail	No additional capacity
0007633	Chatham	Truman Linear Park Trail Phase II-A	Non Motorized

- LOS = Modeled Daily Traffic / Daily Capacity
- Daily Capacity is estiamted using peak hour factor (K-factor) and directional split factor (D-factor)
- K-factor and D-factor are based on Highway Capaci Manual 2016.

NOTE: The MPO model is a regional model that is validated on the regional basis and not for specific corridors. It is able to provide general guidance on where the volume is exceeding the capacity, but the MPO model alone would not be sufficient for determining/confirming a Logical Termini. For a Logical Termini, additional information like traffic counts, sub-area validation and environmental impacts will need to be collected and conducted.





Legend

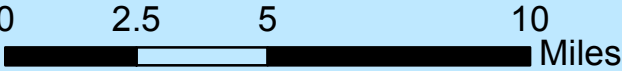
2045 STIP Network LOS

- C or Better (V/C <= 0.7)
- D (0.7 < V/C <= 0.85)
- E (0.85 < V/C <= 1)
- F (V/C > 1)

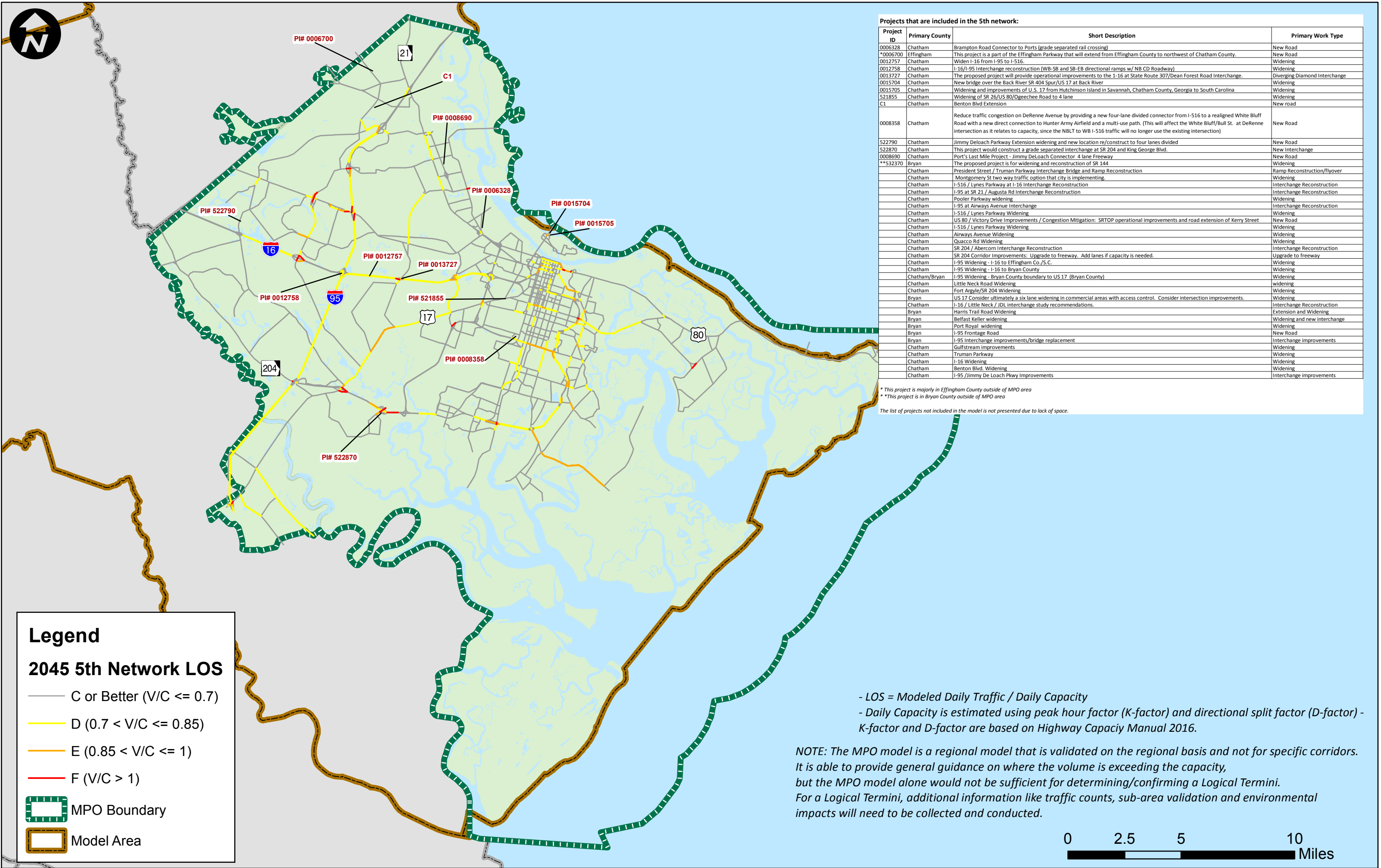
- MPO Boundary
- Model Area

- LOS = Modeled Daily Traffic / Daily Capacity
- Daily Capacity is estiamted using peak hour factor (K-factor) and directional split factor (D-factor)
- K-factor and D-factor are based on Highway Capaci Manual 2016.

NOTE: The MPO model is a regional model that is validated on the regional basis and not for specific corridors. It is able to provide general guidance on where the volume is exceeding the capacity, but the MPO model alone would not be sufficient for determining/confirming a Logical Termini. For a Logical Termini, additional information like traffic counts, sub-area validation and environmental impacts will need to be collected and conducted.



Projects that are included in the STIP network:			
Project ID	Primary County	Short Description	Primary Work Type
0006328	Chatham	Brampton Road Connector to Ports (grade separated rail crossing)	New Road
*0006700	Effingha	This project is a part of the Effingham Parkway that will extend from Effingham County to northwest of Chatham County.	New Road
0012757	Chatham	Widen I-16 from I-95 to I-516	Widening
0012758	Chatham	I-16/I-95 Interchange reconstruction (WB- SB and SB- EB directional ramps w/ NB CD Roadway)	Widening
0013727	Chatham	The proposed project will provide operational improvements to the I-16 at State Route 307/Dean Forest Road Interchange.	Diverging Diamond Interchange
0015704	Chatham	New bridge over the Back River SR 404 Spur/US 17 at Back River	Widening
0015705	Chatham	Widening and improvements of U.S. 17 from Hutchinson Island in Savannah, Chatham County, Georgia to South Carolina	Widening
521855	Chatham	Widening of SR 52/US 80/Ogeechee Road to 4 lane	Widening
C1	Chatham	Benton Blvd Extension	New road
0008358	Chatham	Reduce traffic congestion on DeRenne Avenue by providing a new four-lane divided connector from I-516 to a realigned White Bluff Road with a new direct connection to Hunter Army Airfield and a multi-use path. (This will affect the White Bluff/Bull St. at DeRenne intersection as it relates to capacity, since the NBCT to WB I-516 traffic will no longer use the existing intersection)	New Road
522790	Chatham	Jimmy DeLoach Parkway Extension widening and new location re/construct to four lanes divided	New Road
522870	Chatham	This project would construct a grade separated interchange at SR 204 and King George Blvd.	New Interchange
0008690	Chatham	Port's Last Mile Project - Jimmy DeLoach Connector, 4 lane Freeway	New Road
**523270	Bryan	The proposed project is for widening and reconstruction of SR 144	Widening
* This project is in Effingham County outside of MPO area			
** This project is in Bryan County outside of MPO area			
Projects that are not included in the STIP network:			
Project ID	Primary County	Short Description	Reasons why they are not
0010702	Chatham	Gwinnett Street Improvements	No additional capacity
0010028	Chatham	Delessieups Avenue Road and Sidewalk Improvements project involves a minor road widening to 11' travel lanes and curb	No additional capacity
0010739	Bryan	SR 144 Intersection Improvements at I-95 ramps	No additional capacity
0013282	Chatham	SR 25/Prismake Canal bridge needs to be replaced with one which spans the connection between the wider channel on	No additional capacity
0013741	Chatham	SR 25/US 17 @ Savannah River in Port Wentworth	No additional capacity
0013742	Chatham	SR 25/US 17 @ Savannah River in Port Wentworth	No additional capacity
0015306	Chatham	Truman Linear Park Trail Phase II-B	Non Motorized
0015980	Chatham	McQueens Island trail restoration	Non Motorized
	Chatham	CAT Bike Share Expansion	Non Motorized
	Chatham	SR 307 Median Beautification and enhancement program	No additional capacity
	Chatham	This project will include roadway widening and operational improvements to intersections, drainage features, and	No additional capacity
	Chatham	Skidaway Road Improvements with an upgrade of the existing traffic signal at Ferguson/ Norwood Avenue and roadway drainage and sidewalks on both sides of Skidaway Road	No additional capacity
	Chatham	Johnny Mercer Corridor Improvements	No additional capacity
	Chatham	This is a project to rebuild the existing two lanes on Little Neck Road between U.S. 17/Ogeechee Road and the Landfill Entrance just northwest of I-95. The reconstruction will allow for a future four lane section between U.S. 17 and I-95 to be	No additional capacity
0008359	Chatham	Replace the existing two way left turn lane along DeRenne Avenue with a median to create a 4 lane divided roadway	No additional capacity
0010236	Chatham	Improve the raised median along DeRenne Avenue to better control access	No additional capacity
0010560	Chatham	Replace Bull River and Lazaretto Creek bridges and widen shoulders Johnny Mercer to Old US 80	No additional capacity
0002923	Chatham	Improve SR 25 Connector/West Bay Street (add median)	No additional capacity
0007885	Chatham	The proposed project will consist of widening the existing typical section from two 9-foot lanes to four 12-foot lanes, one 16	No additional capacity
0007259	Chatham	Construct a new interchange where Jimmy DeLoach Parkway currently intersects US 80/SR 26/SR17 at grade.	No additional capacity
0010553	Chatham	CS 651/Crossgate Road from SR 21 to NSR734150L in Port Wentworth related to port's last mile project	No additional capacity
0010738	Chatham	I-95 Northbound Ramp, Always (Widen and extend storage)	No additional capacity
0012722	Chatham	SR 21 from SR 30 to Hendley Road reconfiguring the exiting I-95/SR 21 interchange to a diverging diamond interchange.	No additional capacity
0012830	Bryan	I-95 southbound exit ramp install a dual left turn lane adding additional storage, modify signal timing.	No additional capacity
0007128	Chatham	Replace the bascule bridge with a high level fixed span	No additional capacity
523270	Bryan	The proposed project is for widening and reconstruction of SR 144	No additional capacity
532780	Chatham	SR 204/Abercorn Street intersection improvement at Largo Drive	No additional capacity
0008996	Chatham	Broughton Street streetscape project	No additional capacity
0011892	Chatham	SR 26 pedestrian beacons	Non Motorized
0013549	Chatham	SR 21 @ CS 705/Parkside Blvd in Port Wentworth pedestrian crossing	Non Motorized
0013621	Effingha m	Pavement marking and roadway signs at 44 highway at rail crossings.	No additional capacity
0013656	Chatham	I-16 replacement of breakaway cable terminal anchors on guardrail	No additional capacity
0007631	Chatham	Truman Linear Park Trail Phase II-A	Non Motorized



Project ID	Primary County	Short Description	Primary Work Type
0006328	Chatham	Brampton Road Connector to Ports (grade separated rail crossing)	New Road
*0006700	Effingham	This project is a part of the Effingham Parkway that will extend from Effingham County to northwest of Chatham County.	New Road
0012757	Chatham	Widen I-16 from I-95 to I-516.	Widening
0012758	Chatham	I-16/I-95 Interchange reconstruction (WB-SB and SB-EB directional ramps w/ NB CD Roadway)	Widening
0013727	Chatham	The proposed project will provide operational improvements to the I-16 at State Route 307/Dean Forest Road Interchange.	Diverging Diamond Interchange
0015704	Chatham	New bridge over the Back River SR 404 Spur/US 17 at Back River	Widening
0015705	Chatham	Widening and improvements of U.S. 17 from Hutchinson Island in Savannah, Chatham County, Georgia to South Carolina	Widening
521855	Chatham	Widening of SR 26/US 80/Ogeechee Road to 4 lane	Widening
C1	Chatham	Benton Blvd Extension	New road
0008358	Chatham	Reduce traffic congestion on DeRenne Avenue by providing a new four-lane divided connector from I-516 to a realigned White Bluff Road with a new direct connection to Hunter Army Airfield and a multi-use path. (This will affect the White Bluff/Bull St. at DeRenne intersection as it relates to capacity, since the NBLT to WB I-516 traffic will no longer use the existing intersection)	New Road
522790	Chatham	Jimmy Deloach Parkway Extension widening and new location re/construct to four lanes divided	New Road
522870	Chatham	This project would construct a grade separated interchange at SR 204 and King George Blvd.	New Interchange
0008690	Chatham	Port's Last Mile Project - Jimmy Deloach Connector 4 lane Freeway	New Road
**532370	Bryan	The proposed project is for widening and reconstruction of SR 144	Widening
	Chatham	President Street / Truman Parkway Interchange Bridge and Ramp Reconstruction	Ramp Reconstruction/flyover
	Chatham	Montgomery St two way traffic option that city is implementing.	Widening
	Chatham	I-516 / Lynes Parkway at I-16 Interchange Reconstruction	Interchange Reconstruction
	Chatham	I-95 at SR 21 / Augusta Rd Interchange Reconstruction	Interchange Reconstruction
	Chatham	Pooler Parkway widening	Widening
	Chatham	I-95 at Airways Avenue Interchange	Interchange Reconstruction
	Chatham	I-516 / Lynes Parkway Widening	Widening
	Chatham	US 80 / Victory Drive Improvements / Congestion Mitigation: SRTOP operational improvements and extension of Kerry Street	New Road
	Chatham	I-516 / Lynes Parkway Widening	Widening
	Chatham	Airways Avenue Widening	Widening
	Chatham	Quacco Rd Widening	Widening
	Chatham	SR 204 / Abercorn Interchange Reconstruction	Interchange Reconstruction
	Chatham	SR 204 Corridor Improvements: Upgrade to freeway. Add lanes if capacity is needed.	Upgrade to freeway
	Chatham	I-95 Widening - I-16 to Effingham Co./S.C.	Widening
	Chatham	I-95 Widening - I-16 to Bryan County	Widening
	Chatham/Bryan	I-95 Widening - Bryan County boundary to US 17 (Bryan County)	Widening
	Chatham	Little Neck Road Widening	widening
	Chatham	Fort Argyle/SR 204 Widening	Widening
	Bryan	US 17 Consider ultimately a six lane widening in commercial areas with access control. Consider intersection improvements.	Widening
	Chatham	I-16 / Little Neck / JDL interchange study recommendations.	Interchange Reconstruction
	Bryan	Harris Trail Road Widening	Extension and widening
	Bryan	Belfast Keller Road	Widening and new interchange
	Bryan	Port Royal widening	Widening
	Bryan	I-95 Frontage Road	New Road
	Bryan	I-95 Interchange improvements/bridge replacement	Interchange improvements
	Chatham	Gulfstream improvements	Widening
	Chatham	Truman Parkway	Widening
	Chatham	I-16 Widening	Widening
	Chatham	Benton Blvd. Widening	Widening
	Chatham	I-95 /Jimmy De Loach Pkwy Improvements	Interchange improvements

* This project is majorly in Effingham County outside of MPO area

* *This project is in Bryan County outside of MPO area

The list of projects not included in the model is not presented due to lack of space.

Legend

2045 5th Network LOS

———— C or Better ($V/C \leq 0.7$)

— D ($0.7 < V/C \leq 0.85$)

— E ($0.85 < V/C \leq 1$)

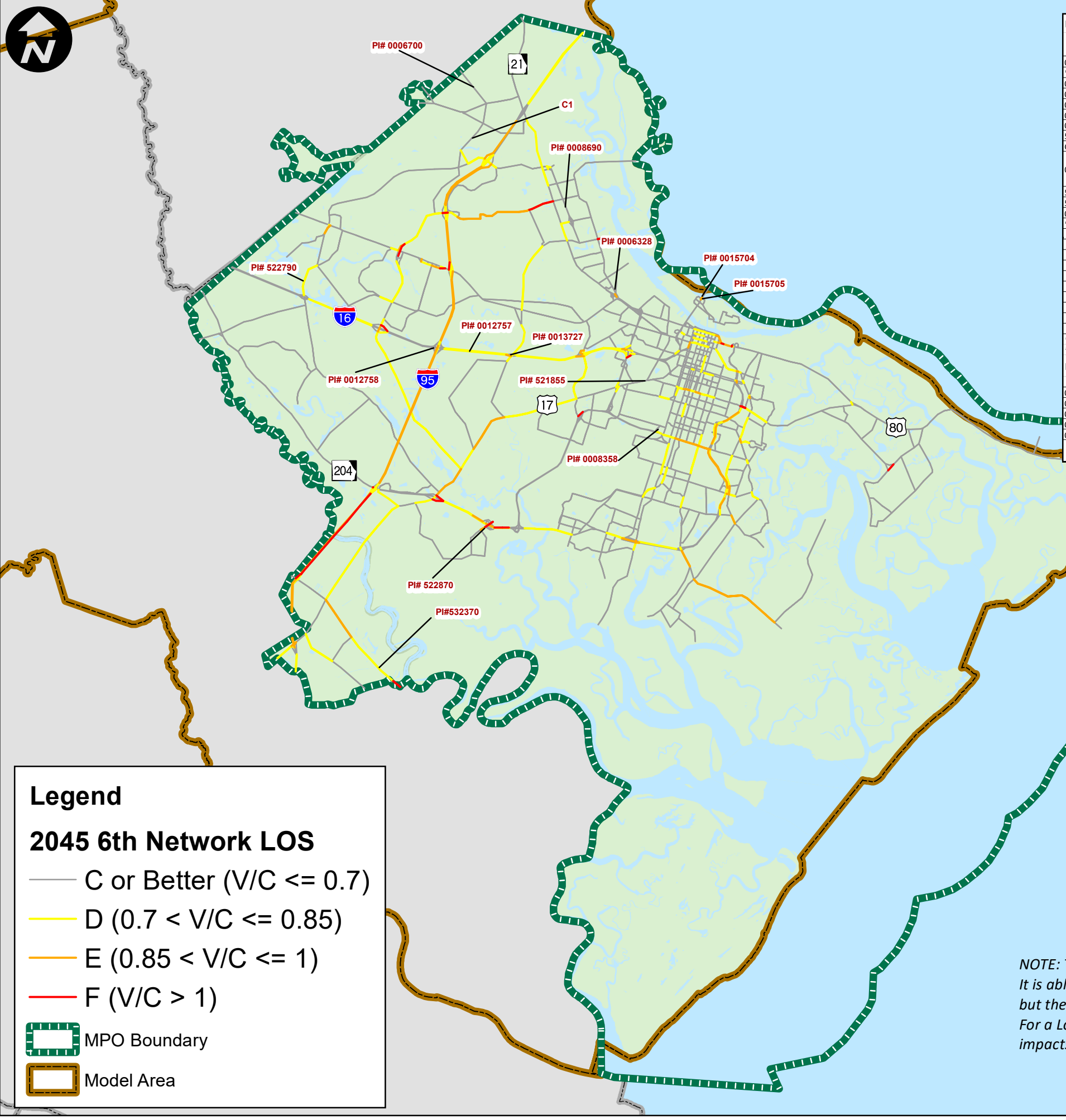
— F ($V/C > 1$)

 MPO Boundary Model Area

- LOS = Modeled Daily Traffic / Daily Capacity
- Daily Capacity is estimated using peak hour factor (K-factor) and directional split factor (D-factor) - K-factor and D-factor are based on Highway Capacity Manual 2016.

NOTE: The MPO model is a regional model that is validated on the regional basis and not for specific corridors. It is able to provide general guidance on where the volume is exceeding the capacity, but the MPO model alone would not be sufficient for determining/confirming a Logical Termini. For a Logical Termini, additional information like traffic counts, sub-area validation and environmental impacts will need to be collected and conducted.

0 2.5 5 10 Miles



Legend

2045 6th Network LOS

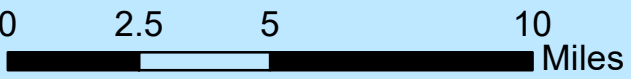
- C or Better ($V/C \leq 0.7$)
- D ($0.7 < V/C \leq 0.85$)
- E ($0.85 < V/C \leq 1$)
- F ($V/C > 1$)

- MPO Boundary
- Model Area

Projects that are included in the 6th network:			
Project ID	Primary County	Short Description	Primary Work Type
0006328	Chatham	Brampton Road Connector to Ports (grade separated rail crossing)	New Road
*0006700	Effingham	This project is a part of the Effingham Parkway that will extend from Effingham County to northwest of Chatham County.	New Road
0012757	Chatham	Widen I-16 from I-95 to I-516.	Widening
0012758	Chatham	I-16/I-95 interchange reconstruction (WB-SB and SB-EB directional ramps w/ NB CD Roadway)	Widening
0013727	Chatham	The proposed project will provide operational improvements to the I-16 at State Route 307/Dean Forest Road Interchange.	Diverging Diamond Interchange
0015704	Chatham	New bridge over the Back River SR 404 Spur/US 17 at Back River	Widening
0015705	Chatham	Widening and improvements of U.S. 17 from Hutchinson Island in Savannah, Chatham County, Georgia to South Carolina	Widening
521855	Chatham	Widening of SR 26/US 80/Ogeechee Road to 4 lane	Widening
C1	Chatham	Benton Blvd Extension	New road
0008358	Chatham	Reduce traffic congestion on DeRenne Avenue by providing a new four-lane divided connector from I-516 to a realigned White Bluff Road with a new direct connection to Hunter Army Airfield and a multi-use path. (This will affect the White Bluff/Bull St. at DeRenne intersection as it relates to capacity, since the NBLT to WB I-516 traffic will no longer use the	New Road
522790	Chatham	Jimmy DeLoach Parkway Extension widening and new location re/construct to four lanes divided	New Road
522870	Chatham	This project would construct a grade separated interchange at SR 204 and King George Blvd.	New Interchange
0008690	Chatham	Port's Last Mile Project - Jimmy DeLoach Connector 4 lane Freeway	New Road
**532370	Bryan	The proposed project is for widening and reconstruction of SR 144	Widening
	Chatham	President Street / Truman Parkway Interchange Bridge and Ramp Reconstruction	Ramp Reconstruction/flyover
	Chatham	I-95 at SR 21 / Augusta Rd Interchange Reconstruction	Interchange Reconstruction
	Chatham	I-95 at Airways Avenue Interchange	Interchange Reconstruction
	Chatham	I-516 / Lynes Parkway Widening (Veteran parkway to Mildred Street)	Widening
	Chatham	I-516 / Lynes Parkway Widening (I-16 to Veteran's Parkway)	Widening
	Chatham	I-16 / Little Neck / JDL interchange study recommendations.	Interchange Reconstruction
	Bryan	Harris Trail Road Widening	Extension and Widening
	Bryan	Port Royal widening	Widening
	Chatham	I-16 Widening	Widening
	Chatham	Montgomery St two way traffic option that city is implementing	Widening
* This project is majorly in Effingham County outside of MPO area			
* *This project is in Bryan County outside of MPO area			
Projects that are not included in the 6th network:			
Project	Primary County	Short Description	Reasons why they are not
0013741	Chatham	SR 25/US 17 @ Savannah River in Port Wentworth	No additional capacity
0013742	Chatham	SR 25/US 17 @ Savannah River in Port Wentworth	No additional capacity
0008359	Chatham	Replace the existing two way left turn lane along DeRenne Avenue with a median to create a 4 lane divided roadway	No additional capacity
0010236	Chatham	Improve the raised median along DeRenne Avenue to better control access	No additional capacity
0010560	Chatham	Replace Bull River and Lazaretto Creek bridges and widen shoulders Johnny Mercer to Old US 80	No additional capacity
	Chatham	Old River Road, the current two lane section would be widened to accommodate turn lanes, shoulder widening, as well as drainage improvements.	No additional capacity

- LOS = Modeled Daily Traffic / Daily Capacity
- Daily Capacity is estiamted using peak hour factor (K-factor) and directional split factor (D-factor)
- K-factor and D-factor are based on Highway Capaciy Manual 2016.

NOTE: The MPO model is a regional model that is validated on the regional basis and not for specific corridors. It is able to provide general guidance on where the volume is exceeding the capacity, but the MPO model alone would not be sufficient for determining/confirming a Logical Termini. For a Logical Termini, additional information like traffic counts, sub-area validation and environmental impacts will need to be collected and conducted.



Travel Demand Model Documentation for the Coastal Regional MPO



September 2019

2015 Base Year Update &
2045 Travel Demand Models

*Prepared for
Georgia Department of Transportation*



HNTB

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ACRONYMS AND ABBREVIATIONS

AADT	Annual Average Daily Traffic
CORE	Coastal Region Metropolitan Planning Organization
CTPP	Census Transportation Planning Package
E+C	Existing + Committed
FHWA	Federal Highway Administration
GDOT	Georgia Department of Transportation
HBO	Home-Based Other
HBS	Home-Based Shopping
HBW	Home-Based Work
HPMS	Highway Performance Monitoring System
I-E	Internal-External
IEPC	Internal-External Passenger Car
IETRK	Internal-External Truck
I-I	Internal-Internal
IITRK	Internal-Internal Truck
LOS	Level of Service
LR	Long Range
LRTP	Long-Range Transportation Plan
MPO	Metropolitan Planning Organization
FAST Act	Fixing America's Surface Transportation Act
NCHRP	National Cooperative Highway Research Program

NHB	Non-Home-Based
RMSE	Root Mean Squared Error
TAZ	Traffic Analysis Zone
TDM	Travel Demand Model
Univ	University
VMT	Vehicle-Miles Traveled
VHT	Vehicle-Hours Traveled
TIP	Transportation Improvement Program

1. INTRODUCTION

1.1 BACKGROUND

Federal legislation requires each metropolitan planning organization (MPO) to update its long-range transportation plan (LRTP) every five years or every four years in air quality nonattainment or maintenance areas. A LRTP covers a minimum twenty-year planning horizon and must be fiscally constrained. The current legislation, Fixing America's Surface Transportation (FAST) Act, was passed in 2015. The FAST Act requires that metropolitan transportation plans include current and projected transportation demand, existing and proposed transportation facilities that should function as an integrated metropolitan transportation system. It also requires MPOs to evaluating the condition and performance of the transportation system and for those MPOs who develop multiple scenarios, an analysis of how the preferred scenario has improved the conditions and performance of the transportation system should be included as well. Among all tools that helping MPOs to meet the requirements, a travel demand model (TDM) is a state-of-art tool to forecast the transportation demand and assess the performance measures on the transportation system.

The Coastal Region Metropolitan Planning Organization (CORE MPO) Savannah is in the greater Savannah area. The last LRTP, called Metropolitan Transportation Plan (MTP) for the CORE MPO area was approved in December 2013. Since Savannah is not in an air quality nonattainment area, the current MTP update must be approved by October 2019¹. One component of the current MTP update is making informed decisions about multiple transportation system improvements. A TDM is among various planning tools that help MPOs understand the impact of their decisions and is commonly used to evaluate the performance of a transportation system in and around MPO areas. A TDM can predict the transportation deficiencies and the demand for transportation services. The TDM developed during the last MTP for CORE MPO in 2013 has the base year model in 2010 and future year models in 2040. During the current MTP process, the TDM has been updated to base year 2015 and future year to 2045. The purpose of this document is to provide an overview of the CORE MPO TDM update that would be used as a tool by the MPO for the development of the 2045 MTP.

¹ The current CORE MTP was adopted August 7, 2019.

1.2 TRAVEL DEMAND MODEL INTRODUCTION

1.2.1 What is Travel Demand Model?

Transportation modeling is an essential component of planning for regional infrastructure improvements. Regional TDMs provide the scale needed to analyze the benefits of transportation investments. It is a state-of-art analysis tool, which can replicate the existing travel demand, forecast future travel demand, and identify transportation network deficiencies and prioritize projects. The critical questions surrounding any transportation investment include not only “Where is a facility needed?” but also “When and why is a facility needed?” These questions can be answered through the regional perspective provided by large-scale TDMs. The process of travel demand forecasting uses what we know about the existing world to predict what conditions will be like in the future. It is a projection based on empirical data and foreseeable circumstances.

Most TDMs utilize a traditional four-step approach to estimate travel demand and patterns, how many trips will be generated, where they are going, what modes they are using, and which routes they will use. In the broadest sense, the MPO TDM consists of three elements: 1) model inputs, 2) a series of models conducting mathematical procedures, and 3) model outputs. Further detail on each is provided below.

A. Model Inputs

Model inputs are based upon the roadway system, land use and demographic or socioeconomic (SE) data. SE data, such as population, household and employment by type, represents land use. Future year projections of SE data were based on existing land uses including land development, as well as region wide forecasts of population, household and employment. Future year forecasts also considered planned major transportation improvements. It is in this area of TDM development that land use and community planning are connected to the transportation planning process. The SE data and the highway network serve as the basic inputs to the TDM.

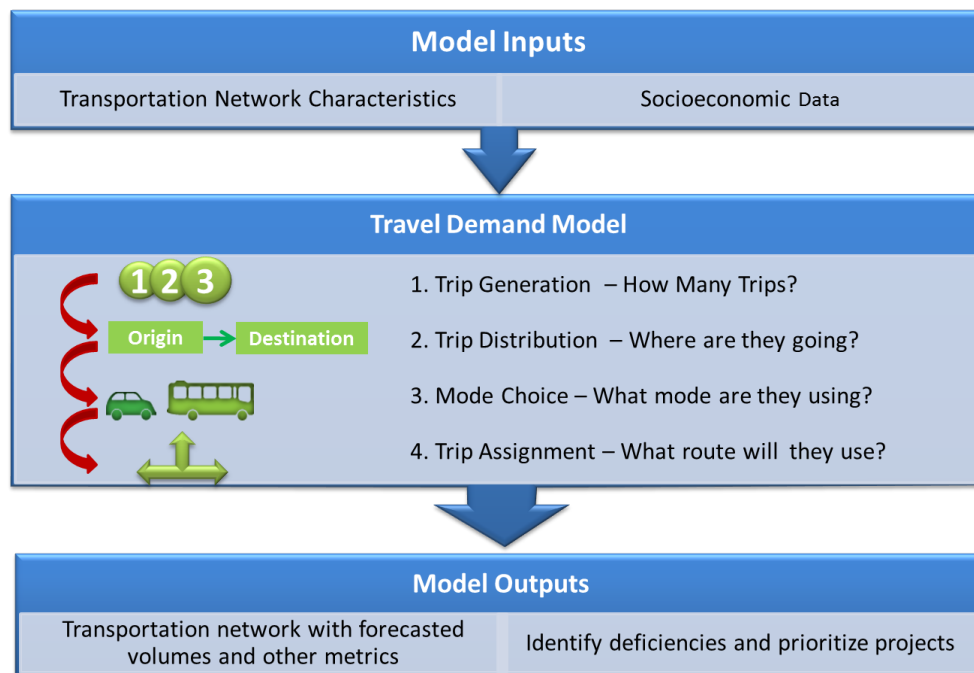
B. A Series of Mathematical Procedures

TDMs ultimately forecast travel demand using four steps: 1) trip generation, 2) trip distribution, 3) mode choice, and 4) trip assignment. The first step, trip generation, estimates how many trips are made by each household for each of the trip purposes (work, shopping, etc.) and how many trips are attracted to each location (work places, shopping centers, other activity areas, etc.). The second step, trip distribution, determines where the generated trips go (i.e. their origin and destination). The third step, mode choice, determines what modes will be utilized (i.e. passenger vehicles, transit, etc.). The fourth step, trip assignment, determines what routes will be taken to get from point A to point B.

C. Model Outputs

The outputs or results of the TDM forecast traffic volumes and other traffic metrics (i.e., travel speeds, travel time, congestion levels, etc.) on the transportation network. These metrics can be used to help identify transportation system deficiencies. TDMs are often used to assist in prioritizing transportation projects as well. **Figure 1-1** illustrates the structure of a TDM and its purpose.

Figure 1-1: TDM Structure



1.2.2 What the MPO's Regional TDM Can and Cannot Provide

TDMs across the country range in their abilities. Large metropolitan areas may include time-of-day, transit, and/or freight components. Very few even include non-motorized trip (bicycle/pedestrian) components. However, given the smaller nature of the MPO areas in Georgia outside Atlanta, the TDMs are simpler. A regional TDM in Georgia outside Atlanta generally can provide users with forecasted highway volumes for roadways with a functional class of collectors and above. The highway volumes are usually average daily volumes for long-range forecasts; 20 to 30 years out. The TDM can help MPOs to identify roadway deficiencies where daily volumes exceed the roadway capacities, evaluate impacts of major highway improvements, and evaluate transportation system performance for the purpose of LRTP development. For MPOs within the air quality nonattainment areas, the TDM is also used as the basis for air pollution emission estimates and for congestion management system statistics.

Because of its aggregate nature and regional scope, these TDMs are not designated to forecast the following metrics:

- Peak hour or peak period travel demand
- Freight demand
- Bicycle and walking trips
- Logical termini determination

1.2.3 Who is Responsible for What?

The MPO's TDM development is a process that requires collaboration between each MPO and the Georgia Department of Transportation (GDOT). While GDOT leads the development efforts of the MPO's TDM forecasts, the MPOs develop the inputs, which are the base year and forecasted socioeconomic data and future transportation project lists. **Table 1-1** summarizes the key activities and their lead agencies for a typical MPO's TDM development process. Note that MPOs' input of socioeconomic information, project lists and MTP scenarios drive the model forecast, and GDOT provides the technical services of the TDM development and forecast results.

Table 1-1: TDM Major Activities and Lead Agencies

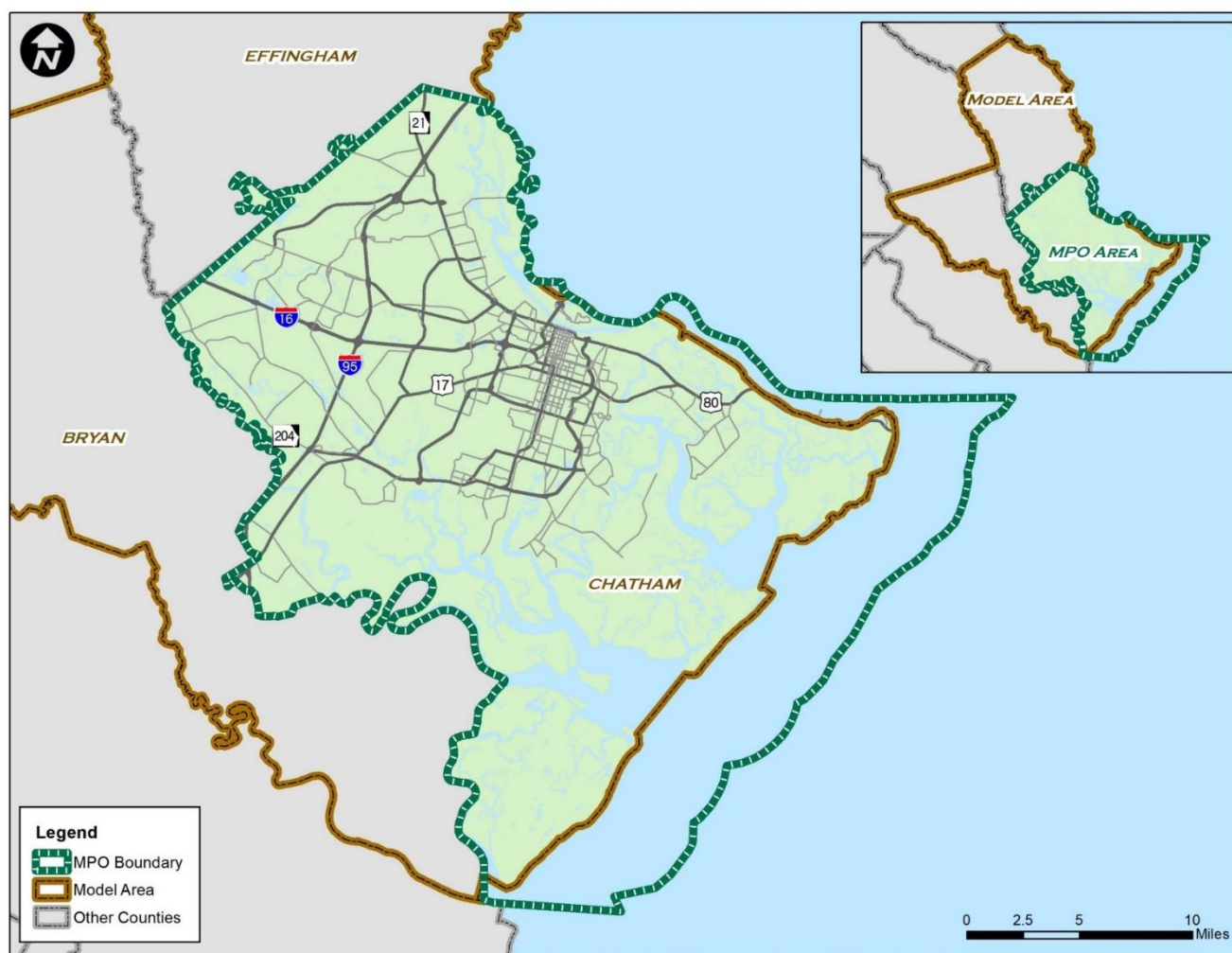
Activities	Lead Agencies
TDM Kick-Off Meeting	GDOT with MPO
Prepare and review base year socioeconomic data	MPO
Review base year socioeconomic data	GDOT
Base year model development and validation	GDOT
Prepare and review future year socioeconomic data	MPO
Review future year socioeconomic data	GDOT
Presentation of initial model results prior to proceeding with forecast of MTP scenarios	GDOT at MPO TCC/PC meetings
Develop and provide project lists for LMTP network scenarios	MPO
Develop each LRTP network scenarios and provide model outputs	GDOT

*TCC/PC: Technical Coordinating Committee / Policy Committee

1.2.4 Metropolitan Planning Organization Area

The CORE MPO area includes all of Chatham County, small portion of Effingham and Bryan County. **Figure 1-2** illustrates the CORE MPO study area.

Figure 1-2: CORE MPO Area



2. 2015 BASE YEAR MODEL UPDATE

2.1 WHAT HAS BEEN UPDATED?

To update the base year model to 2015 in support of the CORE MPO 2045 MTP update, the following changes were made to the CORE MPO 2010 TDM:

- Modified TAZ boundaries and renumbered TAZs
 - Boundaries of certain TAZs are reviewed and changed. Based on these changes, TAZs are renumbered to remove gaps between zones.
- Updated socioeconomic data
 - GDOT reconciled socioeconomic data categories.
 - The CORE MPO has provided the updated study area traffic analysis zones (TAZs) and the associated socioeconomic data to reflect year 2015.
- Updated base year highway network
 - Updated roadway network functional classification;
 - Verified and updated number of lanes;
 - Updated traffic count locations and traffic counts from 2010 to 2015;
 - Reflected projects that have been completed during 2010 to 2015;
 - Included additional local roads to represent roadway connectivity; and
 - Added other road characteristics including road names, intersection geometries (such as interchange ramps), etc.
- Updated model's default Augusta trip production and attraction rates which were developed based on travel survey in Augusta in 1997. The models were updated based on add-on data GDOT purchased for entire state through 2017 National Household Travel Survey (NHTS).
- Updated base year validation components:
 - Updated screenlines;
 - Updated trip generation model;
 - Updated trip distribution model;
 - Updated trip assignment procedure; and
 - Updated external stations and trip data sets.
- Updated transit routes from 2010 to 2015
- Developed 2045 Scenarios based on projects provided by MPO

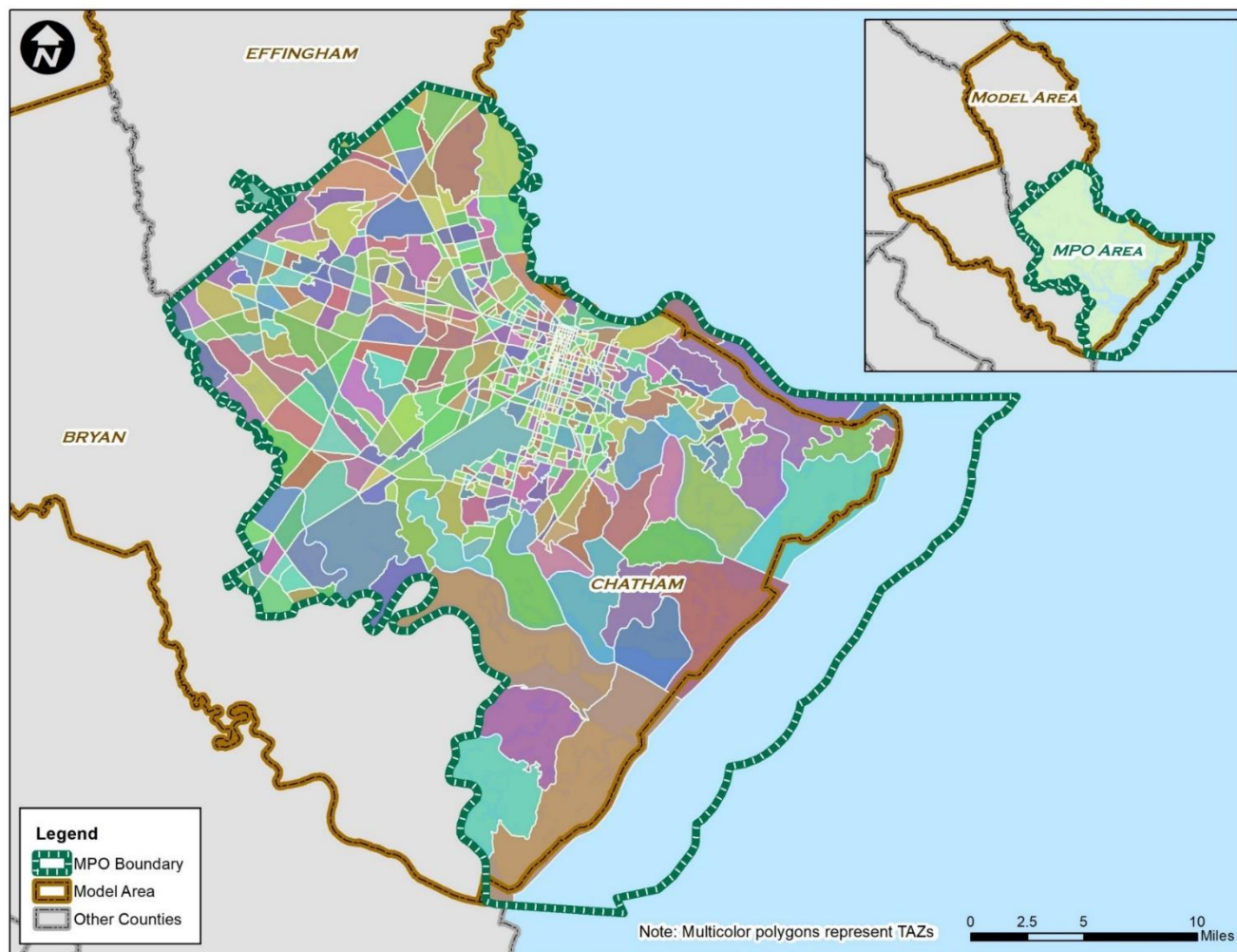
2.2 MODEL UPDATE

The following sections describe the details of the model updates, as well as each principal model element.

2.2.1 Traffic Analysis Zone Boundary Changes

Appendix A-1. 2015 and 2045 Socioeconomic Data contains the zonal level socioeconomic data used in the TDM for 2015 and 2045. A review memo for the socioeconomic data is included in the **Appendix A-2: 2015 and 2045 Socioeconomic Data Review Memo**. The study area has 797 internal TAZs, including 657 TAZs in the CORE MPO area and another 140 TAZs in the expanded portions of Bryan, Chatham and Effingham Counties. Zones 88 to 100; 196; 287; 299; 304; 330; 398-400; 434; 456; 460; 486; 488; 490; 496-500; 503; 508-509; 575-600; 604; 647; 755-770; 876-879 are gap zones. The gaps are reserved for the addition of future new zones. There are an additional 20 external stations that facilitate traveling in and out of the region via individual facilities. **Figure 2-1** shows the TAZs (represented by random colors) within the CORE MPO area.

Figure 2-1: CORE MPO TDM TAZs



To make the TAZ system of the Savannah MPO model more robust, several TAZs were modified based on the census block boundaries and major roads. Maps showing the boundary changes are presented in **Appendix A-3. Savannah TAZ Boundary Changes.**

2.2.2 Model Inputs – 2015 Socioeconomic Data Summary

The MPO provided 2015 base year socioeconomic data for the model. For each of the 797 TAZs in the three-county study area, the following Socioeconomic (SE) variables were developed by the MPO for use in the trip generation model. Please note that the SE data categories have been updated in conjunction with MPO TDM enhancements. The updated categories include 1) Manufacturing & Transportation, Communication, Utilities, and Warehousing (MTCUW), 2) Retail and, 3) Service, 4) Agriculture, Mining and Construction (AMC). The Agriculture, Mining and Construction is added as a new category, and the Wholesale is combined with Manufacturing and other categories as the new “Manufacturing & Transportation, Communication, Utilities and Warehousing (MTCUW).

- **Population:** The total number of individuals that are residing in a given TAZ;
- **Households:** Total number of occupied households in a given TAZ;
- **Total Employment:** The total number of employed persons in a given TAZ;
- **Manufacturing, Transportation, Communication, Utilities, Warehousing (MTCUW) Employment:** Number of employees working for manufacturing-based, transportation-based, communication-based, utility-based, and warehousing-based businesses in a given TAZ where the business is located;
- **Service Employment:** Number of employees working for service-based businesses in a given TAZ where the business is located;
- **Retail Employment:** Number of employees working for retail-based businesses in a given TAZ where the business is located;
- **Agriculture, Mining, Construction (AMC) Employment:** Number of employees working for agriculture-based, mining-based, and construction-based businesses in a given traffic analysis zone where the business is located;
- **Median Income:** Median household income in a given TAZ in 2015 dollars (per 2015 Census);
- **School Enrollment:** The total number of enrolled K-12 students in a given TAZ at educational facilities except for the college level; and
- **College Students:** The total number of enrolled college students in a given TAZ with college or university level facilities.

Table 2-1 represents summary of 2015 socioeconomic data provided by MPO.

Table 2-1: Summary of 2015 Socioeconomic Data Provided by the MPO

Socioeconomic Variable	TDM Total	MPO Total
Population	361,071	285,078
Household	134,753	108,870
Total Employment	222,931	199,499
MTCUW Employment	29,297	26,461
Service Employment	159,028	142,596
Retail Employment	24,048	21,264
AMC Employment	10,561	9,178
Median Income	\$46,654	\$43,333
School Enrollment	64,383	46,356
College Students	28,688	28,688
Acreage	1,004,310	606,805

2.2.3 Model Inputs - 2015 Network Update

2.2.3.1 Functional Classification

According to Federal Highway Administration's guidance on functional classification updates, all functional classification categories will now exist in both urban and rural areas. Functional Classifications are updated and reviewed by MPO staff. Revised functional classification definitions should include the following categories:

- Principal Arterial
 - Interstate
 - Other Freeways and Expressways
 - Other Principal Arterials
- Minor Arterial
- Collector
 - Major Collector
 - Minor Collector
- Local

The revised functional classification categories are coded in the input network using the coding system show in **Table 2-2**. **Figure 2-2** represents the input network with updated functional classification categories.

Figure 2-2: Updated Functional Classification

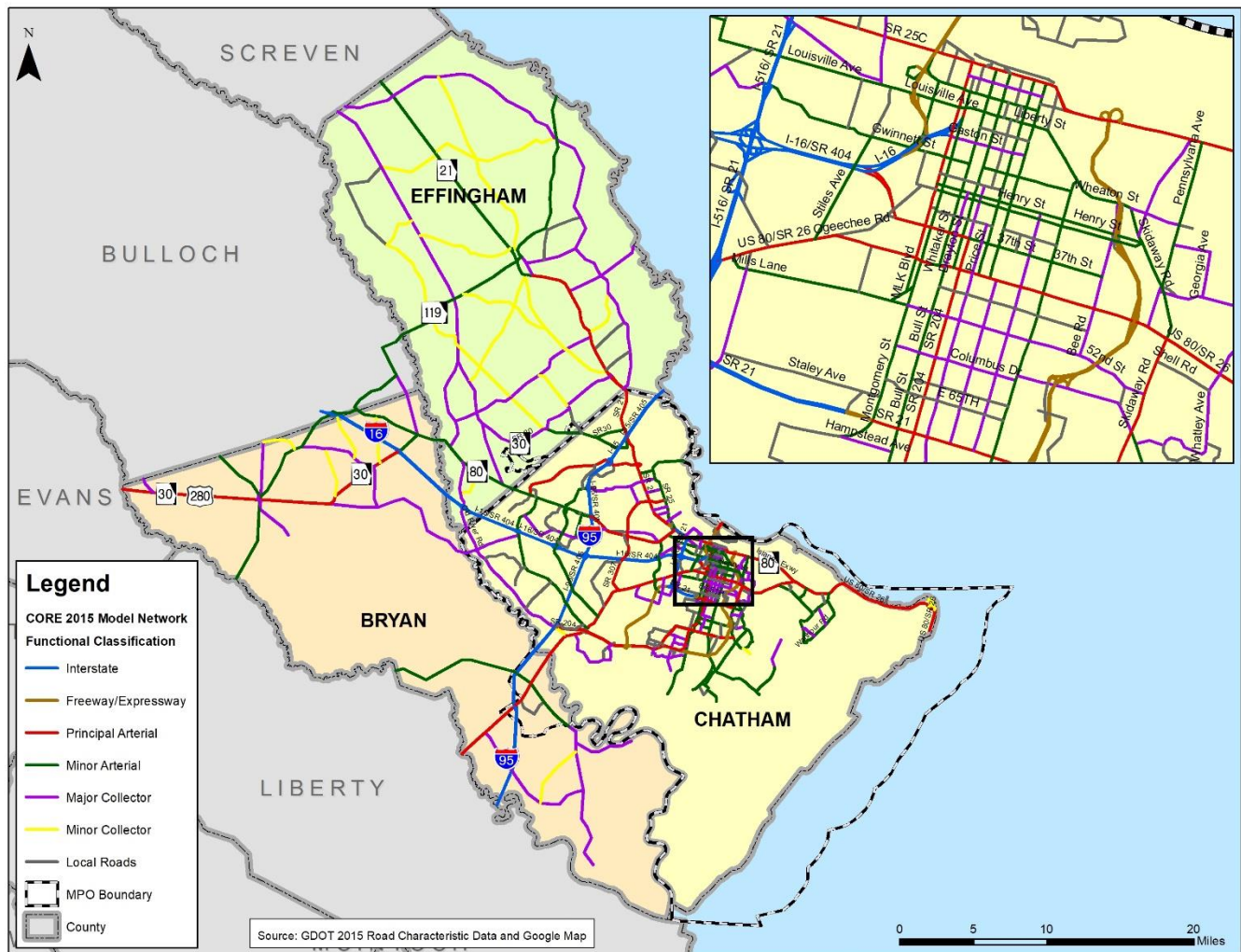


Table 2-2: Updated Functional Classification Category

Code	Functional Classification
1	Interstate
2	Other Freeways and Expressways
3	Other Principal Arterial
4	Minor Arterial
5	Major Collector
6	Minor Collector
7	Local

2.2.3.2 Facility Type and Area Type

Individually and in combination, facility type and area type provide the framework for organizing the network into sub-groups so that free-flow speeds and capacities can be assigned. In combination with the distance and number of lanes, these attributes constitute the base layer of highway network data needed to update and apply the travel demand model. The facility type and area type definitions used in the CORE MPO highway network and modeling process are shown in **Table 2-3** and **Table 2-4**. The facility types were coded based on each roadway's designated functional classification. The area types were assigned automatically during the model calculation based on geographic distribution of the socioeconomic data.

Table 2-3: Facility Types

Code	Facility Type	Code	Facility Type
1	Interstate	13	Minor Arterial - Class I
2	Freeway	14	Minor Arterial - Class II
3	Expressway	15	One Way Arterial
4	Parkway	21	Major Collector
6	Freeway to Freeway Ramp	22	Minor Collector
7	Freeway Entrance Ramp	23	One Way Collector
8	Freeway Exit Ramp	30	Local Road
11	Principal Arterial - Class I	32	Centroid Connector
12	Principal Arterial - Class II		

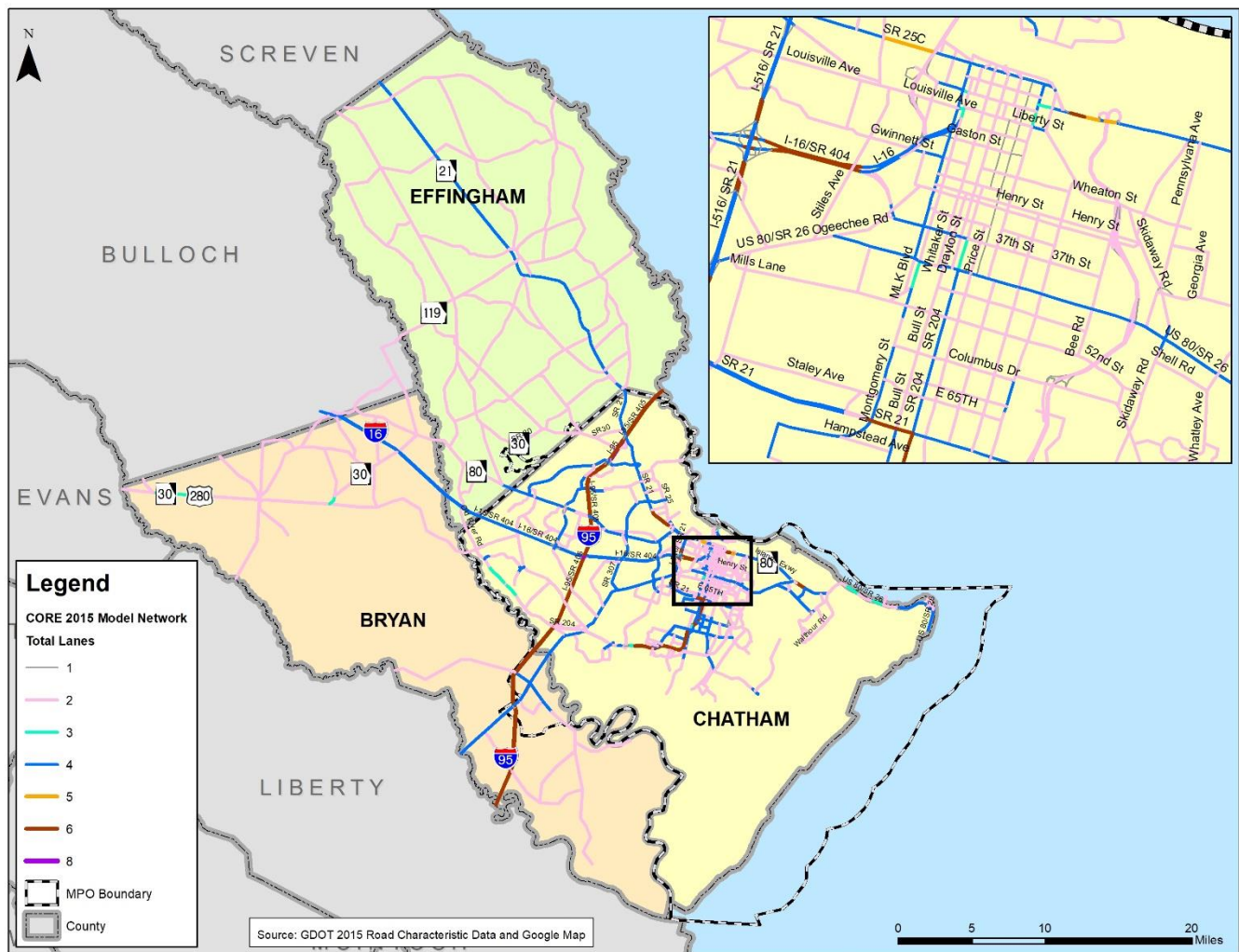
Table 2-4: Area Types

Code	Area Type
1	High Density Urban
2	High Density Urban Commercial
3	Urban Residential
4	Suburban Commercial
5	Suburban Residential
6	Exurban

2.2.3.3 Numebr of Lanes

The number of lanes on each highway link was updated and checked against Google Earth imagery to ensure accuracy and reflect 2015 conditions. **Figure 2-3** shows the number of lanes.

Figure 2-3: Number of Lanes



2.2.3.4 Capacity

Link capacities for the model network were obtained from the GDOT recommended lookup table of per-lane hourly capacities based on facility type and area type. The final link capacity was calculated by multiplying the hourly capacity per lane by the number of lanes, which was automatically added to the links during the model application. **Table 2-5** displays the hourly capacities per lane.

Table 2-5: Hourly Capacity per Lane by Facility Type and Area Type

Facility Type	Vehicles per Lane per Hour by Area Type						
	1	2	3	4	5	6	7
Interstate	1850	1900	1950	2000	2000	2100	2200
Freeway	1600	1660	1730	1790	1850	1820	1780
Expressway	1300	1380	1450	1530	1600	1570	1540
Parkway	1170	1240	1310	1370	1440	1410	1380
Freeway to Freeway Ramp	1400	1530	1650	1780	1900	1860	1820
Freeway Entrance Ramp	900	1030	1150	1280	1400	1370	1340
Freeway Exit Ramp	800	810	810	820	820	810	790
Principal Arterial - Class I	1000	1030	1050	1280	1400	1370	1340
Principal Arterial - Class II	900	900	900	900	900	880	860
Minor Arterial - Class I	800	810	810	820	820	810	790
Minor Arterial - Class II	760	760	770	770	770	760	730
One Way Arterial	760	760	770	770	770	760	740
Major Collector	620	640	650	660	670	660	650
Minor Collector	380	390	390	400	400	390	380
One Way Collector	370	380	380	380	380	380	370
Local Road	340	350	360	370	380	370	360
Centroid Connector	0	0	0	0	0	0	0

2.2.3.5 Speeds

Link speeds in the model network were derived from a speed lookup table based on facility type and area type. Assumed free-flow speed are approximately 5 mph faster than typical speed limits for the various roadway classes and area types, taking into consideration control for delay (i.e. traffic signals) if applicable. Peak and off-peak free-flow speeds were evaluated using observed speeds obtained from previous case studies that have been done earlier for other regions. Based on the initial study of the speeds, a revised speed table was developed as shown in **Table 2-6**.

Table 2-6: Speed by Facility Type and Area Type

Facility Type	Miles per hour by Area Type						
	1	2	3	4	5	6	7
Interstate	55	60	60	60	60	70	70
Freeway	50	55	55	55	55	60	60
Expressway	50	50	50	50	55	55	55
Parkway	45	50	50	50	50	55	55
Freeway to Freeway Ramp	55	55	55	55	55	55	55
Freeway Entrance Ramp	45	50	50	50	50	55	55
Freeway Exit Ramp	22	23	30	31	34	40	48
Principal Arterial - Class I	22	28	33	34	37	47	52
Principal Arterial - Class II	23	26	31	32	35	45	49
Minor Arterial - Class I	22	23	30	31	34	40	47
Minor Arterial - Class II	21	22	27	30	32	38	45
One Way Arterial	23	26	30	32	35	42	48
Major Collector	17	18	21	27	29	34	42
Minor Collector	14	15	18	24	26	30	40
One Way Collector	17	18	21	27	29	34	42
Local Road	14	14	17	18	22	28	35
Centroid Connector	14	14	17	18	22	28	35

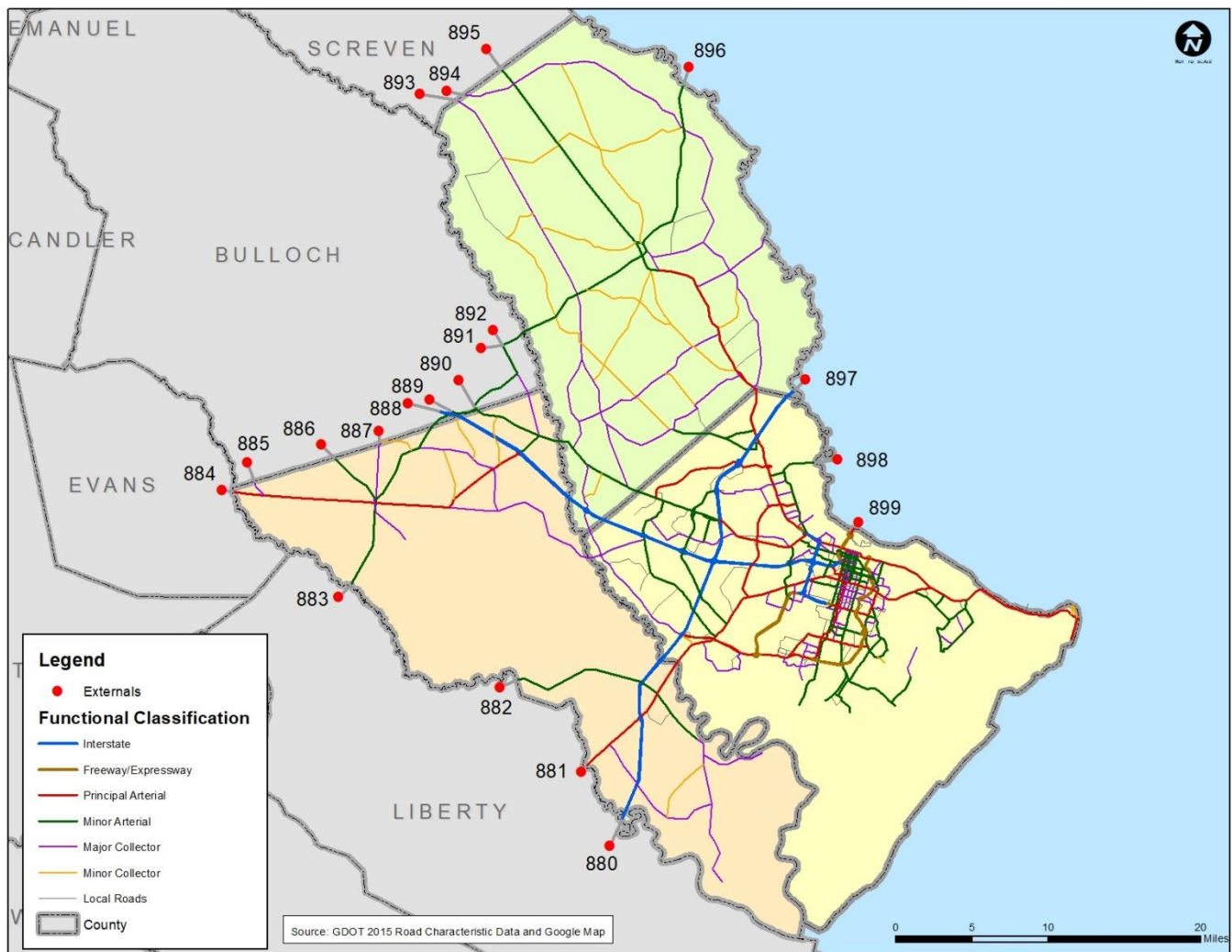
2.2.3.6 Traffic Count Locations

After updating the traffic count station information within the CORE MPO area and adding count stations in the three-county study area with reference to the online traffic data provided by GDOT, there are 354 count stations coded in the CORE MPO area and 118 count stations coded outside of the CORE MPO area within the three-county model area. All the count stations were updated with 2015 count information to assist with model validation.

2.2.3.7 External Stations and Traffic

There are 20 external stations established for the TDM, as illustrated below in **Figure 2-4**. Available 2015 traffic count data, including the average daily volumes and truck percent at or near the external stations, was obtained and coded for each external station. For external stations with no traffic counts available, appropriate daily volume estimations were decided based on best knowledge and professional judgment. External trip estimation for each external station can be found in **Table 2-14** in section 2.2.4.5.

Figure 2-4: External Station Locations



2.2.3.8 Network Attributes Summary

Table 2-7 lists the attributes that are coded in the 2015 input network with their description.

Table 2-7: Link Attributes

Attribute Name	Description/Coding System
ROAD_NAME	Roadway Name
DISTANCE	Roadway Link Length in miles
LANES	Number of Lanes for Each Direction
LANESAM	Number of Lanes in AM Peak Direction
LANESPM	Number of Lanes in PM Peak Direction
TOTAL_LANE	Number of Lanes for Both Directions
FC2015	Functional Classification Code (7 categories)
FTYPE	Facility Type
ONEWAY	1 - one-way link 0 - two-way link
TOLLPC	Toll for passenger cars (dollars)
TOLLTK	Toll for heavy trucks (dollars)
USE	Truck usage restriction code
MPO	1 - in CORE MPO boundary; 0 - outside of CORE MPO boundary
COUNTY	County FIPS code
UAB2010	1 - in 2010 Urban Area Boundary based on 2010 Census; 0 - outside 2010 Urban Area Boundary
REMI2016	2016 Remi Districts
STATIONID	Traffic Count Station Number 2015
TCOUNT15	2015 AADT - Both Directions
COUNT15	2015 AADT - Each Direction

Attribute Name	Description/Coding System
TRKCOUNT15	Truck Count
SCREENLINE	Screenline ID
CUTLINE	Cutline ID
SCENARIO	Latest network the project should be included 2 - projects for the 2 nd network - 2045 Do-Nothing 3 - projects for the 3 rd network - 2045 E+C 4 - projects for the 4 th network - 2045 STIP 5 - projects for the 5 th network - 2045 LRTP 7 - projects for the 6 th network - 2045 Financially Constrained
GDOT_PI	GDOT Project Identification Number
LOCAL_PI	Local Project Identification Number
RRFLAG	Railroad crossing type flag
DBFLAG	Draw bridge flag
PTSPEED	Transit route speed for transit only facilities
GSTDM_LINK	Corresponding GSTDM link nodes (format: A_B, for externals only)

2.2.4 Model Procedures

2.2.4.1 Trip Generation

Trip generation is the first step in the traditional four-step modeling process. It estimates the number of trips that will begin and end in each individual traffic analysis zone (TAZ). These are referred to as “trip ends.” Trip ends generated by households are referred to as productions. Trip ends calculated from employment or school enrollment figures are referred to as attractions. This process is accomplished by establishing relationships between trips and socioeconomic variables. The process estimates the number of trip ends, or productions and attractions, for each TAZ by various trip purposes. Trip generation does not determine the origin and destination of each trip, only the total trips generated by each TAZ's socioeconomic characteristics.

In 1997, GDOT developed a new standardized trip generation process for the state's urbanized areas outside of Atlanta. The Trip Generation Update Project included a household travel survey and external travel survey in the Augusta metropolitan area. Household travel behavior by household size and income group is homogeneous from one urban area to another if transportation choices and land-use

patterns are similar. The Augusta survey information was used to formulate and recommend a trip generation process that is considered transferable to the State's other urbanized areas. In 2017, GDOT purchased add-on data from National Household Travel Survey (NHTS) which is used to update trip generation models developed in 1997.

The new trip generation process includes trip production and trip attraction sub-models. For all trips that have origins and destinations inside the CORE MPO region, excluding trucks, the trip production sub-model applies trip rates through a cross-classification of household size (1, 2, 3, 4+) and automobiles available (0, 1, 2, 3+). Aggregate household data for each traffic analysis zone is disaggregated into 16 cross-classified cells using a household stratification model. The household stratification model is also a product of the Trip Generation Update Project. This model breaks out the total number of CORE MPO households into cross-classification cells using zonal income, Savannah area specific data from the Census Transportation Planning Package (CTPP), and data from the Augusta household survey. The trip production sub-model applies regression equations for other trip purposes. The trip attraction sub-model applies regression equations for all trip purposes.

Typically, eight trip purposes were included in the trip generation process. These purposes are summarized below:

- **Home-Based Work (HBW):** All travel made for the purpose of work that begins or ends at the traveler's home;
- **Home-Based Other (HBO):** Any trip made with one end at the home except those for the purpose of work or shopping;
- **Home-Based Shopping (HBS):** Trips made for the purpose of shopping and which begins or ends at the traveler's home;
- **Non Home-Based (NHB):** Any trip that neither begins nor ends at home;
- **University (Univ):** Travel made for university which begins and ends at the trip makers' residence;
- **Internal-Internal Truck (IITRK):** Internal trips made by commercial vehicles;
- **Internal-External Passenger Car (IEPC):** Internal trips beginning or ending outside the modeled area, excluding trucks; and
- **Internal-External Truck (IETRK):** Internal truck trips beginning or ending outside the modeled area.
- **Port Direct (PORTDIR):** Internal-External heavy truck trips traveling to or from the Georgia Ports Authority that do not stop at a distribution center within the modeled area.
- **Port Indirect (PORTIND):** Internal-External heavy truck trips traveling to or from the Georgia Ports Authority that stop at a distribution center within the modeled area.

2.2.4.2 Household Stratification Model

The household stratification model subdivides the total number of households by TAZ into 16 household strata defined by household size and the number of automobiles available. Stratification is

done using zonal income, Savannah area specific data from the CTPP, and data from the Augusta household survey. The model distributes the total households in a TAZ to each cross-classification cell by calculating a relative² probability that a household will be a particular size with a particular number of automobiles. The relative probability is calculated with the following equation:

$$P(i,j) = S * I * CF, \text{ where}$$

$$P(i,j) = \text{Relative probability that a household will be size } i \text{ and own } j \text{ autos}$$

$$S = \text{Household size factor from CTPP lookup table}$$

$$I = \text{Income factor from CTPP lookup table}$$

$$CF = \text{Composite household factor from Augusta household survey lookup table.}$$

An estimate of the number of households in a particular cross-classification cell is then calculated by multiplying the total number of households in the TAZ by the corresponding relative probability. The final number of households in each cross-classification cell is calculated by applying an adjustment factor to each calculated value. The adjustment factor is applied to ensure that the sum of the resulting disaggregated households equals the original aggregate number of households. This process is represented mathematically with the following equations:

$$HHij \text{ (est.)} = HH * P(i,j), \text{ where}$$

$$HHij \text{ (est.)} = \text{Estimated number of households of size } i \text{ that own } j \text{ autos}$$

$$HH = \text{Total number of households in the TAZ}$$

$$HHij = HHij \text{ (est.)} * F, \text{ where}$$

$$HHij = \text{Final number of households}^3 \text{ of size } i \text{ that own } j \text{ autos}$$

$$F = HH / \sum HHij \text{ (est.)}, \text{ control total adjustment factor.}$$

The three lookup tables used in the household stratification model are shown in **Table 2-8**, **Table 2-9** and **Table 2-8**.

² The term “relative probability” is used because the value is not technically a statistical probability.

³ Not rounded to an integer value to eliminate problems with round off errors.

Table 2-8: CORE MPO 2015 TDM Household Size Distribution Percent

Computed Persons/HH Ranges			Household Sizes			
			1	2	3	4+
0.0	to	1.0	100.00%	0.00%	0.00%	0.00%
1.0	to	1.2	78.12%	20.56%	1.33%	0.00%
1.2	to	1.4	68.98%	25.68%	3.31%	2.03%
1.4	to	1.6	57.52%	31.28%	6.87%	4.33%
1.6	to	1.8	48.39%	35.11%	10.21%	6.30%
1.8	to	2.0	41.41%	35.37%	12.79%	10.43%
2.0	to	2.2	34.87%	35.63%	14.64%	14.86%
2.2	to	2.4	28.72%	34.71%	16.89%	19.68%
2.4	to	2.6	23.89%	32.74%	18.79%	24.58%
2.6	to	2.8	19.39%	31.40%	19.85%	29.35%
2.8	to	3.0	15.53%	29.47%	20.76%	34.24%
3.0	to	3.2	12.53%	27.49%	20.74%	39.24%
3.2	to	3.4	11.52%	24.89%	19.96%	43.63%
3.4	to	3.6	11.19%	21.16%	19.32%	48.32%
3.6	to	3.8	10.38%	20.42%	16.88%	52.32%
3.8	to	4	10.28%	20.32%	16.08%	53.32%

Table 2-9: CORE MPO 2015 TDM Household Income Distribution Percent

TAZ-Level Median HH Income		Income Group 1	Income Group 2	Income Group 3	Income Group 4
		<\$20,000	\$20,000 - \$39,999	\$40,000 - \$59,999	>\$60,000
\$0-	\$2,499	88.35%	11.65%	0.00%	0.00%
\$2,500-	\$4,999	85.49%	11.68%	2.32%	0.50%
\$5,000-	\$7,499	83.00%	13.18%	3.00%	0.81%
\$7,500-	\$9,999	75.85%	14.68%	4.27%	5.21%
\$10,000-	\$12,499	69.33%	18.26%	7.18%	5.23%
\$12,500-	\$14,999	63.11%	21.31%	8.02%	7.56%
\$15,000-	\$17,499	57.71%	24.65%	8.94%	8.70%
\$17,500-	\$19,999	50.31%	29.38%	10.46%	9.85%
\$20,000-	\$22,499	43.26%	33.21%	12.57%	10.96%
\$22,500-	\$24,999	39.27%	33.87%	14.49%	12.36%
\$25,000-	\$27,499	33.16%	35.81%	17.02%	14.01%
\$27,500-	\$29,999	30.71%	34.88%	18.24%	16.17%
\$30,000-	\$32,499	27.34%	33.95%	19.45%	19.26%
\$32,500-	\$34,999	23.99%	33.56%	21.52%	20.93%
\$35,000-	\$37,499	21.08%	33.22%	22.54%	23.16%
\$37,500-	\$39,999	18.25%	31.43%	24.18%	26.15%
\$40,000-	\$42,499	16.55%	28.40%	26.12%	28.93%
\$42,500-	\$44,999	15.01%	26.88%	26.76%	31.34%
\$45,000-	\$47,499	13.91%	25.50%	26.63%	33.96%
\$47,500-	\$49,999	12.07%	23.87%	26.49%	37.58%
\$50,000-	\$52,499	11.88%	21.42%	25.69%	41.01%

TAZ-Level Median HH Income		Income Group 1	Income Group 2	Income Group 3	Income Group 4
		<\$20,000	\$20,000 - \$39,999	\$40,000 - \$59,999	>\$60,000
\$52,500-	\$54,999	10.16%	20.12%	25.66%	44.07%
\$55,000-	\$57,499	9.45%	18.94%	24.80%	46.82%
\$57,500-	\$59,999	9.01%	18.53%	22.56%	49.90%
\$60,000-	\$62,499	8.44%	16.84%	21.02%	53.71%
\$62,500-	\$64,999	7.66%	15.98%	20.25%	56.12%
\$65,000-	\$67,499	6.88%	15.10%	19.48%	58.54%
\$67,500-	\$69,999	6.53%	14.16%	19.26%	60.04%
\$70,000-	\$72,499	6.01%	12.71%	18.33%	62.95%
\$72,500-	\$74,999	5.35%	12.18%	16.98%	65.49%
\$75,000-	\$77,499	5.12%	10.87%	16.36%	67.65%
\$77,500-	\$79,999	4.85%	10.42%	15.51%	69.22%
\$80,000-	\$82,499	4.46%	9.91%	14.65%	70.99%
\$82,500-	\$84,999	4.05%	9.39%	14.55%	72.02%
\$85,000-	\$87,499	3.64%	8.89%	13.59%	73.87%
\$87,500-	\$89,999	3.50%	8.39%	12.38%	75.73%

Table 2-10: CORE MPO 2015 TDM Household Size/Income/Auto Ownership Distribution Percent

Income Group	Persons Per Household	Autos Available			
		0	1	2	3+
1	1	30.63%	66.89%	2.48%	0.00%
	2	9.78%	65.78%	22.22%	2.22%
	3	7.33%	69.09%	16.28%	7.30%
	4	10.00%	56.94%	17.65%	15.41%
2	1	25.48%	47.76%	22.59%	4.17%
	2	4.00%	21.40%	63.20%	11.40%
	3	11.11%	12.56%	60.33%	16.00%
	4	9.00%	10.80%	59.42%	20.78%
3	1	18.33%	60.56%	15.78%	5.33%
	2	2.74%	16.77%	63.43%	17.06%
	3	9.00%	10.50%	50.33%	30.17%
	4	6.00%	4.38%	38.62%	51.00%
4	1	5.77%	66.54%	20.00%	7.69%
	2	6.94%	10.44%	53.22%	29.40%
	3	2.00%	5.81%	50.98%	41.21%
	4	1.90%	4.05%	54.05%	40.00%

2.2.4.3 Trip Productions

The routine for computing trip productions uses cross-classified data from the household stratification model and applies trip rates to calculate HBW, HBO, HBS and NHB trips. Trip rates for each purpose used the updated GDOT Daily Trip Production Rates that are based on 2017 NHTS as the initial trip generation rate. **Table 2-11** shows the initial trip generation rates for the entire three-county study area. Further adjustments were applied to the initial results of trip production during the validation and calibration process, as shown in **Table 2-12**.

Table 2-11: CORE MPO 2015 TDM Trip Generation Trip Rates

Household Size	Autos Available	HBW	HBO	HBS	NHB
1	0	0.488	0.818	1.007	0.878
	1	0.999	1.905	1.53	1.799
	2	0.999	2.221	0.794	1.799
	3+	0.999	1.899	1.544	1.799
2	0	1.069	1.596	1.535	1.673
	1	1.683	2.4	2.683	2.635
	2	2.004	3.289	2.188	3.137
	3+	2.004	3.368	2.005	3.137
3	0	1.534	3.284	0.381	2.51
	1	2.249	4.438	1.44	3.681
	2	2.709	5.434	1.53	4.434
	3+	3.323	6.206	2.94	5.438
4+	0	1.568	4.47	0.743	2.876
	1	2.509	6.624	2.416	4.602
	2	2.928	8.166	1.799	5.368
	3+	3.346	8.827	3.232	6.135

Special adjustment rates to trip production by purpose as shown in **Table 2-12** were introduced for each county:

Table 2-12: CORE MPO 2015 TDM Trip Production Rate Adjustments

County	HBW	HBO	HBS	NHB	TRK	UNIV
Chatham	None	None	None	None	0.5	None
Effingham	0.48	0.48	0.48	0.48	0.5	None
Bryan	1.1	1.1	1.1	1.1	0.55	None
Islands	0.470	0.470	0.47	0.47	0.47	0.47

Trip end productions for other purposes are calculated using the following regression equations:

$$I-I \text{ Truck Productions} = 0.388 * \text{Household} + 1.206 * \text{Retail Employment} + 1.362 * (\text{Manufacturing Employment}) + 0.514 * \text{Service Employment}$$

$$I-E \text{ Passenger Car Productions} = 0.331 * \text{Household} + 0.724 * \text{Total Employment}$$

$$I-E \text{ Truck Productions} = 0.078 * \text{Retail Employment} + 0.78 * \text{Manufacture Employment}$$

2.2.4.4 Trip Attractions

The trip attraction routine to compute the estimated number of trips attracted to each TAZ uses the following regression equations:

$$\text{Home-Based Work Attractions} = 0.977 * \text{Total Employment} * 1.4$$

$$\text{Home-Based Other Attractions} = 0.6432 * \text{Population} + 0.7934 * \text{Total Employment} + 0.7183 * \text{School Enrollment}$$

$$\text{Home-Based Shopping Attractions} = 5.585 * \text{Retail Employment}$$

$$\text{Non-Home-Based Attractions} = 0.377 * (\text{Population}) + 1.178 * (\text{Retail Employment}) + 1.4047 * \text{Service Employment}$$

$$\text{University Attractions} = 1.532 * \text{College Students} * (1.0 - 0.1)$$

$$\text{Internal Truck Attractions} = \text{Internal Truck Productions}$$

I-E Attractions = Based on counts and EE% (internal zones=0)

I-E Truck Attractions = Based on counts, EE%, and Truck% (internal zones=0)

Port related trucks (direct) = Based on external station traffic count

*Port related trucks (indirect) = Manufacture Employment * (2.0 * Port Indirect Accessibility)*

Special adjustment rates to trip attraction by purpose were introduced for each county as shown in **Table 2-13**:

Table 2-13: CORE MPO 2015 TDM Trip Attraction Rate Adjustments

Area	HBW	HBO	HBS	NHB
TDM	0.9	0.89	0.88	0.89

2.2.4.5 Internal and External Trips

The total number of internal-external (I-E) trips for each external station is calculated by subtracting the estimated number of external-external (E-E) trips, based on an assumed percentage from the station's daily traffic volumes. Then the total I-E trips are separated into I-E truck trips and other I-E trips based on an assumed truck percentage at each external station. **Table 2-14** displays the percentages that are used to calculate I-E and E-E attractions at each external station for truck and passenger cars.

Table 2-14: CORE MPO 2015 TDM External Trips

2015 Station	Road Name	2015 Volume	E-E Passenger Percent	E-E Truck Percent	I-E Passenger Car Percent	I-E Truck Car Percent	Direct Port Trips	Indirect Port Trips
880	I-95 South	49700	50.40%	21.60%	19.60%	6.10%	1.10%	1.10%
881	US-17 South	19200	31.68%	4.32%	56.32%	6.98%	0.40%	0.40%
882	GA-144	7350	40.95%	4.05%	50.05%	4.95%	0.00%	0.00%
883	GA-119 South	2710	39.60%	5.40%	48.40%	6.60%	0.00%	0.00%
884	US-280	2710	29.16%	6.84%	51.84%	12.16%	0.00%	0.00%

2015 Station	Road Name	2015 Volume	E-E Passenger Percent	E-E Truck Percent	I-E Passenger Car Percent	I-E Truck Car Percent	Direct Port Trips	Indirect Port Trips
885	Nevils Groveland Road	520	0.90%	0.00%	93.10%	6.00%	0.00%	0.00%
886	GA-67	2460	61.38%	6.12%	29.52%	2.98%	0.00%	0.00%
887	Ash Branch Road	730	63.63%	3.87%	30.67%	1.83%	0.00%	0.00%
888	I-16	24800	10.53%	2.97%	67.47%	2.43%	8.30%	8.30%
889	GA-46	950	0.81%	0.09%	88.49%	10.51%	0.00%	0.00%
890	US-80	3820	8.10%	0.90%	81.80%	6.80%	1.20%	1.20%
891	Mud Road	1620	42.48%	2.52%	51.92%	3.08%	0.00%	0.00%
892	GA-119 Connector	2290	0.81%	0.09%	91.19%	7.91%	0.00%	0.00%
893	GA-17	1250	1.26%	0.54%	68.74%	24.96%	2.30%	2.30%
894	Oliver Kildare Road	710	0.81%	0.00%	93.99%	5.30%	0.00%	0.00%
895	GA-21	3150	35.01%	9.99%	42.79%	6.81%	2.70%	2.70%
896	GA-119 North	1510	36.54%	8.46%	44.66%	10.34%	0.00%	0.00%
897	I-95 North	55600	46.80%	25.20%	18.20%	6.70%	1.50%	1.50%
898	GA-25	3850	16.20%	1.80%	73.80%	5.80%	1.20%	1.20%
899	US-17 North	16100	40.50%	4.50%	49.50%	4.50%	0.50%	0.50%

2.2.4.6 Special Trip Purposes for University Productions

The university trip production rates are used from ARC's Travel Demand Model, as shown in **Table 2-15**.

Table 2-15: CORE MPO 2015 TDM University Trip Production Rates

Household Size	Income Group 1 <\$20,000	Income Group 2 \$20,000 - \$39,999	Income Group 3 \$40,000 - \$59,999	Income Group 4 >\$60,000
1	0.018	0.018	0.018	0.018
2	0.096	0.096	0.066	0.066
3	0.045	0.045	0.082	0.107
4+	0.060	0.060	0.138	0.192

The original University Attraction Coefficient was derived as 1.532 from NHTS data, and the rate was adjusted to 0.1 for Savannah.

$$\text{Univ attractions} = 1.532 * \text{College Students} * 0.1$$

2.2.5 Balancing Productions and Attractions

For most trip purposes in the CORE MPO model, production and attraction trip ends are computed separately using 2015 socioeconomic data. As such, the sum of productions across all zones does not necessarily equal the sum of attractions. In reality, each trip has two trip ends; one is a production/origin and one is an attraction/destination. Hence, it makes sense to equalize the sum of productions with the attractions across all zones which, in effect, “balances” the two types of trip ends. This balancing or reconciliation is performed in the trip generation phase following the steps listed below:

- Productions and attractions are calculated for all internal TAZs by purpose;
- Zonal attractions for each trip purpose are proportionally adjusted so the total attractions equal the total productions by purpose (i.e. attractions balanced to productions) for all internal zones;
- Special generator productions and attractions are added/subtracted;
- University productions are set equal to university attractions (University attractions are calculated from university enrollment, which provides a better indicator for student trip making behavior);

- NHB productions are set equal to NHB attractions (NHB trip productions were generated in the “home” zone, but by definition, NHB trips do not begin or end at the home. Therefore, the assumption is that the attraction variables are a better indicator of total trips than home-based characteristics);
- Attractions are balanced to productions for all internal zones (except NHB and University);
- I-E attractions (including trucks) are calculated for external stations;
- I-E productions (including trucks) are balanced to the calculated attractions (assumes that because I-E attractions are based on traffic counts or external station projections, they provide the best controls); and
- I-E productions and attractions are appended to the I-I trip end file to produce the final productions and attractions.

2.2.6 Trip Distribution

Trip distribution is the second major step in the TDM process. Trip distribution is a vital part of the modeling process because it calculates the trip interchanges between each zone pair that eventually have to be accommodated by the transportation system. A gravity model, the most widely used trip distribution model, is used to perform trip distribution in the MPO model. As its name suggests, the gravity model for transportation planning is based on the gravitational theory of Newtonian physics. It predicts that the relative number of trips made between two TAZs is directly proportional to the number of trip ends (productions or attractions) in each TAZ and inversely proportional to a function of the spatial separation between those two areas. Mathematically, the gravity model is expressed as follows:

$$T_{ij} = P_i \left[\frac{A_j F_{ij}}{\sum_j A_j F_{ij}} \right]$$

where,

T_{ij} = Number of trips that are produced in TAZ i and attracted to TAZ j

P_i = Total number of trips produced in TAZ i

A_j = Number of trips attracted to TAZ j

F_{ij} = Friction factor, a value which is an inverse function of travel time

Many different measures of impedance can be used, such as travel time, travel distance, or travel cost. The potential impedance functions that can be used to derive the relative attractiveness of each TAZ from the impedance include: (1) exponential, (2) inverse power, and (3) gamma functions. In the CORE MPO model, exponential functions were used to calculate travel impedance based on travel time. The impedance function, also known as the friction factor, is shown below:

$$f(d_{ij}) = e^{-c(d_{ij})}$$

Where, d_{ij} is the distance between TAZ i and TAZ j and where, c is a parameter that needs to be calibrated in the model. The parameter, c , needs to be calibrated such that the model estimated trip length frequency distributions (often average length) match the observed/target trip length frequency distributions (or average trip length) for each of the trip purposes. The calibration of the parameter c is described in the Chapter 3, 2015 Base Year Model Validation Section 3.2 Trip Distribution.

2.2.6.1 Derivation of Target Trip Lengths

The average motorized non-public-transportation journey-to-work trip lengths at the county level was obtained from ACS (American Community Survey). **Table 2-16** shows worker's mean travel time to work for each county in the three-county study area.

Table 2-16: Mean Travel Time to Work

County	Mean Travel Time (Minutes)
Bryan	29.3
Chatham	21.3
Effingham	30.7

Because this data provides only the average travel time for each county, it is necessary to estimate a weighted average travel time for the entire study area, which was calculated to be approximately 23.4 minutes, considering the population distribution among the three counties. Since I-E trips were grouped into a separate trip purpose in the MPO model, which included part of the HBW trips, it is necessary to estimate an adjusted Journey-to-Work trip length that applies to only I-I work trips. This is commonly done by estimating the share of work trips that are I-E trips based on census county-to-county work trip flow data. By assuming an average travel time for I-E work trips, the county model estimated an adjusted I-I work trip length as:

$$T' = \frac{T - (S * T_{IE})}{(1 - S)}$$

where,

T' = Adjusted I-I work trip length

T = Work trip length

S = Share of I-E work trips

TIE = Estimated trip length for I-E work trips

The I-E HBW trips in the study area were assumed to account for 4.8 percent of trips and have an average trip length of 19 minutes. Given this assumption, the estimated internal HBW trip length is 23.7 minutes. Trip lengths for all other trip purposes (HBW, HBO, HBS, NHB and IE) were estimated based on equations from *Calibration and Adjustment of System Planning Models, FHWA and NCHRP Report 365. Calibration and Adjustment of System Planning Models* which includes equations to estimate average trip lengths based on the study area population; *NCHRP Report 365* includes an equation to estimate average work trip length based on the geographic size of the modeled area and also suggests rules of thumb for non-work trip lengths relative to the work trip lengths. The estimated average trip lengths for HBO, HBS and NHB trips are 20.2 minutes, 18.1 minutes, and 17.5 minutes, respectively. The average trip lengths for the different trip purposes for the three-county study area are summarized in **Table 2-17**. These are the target trip lengths to validate the trip distribution during the modeling process.

Table 2-17: CORE MPO 2015 TDM Targeted Average Trip Travel Times

Trip Purpose	Average Trip Travel Time (Minutes)
Home-Based Work	23.7
Home-Based Other	20.2
Home-Based Shopping	18.1
Non-Home-Based	17.5

2.2.6.2 Development of Minimum Time Paths

Minimum time paths for the network were calculated during the modeling process. These times include all turn prohibitions and turn penalties. Turn prohibitions are where specific turning movements are prohibited in the model, whereas turn penalties are where a time penalty is added to the model to discourage and ultimately decrease the amount of turns made at a specific location. The minimum times were then adjusted to include the intra-zonal times and terminal times. Intra-zonal times, the average time it takes to make a trip inside a particular TAZ, were created using travel time to the nearest four TAZs. Terminal times were assigned based on the employment density of the origin and

destination TAZs. At the trip origin, terminal time generally refers to the walk from one's residence to their car. At the destination end, it generally represents the time it takes to go from one's car to their destination. **Table 2-18** summarizes the terminal time criteria:

Table 2-18: CORE MPO 2015 TDM Terminal Time Criteria

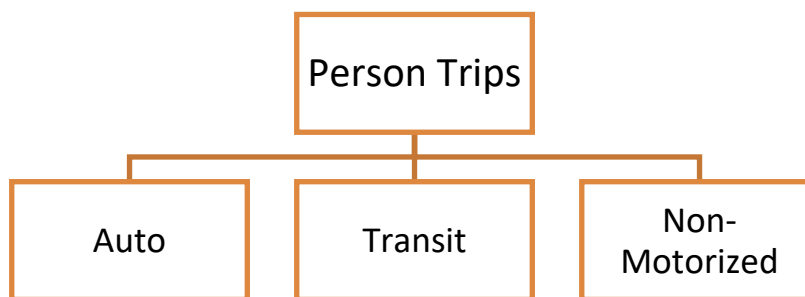
Zone	Area Types	
	1-3 (Urban)	4-7 (Suburban and Rural)
Origin	3 minutes	1 minute
Destination	3 minutes	1 minute

Gravity model input consists of a set of travel time impedance factors (friction factors), in addition to the production trip ends, attraction trip ends and minimum time skim. These parameters force the gravity model to produce sets of trips by purpose, whose distributions approximate an observed travel time distribution. Those parameters were adjusted due to the expansion of the model study area during the model validation process.

2.2.7 Mode Split

The mode split process determines what mode of travel will be used to make the trips between zones. In the CORE MPO model, the mode choice follows simple multinomial logit structure and splits the trips between auto, transit and non-motorized trips as shown in **Figure 2-5**.

Figure 2-5: CORE MPO Mode Choice Model Structure



Auto and transit trips are derived from utility equations which include variables for in-vehicle time (IVT), out of vehicle time (OVT) and cost. Utility equations for non-motorized trips include out of vehicle time, a variable to discourage long distance trips, a variable to encourage non-motorized trips in

highly accessible areas, and variable to encourage non-motorized in the densest area types (i.e., a proxy for a pedestrian environment variable).

Table 2-19 displays assumptions that were used to derive the utility coefficients for in-vehicle time (IVT), out-of-vehicle time (OVT) and cost.

Table 2-19: CORE MPO Mode Choice Model Utility Coefficients

Purpose	IVT Coefficient	OVT Coefficient	Cost Coefficient (\$)
HBW	-0.0250	-0.0500	-0.7111
HBS	-0.0125	-0.0375	-0.4267
HBO	-0.0125	-0.0375	-0.4267
Univ	-0.0125	-0.0375	-0.4267
NHB	-0.0225	-0.0675	-0.2880

The trip generation process estimates person trips for internal trip purposes (HBW, HBO, HBS and NHB). The person trips are converted to vehicle trips before trip assignment using average auto occupancy rates from National Cooperative Highway Research Program (NCHRP) Report 716. The other trip tables, including those for internal truck and I-E and E-E passenger car and truck trips, were calculated in terms of vehicle trips at their inception.

The CORE MPO mode share targets were primarily derived from the National Household Travel Survey (NHTS) and Chatham Area Transit (CAT) reports. The resulting mode share targets and modeled mode shares are shown in **Table 2-20**.

Table 2-20: Mode Share by Trip Purpose Comparison

Trip Purpose	Mode	Target	Model
HBW	Auto	96.6%	96.6%
	Transit	1.0%	1.0%
	Non-Motorized	2.4%	2.4%
HBS	Auto	93.7%	94.0%
	Transit	0.9%	0.9%
	Non-Motorized	5.4%	5.1%
HBO	Auto	83.1%	83.4%
	Transit	4.5%	4.4%
	Non-Motorized	12.4%	12.3%
NHB	Auto	89.4%	90.1%
	Transit	2.0%	2.0%
	Non-Motorized	8.6%	7.9%

2.2.8 Trip Assignment

The last step in the modeling sequence is the assignment of the trip tables to logical routes in the highway network. Trip assignment for the CORE MPO model was accomplished using the equilibrium assignment technique. The trip assignment algorithm is iterative, running through successive applications until equilibrium occurs. Equilibrium occurs when no trip can be made by an alternate path without increasing the total travel time of all trips in the network. The equilibrium assignment is an iterative process that reflects travel demand assigned to minimum time paths as well as the effects of congestion. In each iteration, traffic volumes are loaded onto network links and travel times are adjusted in response to the volume-to-capacity relationships. Final assigned volumes are derived by summing a percentage of the loadings from each iteration. The percentages reflect congested conditions that usually influence motorists' path selection for a portion of the day, not the entire day.

2.2.8.1 Output Network Attributes

During the model run, additional network link attributes are attached to the input network to store assignment results as well as values used in the trip assignment. These additional attributes provide

volumes, travel time, speed, and so on for each link, and can be used to summarize network-wide link statistics. A list of these attributes is shown in **Table 2-21**.

Table 2-21: CORE MPO 2015 TDM Output Network Attributes

Attribute Name	Description
TAZ	Nearest TAZ ID
ATYPE	Area Type
HCAP	Hourly Capacity (Vehicles per Hour)
HCAPAM	AM Peak Hourly Capacity (Vehicles per Hour)
HCAPPM	PM Peak Hourly Capacity (Vehicles per Hour)
CAPACITY	Daily Capacity (Vehicles per Day)
SPEED	Free Flow Speed (Miles per Hour)
TIME_FF	Free Flow Travel Time (Minutes)
TIME_OP	Off-peak Travel Time (Minutes)
LINKCLASS	Link Classification Used in Assignment
WALKTIME	Walk Time
NONMOTTIME	Non-Motorized Time
TIME_CG	Congested Travel Time - Before assignment
V_1	Daily Volume (Each Direction)
TIME_1	Congested Link Travel Time - After assignment
VC_1	Daily Volume Capacity Ratio
CSPD_1	Congested Speed (Miles per Hour)
VHT_1	Vehicle Hours of Travel
VT_1	Daily Volume (Both Direction)
V_TRK	Daily Volume (Truck)
V_PC	Daily Volume (Total Passenger Cars)
VMT_1	Daily Vehicle Miles of Travel

Attribute Name	Description
VHD_1	Daily Vehicle Hours of Delay

3. 2015 BASE YEAR MODEL VALIDATION

GDOT requires refinements to various model parameters until the 2015 base year model sufficiently replicates observed 2015 travel patterns and conditions. The base year model was checked for accuracy under each of the major steps in the TDM process starting from trip generation to trip assignment. Both inputs and outputs were checked for accuracy and reasonableness and include review of the transportation network and attributes, trip generation and distribution parameters, average trip lengths by purpose, vehicle-miles traveled (VMT) statistics and root mean squared error (RMSE). Modeled volumes are validated against traffic counts at several levels – regional, corridor (including screenlines) and link-by-link. Results from each of these validation steps are presented in the following sections.

3.1 TRIP GENERATION

The GDOT trip generation process primarily uses parameters from NHTS and U.S. Census data. Minor adjustments are made to GDOT standard procedures to reflect unique characteristics in each area being modeled. Various validation checks are made to ensure that trip generation results are reasonable. National data sources are used as reasonableness checks for trip generation results.

In the CORE MPO trip generation, person trips per household is below the normal value. The comparison between target ranges of calibration measures and modeled results for trip generation are summarized in **Table 3-1**. All trip generation measures are within the target range.

Table 3-1: Trip Generation Model Reasonableness Checks

Calibration Measures	Target Range / Value ⁴		Model Results
	Min	Max	
Socioeconomic Data			
Persons / Household	2	4	2.7
Workers / Household	1	3	1.7
School / Population	0.2	0.2	0.2
Trip Generation			
Person Trips Per Household	8.5	9.2	9.6
Person Trips Per Person	3	4	3.0
HBW Trips / Employee	0	2	1.1
Shopping Trips / Retail Employment			4.8
P/A Ratio Before Balancing (HBW)	0.9	1.1	0.97
P/A Ratio Before Balancing (HBO)	0.9	1.1	0.97
P/A Ratio Before Balancing (HBShop)	0.9	1.1	0.97
P/A Ratio Before Balancing (NHB)	0.9	1.1	0.97

3.2 TRIP DISTRIBUTION

Trip distribution parameters are calibrated to produce reasonable average trip lengths for auto trips by purposes and truck trips. Expected average trip lengths were estimated from 2013 ACS 5-yr estimates Travel Time to Work data and the population and geographic size of the modeled area. Travel times from trip assignment were used as input to trip distribution (i.e., feedback), which strengthens the

⁴ Source: General Summary of Recommended Travel Demand Model Development Procedures for Consultants, MPOs and Modelers, GDOT, May 2013.

validity of the modeled trip lengths. The comparison between the target trip lengths and modeled trip lengths are summarized in **Table 3-2**. All are within an acceptable range.

Table 3-2: Trip Length Validation Measures

Trip Purpose	I-I HBW	I-I HBO	I-I HBS	I-I NHB	Truck	I-E Passenger Car	I-E Truck
Target ⁵ Average Trip Length	23.7	20.2	18.1	17.5	25	25	25
Model Average Trip Length	23.59	23.44	21.64	22.74	25.67	46.87	37.41
Model/Target Ratio	99.0%	96.3%	96.6%	97.9%	100.4%	104.4%	113.7%

3.3 TRIP ASSIGNMENT

The trip assignment validation process includes the comparison of the model outputs to expected targets. Targets for various model parameters have been compiled by GDOT from a number of sources. The following documents serves as the primary sources for checking the reasonableness of model parameters and results:

- *Model Validation and Reasonableness Checking Manual*, Travel Model Improvement Program (TMIP), FHWA, 2010;
- *NCHRP Report 716 Travel Demand Forecasting: Parameters and Techniques*, Transportation Research Board, 2012; and
- *Calibration and Adjustment of System Planning Models*, USDOT, FHWA, 1990.

The primary targets GDOT uses for validating the trip assignment process are outlined in **Table 3-3**. The results of the CORE MPO 2015 TDM validation results are described in the following sections.

⁵ Sources: CTPP 2015 Journey to Work data; NCHRP Report 365 and Report 716; Calibration and Adjustment of System Planning Models, USDOT, FHWA, December 1990; General Summary of Recommended Travel Demand Model Development Procedures for Consultants, MPOs and Modelers, GDOT, May 2013.

Table 3-3: Trip Assignment Validation Measure Targets

Validation Measures	Target Range/Value
VMT (based on HPMS VMT reports)	
VMT - Interstates	Less than 6% - 7%
VMT - Principal Arterials	Less than 10% - 15%
VMT - Minor Arterials	Less than 10% - 15%
VMT - Collectors	Less than 15% - 25%
VMT - Total	Less than 5%
Volumes for Individual Links	
Volumes to Count Deviation	Less than Maximum Desirable Deviation (NCHRP Report 255)
Screenlines and Cutlines	
Volumes to Count Deviation for each line group	Less than Maximum Desirable Deviation (NCHRP Report 255)
Volume RMSE	
Volume Group: 0 - 5,000	Less than 100%
Volume Group: 5,001 - 10,000	Less than 75%
Volume Group: 10,001 - 15,000	Less than 50%
Volume Group: 15,001 - 20,000	Less than 30%
Volume Group: 20,001 - 30,000	Less than 30%
Volume Group: >30,001	Less than 30%
System Total	Less than 35%

3.3.1 Overall Vehicle-Miles Traveled Summary

Daily VMT is calculated by multiplying the amount of daily traffic on a roadway segment by the length of the segment, then summing all the segments' VMT to give a total for a geographical area of concern.

The total model VMT has two percent difference when compared to the observed VMT, as shown in **Table 3-4** below.

Table 3-4: CORE MPO 2015 TDM VMT

Functional Classification	Mileage (miles)		VMT (000,miles)		VMT Distribution			
	Observed ⁶	Model	Observed	Model	Observed	Model	Difference	% Difference
Interstates	67	67	3,500	3,508	35%	36%	8	0%
Principal Arterial	166	164	3,631	3,535	37%	37%	-96	-3%
Minor Arterial	227	218	1,809	1,685	18%	17%	-124	-7%
Collectors	371	359	1,007	982	10%	10%	-25	-3%
Total	831	808	9,947	9,710	100%	100%	-237	-2%

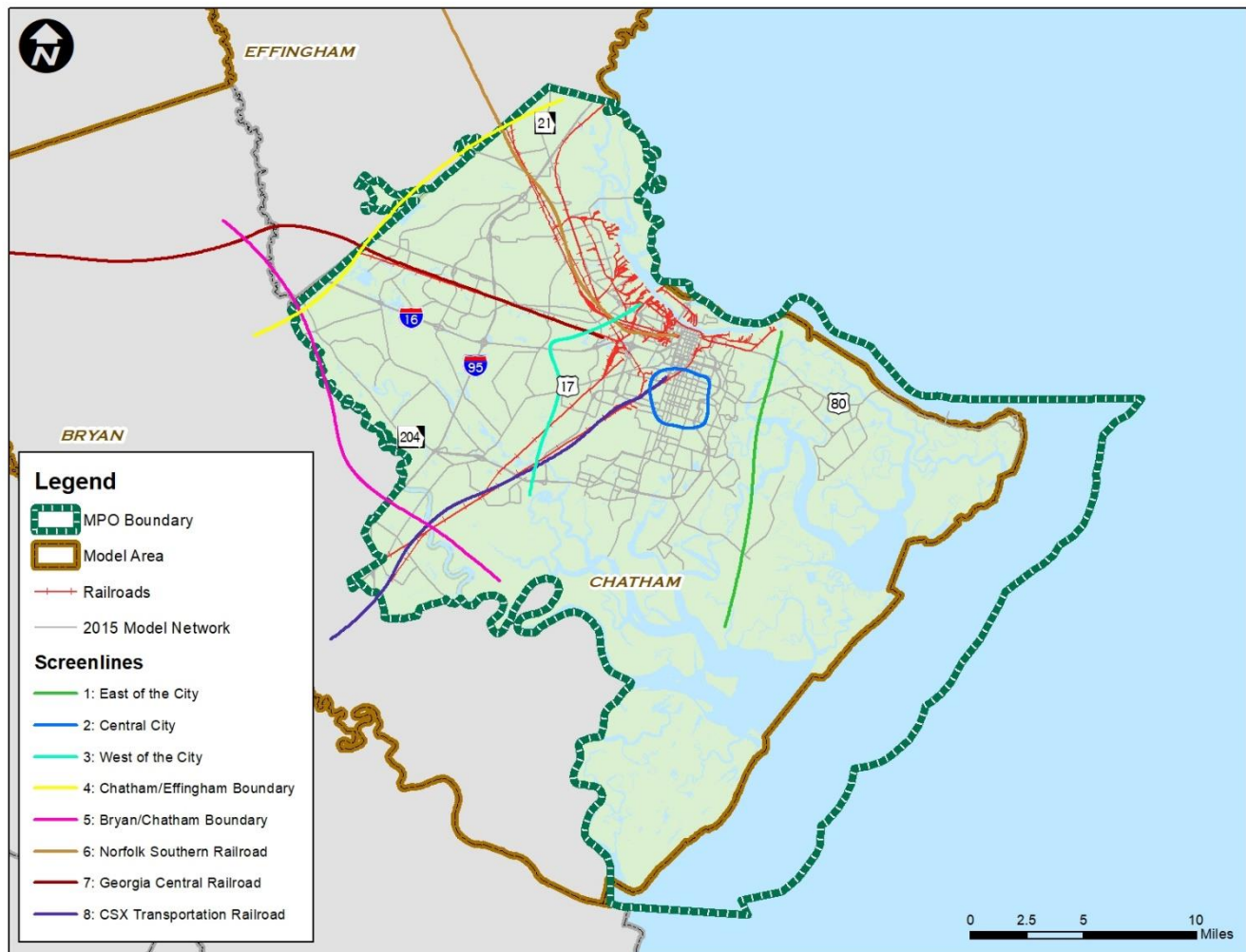
3.3.2 Screenlines Summary

One of many steps in the validation process involves screenlines. Screenlines are often defined by physical features such as railroads, creeks and rivers. Because all roadways are not reflected in the TDM, these types of features serve to funnel traffic into corridors so that all trips can be analyzed where crossing of these features is possible.

Figure 3-1 depicts the locations of screenlines used during the validation process.

⁶ Source: 2015 GDOT VMT – Mileage by Route and Road System Report 445, GDOT.
http://www.dot.ga.gov/informationcenter/statistics/RoadData/Documents/445/DPP445_2015.pdf

Figure 3-1: CORE MPO 2015 TDM Screenlines



3.3.2.1 Model Screenlines Analysis Results

The volume-to-count percent deviation on each of the eight established screenlines is well below the corresponding maximum desirable percent deviation. The total volume to total count percent deviation for all eight screenlines is at zero percent. **Table 3-5** provides a summary of total volume and total counts comparisons on the screenlines.

Table 3-5: CORE MPO 2015 TDM Screenline Results

Screenlines	Total Volumes	Total Counts	Maximum Desirable Percent Deviation ⁷	Volume to Count Percent Deviation
1- East of the City	66,089	64,500	29%	2%
2- Central City	205,361	221,010	18%	-7%
3- West of the City	179,413	186,370	20%	-4%
4- Chatham/Effingham Boundary	69,569	71,280	28%	-2%
5- Bryan/Chatham Boundary	109,267	101,290	25%	8%
6- Norfolk Southern Railroad	157,818	159,120	21%	-1%
7- Georgia Central Railroad	53,250	52,760	32%	1%
8- CSX Transportation Railroad	144,193	149,200	21%	-3%
Total	984,959	1,005,530	10%	-2%

3.3.3 Modeled Volume Summary

3.3.3.1 Link Volume Percent Deviation

The percent deviation is described in *Calibration and Adjustment of System Planning Models, FHWA, 1990*. This method is used to calibrate a model for system-wide studies. It is based on the expectation that the TDM should accurately predict the number of through-lanes required to provide a specific level of service (LOS) for a given facility. Trip assignment deviation should not result in a design deviation of more than one highway travel lane. Therefore, the expected accuracy of the model increases as the annual average daily traffic (AADT) on a facility increases.

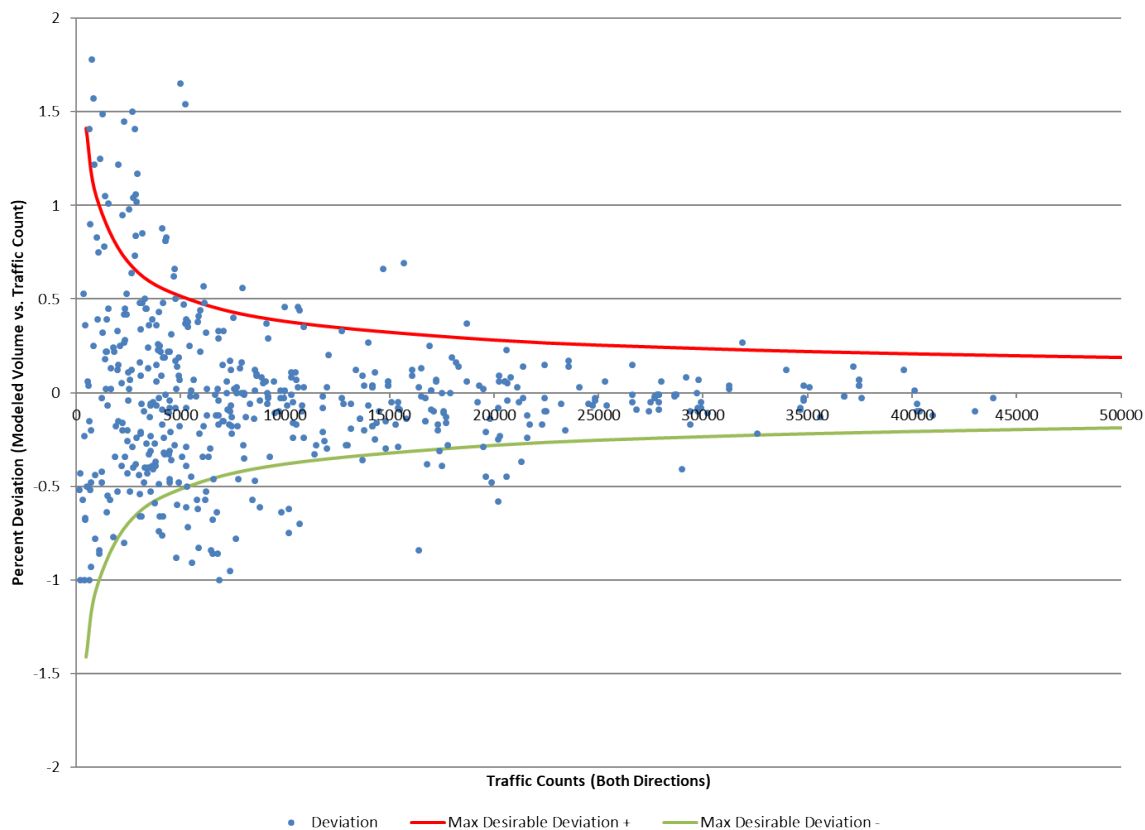
Figure 3-2 shows the deviation between the 2015 base year volumes assigned by the TDM and observed traffic counts. As the graph shows, most of the link-level model deviation points are

⁷ Sources: NCHRP Report 255, Report 365 and Report 716; General Summary of Recommended Travel Demand Model Development Procedures for Consultants, MPOs and Modelers, GDOT, May 2013.

concentrated between the maximum desirable deviation positive line and maximum desirable deviation negative line. The following conclusions can be drawn from the graph:

- Almost all of the model highway links were assigned volumes that were in reasonable agreement with the traffic counts.
- Observed traffic counts for most of the highway links were under 45,000 per day.

Figure 3-2: CORE MPO 2015 TDM Link Volume Percent Deviation



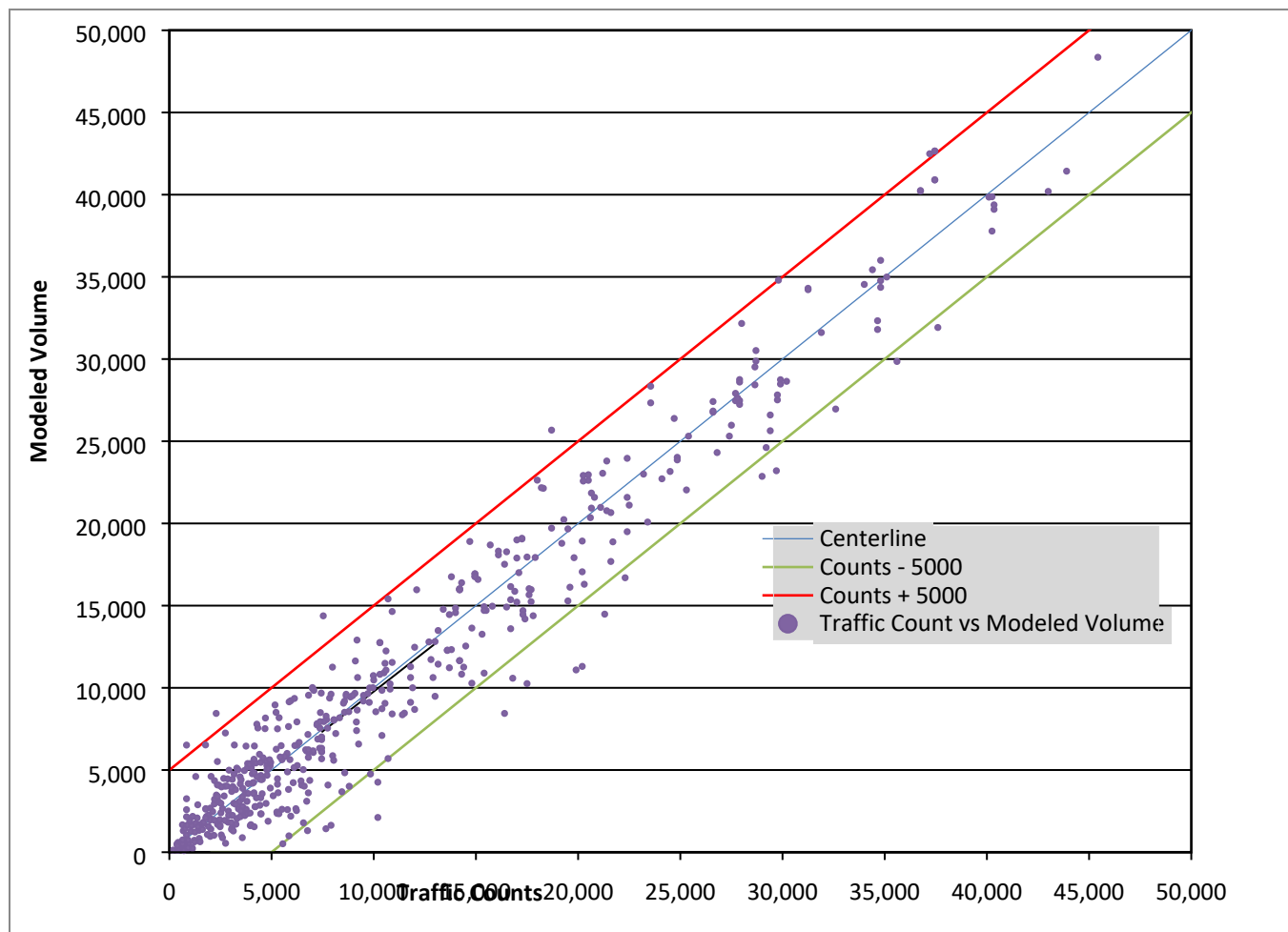
3.3.3.2 R-Square / Scatter Plot

The coefficient of determination (R^2) represents the proportion of variability in values of the dependent variable (traffic volume) that is explained by the model. It helps in the understanding of the model's

predictive power. The CORE MPO TDM achieves a system R^2 equal to 0.95, which is greater than the model validation target ($R^2=0.88$) that was recommended by federal model validation guidelines.⁸

A scatter plot of modeled volumes versus traffic counts helps identify outliers. As indicated in **Figure 3-3**, nearly all modeled volumes are within $\pm 5,000$ of the corresponding traffic counts. The $\pm 5,000$ range is selected to illustrate and reference data variations.

Figure 3-3: CORE MPO 2015 TDM Link Volume Scatter Plot



⁸ Model Validation and Reasonableness Checking Manual, Second Edition, FHWA, 2010.

3.3.3.3 Percent Root Mean Square Error

Percent RMSE (%RMSE) is a measure of the average deviation between the actual counts and the base year assigned volumes. It is another indicator to illustrate how closely the model volumes match the traffic counts. The %RMSE is calculated as follows:

$$\%RMSE = \frac{\sqrt{\frac{\sum_i (V_i - C_i)^2}{(N - 1)}}}{\frac{\sum_i C_i}{N}} \times 100$$

where,

V_i = model volume at link i ;

C_i = traffic count at link i ;

N = number of count stations

The CORE MPO 2015 TDM achieved an overall RMSE of 21 percent, which is lower than GDOT's target of 35 percent. Low %RMSEs were also observed for links by volume groups as shown in **Table 3-6**.

Table 3-6: CORE MPO 2015 TDM %RMSE

Volume Group	CORE MPO 2015 TDM	Target Range
0 - 5,000	53%	<100%
5,001 - 10,000	33%	<75%
10,001 - 15,000	21%	<50%
15,001 - 20,000	19%	<30%
20,001 - 30,000	11%	<30%
> 30,000	10%	<30%
System Total	21%	<35%

4. 2015 BASE YEAR LEVEL OF SERVICE

The purpose of TDM development is to assist in the evaluation of future travel conditions and deficiency analysis in the study area. Besides the traffic volumes, another key output from the TDM is the daily volume to capacity ratio for each roadway segment. Each volume to capacity ratio corresponds to a LOS based on accepted methodologies. LOS is a qualitative measure of traffic flow describing operating conditions. Six LOS are defined by the FHWA in the *Highway Capacity Manual* for use in evaluating roadway operating conditions. They are given letter designations from A to F, with LOS A representing the best operating conditions and F the worst. A facility may operate at a range of levels of service depending upon time of day, day of week or period of the year. A qualitative description and depiction of the different levels of service is provided in **Figure 4-1**. **Figure 4-2** illustrates the 2015 LOS for CORE MPO area.

Figure 4-1: Level of Service Description and Depiction

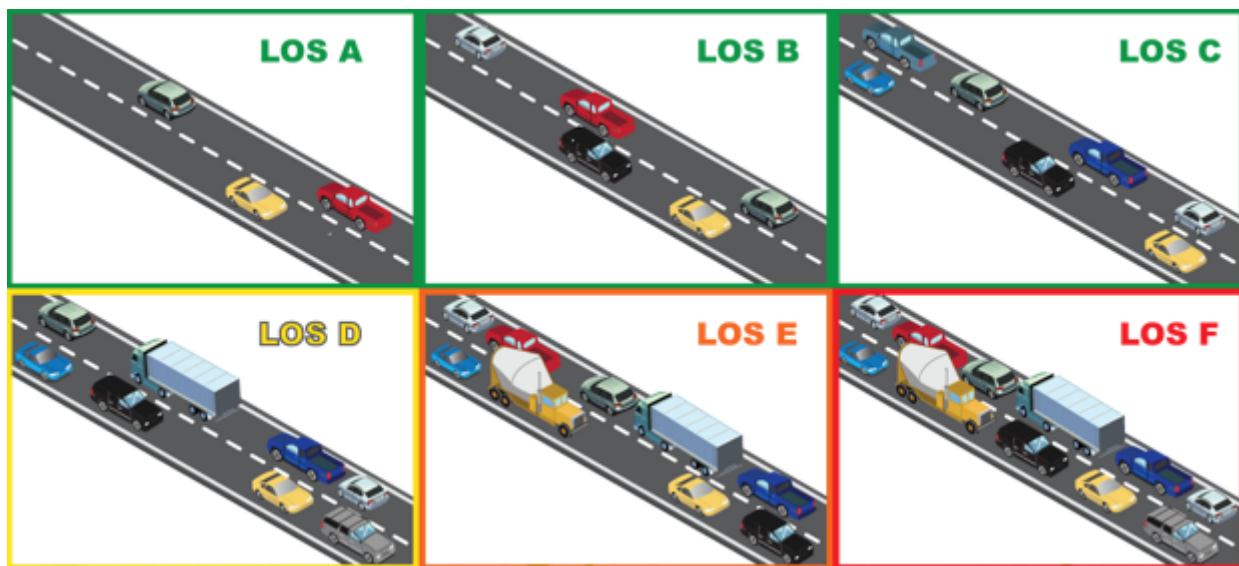
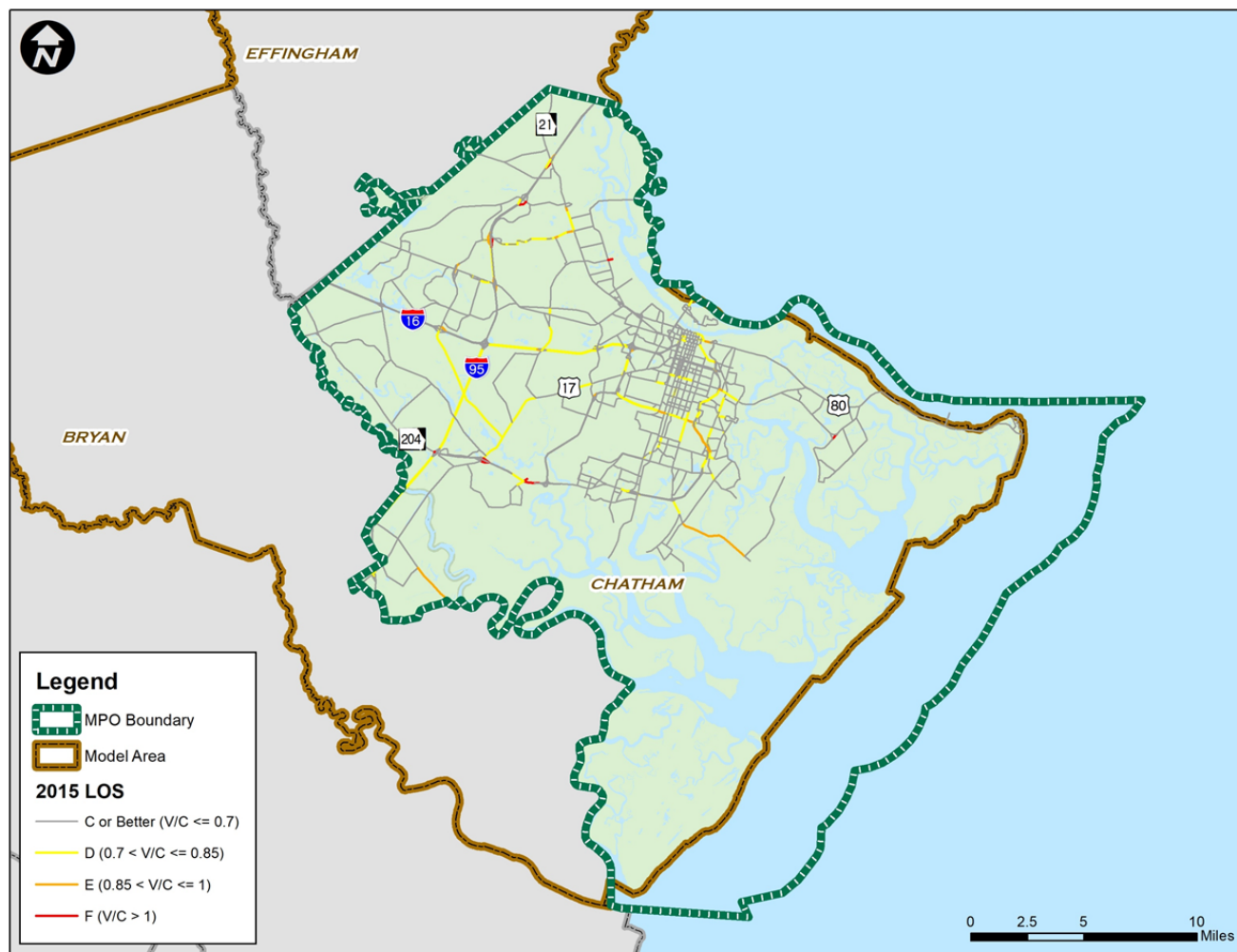


Figure 4-2: 2015 LOS for CORE MPO



5. 2045 TRAVEL DEMAND MODELS

5.1 2045 LONG-RANGE TRANSPORTATION PLAN NETWORKS

As the base year TDM was calibrated and validated, the model was used to assist in evaluating the traffic conditions for the future year 2045. To simulate the future travel demand in the CORE MPO area, the following information was updated based on the information that CORE MPO provided:

- 2045 highway network;
- 2045 socioeconomic data; and
- External station traffic forecasting.

2045 LRTP networks include the following network scenarios based on the inputs from the CORE MPO and their LRTP planning analyses:

- **The 2nd Network - Do-Nothing System Projects Network:** 2015 base year network plus any projects that either opened to traffic since 2015 or currently under construction.
- **The 3rd Network - Existing + Committed (E+C) Projects Network:** 2nd network plus projects with construction phase funded in the STIP year 2018 to 2021.
- **The 4th Network – Completion of STIP Projects Network:** 3rd network plus projects with preliminary engineering phase and right-of-way (ROW) phase funded in the STIP year 2018-2021.
- **The 5th Network – Long Range Transportation System Projects Network:** 4th network plus projects identified to address future transportation needs through 2045.
- **The 6th Network - Financially Constrained Projects.**

Detailed definitions of the networks represented above can be found in **Appendix A-4. Description of LRTP Networks.**

The projects that were included in each 2045 network are provided in the LOS maps (**Figure 5-1** through **Figure 5-5**) as well.

5.2 2045 SOCIOECONOMIC PROJECTIONS

The 2045 socioeconomic data was developed by the CORE MPO and used as input into the TDM to forecast the number of future year trips. **Table 5-1** shows socioeconomic data comparison between 2015 and 2045 for the entire TDM area and the MPO area respectively. The observations for the CORE MPO data include the following:

- Population and household, are increasing at similar pace (~25%) in the Three-County area and at a little higher rate (~30%) in the CORE MPO area;

- The total employment growth for both MPO and TDM area is 17%, the category employments also have similar growth among the two area (between 15%-20%)
- School enrollment is increasing at 25% and college enrollment increases at 16%.

Table 5-1: Socioeconomic Data Comparison between 2015 and 2045

SE Variable	Three-County Area Totals			CORE MPO Area Totals		
	2015	2045	% Change	2015	2045	% Change
Population	361,071	469,685	30%	285,078	359,573	26%
Household	134,753	173,815	29%	108,870	136,321	25%
Total Employment	222,931	261,256	17%	199,499	232,877	17%
MTCUW Employment	29,297	35,230	20%	26,461	31,663	20%
Service Employment	159,028	185,686	17%	142,596	165,905	16%
Retail Employment	24,045	27,769	15%	21,264	24,428	15%
AMC Employment	10,561	12,571	19%	9,178	10,881	19%
Median Income	\$46,654	\$46,654	0%	\$43,333	\$43,333	0%
School Enrollment	64,383	80,690	25%	46,356	58,589	26%
College Students	28,688	33,285	16%	28,688	33,285	16%
Acreage	1,004,130	1,004,130	0%	606,805	606,805	0%

5.3 EXTERNAL STATION TRAFFIC

Year 2045 external station traffic was estimated based on historic AADT trends at the external stations where traffic count data was available and growth rates of surrounding TAZs. Professional judgment was also used during the estimation process. **Table 5-2** shows the external stations for the model study area.

Table 5-2: CORE MPO TDM 2045 External Station Traffic Estimation

External Station	Road Name	2045 Volume	E-E Passenger Percent	E-E Truck Percent	I-E Passenger Car Percent	I-E Truck Car Percent	Direct Port Trips	Indirect Port Trips
880	I-95 South	83,619	56.00%	24.00%	14.00%	2.79%	1.61%	1.61%
881	US-17 South	26,074	35.20%	4.80%	52.79%	6.20%	0.50%	0.50%
882	GA-144	9,964	45.52%	4.48%	45.52%	4.48%	0.00%	0.00%
883	GA-119 South	4,145	44.07%	5.93%	44.07%	5.93%	0.00%	0.00%
884	US-280	2,710	32.41%	7.59%	48.62%	11.38%	0.00%	0.00%
885	Nevils Groveland Road	740	1.00%	0.00%	94.00%	5.00%	0.00%	0.00%
886	GA-67	4,084	68.23%	6.77%	22.74%	2.26%	0.00%	0.00%
887	Ash Branch Road	1,084	71.25%	3.75%	23.75%	1.25%	0.00%	0.00%
888	I-16	41,787	10.80%	4.20%	61.20%	1.75%	11.02%	11.02%
889	GA-46	1,721	0.92%	0.08%	89.08%	9.92%	0.00%	0.00%
890	US-80	6,919	9.00%	1.00%	81.00%	5.29%	1.85%	1.85%
891	Mud Road	2,934	47.27%	2.73%	47.27%	2.73%	0.00%	0.00%
892	GA-119 Connector	4,045	0.93%	0.07%	91.16%	7.84%	0.00%	0.00%
893	GA-17	1,250	1.39%	0.61%	68.61%	23.65%	2.87%	2.87%
894	Oliver Kildare Road	1,286	0.91%	0.09%	93.64%	5.36%	0.00%	0.00%
895	GA-21	5,706	39.04%	10.96%	39.04%	3.38%	3.79%	3.79%
896	GA-119 North	1,510	40.50%	9.50%	40.50%	9.50%	0.00%	0.00%
897	I-95 North	100,712	52.00%	28.00%	13.00%	3.14%	1.93%	1.93%
898	GA-25	3,850	17.39%	2.61%	69.58%	5.03%	2.70%	2.70%
899	US-17 North	29,163	45.00%	5.00%	45.00%	3.53%	0.74%	0.74%

5.4 FUTURE YEAR LEVEL OF SERVICE OUTPUT RESULTS

Figure 5-1 through **Figure 5-5** illustrate the LOS estimated for each 2045 network. These maps were provided to the CORE MPO after each model network scenario was run. The CORE MPO used these maps as one of many tools to develop their project lists for the subsequent scenarios.

Figure 5-1: The 2nd Network - 2045 Do-Nothing

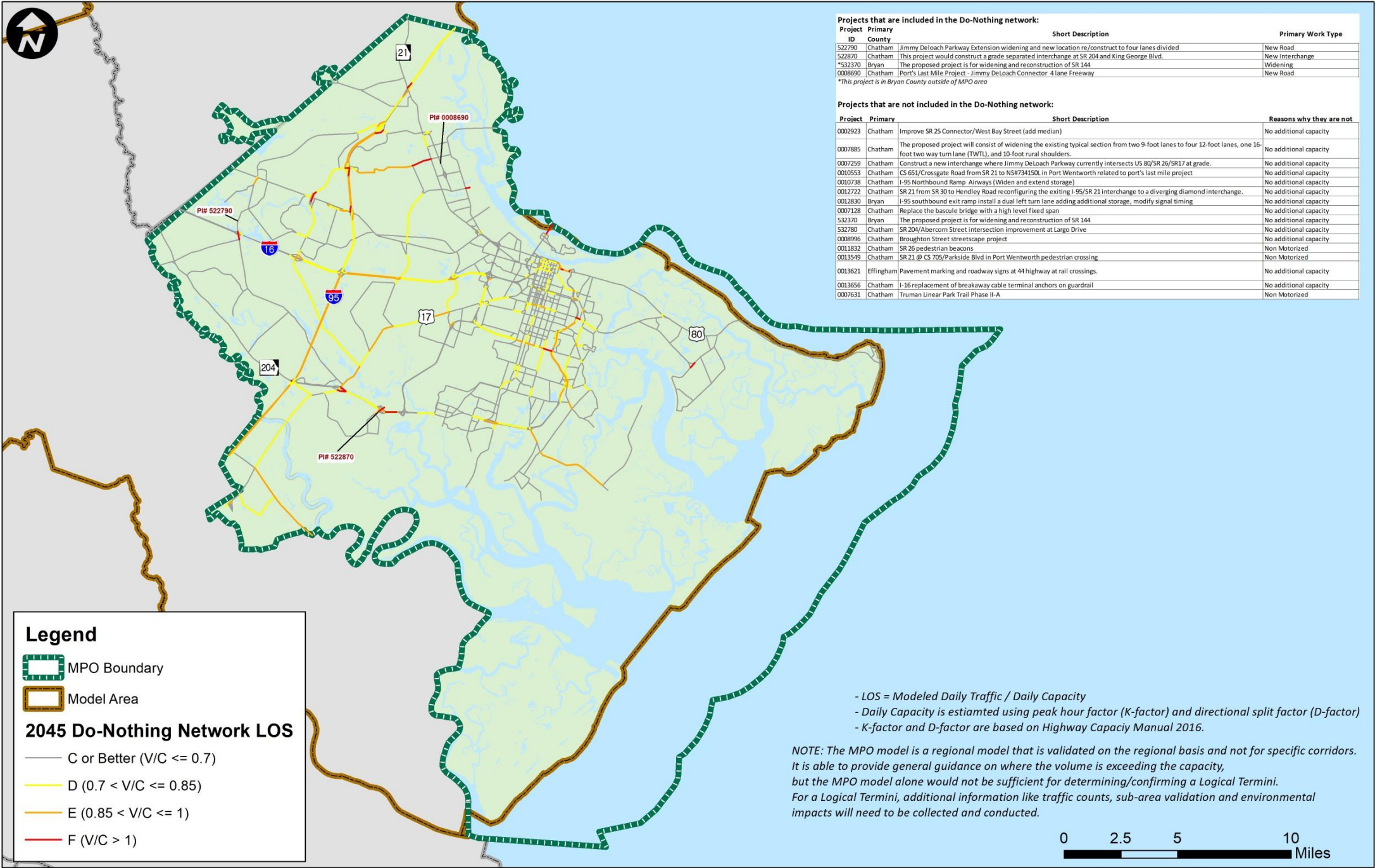


Figure 5-2: The 3rd Network - 2040 E+C

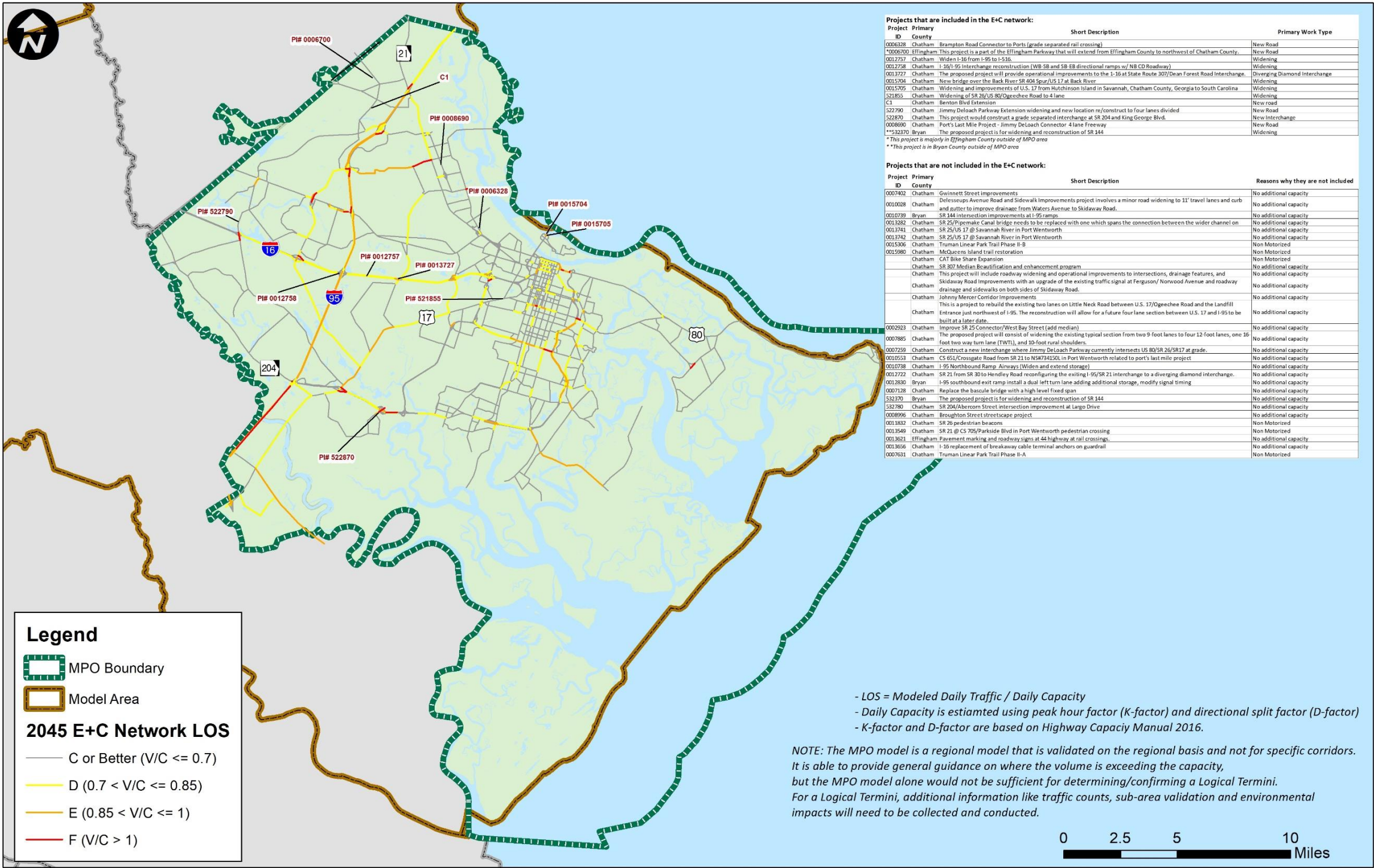


Figure 5-3: The 4th Network - 2045 STIP

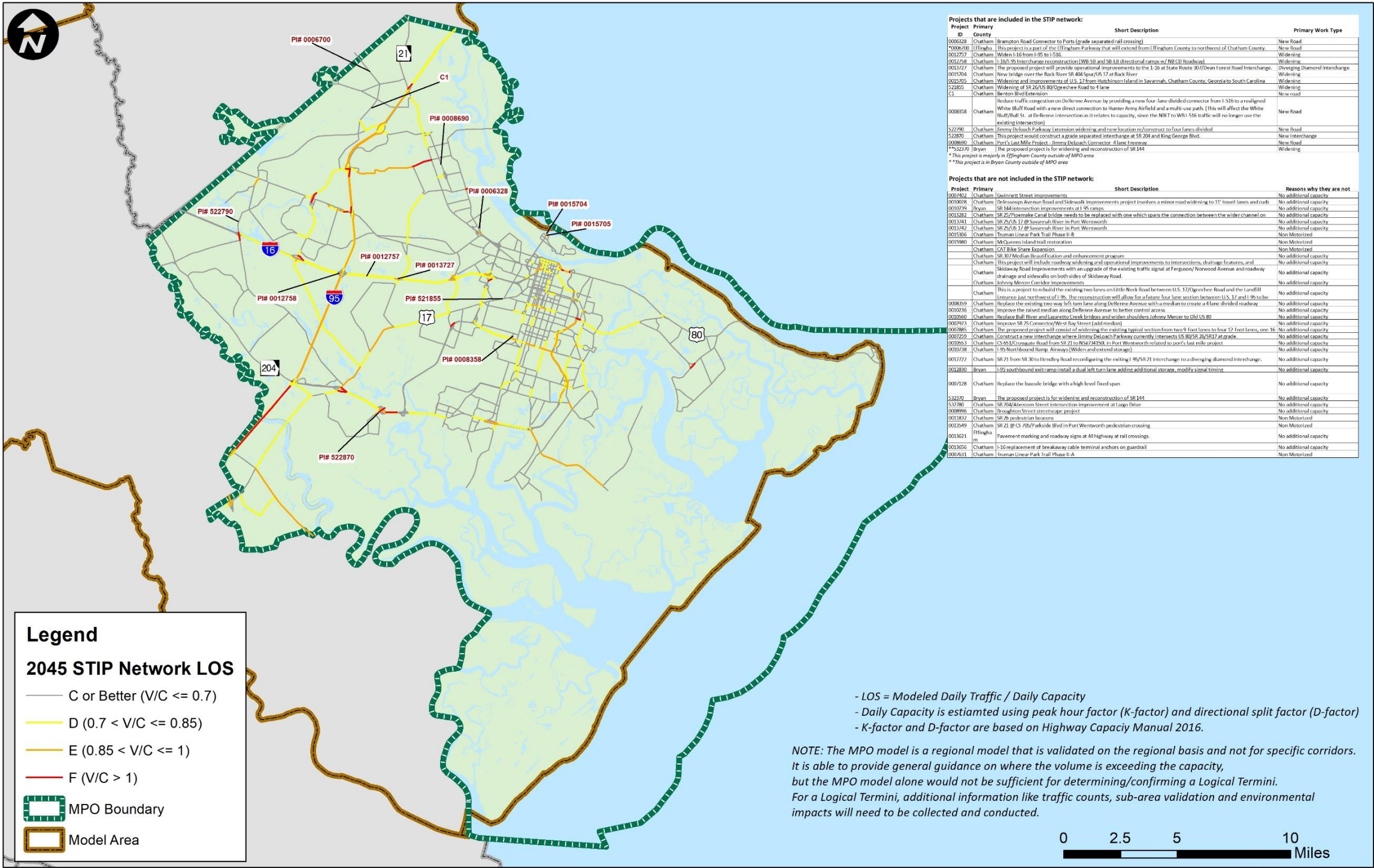


Figure 5-4: The 5th Network - 2045 LRTP

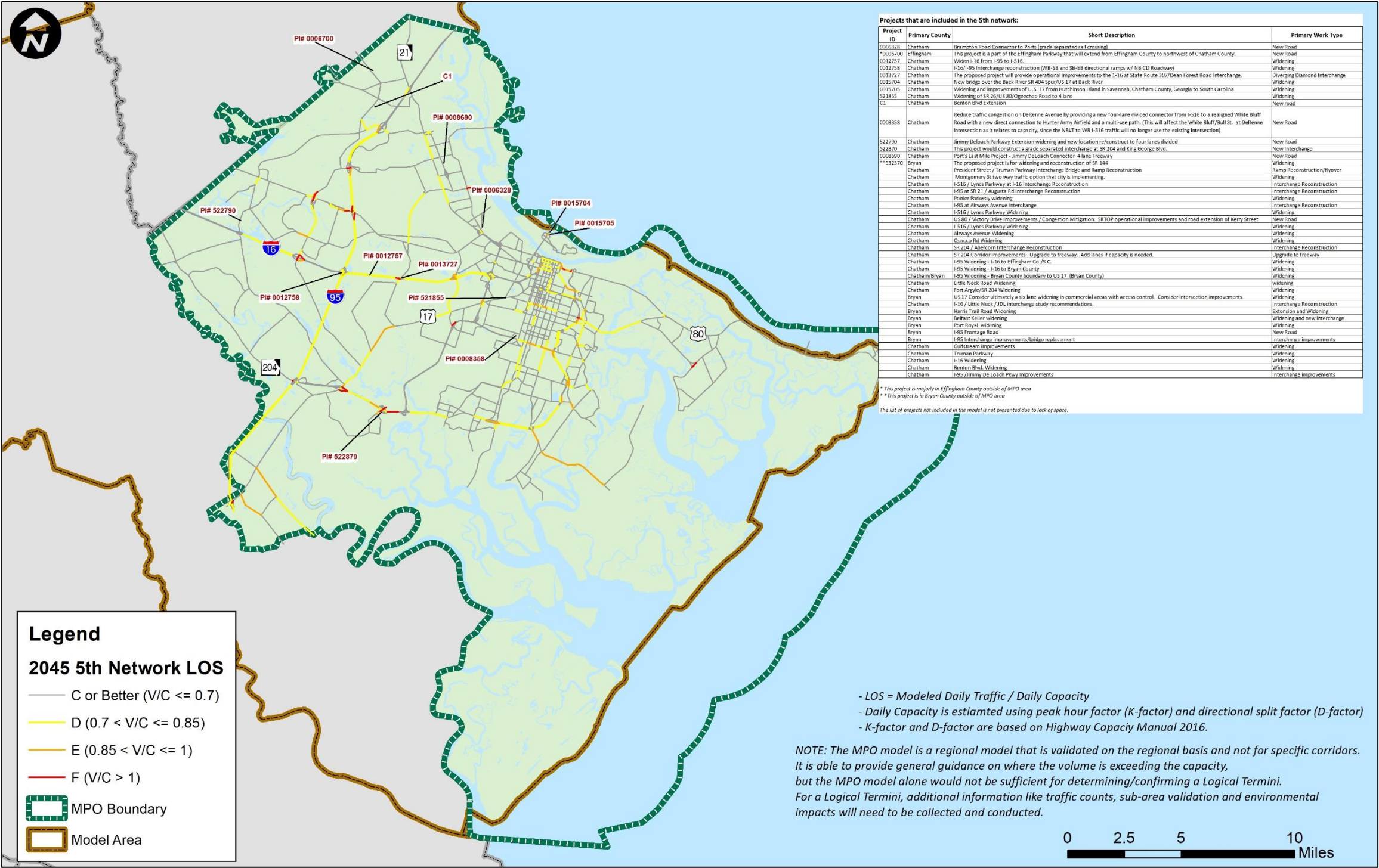
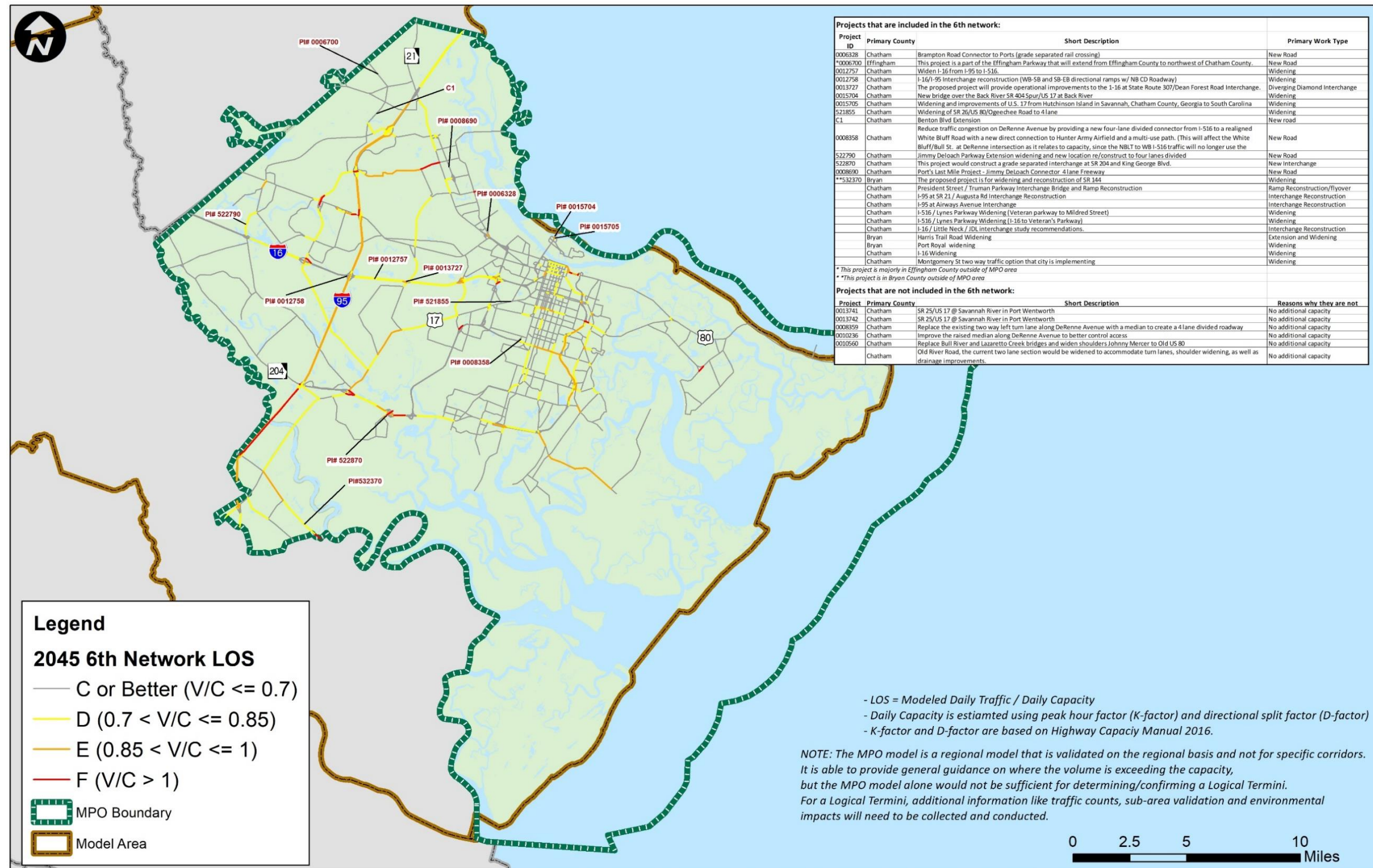


Figure 5-5: The 6th Network – 2045 Financially Constrained



APPENDIX

APPENDIX A-1: 2015 AND 2045 SOCIOECONOMIC DATA

APPENDIX A-2: 2015 AND 2045 SOCIOECONOMIC DATA REVIEW MEMO

APPENDIX A-3: SAVANNAH TAZ BOUNDARY CHANGES

APPENDIX A-4: DESCRIPTION OF LRTP NETWORKS

A-1. 2015 AND 2045 SOCIOECONOMIC DATA

A-Table 1: Socioeconomic Variables by Zone for 2015

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
-1	0	0	0	0	0	0	0	0	0	\$0	70,817
1	86	194	0	0	3	41	0	0	44	\$72,554	179
2	105	233	0	0	18	246	0	4	268	\$62,065	86
3	359	838	0	0	54	243	0	2	299	\$62,065	248
4	285	649	258	0	20	889	6	2	917	\$51,125	682
5	387	982	0	0	74	418	22	8	522	\$68,520	1,261
6	138	400	0	0	0	412	0	0	412	\$68,520	2,214
7	0	0	0	0	0	0	0	0	0	\$68,520	11,717
8	0	0	0	0	0	0	0	0	0	\$80,337	9,232
9	0	0	0	0	0	0	0	0	0	\$74,671	4,148
10	777	1,886	0	0	1	80	100	25	206	\$74,671	1,368
11	947	2,098	0	0	0	61	7	15	83	\$63,516	727
12	377	812	0	0	15	210	0	2	227	\$71,111	559
13	195	426	0	0	0	16	0	0	16	\$71,111	390
14	541	1,059	0	0	81	756	3	36	876	\$60,700	368
15	315	832	743	0	145	158	5	9	317	\$47,344	243
16	519	1,155	458	0	0	40	3	3	46	\$77,500	182
17	641	1,492	0	0	0	89	22	9	120	\$73,750	6,289
18	368	840	0	0	1	110	3	11	125	\$94,412	362
19	245	621	0	0	0	109	26	1	136	\$60,972	1,252
20	190	583	983	0	0	306	0	0	306	\$49,050	300
21	200	552	0	0	0	86	4	6	96	\$80,337	422
22	42	108	0	0	0	50	0	0	50	\$80,337	2,361
23	88	242	0	0	0	11	0	0	11	\$58,125	453
24	344	811	0	0	19	161	0	0	180	\$58,125	398
25	54	122	0	0	22	12	0	0	34	\$58,125	504
26	1,032	1,977	0	0	4	101	11	3	119	\$60,972	1,259
27	1	1	0	0	0	0	0	0	0	\$43,333	797
28	788	2,009	0	0	0	91	18	4	113	\$126,528	2,735

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
29	95	194	0	0	0	5	0	0	5	\$95,000	2,656
30	1,148	2,737	0	0	1	158	37	19	215	\$115,089	3,988
31	0	0	0	0	0	0	0	0	0	\$141,324	11,921
32	0	0	0	0	0	0	0	0	0	\$109,489	5,280
33	1,079	2,351	0	0	12	280	4	4	300	\$109,489	3,428
34	375	640	0	0	77	554	42	1	674	\$95,000	2,992
35	327	749	810	0	0	74	0	19	93	\$61,458	438
36	295	737	0	0	0	39	3	4	46	\$78,702	298
37	170	413	0	0	27	171	0	0	198	\$42,083	203
38	29	41	0	0	0	0	0	0	0	\$43,333	233
39	115	173	0	0	1	61	0	0	62	\$43,333	264
40	417	1,357	374	0	0	317	0	0	317	\$80,313	215
41	1,011	2,753	0	0	68	86	64	15	233	\$47,849	316
42	100	351	604	0	0	59	0	0	59	\$38,750	60
43	190	852	0	0	0	66	0	0	66	\$38,750	56
44	282	922	0	0	0	3	0	1	4	\$44,500	165
45	141	308	0	0	0	17	0	0	17	\$27,409	70
46	226	455	0	0	4	9	7	27	47	\$27,409	90
47	203	459	0	0	0	52	0	0	52	\$49,375	136
48	105	254	0	0	0	0	0	0	0	\$49,375	103
49	166	347	0	0	0	48	0	1	49	\$40,096	95
50	262	377	404	0	46	814	77	0	937	\$40,096	484
51	0	0	0	0	0	0	0	0	0	\$38,750	110
52	0	0	0	0	18	17	0	0	35	\$38,750	106
53	98	188	0	0	10	124	0	0	134	\$40,292	84
54	0	0	0	0	0	840	0	0	840	\$40,292	72
55	0	0	0	0	17	169	0	0	186	\$40,292	162
56	0	0	0	0	8	109	0	0	117	\$40,292	75
57	0	0	0	0	0	2	1	0	3	\$31,042	83
58	215	574	0	0	0	18	3	0	21	\$40,292	134
59	7	15	0	0	6	140	0	12	158	\$31,042	13
60	258	723	401	0	10	38	0	3	51	\$45,500	145

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
61	179	497	1,096	0	0	134	0	0	134	\$45,500	97
62	269	574	0	0	0	0	23	55	78	\$61,510	402
63	344	913	0	0	15	47	0	12	74	\$76,406	416
64	297	794	0	0	526	295	0	14	835	\$76,406	959
65	107	335	114	0	0	96	20	0	116	\$76,406	737
66	335	905	0	0	0	0	0	0	0	\$61,458	2,407
67	456	1,431	0	0	5	28	0	15	48	\$45,083	555
68	79	146	0	0	1	9	13	0	23	\$50,665	179
69	238	498	0	0	0	68	0	47	115	\$50,665	598
70	439	976	0	0	0	171	3	33	207	\$52,576	1,650
71	598	1,259	0	0	0	978	0	14	992	\$101,912	6,183
72	0	0	0	0	0	0	0	0	0	\$67,250	14,765
73	0	0	0	0	0	0	0	0	0	\$67,250	19,727
74	0	0	0	0	0	0	0	0	0	\$67,250	7,740
75	0	0	0	0	0	0	0	0	0	\$67,250	8,737
76	0	0	0	0	0	0	0	0	0	\$67,250	2,237
77	0	0	0	0	0	0	0	0	0	\$38,631	2,996
78	505	1,561	0	0	0	33	1	9	43	\$52,366	1,073
79	233	552	0	0	0	9	0	0	9	\$73,750	117
80	1,035	2,775	0	0	0	131	13	23	167	\$73,750	666
81	425	1,118	0	0	0	17	0	12	29	\$74,671	290
82	188	463	198	0	0	20	5	0	25	\$63,516	239
83	243	500	0	0	36	69	4	3	112	\$60,700	123
84	46	177	0	0	0	21	0	0	21	\$71,111	275
85	379	884	1,573	0	0	339	0	0	339	\$49,050	140
86	471	1,550	0	0	244	556	1	0	801	\$49,050	224
87	263	522	0	0	23	2,998	13	0	3,034	\$31,042	215
101	184	348	0	0	0	30	17	0	47	\$101,250	432
102	196	561	0	0	0	5	0	0	5	\$40,222	488
103	181	478	0	0	35	561	50	209	855	\$40,222	129
104	0	0	0	0	0	570	6	0	576	\$101,250	1,878
105	0	0	0	0	0	0	73	0	73	\$101,250	23

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
106	467	1,271	0	0	29	31	0	0	60	\$40,222	105
107	245	713	863	0	0	72	0	0	72	\$23,000	136
108	0	0	0	0	0	21	0	0	21	\$35,938	433
109	165	498	0	0	10	8	0	0	18	\$33,523	70
110	352	968	0	0	27	23	24	2	76	\$33,523	298
111	395	1,030	0	0	0	7	0	0	7	\$23,429	120
112	192	519	0	0	0	5	0	0	5	\$24,954	51
113	246	532	0	0	38	129	1	0	168	\$39,213	70
114	117	305	0	0	4	93	0	0	97	\$24,954	20
115	186	387	0	0	68	51	2	0	121	\$24,954	33
116	484	1,136	434	0	38	656	25	8	727	\$53,654	287
117	61	182	0	0	41	222	40	28	331	\$53,654	80
118	25	49	0	0	50	115	17	71	253	\$36,875	23
119	23	59	806	0	0	73	0	0	73	\$53,654	73
120	180	479	0	0	4	91	0	49	144	\$36,875	103
121	152	1,481	0	0	0	113	0	0	113	\$43,333	171
122	87	451	0	4,499	0	287	0	0	287	\$31,875	117
123	196	1,179	210	0	84	20	0	0	104	\$31,875	103
124	345	1,267	1,538	0	0	150	0	0	150	\$46,125	172
125	0	0	0	0	0	0	0	0	0	\$46,125	29
126	596	1,789	0	0	15	11	0	1	27	\$46,111	230
127	280	761	619	0	35	65	0	6	106	\$29,821	134
128	118	271	0	0	22	11	0	0	33	\$41,400	51
129	27	66	0	0	499	348	4	11	862	\$41,400	116
130	85	191	0	0	0	343	10	0	353	\$39,213	42
131	71	206	0	0	443	25	14	0	482	\$24,878	76
132	225	396	0	0	0	70	3	0	73	\$24,878	38
133	188	419	0	0	0	4	0	0	4	\$0	50
134	89	176	0	0	0	0	0	0	0	\$0	37
135	41	99	0	0	9	6	0	0	15	\$0	25
136	76	193	0	0	0	0	0	20	20	\$24,878	32
137	120	309	0	0	13	0	0	8	21	\$31,957	40

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
138	278	657	0	0	0	9	0	0	9	\$31,957	48
139	0	0	0	0	0	0	0	0	0	\$31,957	56
140	0	0	0	0	0	0	0	0	0	\$18,750	72
141	212	644	0	0	0	0	0	0	0	\$37,321	53
142	5	16	759	0	0	75	0	0	75	\$31,957	222
143	0	0	0	0	18	10	88	2	118	\$101,250	454
144	0	0	0	0	0	408	0	0	408	\$101,250	85
145	0	0	0	0	0	170	0	0	170	\$101,250	40
146	0	0	0	0	12	19	133	5	169	\$101,250	47
147	16	92	0	0	0	174	0	0	174	\$55,729	18
148	166	567	0	0	0	274	0	0	274	\$0	21
149	0	0	0	0	13	127	0	0	140	\$101,250	96
150	149	433	239	0	3	562	3	7	575	\$77,750	97
151	17	61	520	0	0	45	28	45	118	\$18,750	47
152	93	284	468	0	6	52	1	0	59	\$18,750	88
153	57	137	0	0	0	0	0	0	0	\$31,957	14
154	115	310	0	0	3	0	0	0	3	\$18,750	22
155	99	254	0	0	24	728	0	0	752	\$18,750	38
156	54	132	0	0	0	0	0	0	0	\$18,750	12
157	111	172	0	0	0	8	0	0	8	\$26,346	35
158	108	213	0	0	0	0	0	0	0	\$26,346	27
159	109	268	0	0	5	19	0	0	24	\$30,132	35
160	234	572	0	0	0	57	0	0	57	\$21,500	52
161	179	499	0	0	0	21	0	0	21	\$30,938	38
162	334	781	0	0	3	0	0	0	3	\$30,938	62
163	282	946	0	0	0	0	0	0	0	\$45,764	54
164	155	359	0	0	3	0	0	0	3	\$30,132	40
165	138	294	435	0	0	42	9	0	51	\$26,346	41
166	69	203	0	0	0	0	9	16	25	\$30,461	21
167	58	126	0	0	0	0	0	0	0	\$34,911	16
168	94	204	0	0	3	0	0	0	3	\$34,911	27
169	262	882	0	0	0	6	0	100	106	\$23,125	41

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
170	499	1,338	0	0	165	363	0	0	528	\$19,890	187
171	414	857	0	0	1	0	0	3	4	\$23,125	71
172	224	567	0	0	6	0	2	22	30	\$24,500	49
173	151	331	0	0	0	6	0	0	6	\$24,500	28
174	238	595	0	0	20	11	0	9	40	\$46,250	39
175	85	265	0	0	212	303	4	37	556	\$31,378	117
176	0	0	0	0	3	0	0	0	3	\$45,060	81
177	126	274	446	0	54	43	0	0	97	\$82,614	36
178	49	131	0	0	0	9	0	0	9	\$82,614	18
179	58	111	0	0	0	2	0	0	2	\$76,071	19
180	134	316	0	0	0	23	19	0	42	\$76,071	35
181	58	161	0	0	0	0	0	0	0	\$76,071	19
182	70	146	0	0	0	46	0	0	46	\$76,071	21
183	14	128	0	473	50	29	0	0	79	\$21,818	23
184	150	562	0	1,308	12	161	0	0	173	\$21,818	61
185	83	181	0	0	0	26	0	0	26	\$74,792	27
186	93	214	0	0	0	6	0	0	6	\$74,792	23
187	189	425	609	0	0	52	0	15	67	\$80,431	42
188	89	191	857	0	0	80	0	0	80	\$80,431	26
189	118	270	0	0	0	4	0	0	4	\$82,614	19
190	205	470	0	0	29	31	0	0	60	\$82,614	42
191	339	715	0	0	0	9	1	12	22	\$45,060	87
192	305	890	0	0	5	27	0	3	35	\$31,378	63
193	218	601	0	0	0	26	0	0	26	\$20,029	69
194	104	280	0	0	0	50	3	34	87	\$20,029	47
195	169	174	0	0	6	5,382	0	0	5,388	\$12,917	84
197	157	405	0	0	6	221	12	15	254	\$12,917	115
198	403	1,021	0	0	5	157	25	112	299	\$35,938	209
199	249	685	0	0	9	195	0	0	204	\$36,875	130
200	0	0	0	0	0	0	0	0	0	\$80,337	1,454
201	169	348	210	0	0	36	3	7	46	\$82,614	37
202	179	361	0	0	3	38	0	0	41	\$62,778	56

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
203	108	216	0	0	0	2	0	0	2	\$74,464	34
204	285	644	0	0	0	4	1	0	5	\$74,464	66
205	147	282	0	0	0	62	0	0	62	\$74,792	36
206	118	265	0	0	0	4	0	0	4	\$74,792	44
207	216	554	0	0	22	70	36	53	181	\$21,818	66
208	469	1,233	0	0	36	71	0	0	107	\$18,843	283
209	125	417	0	0	22	391	65	6	484	\$31,250	53
210	193	472	0	0	3	52	0	0	55	\$42,896	63
211	124	399	0	0	0	3	0	0	3	\$82,361	46
212	53	339	0	0	92	24	0	0	116	\$82,361	37
213	173	359	530	0	55	57	0	0	112	\$62,778	67
214	109	217	0	0	0	0	0	0	0	\$62,778	32
215	94	165	0	0	0	331	3	0	334	\$62,778	38
216	35	66	611	0	56	133	1	0	190	\$62,778	56
217	10	17	0	0	90	915	42	0	1,047	\$46,654	49
218	1	3	0	0	56	151	0	0	207	\$46,654	11
219	25	46	0	0	18	267	0	4	289	\$46,654	21
220	0	0	0	0	0	2,144	0	0	2,144	\$46,654	31
221	75	159	0	0	0	0	0	12	12	\$46,654	23
222	82	105	0	0	19	751	0	0	770	\$46,654	36
223	78	161	0	0	0	50	0	0	50	\$46,654	32
224	67	124	121	0	18	189	0	0	207	\$46,654	39
225	107	241	0	0	6	55	0	0	61	\$42,896	66
226	117	360	0	0	0	169	45	0	214	\$31,250	50
227	297	883	418	0	0	45	9	0	54	\$33,438	148
228	1	680	0	0	8	2,394	0	0	2,402	\$42,333	387
229	207	578	0	0	41	31	0	13	85	\$27,396	49
230	0	0	0	0	223	637	27	0	887	\$77,750	53
231	356	938	0	0	0	603	3	0	606	\$54,464	192
232	90	132	0	0	289	244	1	0	534	\$54,464	27
233	322	656	616	0	22	229	0	0	251	\$71,917	139
234	65	155	0	0	0	0	0	0	0	\$77,750	46

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
235	23	68	0	0	0	0	0	0	0	\$77,750	20
236	43	79	17	0	1	422	16	25	464	\$77,750	35
237	0	0	0	0	13	1,320	6	7	1,346	\$77,750	51
238	224	379	0	0	27	68	0	0	95	\$27,396	55
239	198	560	0	3,296	0	95	0	8	103	\$42,333	132
240	255	1,112	0	0	0	0	0	0	0	\$42,333	166
241	0	0	0	0	161	525	21	5	712	\$26,250	53
242	0	0	0	0	81	367	0	0	448	\$26,250	26
243	120	202	91	0	82	2,933	115	57	3,187	\$26,250	162
244	0	0	0	74	488	1,575	9	0	2,072	\$26,250	75
245	2	3	0	0	15	69	3	0	87	\$26,250	17
246	0	0	0	0	212	302	0	4	518	\$26,250	34
247	1	2	0	0	1,281	1,169	14	0	2,464	\$44,893	83
248	488	741	0	1,657	1	900	8	5	914	\$31,042	73
249	148	465	0	0	20	477	1	26	524	\$44,893	84
250	81	308	0	0	13	378	4	7	402	\$44,893	41
251	0	0	0	0	315	947	43	18	1,323	\$44,893	57
252	0	0	0	0	358	148	3	0	509	\$44,893	23
253	101	360	729	250	17	11,543	236	1	11,797	\$42,333	4,819
254	553	1,462	0	0	28	61	0	17	106	\$26,667	276
255	502	1,628	674	0	8	620	0	5	633	\$41,719	119
256	489	1,345	638	0	0	120	0	0	120	\$44,250	207
257	642	1,537	0	0	22	84	0	1	107	\$47,431	632
258	198	422	0	0	110	582	1	0	693	\$31,568	80
259	47	129	0	0	114	201	0	0	315	\$21,782	36
260	501	1,150	0	0	0	12	0	0	12	\$21,782	66
261	715	1,832	760	0	0	78	0	3	81	\$39,545	259
262	413	1,103	14	0	4	2	4	0	10	\$33,229	123
263	152	451	0	0	507	649	0	2	1,158	\$60,588	162
264	429	1,431	0	0	3	51	6	0	60	\$52,917	196
265	730	1,880	0	0	0	455	0	20	475	\$36,569	174
266	161	425	0	0	0	27	0	5	32	\$38,631	102

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
267	0	0	0	0	15	324	0	0	339	\$45,812	40
268	445	1,217	0	0	12	3	0	0	15	\$24,348	54
269	189	275	0	0	0	58	0	0	58	\$38,631	84
270	0	0	0	561	452	50	0	0	502	\$38,631	87
271	153	309	0	0	344	242	0	0	586	\$24,348	33
272	57	110	0	0	672	323	11	2	1,008	\$38,631	1,469
273	275	1,733	0	0	55	105	0	0	160	\$45,812	170
274	0	0	0	6,264	0	237	0	0	237	\$45,812	62
275	514	1,453	1,089	0	0	144	16	0	160	\$45,812	217
276	193	411	0	0	380	167	0	0	547	\$45,812	60
277	738	2,126	0	0	0	15	0	0	15	\$66,319	834
278	246	651	0	0	0	23	0	0	23	\$70,547	512
279	548	1,331	0	0	0	165	0	5	170	\$55,000	266
280	536	1,739	893	0	0	76	0	1	77	\$50,012	327
281	762	2,116	696	0	256	286	1	13	556	\$53,750	290
282	252	494	0	0	3	14	0	2	19	\$35,625	137
283	38	70	0	0	0	0	0	0	0	\$35,625	268
284	11	27	0	0	0	0	0	0	0	\$67,250	176
285	462	1,090	0	0	0	105	0	9	114	\$67,250	5,336
286	254	507	0	0	28	1,320	15	44	1,407	\$26,250	82
288	20	67	0	0	0	782	0	9	791	\$44,893	25
289	0	0	0	0	24	31	0	6	61	\$26,667	18
290	42	145	0	0	165	313	13	2	493	\$41,719	31
291	106	187	0	0	262	292	0	16	570	\$14,940	64
292	708	1,564	0	0	223	503	25	0	751	\$30,639	159
293	186	394	0	0	157	476	17	0	650	\$33,229	90
294	512	1,113	0	0	0	13	0	0	13	\$31,848	51
295	211	623	99	0	201	2,020	0	6	2,227	\$49,079	152
296	320	820	0	0	0	17	0	15	32	\$70,547	534
297	4	10	692	0	3	43	10	0	56	\$35,776	66
298	181	515	0	0	0	40	0	0	40	\$66,319	164
300	10	10	0	0	0	0	0	0	0	\$0	328

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
301	0	0	0	0	0	24	13	128	165	\$0	935
302	0	0	0	0	0	0	0	0	0	\$0	79
303	0	0	0	0	0	533	0	0	533	\$0	214
305	0	0	0	0	0	0	12	0	12	\$0	100
306	0	0	0	1,193	5	41	3	0	49	\$4,357	50
307	0	0	0	107	0	37	30	8	75	\$4,357	11
308	0	0	0	0	41	173	0	0	214	\$51,250	50
309	0	0	0	0	58	337	199	0	594	\$51,250	9
310	1	1	0	0	105	1,460	27	0	1,592	\$51,250	9
311	0	0	0	0	3	76	0	0	79	\$51,250	2
312	7	14	0	0	3	560	0	0	563	\$51,250	11
313	13	60	0	0	105	969	3	0	1,077	\$51,250	11
314	44	70	0	0	138	986	46	16	1,186	\$51,250	13
315	0	0	0	0	145	2,196	339	16	2,696	\$51,250	12
316	3	79	0	0	15	2,060	2	5	2,082	\$51,250	13
317	25	44	0	0	97	686	0	0	783	\$51,250	10
318	44	65	0	241	0	220	0	8	228	\$55,729	11
319	68	84	0	0	0	295	11	4	310	\$55,729	12
320	45	61	0	0	0	414	0	2	416	\$51,250	11
321	80	123	0	70	4	378	0	13	395	\$51,250	13
322	37	61	0	0	159	963	19	23	1,164	\$51,250	13
323	15	20	0	0	24	1,166	8	0	1,198	\$51,250	14
324	18	30	0	0	15	120	5	0	140	\$51,250	6
325	0	0	0	0	0	1,051	0	0	1,051	\$51,250	6
326	93	400	0	592	15	275	43	5	338	\$4,357	41
327	150	1,078	0	0	4	19	0	0	23	\$4,357	26
328	1	597	0	1,114	0	85	0	0	85	\$13,636	22
329	0	0	0	0	50	69	2	0	121	\$51,250	7
331	1	356	0	0	0	38	0	0	38	\$51,250	14
332	43	68	0	0	0	59	1	26	86	\$51,250	6
333	94	104	103	0	31	574	0	20	625	\$55,729	13
334	58	68	0	0	109	214	0	0	323	\$55,729	7

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
335	31	39	36	0	0	7	0	0	7	\$55,729	13
336	45	60	0	0	0	7	0	0	7	\$55,729	6
337	63	194	0	0	1	110	0	72	183	\$55,729	12
338	127	226	0	0	0	174	9	0	183	\$35,776	12
339	107	200	0	0	0	142	0	0	142	\$43,182	12
340	104	156	321	0	0	145	2	0	147	\$43,182	14
341	47	84	0	726	0	586	0	0	586	\$43,182	7
342	20	44	0	0	12	780	0	0	792	\$39,375	8
343	87	205	0	0	6	56	1	0	63	\$39,375	14
344	29	54	0	0	1	49	2	0	52	\$39,375	5
345	1	5	0	0	20	41	0	0	61	\$39,375	7
346	15	138	0	0	0	52	0	0	52	\$39,375	6
347	34	75	0	0	0	112	0	4	116	\$39,375	7
348	130	246	0	152	20	213	0	0	233	\$39,375	15
349	43	82	0	0	27	82	0	0	109	\$39,375	8
350	63	96	0	0	0	285	0	2	287	\$43,182	7
351	148	263	0	0	0	59	12	0	71	\$43,182	14
352	290	370	0	0	0	139	0	0	139	\$43,182	12
353	208	390	0	69	0	50	4	0	54	\$35,776	19
354	174	417	0	0	0	15	2	0	17	\$35,776	15
355	135	303	0	0	13	16	0	0	29	\$17,083	16
356	274	464	0	88	0	539	2	7	548	\$17,083	19
357	0	0	0	0	0	0	0	0	0	\$39,750	34
358	182	331	0	0	4	109	0	5	118	\$39,750	18
359	49	84	0	0	5	130	0	0	135	\$39,750	9
360	9	21	0	0	20	36	0	0	56	\$39,750	9
361	37	92	0	0	0	47	0	0	47	\$39,750	7
362	64	110	0	0	9	1	5	0	15	\$39,750	6
363	141	275	0	0	0	132	24	0	156	\$39,750	15
364	139	364	0	0	0	126	0	0	126	\$17,083	16
365	93	286	0	0	211	7	0	1	219	\$17,083	13
366	175	449	0	0	0	25	0	0	25	\$28,125	22

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
367	166	413	0	765	13	53	0	0	66	\$14,978	21
368	63	131	0	0	0	14	13	0	27	\$14,978	7
369	45	52	0	0	68	121	0	0	189	\$14,978	8
370	18	39	0	0	20	75	0	1	96	\$19,917	7
371	213	464	0	368	12	61	0	0	73	\$19,917	22
372	9	22	0	0	10	11	0	0	21	\$19,917	7
373	25	76	0	0	13	0	0	0	13	\$19,917	8
374	192	581	0	0	3	20	0	0	23	\$19,917	26
375	0	0	0	0	29	61	0	0	90	\$19,917	8
376	18	39	0	0	0	288	0	22	310	\$14,978	10
377	35	50	0	0	0	283	0	0	283	\$14,978	9
378	237	606	0	0	6	145	0	0	151	\$14,978	25
379	72	140	0	0	0	0	0	0	0	\$28,125	15
380	73	247	0	0	0	20	0	0	20	\$30,461	20
381	211	251	0	843	3	61	0	0	64	\$13,525	15
382	16	43	0	0	6	44	0	0	50	\$13,525	8
383	23	46	0	2,176	0	329	0	0	329	\$13,525	9
384	57	142	0	0	0	134	0	0	134	\$26,121	7
385	153	343	0	0	8	25	0	0	33	\$26,121	22
386	22	62	0	0	12	0	0	0	12	\$26,121	8
387	1	4	0	0	0	0	0	0	0	\$26,121	5
388	99	226	0	0	3	88	0	0	91	\$26,121	15
389	15	29	0	0	0	22	0	0	22	\$26,121	5
390	36	80	0	0	5	44	0	0	49	\$13,525	6
391	202	528	0	0	46	57	0	8	111	\$46,250	38
392	111	208	0	0	67	71	5	0	143	\$13,525	28
393	43	86	0	0	10	108	0	0	118	\$13,525	14
394	30	109	0	0	6	91	0	0	97	\$13,525	12
395	27	67	0	0	6	135	9	0	150	\$26,121	8
396	154	323	0	0	22	10	14	0	46	\$26,121	28
397	25	68	0	0	8	0	0	0	8	\$26,121	9
401	0	0	0	0	0	0	10	0	10	\$0	2,000

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
402	0	0	0	0	0	0	0	0	0	\$0	149
403	0	0	0	0	0	0	160	0	160	\$0	64
404	0	0	0	0	0	23	321	0	344	\$0	210
405	0	0	0	0	0	0	9	0	9	\$0	96
406	206	649	0	0	84	498	56	1	639	\$23,289	110
407	138	413	0	0	0	81	34	0	115	\$23,289	61
408	81	239	0	0	8	0	80	0	88	\$23,289	56
409	0	0	0	0	0	85	1,371	4	1,460	\$0	84
410	0	0	0	0	0	0	0	0	0	\$0	344
411	0	0	0	0	4	0	150	0	154	\$0	607
412	0	0	0	0	0	2,554	120	0	2,674	\$0	475
413	0	0	0	0	0	791	0	0	791	\$44,271	87
414	114	266	0	0	1	10	1	3	15	\$44,271	124
415	92	211	0	0	26	41	45	15	127	\$36,250	127
416	323	823	0	0	3	121	0	0	124	\$36,250	170
417	188	373	0	0	8	169	0	7	184	\$0	166
418	55	139	0	0	86	154	235	25	500	\$0	155
419	41	117	0	0	8	0	4	0	12	\$23,289	32
420	155	462	613	0	0	56	9	0	65	\$22,316	69
421	614	1,537	0	0	0	35	6	0	41	\$16,397	147
422	247	607	0	0	0	19	34	0	53	\$16,397	74
423	22	436	0	0	0	747	55	281	1,083	\$4,357	177
424	1	316	0	0	61	102	12	7	182	\$13,636	40
425	38	59	741	0	13	70	4	0	87	\$13,636	38
426	147	440	0	0	0	153	0	0	153	\$11,993	34
427	0	0	0	0	0	509	149	0	658	\$13,636	97
428	24	52	0	0	0	0	0	0	0	\$13,636	35
429	2	5	0	0	0	14	16	35	65	\$13,636	64
430	59	136	0	0	4	27	8	8	47	\$13,636	38
431	93	231	0	0	3	0	17	0	20	\$13,636	84
432	4	7	0	0	3	18	99	0	120	\$13,636	108
433	0	0	0	0	9	0	49	24	82	\$13,636	65

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
435	364	1,033	0	0	0	182	411	12	605	\$28,684	235
436	252	513	0	0	0	1	0	0	1	\$23,235	51
437	111	300	0	0	0	0	0	0	0	\$23,235	33
438	70	160	0	0	6	0	0	0	6	\$23,235	25
439	0	0	0	0	0	16	0	0	16	\$11,993	53
440	0	0	780	0	0	272	0	0	272	\$11,993	96
441	213	664	0	0	0	23	0	0	23	\$11,993	42
442	325	855	0	0	3	362	0	0	365	\$11,993	59
443	468	1,286	0	0	3	1	2	0	6	\$27,963	72
444	307	775	0	0	0	25	0	0	25	\$27,000	82
445	1	1	0	473	38	36	0	0	74	\$21,818	12
446	276	672	0	0	0	5	0	0	5	\$19,432	82
447	204	541	114	0	0	15	0	29	44	\$0	59
448	90	338	992	0	0	85	5	0	90	\$26,953	72
449	0	0	0	0	0	1,006	168	287	1,461	\$26,953	95
450	0	0	0	0	0	0	0	0	0	\$40,474	57
451	658	1,659	667	0	0	62	0	0	62	\$40,474	344
452	1	2	0	0	0	0	0	0	0	\$11,993	123
453	33	119	0	0	23	0	0	0	23	\$0	89
454	1	2	0	0	0	0	639	88	727	\$0	71
455	135	424	0	0	1	37	11	0	49	\$0	117
457	10	11	0	0	28	225	226	116	595	\$0	105
458	7	23	0	0	15	194	113	0	322	\$26,953	41
459	139	615	0	1,079	0	100	0	2	102	\$26,953	200
461	15	60	0	0	0	283	8	48	339	\$26,953	60
462	227	713	0	0	0	0	0	0	0	\$29,435	172
463	251	725	0	0	0	0	0	0	0	\$29,435	97
464	234	530	0	0	8	26	3	13	50	\$34,267	157
465	262	667	285	0	6	35	7	6	54	\$34,267	165
466	14	44	0	0	8	16	4	5	33	\$34,267	95
467	242	664	0	0	0	0	0	0	0	\$17,652	279
468	689	2,021	0	0	0	41	0	0	41	\$40,000	201

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
469	29	63	0	0	0	0	0	0	0	\$40,000	81
470	0	0	0	0	4	104	127	6	241	\$40,000	123
471	71	187	0	0	0	20	2	0	22	\$40,000	171
472	20	46	0	0	0	78	32	74	184	\$40,000	144
473	0	0	0	0	0	143	0	6	149	\$0	52
474	432	621	0	0	291	2,510	433	180	3,414	\$36,630	960
475	0	0	0	0	0	0	1	0	1	\$36,630	123
476	20	61	0	0	6	65	220	16	307	\$40,000	203
477	0	0	0	0	0	525	126	172	823	\$27,518	301
478	0	0	0	0	0	50	50	0	100	\$27,518	170
479	4	11	0	0	230	290	479	117	1,116	\$27,518	312
480	0	0	0	0	8	58	2	0	68	\$27,518	149
481	0	0	0	0	0	2	0	0	2	\$41,583	25
482	3	6	0	0	5	14	134	0	153	\$41,583	108
483	134	483	0	0	0	122	139	29	290	\$41,583	106
484	0	0	0	0	0	50	0	95	145	\$41,583	71
485	132	410	525	0	61	112	57	0	230	\$41,583	115
487	29	100	0	0	0	0	0	0	0	\$41,583	35
489	11	26	0	0	0	70	0	0	70	\$41,583	55
491	1	4	0	0	32	17	0	0	49	\$34,706	66
492	142	411	0	0	81	238	49	42	410	\$34,706	199
493	521	1,321	0	0	115	33	29	20	197	\$24,730	211
494	111	269	671	0	0	389	0	0	389	\$45,682	86
495	179	415	358	0	6	43	35	0	84	\$45,682	80
501	0	0	0	0	0	0	0	0	0	\$77,325	2,681
502	0	0	0	0	0	1,430	0	1,890	3,320	\$49,931	473
504	0	0	0	0	0	4	12	0	16	\$49,931	342
505	195	476	0	0	5	66	16	3	90	\$49,931	171
506	37	91	0	0	0	0	503	36	539	\$35,944	293
507	153	353	0	0	23	99	1	0	123	\$35,944	347
510	148	364	525	0	9	445	62	14	530	\$49,931	554
511	0	0	0	0	3	237	62	0	302	\$49,931	218

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
512	20	34	0	0	0	70	0	0	70	\$49,931	472
513	107	276	0	0	4	12	15	0	31	\$77,325	587
514	0	0	0	0	0	0	0	0	0	\$77,325	4,179
515	1	1	0	0	0	0	349	1	350	\$77,325	4,163
516	0	0	0	0	0	54	167	0	221	\$77,325	685
517	35	103	0	0	26	0	1	0	27	\$77,325	888
518	0	0	0	0	0	509	22	0	531	\$77,325	726
519	0	0	0	0	0	209	29	36	274	\$77,325	270
520	0	0	0	0	19	150	140	62	371	\$77,325	176
521	0	0	0	0	33	138	252	98	521	\$77,325	109
522	99	267	0	0	0	12	0	0	12	\$40,840	576
523	62	151	0	0	0	261	42	32	335	\$40,840	908
524	572	1,193	801	0	42	530	157	130	859	\$40,840	327
525	70	139	0	0	0	36	4	0	40	\$40,840	67
526	38	63	0	0	61	542	145	78	826	\$40,840	241
527	32	57	0	0	6	526	45	0	577	\$40,840	142
528	0	0	0	0	0	0	2	0	2	\$40,840	533
529	0	0	0	0	0	118	24	0	142	\$77,325	196
530	0	0	0	0	0	1,523	5,895	8	7,426	\$77,325	153
531	0	0	0	0	241	220	3,676	0	4,137	\$77,325	2,558
532	0	0	0	0	0	6	0	0	6	\$77,325	244
533	0	0	0	0	27	1,775	13	0	1,815	\$77,325	642
534	11	22	0	0	97	1,786	43	735	2,661	\$77,325	1,603
535	33	70	0	0	119	600	236	109	1,064	\$45,363	594
536	22	48	0	0	108	362	9	14	493	\$45,363	141
537	0	0	0	0	219	223	1,200	163	1,805	\$45,363	326
538	0	0	0	0	0	0	0	0	0	\$45,363	355
539	0	0	0	0	0	78	809	1	888	\$45,363	299
540	0	0	0	0	211	366	129	42	748	\$63,764	361
541	115	305	0	0	3	86	128	5	222	\$63,764	1,013
542	0	0	0	0	8	266	425	0	699	\$63,764	1,646
543	14	28	0	0	0	97	162	0	259	\$63,764	146

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
544	161	802	0	0	28	425	112	235	800	\$32,219	481
545	21	99	0	0	18	88	6	0	112	\$32,219	172
546	47	108	0	0	150	201	33	53	437	\$27,518	297
547	213	750	1,109	0	63	214	64	120	461	\$27,518	1,050
548	304	447	0	0	292	3,586	219	342	4,439	\$36,630	951
549	242	472	896	0	0	100	0	10	110	\$36,630	788
550	101	151	0	0	6	151	21	6	184	\$36,630	986
551	921	2,363	0	0	0	700	0	74	774	\$82,754	1,061
552	12	32	0	0	0	0	0	0	0	\$82,754	1,025
553	1,677	5,039	0	0	0	303	0	5	308	\$57,731	1,767
554	1,040	3,016	0	0	202	260	7	45	514	\$82,754	1,231
555	408	1,316	0	0	0	7	0	1	8	\$57,731	308
556	478	1,483	0	0	10	75	0	0	85	\$47,132	834
557	2	4	0	0	0	25	0	0	25	\$47,132	814
558	732	1,846	120	0	14	691	1	0	706	\$47,132	1,188
559	9	28	0	0	0	103	0	0	103	\$22,386	201
560	106	282	0	0	17	17	0	11	45	\$22,386	173
561	218	560	0	0	31	44	0	29	104	\$0	505
562	27	71	0	0	31	7	0	0	38	\$40,000	333
563	33	69	312	0	0	27	0	3	30	\$40,000	1,190
564	95	225	0	0	24	18	0	7	49	\$22,386	797
565	682	1,737	0	0	18	93	3	34	148	\$64,135	1,311
566	231	512	0	0	14	47	0	1	62	\$64,135	809
567	15	49	0	0	105	97	0	0	202	\$23,281	422
568	99	301	0	0	0	16	0	4	20	\$56,053	516
569	42	100	0	0	0	20	0	59	79	\$40,000	368
570	25	57	0	0	0	0	0	0	0	\$40,000	206
571	108	256	0	0	0	11	0	0	11	\$17,652	290
572	0	0	0	0	0	0	0	0	0	\$45,363	960
573	0	0	0	0	0	0	0	0	0	\$77,325	85
574	0	0	0	0	0	0	0	0	0	\$64,135	473
601	199	570	670	0	69	101	0	20	190	\$77,325	1,867

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
602	164	360	0	0	96	260	0	0	356	\$77,325	363
603	297	735	0	0	0	51	0	0	51	\$77,325	519
605	495	1,444	0	0	0	40	0	0	40	\$77,325	777
606	19	49	0	0	0	0	0	0	0	\$77,325	195
607	31	81	0	0	8	38	0	0	46	\$77,325	981
608	25	53	0	0	0	11	0	0	11	\$77,325	245
609	354	1,164	0	0	0	61	0	0	61	\$77,325	618
610	1,375	3,636	1,374	0	0	159	9	58	226	\$77,325	2,802
611	317	974	0	0	0	0	4	0	4	\$77,325	1,045
612	59	167	0	0	0	26	2	32	60	\$44,103	1,812
613	1	4	0	0	0	0	6	0	6	\$77,325	406
614	1,947	5,358	0	0	703	2,314	53	1	3,071	\$77,325	1,650
615	63	169	0	0	4	0	0	0	4	\$44,103	670
616	223	578	0	0	5	19	11	30	65	\$44,103	739
617	182	459	0	0	100	432	0	6	538	\$48,218	434
618	0	0	0	0	0	0	0	0	0	\$53,125	16
619	742	1,419	0	0	282	2,137	82	109	2,610	\$77,325	433
620	319	707	0	0	10	208	9	0	227	\$45,363	395
621	407	824	527	0	163	269	2	8	442	\$48,218	380
622	195	511	0	0	26	257	83	0	366	\$63,764	348
623	436	1,092	0	0	221	566	36	38	861	\$54,476	571
624	4	12	0	0	8	7	0	0	15	\$54,476	220
625	106	290	0	0	0	6	0	2	8	\$53,125	479
626	266	681	383	0	0	91	39	36	166	\$53,125	272
627	137	380	0	0	0	31	0	67	98	\$44,103	396
628	5	11	0	0	0	0	0	11	11	\$44,103	621
629	18	55	0	0	0	0	0	0	0	\$53,125	725
630	4	8	0	0	0	0	0	0	0	\$53,125	867
631	0	0	0	0	0	0	0	0	0	\$53,125	331
632	33	80	0	0	8	0	0	0	8	\$53,125	344
633	6	15	0	0	0	0	31	12	43	\$53,125	253
634	13	33	0	0	0	0	0	2	2	\$53,125	98

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
635	2	5	0	0	0	0	0	0	0	\$53,125	644
636	14	31	0	0	0	0	0	0	0	\$53,125	714
637	39	114	0	0	0	1	0	1	2	\$53,125	524
638	136	333	0	0	0	25	0	0	25	\$54,476	468
639	261	834	0	0	0	0	0	0	0	\$54,476	678
640	396	1,215	1,829	0	4	210	15	2	231	\$54,476	775
641	284	853	0	0	0	2	4	0	6	\$54,476	535
642	470	1,356	0	0	0	13	0	6	19	\$63,764	588
643	818	2,480	0	0	0	127	0	0	127	\$63,764	996
644	920	2,800	0	0	0	9	1	34	44	\$68,750	834
645	735	2,268	0	0	8	72	1	1	82	\$68,750	772
646	131	335	0	0	0	169	0	0	169	\$68,750	1,023
648	580	1,350	0	0	12	199	1	0	212	\$68,750	1,664
649	24	80	0	0	0	0	0	0	0	\$68,750	734
650	9	21	0	0	0	0	0	0	0	\$68,750	740
651	0	0	0	0	0	0	0	0	0	\$68,750	398
652	3	3	0	0	0	0	0	0	0	\$68,750	295
653	30	80	0	0	0	0	0	0	0	\$68,750	280
654	50	155	0	0	0	0	0	0	0	\$68,750	231
655	19	67	0	0	0	9	0	0	9	\$68,750	1,478
656	12	32	0	0	0	0	0	0	0	\$68,750	884
657	0	0	1,386	0	0	125	0	0	125	\$68,750	628
658	14	33	0	0	0	0	0	0	0	\$68,750	1,265
659	37	98	0	0	0	0	0	8	8	\$68,750	1,163
660	35	123	0	250	0	134	0	0	134	\$65,679	1,837
661	65	198	0	0	0	0	0	0	0	\$65,679	1,601
662	53	169	0	0	0	2	0	0	2	\$65,679	1,310
663	8	19	0	0	0	0	0	0	0	\$65,679	574
664	66	229	0	0	0	15	0	0	15	\$65,679	861
665	27	108	0	0	0	0	0	0	0	\$65,679	656
666	73	243	0	0	0	0	0	0	0	\$65,679	270
667	206	710	0	0	0	0	0	9	9	\$65,679	1,286

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
668	51	167	0	0	0	13	3	1	17	\$65,679	1,424
669	24	87	0	0	68	12	0	0	80	\$65,679	1,739
670	475	1,082	0	0	168	150	0	0	318	\$46,517	1,110
671	38	105	1,622	0	35	138	0	11	184	\$46,517	326
672	928	2,655	0	0	5	16	23	19	63	\$46,517	2,559
673	396	1,248	0	0	20	424	0	0	444	\$23,281	920
674	404	965	0	0	0	113	0	5	118	\$51,263	367
675	1,261	3,369	0	0	108	181	673	17	979	\$39,434	854
676	457	1,123	0	0	3	60	7	0	70	\$49,094	2,638
677	647	1,590	0	0	0	133	0	0	133	\$46,310	232
678	1,343	3,703	718	0	8	223	12	5	248	\$75,260	657
679	94	299	0	0	0	4	41	0	45	\$82,000	8,106
680	13	35	0	0	0	0	0	0	0	\$44,103	302
681	694	1,283	81	0	0	134	0	3	137	\$77,325	341
682	0	0	0	0	1,152	234	0	0	1,386	\$77,325	69
683	0	0	0	0	0	0	0	0	0	\$77,325	1,631
684	0	0	0	0	0	65	0	0	65	\$53,125	94
685	30	93	0	0	0	0	0	1	1	\$24,063	666
686	61	184	0	0	0	0	0	14	14	\$24,063	6,279
687	143	368	0	0	20	67	0	0	87	\$24,063	2,568
688	225	637	0	0	5	18	56	2	81	\$31,615	3,252
689	413	1,237	0	0	0	15	1	10	26	\$31,615	2,775
690	35	97	0	0	0	0	0	11	11	\$31,615	1,014
691	28	80	0	0	0	0	0	0	0	\$31,615	920
692	34	106	0	0	0	0	0	0	0	\$31,615	1,903
693	32	83	0	0	20	3	5	27	55	\$31,615	3,105
694	132	361	1,544	0	50	163	0	11	224	\$31,615	4,277
695	2	4	0	0	0	0	0	0	0	\$24,063	2,315
696	25	72	0	0	0	0	28	1	29	\$24,063	5,157
697	264	757	0	0	9	69	4	0	82	\$24,063	4,225
698	32	82	0	0	9	79	0	4	92	\$57,147	987
699	107	294	0	0	14	837	59	0	910	\$57,147	3,584

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
700	78	221	0	0	0	4	1	0	5	\$57,147	2,163
701	273	820	0	0	0	79	0	0	79	\$57,147	4,213
702	52	157	0	0	0	0	0	3	3	\$57,147	4,434
703	45	100	0	0	0	0	0	14	14	\$57,147	4,198
704	25	59	0	0	6	9	0	0	15	\$35,857	3,932
705	248	704	0	0	0	6	154	8	168	\$35,857	2,915
706	459	1,252	536	0	42	87	6	5	140	\$35,857	3,265
707	190	571	0	0	6	59	1	29	95	\$45,735	3,007
708	88	253	0	0	0	2	0	6	8	\$45,735	2,240
709	227	700	0	0	0	4	190	15	209	\$45,735	1,947
710	27	84	0	0	0	0	0	0	0	\$45,735	1,531
711	164	457	0	0	159	0	13	0	172	\$45,735	972
712	48	128	0	0	20	0	6	0	26	\$45,735	2,186
713	41	98	0	0	0	0	0	0	0	\$45,735	782
714	74	217	0	0	161	4	0	0	165	\$45,735	3,131
715	125	320	0	0	36	7	0	0	43	\$45,735	2,376
716	88	247	0	0	12	59	94	11	176	\$35,857	3,846
717	0	0	0	0	0	0	0	0	0	\$0	109,387
718	46	142	0	0	0	0	0	0	0	\$59,141	1,386
719	102	298	0	0	0	0	0	13	13	\$59,141	1,379
720	13	35	0	0	0	0	0	0	0	\$59,141	3,505
721	110	302	0	0	0	84	2	0	86	\$59,141	289
722	197	602	0	0	0	16	0	7	23	\$59,141	339
723	113	314	0	0	20	26	7	0	53	\$59,141	471
724	131	345	0	0	1	209	0	48	258	\$59,141	480
725	0	0	0	0	0	0	0	0	0	\$59,141	2,607
726	0	0	0	0	0	0	0	0	0	\$59,141	2,601
727	0	0	0	0	0	0	0	0	0	\$59,141	1,551
728	0	0	0	0	179	103	0	0	282	\$59,141	2,124
729	985	3,074	0	0	8	97	0	5	110	\$48,115	380
730	637	1,597	4,275	0	269	2,947	90	153	3,459	\$43,438	686
731	304	765	0	0	132	266	2	0	400	\$43,438	553

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
732	191	506	196	0	49	265	0	8	322	\$43,438	670
733	0	0	0	0	27	182	34	83	326	\$86,184	165
734	295	1,053	0	0	188	529	42	1	760	\$86,184	1,479
735	349	1,194	0	0	15	561	39	13	628	\$86,184	1,157
736	21	50	0	0	22	247	0	0	269	\$86,184	1,977
737	741	2,213	0	0	0	77	9	11	97	\$107,770	1,738
738	158	382	0	0	0	59	1	0	60	\$93,347	5,996
739	190	497	832	0	1	90	3	2	96	\$93,347	6,178
740	272	702	0	0	4	354	0	5	363	\$93,347	20,563
741	47	140	0	0	0	5	0	9	14	\$93,347	8,080
742	322	861	0	0	0	59	3	16	78	\$105,167	2,916
743	683	1,896	0	0	10	180	22	11	223	\$105,167	6,929
744	106	309	0	0	0	15	4	0	19	\$105,167	2,028
745	714	2,331	0	0	0	41	3	9	53	\$105,167	1,786
746	0	0	1,594	0	0	0	0	0	0	\$105,167	1,892
747	9	29	0	0	0	0	0	0	0	\$105,167	967
748	0	0	0	0	0	0	0	0	0	\$66,845	2,203
749	1	1	0	0	0	0	0	0	0	\$66,845	2,203
750	43	128	0	0	0	12	2	0	14	\$66,845	1,044
751	9	28	0	0	104	110	31	0	245	\$66,845	490
752	209	501	0	0	0	11	0	0	11	\$66,845	657
753	315	899	0	0	10	191	0	25	226	\$66,845	369
754	295	948	0	0	0	42	0	0	42	\$66,845	1,345
771	421	1,281	0	0	17	1,091	7	42	1,157	\$56,696	763
772	264	812	0	0	9	14	26	0	49	\$56,696	221
773	209	498	0	0	13	178	1	16	208	\$49,891	448
774	310	1,135	0	0	4	69	34	17	124	\$33,917	1,369
775	5	15	0	0	0	0	0	0	0	\$33,917	3,348
776	13	64	0	0	14	24	0	0	38	\$33,917	172
777	109	372	0	0	17	14	0	31	62	\$63,000	2,840
778	107	321	682	0	0	70	0	4	74	\$63,000	3,594
779	144	460	0	0	0	5	15	0	20	\$56,696	3,750

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
780	86	267	18	0	68	38	0	0	106	\$56,696	1,514
781	237	769	0	0	0	0	0	0	0	\$56,696	1,276
782	53	169	0	0	5	335	31	0	371	\$68,693	1,217
783	249	689	1,471	0	0	150	228	76	454	\$68,693	3,106
784	238	712	0	0	24	196	0	6	226	\$63,000	294
785	177	585	0	0	0	25	0	1	26	\$63,000	394
786	324	997	0	0	0	0	0	2	2	\$63,000	378
787	199	696	0	0	4	61	46	3	114	\$63,065	504
788	619	1,864	0	0	26	202	3	11	242	\$63,065	574
789	201	557	0	0	13	129	1	14	157	\$63,000	1,036
790	316	893	0	0	832	564	6	14	1,416	\$39,145	1,690
791	714	1,727	0	0	146	192	0	5	343	\$56,719	389
792	130	324	0	0	19	156	0	2	177	\$56,719	317
793	857	2,695	0	0	91	293	36	2	422	\$78,047	925
794	535	1,692	0	0	97	754	53	8	912	\$78,047	1,293
795	255	688	767	0	0	75	3	4	82	\$39,145	1,093
796	280	713	0	0	1	16	0	0	17	\$56,719	1,534
797	61	165	0	0	0	0	0	15	15	\$39,145	744
798	87	186	0	0	33	117	0	28	178	\$49,891	1,438
799	187	524	0	0	0	2	0	0	2	\$61,681	947
800	125	290	2,687	0	0	2,484	0	55	2,539	\$61,681	3,787
801	431	1,430	0	0	5	17	0	17	39	\$33,917	6,709
802	177	463	0	0	32	41	4	0	77	\$51,714	1,903
803	120	325	0	0	0	13	4	0	17	\$51,714	1,645
804	121	269	0	0	0	0	7	0	7	\$51,714	6,011
805	175	408	0	0	9	0	4	2	15	\$51,714	1,078
806	38	91	0	0	0	0	0	0	0	\$51,714	303
807	216	658	0	0	13	0	0	197	210	\$51,310	2,000
808	162	489	583	0	0	53	0	0	53	\$51,310	3,200
809	338	953	0	0	28	0	7	52	87	\$51,310	2,332
810	127	382	0	0	0	2	0	0	2	\$51,310	1,310
811	169	533	787	0	0	75	1	10	86	\$51,310	3,864

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
812	328	939	0	0	10	10	15	2	37	\$76,979	2,445
813	131	378	0	0	0	0	0	5	5	\$76,979	2,197
814	110	306	0	0	0	0	0	0	0	\$76,979	602
815	111	367	0	0	0	0	0	0	0	\$76,979	1,389
816	27	72	0	0	0	0	0	0	0	\$76,979	600
817	479	1,351	0	0	23	24	0	0	47	\$61,681	7,090
818	304	793	0	0	0	4	5	0	9	\$51,714	1,729
819	597	1,841	0	0	0	89	1	24	114	\$61,681	5,078
820	78	225	0	0	0	85	0	1	86	\$92,866	2,824
821	87	229	0	0	0	608	27	0	635	\$68,693	3,645
822	60	136	0	0	0	0	0	2	2	\$49,891	764
823	44	131	0	0	0	5	0	0	5	\$92,866	1,205
824	26	70	0	0	0	0	0	0	0	\$61,681	616
825	85	223	0	0	0	0	0	2	2	\$92,866	1,856
826	130	420	0	0	0	21	0	2	23	\$61,681	1,787
827	186	550	0	0	0	4	41	10	55	\$92,866	3,734
828	337	961	0	0	0	17	29	25	71	\$92,866	1,872
829	426	1,286	0	0	0	145	0	2	147	\$100,298	4,745
830	404	1,259	815	0	9	289	5	0	303	\$100,298	1,468
831	273	838	0	0	3	10	0	0	13	\$56,964	1,427
832	273	822	0	0	0	2	0	0	2	\$56,964	821
833	343	1,098	0	0	0	16	1	1	18	\$56,964	1,367
834	147	457	0	0	3	0	0	20	23	\$71,693	2,726
835	80	249	0	0	0	6	2	0	8	\$71,693	2,637
836	198	662	2,578	0	0	220	0	0	220	\$71,693	1,214
837	314	1,091	0	0	3	40	1	0	44	\$71,693	2,341
838	256	811	0	0	0	27	0	19	46	\$71,693	3,166
839	84	272	0	0	109	192	16	61	378	\$78,047	1,555
840	120	356	0	0	0	32	0	50	82	\$78,047	3,739
841	6	14	0	0	0	0	0	5	5	\$78,047	11,063
842	1	4	0	0	0	46	906	0	952	\$78,047	2,717
843	89	279	0	0	0	2	0	0	2	\$78,047	451

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
844	58	188	0	0	5	0	1	4	10	\$63,000	677
845	36	76	0	0	0	0	0	0	0	\$68,693	257
846	115	317	0	0	13	96	949	1	1,059	\$68,693	3,301
847	109	303	0	0	0	0	0	3	3	\$68,693	651
848	201	547	0	0	3	6	0	2	11	\$68,693	1,912
849	10	28	0	0	0	0	0	0	0	\$56,696	566
850	68	189	0	0	0	0	0	0	0	\$56,696	4,769
851	54	171	0	0	0	0	1	0	1	\$56,696	847
852	167	505	0	0	8	7	19	0	34	\$63,000	12,265
853	95	254	0	0	0	13	0	0	13	\$63,000	3,093
854	70	197	0	0	0	0	0	0	0	\$63,000	3,050
855	48	153	0	0	0	9	0	0	9	\$63,000	3,023
856	194	569	0	0	0	16	0	4	20	\$71,827	7,601
857	83	252	0	0	4	0	0	0	4	\$71,827	2,275
858	28	72	0	0	0	0	0	6	6	\$60,915	5,527
859	48	122	0	0	0	0	0	16	16	\$60,536	5,793
860	121	313	0	0	0	0	0	0	0	\$60,536	8,339
861	43	90	0	0	0	0	0	0	0	\$60,536	4,968
862	19	43	0	0	0	0	0	25	25	\$60,536	3,297
863	15	35	0	0	0	0	0	0	0	\$60,915	1,105
864	99	251	0	0	0	43	0	11	54	\$60,915	9,596
865	69	193	0	0	0	13	0	36	49	\$60,915	3,046
866	97	256	0	0	0	4	6	2	12	\$60,915	3,817
867	119	335	0	0	0	0	0	2	2	\$59,100	11,121
868	316	987	742	0	29	72	0	0	101	\$59,100	5,206
869	20	74	0	0	0	0	0	0	0	\$60,915	1,289
870	111	291	0	0	0	0	0	0	0	\$60,915	7,457
871	5	10	0	0	0	0	0	0	0	\$60,536	6,514
872	17	38	0	0	0	0	0	0	0	\$60,536	8,431
873	197	586	0	0	0	26	0	0	26	\$60,915	14,157
874	57	167	0	0	0	0	0	0	0	\$60,536	11,201
875	14	28	0	0	0	0	0	0	0	\$60,536	1,576

A-Table 2: Socioeconomic Variables by Zone for 2045

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
-1	0	0	0	0	0	0	0	0	0	\$0	70,817
1	190	454	0	0	3	49	0	0	52	\$72,554	179
2	209	493	0	0	21	294	1	5	321	\$62,065	86
3	463	1,098	0	0	64	290	0	3	357	\$62,065	248
4	389	909	315	0	25	1,064	7	3	1,098	\$51,125	682
5	491	1,242	0	0	89	500	27	10	626	\$68,520	1,261
6	145	417	0	0	0	494	0	0	494	\$68,520	2,214
7	0	0	0	0	0	0	0	0	0	\$68,520	11,717
8	0	0	0	0	0	0	0	0	0	\$80,337	9,232
9	0	0	0	0	0	0	0	0	0	\$74,671	4,148
10	927	2,262	0	0	2	95	120	30	246	\$74,671	1,368
11	988	2,188	0	0	0	64	7	15	86	\$63,516	727
12	399	862	0	0	16	219	0	2	237	\$71,111	559
13	199	436	0	0	0	17	0	0	17	\$71,111	390
14	548	1,075	0	0	84	786	3	37	910	\$60,700	368
15	378	972	907	0	150	165	6	10	331	\$47,344	243
16	560	1,255	551	0	0	47	3	4	54	\$77,500	182
17	653	1,522	0	0	0	107	26	11	145	\$73,750	6,289
18	696	1,640	0	0	2	132	4	13	150	\$94,412	362
19	337	851	0	0	0	113	27	1	142	\$60,972	1,252
20	195	595	1,200	0	0	318	0	0	318	\$49,050	300
21	213	582	0	0	0	89	4	7	100	\$80,337	422
22	46	118	0	0	0	52	0	0	52	\$80,337	2,361
23	92	252	0	0	0	11	0	0	11	\$58,125	453
24	348	821	0	0	20	167	0	0	187	\$58,125	398
25	67	152	0	0	23	13	0	0	35	\$58,125	504
26	1,037	1,990	0	0	4	105	12	3	124	\$60,972	1,259
27	5	16	0	0	0	0	0	0	0	\$43,333	797
28	814	2,062	0	0	0	95	19	4	118	\$126,528	2,735
29	105	217	0	0	0	6	0	0	6	\$95,000	2,656
30	1,229	2,917	0	0	1	164	39	20	224	\$115,089	3,988

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
31	0	0	0	0	0	0	0	0	0	\$141,324	11,921
32	0	0	0	0	0	0	0	0	0	\$109,489	5,280
33	1,201	2,679	0	0	12	291	4	4	311	\$109,489	3,428
34	501	920	0	0	80	566	44	1	691	\$95,000	2,992
35	342	779	989	0	0	86	0	20	106	\$61,458	438
36	310	767	0	0	0	40	3	4	47	\$78,702	298
37	174	425	0	0	28	178	0	0	206	\$42,083	203
38	32	51	0	0	0	0	0	0	0	\$43,333	233
39	134	238	0	0	2	73	0	0	74	\$43,333	264
40	421	1,369	450	0	0	330	0	0	330	\$80,313	215
41	1,016	2,767	0	0	71	90	66	15	242	\$47,849	316
42	120	411	737	0	0	65	0	0	65	\$38,750	60
43	210	912	0	0	0	66	0	0	66	\$38,750	56
44	302	982	0	0	0	3	0	1	4	\$44,500	165
45	161	368	0	0	0	18	0	0	18	\$27,409	70
46	246	515	0	0	4	10	8	28	49	\$27,409	90
47	223	519	0	0	0	58	0	0	58	\$49,375	136
48	123	308	0	0	0	0	0	0	0	\$49,375	103
49	168	352	0	0	0	49	0	1	51	\$40,096	95
50	264	382	486	0	48	847	80	0	974	\$40,096	484
51	0	0	0	0	0	0	0	0	0	\$38,750	110
52	0	0	0	0	19	18	0	0	36	\$38,750	106
53	109	213	0	0	12	149	0	0	161	\$40,292	84
54	0	0	0	0	0	1,005	0	0	1,005	\$40,292	72
55	0	0	0	0	20	202	0	0	222	\$40,292	162
56	0	0	0	0	9	131	0	0	140	\$40,292	75
57	0	0	0	0	0	2	2	0	4	\$31,042	83
58	226	599	0	0	0	21	3	0	25	\$40,292	134
59	7	15	0	0	8	167	0	14	189	\$31,042	13
60	268	748	482	0	11	44	0	3	58	\$45,500	145
61	189	522	1,338	0	0	135	0	0	135	\$45,500	97
62	279	599	0	0	0	0	24	57	81	\$61,510	402

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
63	388	1,033	0	0	16	49	0	12	77	\$76,406	416
64	454	1,219	0	0	547	307	0	14	868	\$76,406	959
65	111	345	137	0	0	99	21	0	121	\$76,406	737
66	335	905	0	0	0	0	0	0	0	\$61,458	2,407
67	460	1,441	0	0	5	29	0	15	50	\$45,083	555
68	123	266	0	0	1	10	14	0	24	\$50,665	179
69	242	508	0	0	0	71	0	49	120	\$50,665	598
70	443	986	0	0	0	178	3	34	215	\$52,576	1,650
71	659	1,423	0	0	0	1,017	0	14	1,032	\$101,912	6,183
72	0	0	0	0	0	0	0	0	0	\$67,250	14,765
73	0	0	0	0	0	0	0	0	0	\$67,250	19,727
74	0	0	0	0	0	0	0	0	0	\$67,250	7,740
75	0	0	0	0	0	0	0	0	0	\$67,250	8,737
76	0	0	0	0	0	0	0	0	0	\$67,250	2,237
77	0	0	0	0	0	0	0	0	0	\$38,631	2,996
78	509	1,571	0	0	0	34	1	10	45	\$52,366	1,073
79	274	652	0	0	0	11	0	0	11	\$73,750	117
80	1,199	3,175	0	0	0	157	16	28	200	\$73,750	666
81	500	1,306	0	0	0	20	0	14	34	\$74,671	290
82	229	553	238	0	0	20	6	0	26	\$63,516	239
83	284	590	0	0	37	72	5	3	117	\$60,700	123
84	46	177	0	0	0	22	0	0	22	\$71,111	275
85	471	1,114	1,921	0	0	353	0	0	353	\$49,050	140
86	563	1,780	0	0	254	579	1	0	834	\$49,050	224
87	274	547	0	0	28	3,589	16	0	3,632	\$31,042	215
101	187	355	0	0	0	40	23	0	63	\$101,250	432
102	206	588	0	0	0	6	0	0	6	\$40,222	488
103	271	728	0	0	41	672	60	250	1,023	\$40,222	129
104	38	100	0	0	0	738	8	0	746	\$101,250	1,878
105	46	120	0	0	0	0	98	0	98	\$101,250	23
106	521	1,421	0	0	35	30	0	0	65	\$40,222	105
107	281	813	1,054	0	0	88	0	0	88	\$23,000	136

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
108	0	0	0	0	0	27	0	0	27	\$35,938	433
109	196	578	0	0	12	10	0	0	22	\$33,523	70
110	383	1,048	0	0	32	28	29	3	92	\$33,523	298
111	426	1,110	0	0	0	9	0	0	9	\$23,429	120
112	223	599	0	0	0	6	0	0	6	\$24,954	51
113	305	682	0	0	46	154	2	0	202	\$39,213	70
114	140	363	0	0	5	112	0	0	116	\$24,954	20
115	245	537	0	0	81	61	3	0	145	\$24,954	33
116	499	1,186	530	0	46	785	29	10	871	\$53,654	287
117	109	342	0	0	49	266	48	34	397	\$53,654	80
118	38	99	0	0	52	151	18	74	295	\$36,875	23
119	86	269	984	0	0	82	0	0	82	\$53,654	73
120	193	529	0	0	4	104	0	51	159	\$36,875	103
121	200	1,641	0	0	0	136	0	0	136	\$43,333	171
122	89	457	0	4,836	0	298	0	0	298	\$31,875	117
123	209	1,229	253	0	88	22	0	0	110	\$31,875	103
124	366	1,332	1,878	0	0	250	0	0	250	\$46,125	172
125	0	0	0	0	0	0	0	0	0	\$46,125	29
126	625	1,878	0	0	16	11	0	1	29	\$46,111	230
127	301	826	756	0	36	67	0	7	109	\$29,821	134
128	125	291	0	0	23	12	0	0	34	\$41,400	51
129	60	166	0	0	519	342	4	11	876	\$41,400	116
130	144	341	0	0	0	387	11	0	398	\$39,213	42
131	75	216	0	0	530	30	17	0	578	\$24,878	76
132	266	496	0	0	0	84	3	0	88	\$24,878	38
133	229	519	0	0	0	5	0	0	5	\$0	50
134	101	206	0	0	0	0	0	0	0	\$0	37
135	44	107	0	0	11	18	0	0	29	\$0	25
136	88	223	0	0	0	0	0	24	24	\$24,878	32
137	126	325	0	0	15	0	0	10	25	\$31,957	40
138	331	797	0	0	0	11	0	0	11	\$31,957	48
139	0	0	0	0	0	0	0	0	0	\$31,957	56

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
140	0	0	0	0	0	0	0	0	0	\$18,750	72
141	265	784	0	0	0	0	0	0	0	\$37,321	53
142	5	16	927	0	0	79	0	0	79	\$31,957	222
143	0	0	0	0	24	14	117	3	158	\$101,250	454
144	0	0	0	0	0	542	0	0	542	\$101,250	85
145	230	600	0	0	0	226	0	0	226	\$101,250	40
146	46	127	0	0	15	26	177	7	225	\$101,250	47
147	69	212	0	0	0	209	0	0	209	\$55,729	18
148	212	680	0	0	0	365	0	0	365	\$0	21
149	38	100	0	0	17	168	0	0	185	\$101,250	96
150	151	438	287	0	3	568	3	8	581	\$77,750	97
151	29	90	635	0	0	55	37	60	152	\$18,750	47
152	200	534	571	0	9	69	1	0	78	\$18,750	88
153	87	217	0	0	0	10	0	0	10	\$31,957	14
154	179	460	0	0	3	0	0	0	3	\$18,750	22
155	163	404	0	0	32	969	0	0	1,001	\$18,750	38
156	118	282	0	0	0	0	0	0	0	\$18,750	12
157	135	222	0	0	0	9	0	0	9	\$26,346	35
158	132	263	0	0	0	0	0	0	0	\$26,346	27
159	124	308	0	0	5	20	0	0	25	\$30,132	35
160	249	612	0	0	0	41	0	0	41	\$21,500	52
161	220	599	0	0	0	25	0	0	25	\$30,938	38
162	396	931	0	0	3	0	0	0	3	\$30,938	62
163	304	1,006	200	0	0	20	0	0	20	\$45,764	54
164	176	418	0	0	3	0	0	0	3	\$30,132	40
165	162	344	531	0	0	45	10	0	55	\$26,346	41
166	75	220	0	0	0	0	9	16	25	\$30,461	21
167	70	156	0	0	0	0	0	0	0	\$34,911	16
168	106	234	0	0	3	0	0	0	3	\$34,911	27
169	303	982	0	0	0	7	0	119	127	\$23,125	41
170	623	1,638	0	0	198	434	0	0	632	\$19,890	187
171	460	971	0	0	2	0	0	4	5	\$23,125	71

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
172	265	667	0	0	8	0	2	26	36	\$24,500	49
173	167	371	0	0	0	7	0	0	7	\$24,500	28
174	253	635	0	0	21	11	0	10	42	\$46,250	39
175	104	317	0	0	221	315	4	38	578	\$31,378	117
176	0	0	0	0	3	0	0	0	3	\$45,060	81
177	154	330	536	0	56	44	0	0	100	\$82,614	36
178	54	141	0	0	0	9	0	0	9	\$82,614	18
179	72	141	0	0	0	2	0	0	2	\$76,071	19
180	148	346	0	0	0	28	23	0	51	\$76,071	35
181	72	191	0	0	0	0	0	0	0	\$76,071	19
182	84	176	0	0	0	55	0	0	55	\$76,071	21
183	49	228	0	508	60	35	0	0	94	\$21,818	23
184	202	712	0	1,406	14	192	0	0	206	\$21,818	61
185	97	211	0	0	0	31	0	0	31	\$74,792	27
186	120	274	0	0	0	7	0	0	7	\$74,792	23
187	203	455	744	0	0	63	0	18	81	\$80,431	42
188	103	221	1,046	0	0	88	0	0	88	\$80,431	26
189	123	280	0	0	0	4	0	0	4	\$82,614	19
190	235	530	0	0	31	30	0	0	61	\$82,614	42
191	379	795	0	0	0	8	2	12	22	\$45,060	87
192	325	945	0	0	5	28	0	3	36	\$31,378	63
193	237	653	0	0	0	27	0	0	27	\$20,029	69
194	123	332	0	0	0	52	3	35	90	\$20,029	47
195	169	174	0	0	7	5,597	0	0	5,604	\$12,917	84
197	176	457	0	0	7	229	12	15	264	\$12,917	115
198	451	1,181	0	0	6	188	30	135	358	\$35,938	209
199	251	692	0	0	9	203	0	0	212	\$36,875	130
200	0	0	0	0	0	0	0	0	0	\$80,337	1,454
201	199	408	253	0	0	37	3	8	48	\$82,614	37
202	199	411	0	0	3	46	0	0	49	\$62,778	56
203	154	317	0	0	0	3	0	0	3	\$74,464	34
204	331	746	0	0	0	5	2	0	7	\$74,464	66

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
205	193	384	0	0	0	75	0	0	75	\$74,792	36
206	164	367	0	0	0	4	0	0	4	\$74,792	44
207	251	654	0	0	26	83	43	63	216	\$21,818	66
208	578	1,533	0	0	43	85	0	0	128	\$18,843	283
209	137	447	0	0	26	468	78	8	580	\$31,250	53
210	205	502	0	0	3	62	0	0	65	\$42,896	63
211	136	429	0	0	0	3	0	0	3	\$82,361	46
212	131	539	0	0	110	28	0	0	139	\$82,361	37
213	253	564	647	0	66	69	0	0	135	\$62,778	67
214	121	247	0	0	0	0	0	0	0	\$62,778	32
215	102	185	0	0	0	396	4	0	400	\$62,778	38
216	55	116	735	0	67	159	2	0	228	\$62,778	56
217	30	67	0	0	107	1,095	51	0	1,253	\$46,654	49
218	1	3	0	0	67	181	0	0	248	\$46,654	11
219	33	66	0	0	21	320	1	5	347	\$46,654	21
220	0	0	0	0	0	2,567	0	0	2,567	\$46,654	31
221	83	179	0	0	0	0	0	14	14	\$46,654	23
222	90	125	0	0	23	899	0	0	922	\$46,654	36
223	86	181	0	0	0	60	0	0	60	\$46,654	32
224	75	144	146	0	21	227	0	0	248	\$46,654	39
225	115	261	0	0	8	66	0	0	73	\$42,896	66
226	137	410	0	0	0	203	54	0	257	\$31,250	50
227	311	922	510	0	0	50	11	0	61	\$33,438	148
228	39	868	0	0	9	2,865	0	0	2,874	\$42,333	387
229	209	583	0	0	43	33	0	13	88	\$27,396	49
230	0	0	0	0	232	663	28	0	922	\$77,750	53
231	358	943	0	0	0	627	3	0	630	\$54,464	192
232	106	167	0	0	301	254	2	0	556	\$54,464	27
233	324	661	752	0	23	238	0	0	261	\$71,917	139
234	67	160	0	0	0	0	0	0	0	\$77,750	46
235	39	103	0	0	0	0	0	0	0	\$77,750	20
236	45	84	20	0	1	438	17	26	482	\$77,750	35

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
237	16	35	0	0	13	1,373	6	8	1,400	\$77,750	51
238	226	384	0	0	28	70	0	0	98	\$27,396	55
239	236	748	0	3,543	0	114	0	10	124	\$42,333	132
240	293	1,300	0	0	0	0	0	0	0	\$42,333	166
241	23	50	0	0	193	629	26	6	854	\$26,250	53
242	11	25	0	0	97	439	0	0	535	\$26,250	26
243	126	216	109	0	98	3,510	137	68	3,814	\$26,250	162
244	23	50	0	80	584	1,886	10	0	2,480	\$26,250	75
245	13	28	0	0	18	82	3	0	104	\$26,250	17
246	23	50	0	0	254	361	0	5	621	\$26,250	34
247	1	2	0	0	1,534	1,399	17	0	2,949	\$44,893	83
248	499	766	0	1,780	2	1,077	9	6	1,095	\$31,042	73
249	159	490	0	0	25	571	1	31	628	\$44,893	84
250	92	333	0	0	15	452	5	9	481	\$44,893	41
251	23	50	0	0	377	1,133	52	21	1,583	\$44,893	57
252	23	50	0	0	429	178	3	0	610	\$44,893	23
253	139	548	863	296	20	13,817	283	1	14,121	\$42,333	4,819
254	557	1,472	0	0	29	63	0	18	111	\$26,667	276
255	506	1,638	823	0	8	645	0	5	659	\$41,719	119
256	493	1,355	779	0	0	125	0	0	125	\$44,250	207
257	654	1,565	0	0	26	100	0	1	128	\$47,431	632
258	235	527	0	0	114	605	1	0	720	\$31,568	80
259	126	309	0	0	136	241	0	0	377	\$21,782	36
260	580	1,330	0	0	0	14	0	0	14	\$21,782	66
261	753	1,923	928	0	0	81	0	3	85	\$39,545	259
262	420	1,123	17	0	4	2	5	0	10	\$33,229	123
263	177	521	0	0	527	675	0	2	1,204	\$60,588	162
264	454	1,501	0	0	3	53	6	0	62	\$52,917	196
265	741	1,907	0	0	0	474	0	21	494	\$36,569	174
266	193	505	0	0	0	29	0	5	34	\$38,631	102
267	61	200	0	0	16	337	0	0	352	\$45,812	40
268	477	1,297	0	0	12	3	0	0	15	\$24,348	54

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
269	221	355	0	0	0	60	0	0	60	\$38,631	84
270	0	0	0	603	470	52	0	0	522	\$38,631	87
271	185	389	0	0	358	252	0	0	610	\$24,348	33
272	89	190	0	0	699	336	11	2	1,048	\$38,631	1,469
273	412	2,183	0	0	57	109	0	0	166	\$45,812	170
274	0	0	0	9,000	0	247	0	0	247	\$45,812	62
275	560	1,603	1,330	0	0	149	17	0	166	\$45,812	217
276	239	561	0	0	395	174	0	0	569	\$45,812	60
277	755	2,181	0	0	0	16	0	0	16	\$66,319	834
278	281	736	0	0	0	24	0	0	24	\$70,547	512
279	597	1,471	0	0	0	172	0	5	177	\$55,000	266
280	589	1,890	1,090	0	0	95	0	1	96	\$50,012	327
281	818	2,276	850	0	266	294	1	13	574	\$53,750	290
282	331	674	0	0	3	16	0	3	22	\$35,625	137
283	50	98	0	0	0	0	0	0	0	\$35,625	268
284	45	111	0	0	0	0	0	0	0	\$67,250	176
285	497	1,175	0	0	0	109	0	10	119	\$67,250	5,336
286	265	532	0	0	34	1,581	19	52	1,685	\$26,250	82
288	20	67	0	0	0	936	0	11	947	\$44,893	25
289	7	20	0	0	25	32	0	7	64	\$26,667	18
290	79	250	0	0	172	325	14	2	513	\$41,719	31
291	135	257	0	0	273	304	0	16	593	\$14,940	64
292	746	1,655	0	0	232	523	26	0	781	\$30,639	159
293	211	464	0	0	164	495	18	0	677	\$33,229	90
294	519	1,133	0	0	0	14	0	0	14	\$31,848	51
295	227	667	121	0	209	2,100	0	7	2,316	\$49,079	152
296	355	905	0	0	0	17	0	15	33	\$70,547	534
297	111	260	845	0	3	75	13	0	92	\$35,776	66
298	230	675	0	0	0	24	0	0	24	\$66,319	164
300	54	111	0	0	0	0	0	0	0	\$0	328
301	43	100	0	0	0	25	13	133	171	\$0	935
302	0	0	0	0	0	0	0	0	0	\$0	79

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
303	43	100	0	0	0	555	0	0	555	\$0	214
305	0	0	0	0	0	0	13	0	13	\$0	100
306	0	0	0	1,282	5	43	3	0	51	\$4,357	50
307	0	0	0	115	0	39	31	8	78	\$4,357	11
308	0	0	0	0	49	207	0	0	257	\$51,250	50
309	0	0	0	0	69	403	238	0	711	\$51,250	9
310	1	1	0	0	126	1,747	32	0	1,905	\$51,250	9
311	0	0	0	0	3	91	0	0	94	\$51,250	2
312	13	28	0	0	3	670	0	0	673	\$51,250	11
313	19	74	0	0	126	1,160	3	0	1,289	\$51,250	11
314	50	84	0	0	165	1,180	55	19	1,420	\$51,250	13
315	0	0	0	0	173	2,629	406	19	3,227	\$51,250	12
316	9	93	0	0	18	2,466	2	6	2,493	\$51,250	13
317	31	58	0	0	116	821	0	0	937	\$51,250	10
318	50	79	0	259	0	263	0	10	273	\$55,729	11
319	79	109	0	0	0	353	13	5	372	\$55,729	12
320	51	75	0	0	0	495	0	3	498	\$51,250	11
321	86	137	0	75	5	453	0	15	473	\$51,250	13
322	43	75	0	0	190	1,153	23	28	1,393	\$51,250	13
323	21	34	0	0	29	1,395	9	0	1,433	\$51,250	14
324	24	44	0	0	18	144	6	0	168	\$51,250	6
325	0	0	0	0	0	1,257	0	0	1,257	\$51,250	6
326	99	446	0	636	16	286	45	5	352	\$4,357	41
327	150	1,078	0	0	4	20	0	0	24	\$4,357	26
328	1	597	0	1,197	0	101	0	0	101	\$13,636	22
329	0	0	0	0	60	82	3	0	145	\$51,250	7
331	45	456	0	0	0	46	0	0	46	\$51,250	14
332	49	82	0	0	0	71	2	31	104	\$51,250	6
333	100	118	124	0	37	687	0	24	747	\$55,729	13
334	69	93	0	0	130	256	0	0	386	\$55,729	7
335	31	39	43	0	0	9	0	0	9	\$55,729	13
336	67	110	0	0	0	8	0	0	9	\$55,729	6

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
337	74	219	0	0	2	132	0	87	220	\$55,729	12
338	159	301	0	0	0	231	12	0	243	\$35,776	12
339	115	212	0	0	0	147	0	0	147	\$43,182	12
340	112	169	386	0	0	151	2	0	153	\$43,182	14
341	55	96	0	780	0	609	0	0	609	\$43,182	7
342	20	44	0	0	12	811	0	0	823	\$39,375	8
343	87	205	0	0	7	59	1	0	66	\$39,375	14
344	29	54	0	0	1	51	2	0	54	\$39,375	5
345	27	60	0	0	21	43	0	0	65	\$39,375	7
346	41	193	0	0	0	54	0	0	54	\$39,375	6
347	34	75	0	0	0	116	0	4	120	\$39,375	7
348	130	246	0	163	21	222	0	0	243	\$39,375	15
349	43	82	0	0	28	85	0	0	113	\$39,375	8
350	71	108	0	0	0	296	0	2	298	\$43,182	7
351	156	276	0	0	0	61	12	0	73	\$43,182	14
352	298	383	0	0	0	145	0	0	145	\$43,182	12
353	240	465	0	74	0	67	6	0	73	\$35,776	19
354	206	492	0	0	0	19	3	0	22	\$35,776	15
355	149	334	0	0	13	16	0	0	30	\$17,083	16
356	288	495	0	95	0	561	2	8	570	\$17,083	19
357	0	0	0	0	0	0	0	0	0	\$39,750	34
358	182	331	0	0	4	114	0	5	123	\$39,750	18
359	61	109	0	0	5	135	0	0	140	\$39,750	9
360	21	46	0	0	21	37	0	0	58	\$39,750	9
361	49	117	0	0	0	49	0	0	49	\$39,750	7
362	76	135	0	0	9	1	5	0	16	\$39,750	6
363	146	285	0	0	0	138	25	0	162	\$39,750	15
364	153	395	0	0	0	131	0	0	131	\$17,083	16
365	107	317	0	0	220	8	0	1	228	\$17,083	13
366	199	499	0	0	0	30	0	0	30	\$28,125	22
367	170	423	0	822	13	55	0	0	68	\$14,978	21
368	67	141	0	0	0	15	13	0	28	\$14,978	7

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
369	59	87	0	0	71	126	0	0	197	\$14,978	8
370	32	74	0	0	21	78	0	1	101	\$19,917	7
371	227	499	0	396	12	63	0	0	75	\$19,917	22
372	23	57	0	0	11	11	0	0	22	\$19,917	7
373	39	111	0	0	13	0	0	0	13	\$19,917	8
374	206	616	0	0	3	20	0	0	23	\$19,917	26
375	14	35	200	0	31	63	0	0	94	\$19,917	8
376	32	74	0	0	0	300	0	23	323	\$14,978	10
377	36	52	0	0	0	294	0	0	294	\$14,978	9
378	241	616	0	0	7	151	0	0	157	\$14,978	25
379	94	187	0	0	0	0	0	0	0	\$28,125	15
380	79	263	0	0	0	20	0	0	20	\$30,461	20
381	223	276	0	906	3	74	0	0	77	\$13,525	15
382	28	68	0	0	8	53	0	0	61	\$13,525	8
383	23	46	0	2,339	0	394	0	0	394	\$13,525	9
384	72	172	0	0	0	161	0	0	161	\$26,121	7
385	165	368	0	0	9	30	0	0	40	\$26,121	22
386	37	92	0	0	14	0	0	0	14	\$26,121	8
387	16	34	0	0	0	0	0	0	0	\$26,121	5
388	111	251	200	0	3	106	0	0	109	\$26,121	15
389	30	59	0	0	0	27	0	0	27	\$26,121	5
390	51	110	0	0	6	53	0	0	59	\$13,525	6
391	217	568	0	0	48	59	0	9	116	\$46,250	38
392	123	233	0	0	80	85	6	0	171	\$13,525	28
393	55	111	0	0	12	129	0	0	142	\$13,525	14
394	45	139	0	0	8	109	0	0	116	\$13,525	12
395	42	97	0	0	8	162	11	0	180	\$26,121	8
396	166	348	0	0	26	11	16	0	54	\$26,121	28
397	40	98	0	0	9	0	0	0	9	\$26,121	9
401	0	0	0	0	0	0	10	0	10	\$0	2,005
402	0	0	0	0	0	0	0	0	0	\$0	149
403	0	0	0	0	0	0	166	0	166	\$0	64

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
404	0	0	0	0	0	24	334	0	358	\$0	210
405	0	0	0	0	0	0	9	0	9	\$0	96
406	250	787	0	0	101	596	66	1	765	\$23,289	110
407	141	423	0	0	0	97	40	0	138	\$23,289	61
408	103	309	0	0	9	0	96	0	105	\$23,289	56
409	0	0	0	0	0	88	1,426	4	1,518	\$0	84
410	0	0	0	0	0	0	0	0	0	\$0	344
411	0	0	0	0	4	0	156	0	160	\$0	607
412	0	0	0	0	0	2,656	124	0	2,781	\$0	475
413	0	0	0	0	0	947	0	0	947	\$44,271	87
414	132	311	0	0	2	11	2	4	18	\$44,271	124
415	110	256	0	0	31	49	54	18	151	\$36,250	127
416	341	868	0	0	3	145	0	0	148	\$36,250	170
417	206	418	0	0	9	202	0	9	220	\$0	166
418	137	339	0	0	103	185	282	30	599	\$0	155
419	44	127	0	0	9	0	5	0	14	\$23,289	32
420	170	512	748	0	0	67	10	0	77	\$22,316	69
421	643	1,637	0	0	0	42	7	0	49	\$16,397	147
422	262	657	0	0	0	22	41	0	63	\$16,397	74
423	29	486	0	0	0	777	57	293	1,127	\$4,357	177
424	74	566	0	0	74	127	15	9	224	\$13,636	40
425	111	309	905	0	15	79	5	0	99	\$13,636	38
426	253	743	0	0	0	183	0	0	183	\$11,993	34
427	321	1,097	0	0	0	609	179	0	787	\$13,636	97
428	53	149	0	0	0	0	0	0	0	\$13,636	35
429	31	105	0	0	0	16	19	41	77	\$13,636	64
430	88	236	0	0	5	32	10	10	57	\$13,636	38
431	108	281	0	0	3	0	20	0	23	\$13,636	84
432	4	7	0	0	3	21	119	0	144	\$13,636	108
433	0	0	0	0	11	0	58	29	98	\$13,636	65
435	392	1,103	0	0	0	189	428	12	629	\$28,684	235
436	258	529	0	0	0	1	0	0	1	\$23,235	51

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
437	139	370	0	0	0	0	0	0	0	\$23,235	33
438	98	227	0	0	7	0	0	0	7	\$23,235	25
439	87	253	0	0	0	19	0	0	19	\$11,993	53
440	0	0	952	0	0	326	0	0	326	\$11,993	96
441	300	914	0	0	0	28	0	0	28	\$11,993	42
442	412	1,105	0	0	3	434	0	0	437	\$11,993	59
443	569	1,556	0	0	3	1	3	0	7	\$27,963	72
444	375	956	0	0	0	30	0	0	30	\$27,000	82
445	1	1	0	508	46	43	0	0	89	\$21,818	12
446	287	704	0	0	0	6	0	0	6	\$19,432	82
447	215	573	137	0	0	15	0	35	50	\$0	59
448	123	438	1,211	0	0	90	6	0	96	\$26,953	72
449	0	0	0	0	0	1,133	202	344	1,678	\$26,953	95
450	0	0	0	0	0	0	0	0	0	\$40,474	57
451	757	1,909	814	0	0	69	0	0	69	\$40,474	344
452	1	2	0	0	0	5	0	0	5	\$11,993	123
453	50	169	0	0	28	0	0	0	28	\$0	89
454	1	2	0	0	0	0	764	106	870	\$0	71
455	168	524	0	0	2	44	14	0	59	\$0	117
457	13	21	0	0	34	269	270	138	711	\$0	105
458	10	33	0	0	18	232	135	0	386	\$26,953	41
459	239	915	0	1,317	0	112	0	3	115	\$26,953	200
461	90	284	0	0	0	347	9	58	414	\$26,953	60
462	260	813	0	0	0	0	0	0	0	\$29,435	172
463	284	825	0	0	0	0	0	0	0	\$29,435	97
464	267	630	0	0	9	31	4	15	59	\$34,267	157
465	295	767	343	0	8	42	8	8	65	\$34,267	165
466	17	54	0	0	9	19	4	6	39	\$34,267	95
467	246	674	0	0	0	0	0	0	0	\$17,652	279
468	701	2,055	0	0	0	43	0	0	43	\$40,000	201
469	33	73	0	0	0	0	0	0	0	\$40,000	81
470	0	0	0	0	4	108	132	7	251	\$40,000	123

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
471	75	197	0	0	0	21	2	0	23	\$40,000	171
472	24	56	0	0	0	81	33	76	191	\$40,000	144
473	0	0	0	0	0	171	0	8	179	\$0	52
474	464	721	0	0	348	3,005	519	215	4,086	\$36,630	960
475	0	0	0	0	0	0	1	0	1	\$36,630	123
476	24	71	0	0	7	67	228	16	319	\$40,000	203
477	0	0	0	0	0	628	150	206	985	\$27,518	301
478	0	0	0	0	0	50	50	0	100	\$27,518	170
479	6	16	0	0	276	357	584	140	1,356	\$27,518	312
480	0	0	0	0	9	69	3	0	81	\$27,518	149
481	0	0	0	0	0	3	0	0	3	\$41,583	25
482	3	6	0	0	6	17	160	0	183	\$41,583	108
483	156	553	0	0	0	146	166	35	347	\$41,583	106
484	22	70	0	0	0	60	0	114	174	\$41,583	71
485	151	470	641	0	74	134	69	0	276	\$41,583	115
487	48	160	0	0	0	0	0	0	0	\$41,583	35
489	14	36	0	0	0	83	0	0	83	\$41,583	55
491	62	154	0	0	38	20	0	0	58	\$34,706	66
492	203	561	0	0	97	285	59	50	491	\$34,706	199
493	636	1,604	0	0	138	40	35	24	237	\$24,730	211
494	129	314	819	0	0	466	0	0	466	\$45,682	86
495	197	460	437	0	8	51	42	0	100	\$45,682	80
501	0	0	0	0	0	0	0	0	0	\$77,325	2,681
502	0	0	0	0	0	1,712	0	2,263	3,975	\$49,931	473
504	0	0	0	0	0	10	7	0	17	\$49,931	342
505	230	576	0	0	6	79	19	4	108	\$49,931	171
506	43	107	0	0	0	0	602	43	645	\$35,944	293
507	188	453	0	0	28	118	1	0	147	\$35,944	347
510	236	614	641	0	11	533	75	16	635	\$49,931	554
511	0	0	0	0	3	284	74	0	361	\$49,931	218
512	24	44	0	0	0	83	0	0	83	\$49,931	472
513	142	376	0	0	5	15	18	0	37	\$77,325	587

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
514	0	0	0	0	0	0	0	0	0	\$77,325	4,179
515	1	1	0	0	0	0	417	1	418	\$77,325	4,163
516	0	0	0	0	0	64	200	0	265	\$77,325	685
517	42	123	0	0	31	0	1	0	32	\$77,325	888
518	0	0	0	0	0	609	26	0	636	\$77,325	726
519	0	0	0	0	0	250	34	43	327	\$77,325	270
520	0	0	0	0	23	179	167	75	444	\$77,325	176
521	0	0	0	0	40	165	301	117	623	\$77,325	109
522	202	487	0	0	0	16	0	0	16	\$40,840	576
523	165	371	0	0	0	347	56	42	445	\$40,840	908
524	806	1,693	978	0	56	705	209	173	1,143	\$40,840	327
525	173	359	0	0	0	48	6	0	54	\$40,840	67
526	66	122	0	0	82	721	193	103	1,099	\$40,840	241
527	55	106	0	0	9	700	60	0	768	\$40,840	142
528	234	500	0	0	0	0	2	0	2	\$40,840	533
529	0	0	0	0	0	141	29	0	170	\$77,325	196
530	0	0	0	0	0	1,823	7,057	10	8,890	\$77,325	153
531	0	0	0	0	288	263	4,400	0	4,951	\$77,325	2,558
532	0	0	0	0	0	7	0	0	7	\$77,325	244
533	0	0	0	0	32	2,125	16	0	2,173	\$77,325	642
534	15	32	0	0	116	2,138	52	880	3,187	\$77,325	1,603
535	37	80	0	0	158	798	314	145	1,416	\$45,363	594
536	26	58	0	0	143	481	12	18	654	\$45,363	141
537	0	0	0	0	291	296	1,596	217	2,400	\$45,363	326
538	0	0	0	0	0	0	0	0	0	\$45,363	355
539	4	10	0	0	0	104	1,076	1	1,181	\$45,363	299
540	4	10	0	0	281	487	171	56	995	\$63,764	361
541	121	322	0	0	3	115	170	7	295	\$63,764	1,013
542	0	0	0	0	10	354	565	0	930	\$63,764	1,646
543	18	38	0	0	0	129	216	0	345	\$63,764	146
544	193	902	0	0	34	509	134	282	958	\$32,219	481
545	45	174	0	0	21	106	7	0	134	\$32,219	172

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
546	71	183	0	0	179	241	40	63	523	\$27,518	297
547	309	1,050	1,334	0	75	257	76	143	551	\$27,518	1,050
548	368	647	0	0	349	4,304	263	410	5,326	\$36,630	951
549	266	547	1,094	0	0	109	0	12	121	\$36,630	788
550	165	351	0	0	8	180	25	8	221	\$36,630	986
551	924	2,371	0	0	0	728	0	76	805	\$82,754	1,061
552	15	40	0	0	0	0	0	0	0	\$82,754	1,025
553	1,815	5,439	0	0	0	315	0	5	321	\$57,731	1,767
554	1,178	3,416	0	0	210	270	7	47	535	\$82,754	1,231
555	477	1,516	0	0	0	7	0	1	8	\$57,731	308
556	534	1,633	0	0	12	90	0	0	102	\$47,132	834
557	58	154	0	0	0	30	0	0	30	\$47,132	814
558	788	1,996	144	0	17	827	2	0	846	\$47,132	1,188
559	73	228	0	0	0	124	0	0	124	\$22,386	201
560	138	382	0	0	20	21	0	13	53	\$22,386	173
561	282	760	0	0	37	46	0	35	118	\$0	505
562	31	81	0	0	32	8	0	0	39	\$40,000	333
563	106	269	381	0	0	35	0	3	38	\$40,000	1,190
564	119	300	0	0	29	21	0	8	59	\$22,386	797
565	738	1,887	0	0	21	111	4	40	177	\$64,135	1,311
566	342	812	0	0	17	56	0	1	75	\$64,135	809
567	24	74	0	0	126	116	0	0	241	\$23,281	422
568	138	401	0	0	0	20	0	5	25	\$56,053	516
569	78	200	0	0	0	21	0	61	82	\$40,000	368
570	29	67	0	0	0	0	0	0	0	\$40,000	206
571	112	266	0	0	0	12	0	0	12	\$17,652	290
572	91	250	0	0	0	0	0	0	0	\$45,363	960
573	0	0	0	0	0	0	0	0	0	\$77,325	85
574	9	25	0	0	0	0	0	0	0	\$64,135	473
601	241	690	818	0	83	121	0	24	228	\$77,325	1,867
602	199	460	0	0	115	314	0	0	429	\$77,325	363
603	332	835	0	0	0	61	0	0	61	\$77,325	519

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
605	933	2,694	0	0	0	45	0	0	45	\$77,325	777
606	26	69	0	0	0	0	0	0	0	\$77,325	195
607	38	101	0	0	9	45	0	0	54	\$77,325	981
608	32	73	0	0	0	13	0	0	13	\$77,325	245
609	582	1,814	0	0	0	73	0	0	73	\$77,325	618
610	1,813	4,886	1,678	0	0	190	11	69	270	\$77,325	2,802
611	545	1,624	0	0	0	0	5	0	5	\$77,325	1,045
612	286	767	0	0	0	35	2	42	80	\$44,103	1,812
613	491	1,404	0	0	0	0	7	0	7	\$77,325	406
614	2,385	6,608	0	0	841	2,770	63	2	3,676	\$77,325	1,650
615	101	269	0	0	5	0	0	0	5	\$44,103	670
616	450	1,178	0	0	7	25	15	41	87	\$44,103	739
617	186	469	0	0	133	574	0	8	715	\$48,218	434
618	0	0	0	0	0	0	0	0	0	\$53,125	16
619	970	2,069	0	0	337	2,558	105	131	3,130	\$77,325	433
620	501	1,207	0	0	14	276	11	0	302	\$45,363	395
621	589	1,324	643	0	216	358	2	11	587	\$48,218	380
622	377	1,011	0	0	34	341	110	0	485	\$63,764	348
623	618	1,592	0	0	294	752	48	50	1,145	\$54,476	571
624	186	512	0	0	10	9	0	0	20	\$54,476	220
625	333	890	0	0	0	9	0	3	11	\$53,125	479
626	493	1,281	468	0	0	121	52	47	220	\$53,125	272
627	364	980	0	0	0	41	0	89	131	\$44,103	396
628	232	611	0	0	0	0	0	15	15	\$44,103	621
629	56	155	0	0	0	0	0	0	0	\$53,125	725
630	4	8	0	0	0	0	0	0	0	\$53,125	867
631	0	0	0	0	0	0	0	0	0	\$53,125	331
632	71	180	0	0	10	0	0	0	10	\$53,125	344
633	44	115	0	0	0	0	42	16	58	\$53,125	253
634	48	126	0	0	0	0	0	3	3	\$53,125	98
635	229	605	0	0	0	0	0	0	0	\$53,125	644
636	52	131	0	0	0	0	0	0	0	\$53,125	714

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
637	266	714	0	0	0	1	0	1	2	\$53,125	524
638	318	833	0	0	0	25	0	0	25	\$54,476	468
639	644	1,884	0	0	0	8	0	0	8	\$54,476	678
640	578	1,715	2,233	0	5	299	19	3	326	\$54,476	775
641	667	1,903	0	0	0	3	5	0	8	\$54,476	535
642	652	1,856	0	0	0	17	0	8	26	\$63,764	588
643	1,201	3,530	0	0	0	169	1	0	170	\$63,764	996
644	1,030	3,125	0	0	0	11	1	40	52	\$68,750	834
645	862	2,643	0	0	9	86	2	1	98	\$68,750	772
646	241	660	0	0	0	202	0	0	202	\$68,750	1,023
648	690	1,675	0	0	14	285	2	0	301	\$68,750	1,664
649	49	155	0	0	0	0	0	0	0	\$68,750	734
650	119	346	0	0	0	0	0	0	0	\$68,750	740
651	110	325	0	0	0	0	0	0	0	\$68,750	398
652	11	28	0	0	0	0	0	0	0	\$68,750	295
653	140	405	0	0	0	0	0	0	0	\$68,750	280
654	160	480	0	0	0	0	0	0	0	\$68,750	231
655	53	167	0	0	0	11	0	0	11	\$68,750	1,478
656	46	132	0	0	0	0	0	0	0	\$68,750	884
657	25	75	1,692	0	0	144	0	0	144	\$68,750	628
658	39	108	0	0	0	0	0	0	0	\$68,750	1,265
659	147	423	0	0	0	0	0	10	10	\$68,750	1,163
660	167	514	0	269	0	160	0	0	160	\$65,679	1,837
661	175	523	0	0	0	0	0	0	0	\$65,679	1,601
662	163	494	0	0	0	2	0	0	2	\$65,679	1,310
663	118	344	0	0	0	0	0	0	0	\$65,679	574
664	91	304	0	0	0	18	0	0	18	\$65,679	861
665	52	183	0	0	0	0	0	0	0	\$65,679	656
666	81	268	0	0	0	0	0	0	0	\$65,679	270
667	214	735	0	0	0	0	0	11	11	\$65,679	1,286
668	59	192	0	0	0	16	3	1	21	\$65,679	1,424
669	32	112	0	0	81	15	0	0	96	\$65,679	1,739

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
670	484	1,107	0	0	201	179	0	0	380	\$46,517	1,110
671	94	255	1,980	0	41	165	0	13	219	\$46,517	326
672	937	2,680	0	0	6	19	28	23	76	\$46,517	2,559
673	514	1,565	0	0	25	508	0	0	532	\$23,281	920
674	701	1,765	0	0	0	135	0	6	141	\$51,263	367
675	1,415	3,769	0	0	129	217	806	20	1,172	\$39,434	854
676	496	1,223	0	0	3	72	8	0	84	\$49,094	2,638
677	880	2,194	0	0	0	160	1	0	160	\$46,310	232
678	1,484	4,082	877	0	9	267	14	6	296	\$75,260	657
679	465	1,299	0	0	0	4	49	0	53	\$82,000	8,106
680	51	135	0	0	0	0	0	0	0	\$44,103	302
681	922	1,933	97	0	0	160	0	4	164	\$77,325	341
682	0	0	0	0	1,379	280	0	0	1,659	\$77,325	69
683	0	0	0	0	0	0	0	0	0	\$77,325	1,631
684	0	0	0	0	0	67	0	0	67	\$53,125	94
685	37	113	0	0	0	0	0	1	1	\$24,063	666
686	140	409	0	0	0	0	0	18	18	\$24,063	6,279
687	274	743	0	0	27	89	0	0	116	\$24,063	2,568
688	356	1,012	0	0	7	23	75	3	108	\$31,615	3,252
689	544	1,612	0	0	0	20	2	13	35	\$31,615	2,775
690	112	317	0	0	0	0	0	14	14	\$31,615	1,014
691	105	299	0	0	0	0	0	0	0	\$31,615	920
692	165	481	0	0	0	0	0	0	0	\$31,615	1,903
693	39	103	0	0	27	3	7	36	73	\$31,615	3,105
694	263	736	2,130	0	66	217	1	15	299	\$31,615	4,277
695	9	24	0	0	0	0	0	0	0	\$24,063	2,315
696	104	297	0	0	0	0	37	1	39	\$24,063	5,157
697	395	1,132	0	0	12	91	6	0	109	\$24,063	4,225
698	39	102	0	0	12	106	0	6	123	\$57,147	987
699	238	669	0	0	19	963	79	0	1,061	\$57,147	3,584
700	85	241	0	0	0	6	1	0	7	\$57,147	2,163
701	352	1,045	0	0	0	105	0	0	105	\$57,147	4,213

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
702	131	382	0	0	0	0	0	4	4	\$57,147	4,434
703	124	325	0	0	0	0	0	18	18	\$57,147	4,198
704	164	451	0	0	8	11	0	0	19	\$35,857	3,932
705	252	714	0	0	0	8	185	10	202	\$35,857	2,915
706	463	1,262	739	0	51	104	8	6	168	\$35,857	3,265
707	329	963	0	0	8	71	1	35	115	\$45,735	3,007
708	92	263	0	0	0	2	0	8	10	\$45,735	2,240
709	291	880	1,200	0	0	154	228	18	400	\$45,735	1,947
710	91	264	0	0	0	0	0	0	0	\$45,735	1,531
711	228	637	0	0	190	0	16	0	206	\$45,735	972
712	52	138	0	0	25	0	7	0	31	\$45,735	2,186
713	45	108	0	0	0	0	0	0	0	\$45,735	782
714	213	609	0	0	193	4	0	0	197	\$45,735	3,131
715	129	330	0	0	43	8	0	0	51	\$45,735	2,376
716	152	427	0	0	14	71	112	13	209	\$35,857	3,846
717	0	0	0	0	0	0	0	0	0	\$0	109,387
718	261	757	0	0	0	0	0	0	0	\$59,141	1,386
719	105	308	0	0	0	0	0	17	17	\$59,141	1,379
720	228	650	0	0	0	0	0	0	0	\$59,141	3,505
721	113	312	0	0	0	112	3	0	114	\$59,141	289
722	200	612	0	0	0	21	0	10	31	\$59,141	339
723	116	324	0	0	27	34	10	0	71	\$59,141	471
724	134	355	0	0	2	277	0	64	343	\$59,141	480
725	215	615	0	0	0	0	0	0	0	\$59,141	2,607
726	35	100	0	0	0	0	0	0	0	\$59,141	2,601
727	40	115	0	0	0	0	0	0	0	\$59,141	1,551
728	215	615	0	0	238	138	0	0	376	\$59,141	2,124
729	1,034	3,214	0	0	9	116	0	6	131	\$48,115	380
730	787	2,026	5,896	0	322	3,528	108	183	4,140	\$43,438	686
731	402	1,045	0	0	158	319	3	0	479	\$43,438	553
732	289	786	236	0	58	317	0	10	386	\$43,438	670
733	3	10	0	0	28	190	35	86	339	\$86,184	165

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
734	351	1,233	0	0	196	550	44	1	790	\$86,184	1,479
735	405	1,374	0	0	16	584	41	13	654	\$86,184	1,157
736	24	60	0	0	23	257	0	0	280	\$86,184	1,977
737	798	2,397	0	0	0	80	10	11	100	\$107,770	1,738
738	193	482	0	0	0	79	2	0	81	\$93,347	5,996
739	311	847	1,148	0	2	120	4	3	128	\$93,347	6,178
740	393	1,052	0	0	5	470	0	7	483	\$93,347	20,563
741	389	1,125	0	0	0	7	0	13	20	\$93,347	8,080
742	443	1,211	550	0	0	79	4	21	104	\$105,167	2,916
743	915	2,566	0	0	14	240	29	14	296	\$105,167	6,929
744	311	899	0	0	0	20	6	0	25	\$105,167	2,028
745	835	2,681	0	0	0	54	4	13	71	\$105,167	1,786
746	260	750	2,199	0	0	0	0	0	0	\$105,167	1,892
747	130	379	0	0	0	0	0	0	0	\$105,167	967
748	260	750	0	0	0	0	0	0	0	\$66,845	2,203
749	206	591	0	0	0	0	0	0	0	\$66,845	2,203
750	286	828	0	0	0	17	3	0	19	\$66,845	1,044
751	130	378	0	0	138	147	42	0	326	\$66,845	490
752	330	851	0	0	0	14	0	0	14	\$66,845	657
753	436	1,249	0	0	14	254	0	34	302	\$66,845	369
754	538	1,648	0	0	0	56	0	0	56	\$66,845	1,345
771	512	1,561	0	0	20	1,377	9	50	1,456	\$56,696	763
772	271	832	0	0	11	17	31	0	58	\$56,696	221
773	269	668	0	0	15	213	2	19	248	\$49,891	448
774	331	1,208	0	0	0	73	45	20	137	\$33,917	1,369
775	226	742	0	0	5	19	0	3	27	\$33,917	3,348
776	43	164	0	0	19	32	0	0	50	\$33,917	172
777	282	902	0	0	20	17	0	37	74	\$63,000	2,840
778	280	851	694	0	0	74	0	5	79	\$63,000	3,594
779	317	990	0	0	0	6	18	0	24	\$56,696	3,750
780	259	797	22	0	81	46	0	0	127	\$56,696	1,514
781	244	789	0	0	0	0	0	0	0	\$56,696	1,276

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
782	158	459	0	0	7	482	42	0	531	\$68,693	1,217
783	458	1,264	1,497	0	0	164	304	101	568	\$68,693	3,106
784	338	1,012	0	0	29	235	0	8	272	\$63,000	294
785	277	885	0	0	0	30	0	1	31	\$63,000	394
786	424	1,297	0	0	0	0	0	3	3	\$63,000	378
787	390	1,270	745	0	5	73	55	4	136	\$63,065	504
788	629	1,894	0	0	31	241	3	13	288	\$63,065	574
789	394	1,137	0	0	15	155	1	16	187	\$63,000	1,036
790	509	1,473	0	0	996	675	7	16	1,695	\$39,145	1,690
791	717	1,737	0	0	175	230	0	6	411	\$56,719	389
792	133	334	0	0	23	186	0	3	212	\$56,719	317
793	932	2,910	0	0	109	358	43	3	513	\$78,047	925
794	610	1,907	0	0	116	909	64	10	1,099	\$78,047	1,293
795	355	988	780	0	0	77	4	5	86	\$39,145	1,093
796	355	928	0	0	2	19	0	0	21	\$56,719	1,534
797	71	195	0	0	0	0	0	18	18	\$39,145	744
798	208	526	0	0	40	140	0	34	214	\$49,891	1,438
799	247	694	0	0	0	2	1	0	3	\$61,681	947
800	246	630	2,734	0	0	2,974	0	65	3,039	\$61,681	3,787
801	615	2,039	0	0	7	29	0	22	58	\$33,917	6,709
802	205	543	0	0	38	49	5	0	93	\$51,714	1,903
803	180	495	0	0	0	15	5	0	20	\$51,714	1,645
804	149	349	0	0	0	0	9	0	9	\$51,714	6,011
805	235	578	0	0	11	0	5	3	19	\$51,714	1,078
806	66	171	0	0	0	0	0	0	0	\$51,714	303
807	219	668	0	0	15	2	0	236	253	\$51,310	2,000
808	216	649	593	0	0	59	1	0	60	\$51,310	3,200
809	341	963	0	0	34	5	8	63	110	\$51,310	2,332
810	130	392	0	0	0	2	0	0	2	\$51,310	1,310
811	254	783	801	0	0	111	1	12	123	\$51,310	3,864
812	379	1,089	0	0	12	37	19	3	70	\$76,979	2,445
813	182	528	0	0	0	0	0	6	6	\$76,979	2,197

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
814	113	316	0	0	0	0	0	0	0	\$76,979	602
815	162	517	0	0	0	0	0	0	0	\$76,979	1,389
816	30	82	0	0	0	0	0	0	0	\$76,979	600
817	680	1,917	0	0	28	29	0	0	56	\$61,681	7,090
818	364	963	0	0	0	4	7	0	11	\$51,714	1,729
819	625	1,921	0	0	0	106	1	29	136	\$61,681	5,078
820	204	598	0	0	0	71	0	1	72	\$92,866	2,824
821	296	804	0	0	0	708	36	0	744	\$68,693	3,645
822	120	306	0	0	0	0	0	3	3	\$49,891	764
823	108	321	0	0	0	6	0	0	6	\$92,866	1,205
824	54	150	0	0	0	0	0	0	0	\$61,681	616
825	210	593	0	0	0	0	0	3	3	\$92,866	1,856
826	158	500	0	0	0	25	0	3	27	\$61,681	1,787
827	250	740	0	0	0	4	49	12	66	\$92,866	3,734
828	401	1,151	0	0	0	21	35	30	86	\$92,866	1,872
829	490	1,476	0	0	0	174	0	3	177	\$100,298	4,745
830	468	1,449	829	0	11	346	6	0	363	\$100,298	1,468
831	351	1,088	0	0	3	16	0	0	19	\$56,964	1,427
832	276	832	0	0	0	3	0	0	3	\$56,964	821
833	346	1,108	0	0	0	19	2	1	22	\$56,964	1,367
834	225	707	0	0	3	0	0	24	27	\$71,693	2,726
835	221	701	0	0	0	7	2	0	9	\$71,693	2,637
836	201	672	2,623	0	0	233	0	0	233	\$71,693	1,214
837	392	1,341	0	0	3	48	1	0	52	\$71,693	2,341
838	259	821	0	0	0	32	0	23	55	\$71,693	3,166
839	159	487	0	0	130	229	19	73	451	\$78,047	1,555
840	123	366	0	0	0	39	0	60	99	\$78,047	3,739
841	9	24	0	0	0	0	0	5	5	\$78,047	11,063
842	4	14	0	0	0	55	1,086	0	1,140	\$78,047	2,717
843	131	398	0	0	0	2	0	0	2	\$78,047	451
844	251	768	0	0	6	0	1	5	12	\$63,000	677
845	40	86	0	0	0	0	0	0	0	\$68,693	257

Traffic Analysis Zones	Household	Population	Enrollment		Employment					Income	Acres
			School	College	Retail	Service	MTCUW	AMC	Total		
846	324	892	0	0	17	127	1,262	1	1,408	\$68,693	3,301
847	211	584	0	0	0	0	0	4	4	\$68,693	651
848	306	837	0	0	3	7	1	3	14	\$68,693	1,912
849	12	33	0	0	0	0	0	0	0	\$56,696	566
850	75	209	0	0	0	0	0	0	0	\$56,696	4,769
851	61	191	0	0	0	0	2	0	2	\$56,696	847
852	174	525	0	0	9	8	22	0	40	\$63,000	12,265
853	102	274	0	0	0	15	0	0	15	\$63,000	3,093
854	161	477	0	0	0	0	0	0	0	\$63,000	3,050
855	139	433	0	0	0	11	0	0	11	\$63,000	3,023
856	266	769	0	0	0	21	0	6	26	\$71,827	7,601
857	107	319	0	0	5	0	0	0	5	\$71,827	2,275
858	64	172	0	0	0	0	0	8	8	\$60,915	5,527
859	84	222	0	0	0	0	0	21	21	\$60,536	5,793
860	125	323	0	0	0	0	0	0	0	\$60,536	8,339
861	79	190	0	0	0	0	0	0	0	\$60,536	4,968
862	55	143	0	0	0	0	0	33	33	\$60,536	3,297
863	19	45	0	0	0	0	0	0	0	\$60,915	1,105
864	171	451	0	0	0	57	0	15	72	\$60,915	9,596
865	105	293	0	0	0	17	0	48	65	\$60,915	3,046
866	169	456	0	0	0	5	8	4	17	\$60,915	3,817
867	301	935	0	0	0	0	0	3	3	\$59,100	11,121
868	498	1,587	755	0	39	90	0	0	129	\$59,100	5,206
869	24	84	0	0	0	0	0	0	0	\$60,915	1,289
870	183	491	0	0	0	0	0	0	0	\$60,915	7,457
871	9	20	0	0	0	0	0	0	0	\$60,536	6,514
872	53	138	0	0	0	0	0	0	0	\$60,536	8,431
873	306	886	0	0	0	34	0	0	34	\$60,915	14,157
874	129	367	0	0	0	0	0	0	0	\$60,536	11,201
875	50	128	0	0	0	0	0	0	0	\$60,536	1,576

A-2: 2015 AND 2045 SOCIOECONOMIC DATA REVIEW MEMO

A-2-1: 2015 Socioeconomic Data Review Memo



Date

04/04/2018

To

Coastal Region Metropolitan Planning Organization
(CORE MPO)

From

Habte Kassa, GDOT

MEMORANDUM

CC

Jing Xu, AICP, HNTB
Chandra Khare, HNTB

Subject

Review of CORE MPO
2015 Socioeconomic Data

This memo summarizes HNTB's review, on behalf of the Georgia Department of Transportation (GDOT), of the 2015 travel demand model socio-economic (SE) data prepared by the Metropolitan Planning Organization (MPO) for the Coastal Region Metropolitan Planning Organization (CORE MPO) Long Range Transportation Plan (LRTP).

The following section includes reviews and observations of the CORE MPO SE data for the 2015 base year that will be used as input into the travel demand model (TDM). The SE data was reviewed at two geographic levels: the aggregated TDM region including the entirety of Bryan, Chatham and Effingham counties and individual traffic analysis zones (TAZs).

The **regional level** included a summary overview of:

1. 2015 Total Population;
2. 2015 Total Households;
3. 2015 Total Employees and Employees by Category;
4. 2015 Total Students; and
5. Density Ratios.

The **individual TAZ-level** review included a reasonableness check on:

1. TAZs with No 2015 SE data;
2. 2015 Persons per Household Ratio;
3. 2015 Household Density;
4. 2015 Population Density;

5. 2015 Student to Service Employment Ratio;
6. 2015 Employment Relative to Acres; and
7. 2015 School Enrollment.

Absent local development knowledge, the review was based on the existing 2015 SE data provided, *Georgia MPO Travel Demand Models Socio-Economic Data Development Guides*. This document offers the observed facts that need attention and confirmation.

REGIONAL LEVEL SE DATA REVIEW

Table 1 provides a summary of the SE data in the TDM area for 2015 for each county (Bryan, Chatham and Effingham) and by the overall TDM area.

TABLE 1: TDM AREA SE DATA SUMMARY

Area	SE Variable	2015
Bryan County	Population	32,985
	Households	11,423
	Employment (Total)	7,119
	Service	4,603
	Retail	1,106
	Agriculture & Construction	533
	Manufacturing	877
	Student	16,481
Chatham County	Population	273,795
	Households	104,907
	Employment (Total)	130,385
	Service	79,594
	Retail	15,263
	Agriculture & Construction	5,855
	Manufacturing	29,673
	Student	81,981
Effingham County	Population	54,291
	Households	18,423
	Employment (Total)	7,785
	Service	4,520
	Retail	783

	Agriculture & Construction	622
	Manufacturing	1,860
	Student	8,277
TDM Area	Population	361,071
	Households	134,753
	Employment (Total)	145,289
	Service	88,717
	Retail	17,152
	Agriculture & Construction	7,010
	Manufacturing	32,410
	Student	106,739

Table 2 represents some commonly used ratios to check the SE data. At the regional level, the persons per household ratio, population density, household density, and employees per household ratio in 2015 appear to be within reasonable ranges compared to GDOT's recommended ranges. The school enrollment to total population ratio (30%) appears to be slightly higher than the recommended range, therefore need to be rechecked.

TABLE 2: COMMONLY USED RATIOS OF DENSITY

Ratio	2015	GDOT's Recommended Range
Persons per Household	2.68	2-3
Population per Acre	0.36	< 10
Household per Acre	0.13	< 6
Employees per Household	1.08	1-3
Proportion of Population Enrolled in Schools	0.30	Around 0.20 (i.e. 20%)

TRAFFIC ANALYSIS ZONE (TAZ) LEVEL SE DATA REVIEW

A TAZ-level review was conducted following *GDOT's Socio-Economic Data Development Guides* to ensure the future SE data values are consistent with what is deemed as reasonable.

1. TAZs with No SE Data

All TAZs have 2015 SE data recorded. There are 35 TAZs with zero total population, households, and employment; 82 TAZs with zero total population and households; and 80 TAZs with population and households but no employment. It is recommended the MPO verify these TAZs to be within the National Refugee Area or other vacant land. These TAZs are also highlighted in the SE data spreadsheet sent by the MPO.

TABLE 3: TAZS WITH NO 2015 SE DATA

Zero Value Field	TAZ ID
Population, Households, and Employment	7, 8, 9, 31, 32, 51, 73, 75, 76, 77, 125, 139, 140, 200, 302, 357, 402, 410, 450, 478, 502, 514, 538, 573, 574, 631, 651, 684, 717, 725, 726, 727, 746, 748
Population and Households Only	52, 54, 55, 56, 57, 104, 105, 108, 143, 144, 145, 146, 149, 176, 220, 230, 237, 241, 242, 244, 246, 251, 252, 267, 270, 274, 289, 301, 303, 305, 306, 307, 308, 309, 311, 315, 325, 329, 375, 401, 403, 404, 405, 409, 411, 412, 413, 427, 433, 439, 440, 449, 470, 473, 475, 477, 480, 481, 484, 501, 504, 511, 516, 518, 519, 520, 521, 528, 529, 530, 531, 532, 533, 537, 539, 540, 542, 572, 657, 682, 728, 733
Employment Only	27, 38, 48, 66, 72, 74, 134, 141, 153, 156, 158, 163, 167, 181, 214, 234, 235, 240, 283, 284, 300, 379, 387, 428, 437, 462, 463, 467, 469, 487, 552, 570, 605, 606, 618, 629, 630, 635, 636, 638, 649, 650, 652, 653, 654, 656, 658, 661, 663, 665, 666, 680, 691, 692, 695, 710, 713, 718, 720, 747, 749, 781, 806, 814, 815, 816, 842, 845, 849, 850, 854, 860, 861, 863, 869, 870, 871, 872, 874, 875

2. Persons per Household Ratios

According to *GDOT's Socio-Economic Data Development Guides* the ratio of persons per household should range between 1 and 7. Values exceeding 7 should correspond to some form of group housing within the TAZ. 10 TAZs (represented in Table 4) has a ratio of persons per household higher than 7 in 2015 and needs to be verified by the MPO.

TABLE 4: TAZS WITH 2015 PERSONS PER HOUSEHOLD > 7

TAZ ID	Person per HH 2015
121	9.74
183	9.14
228	680.00
316	26.33
327	7.19
328	597.00
331	356.00
346	9.20

TAZ ID	Person per HH 2015
423	19.82
424	316.00

3. Household Density

According to GDOT's *Socio-Economic Data Development Guide*, the number of households per acre in most TAZs should be less than 6. A value of 6 typically corresponds to a three-story multifamily building. Values exceeding 6 should accordingly correspond to larger or denser multifamily housing. Table 5 lists 42 TAZs with households per acre greater than 6. It is recommended the MPO staff verify the housing type in these TAZs.

TABLE 5: TAZS WITH HOUSEHOLDS PER ACRE GREATER THAN 6.00

TAZ ID	Household per Acre (2015)	TAZ ID	Household per Acre (2015)
148	7.90	352	24.17
169	6.39	353	10.95
174	6.10	354	11.60
189	6.21	355	8.44
248	6.68	356	14.42
260	7.59	358	10.11
268	8.24	362	10.67
294	10.04	363	9.40
321	6.15	364	8.69
332	7.17	365	7.15
333	7.23	366	7.95
334	8.29	367	7.90
336	7.50	368	9.00
338	10.58	371	9.68
339	8.92	374	7.38
340	7.43	378	9.96
341	6.71	381	14.07
343	6.21	384	8.14

TAZ ID	Household per Acre (2015)
348	8.67
350	9.00
351	10.57

TAZ ID	Household per Acre (2015)
385	6.95
388	6.60
443	6.50

4. Population Density

According to GDOT's *Socio-Economic Data Development Guide*, the ratio of population to acres usually do not exceed 10. TAZs with population per acre higher than 10 are generally identified as multifamily or group housing land use. Figure 1 shows 2015 population density and the higher densities (colored in brown) are found in the Chatham county which needs to be reviewed.

FIGURE 1: 2015 POPULATION DENSITY (PERSON/ACRE)

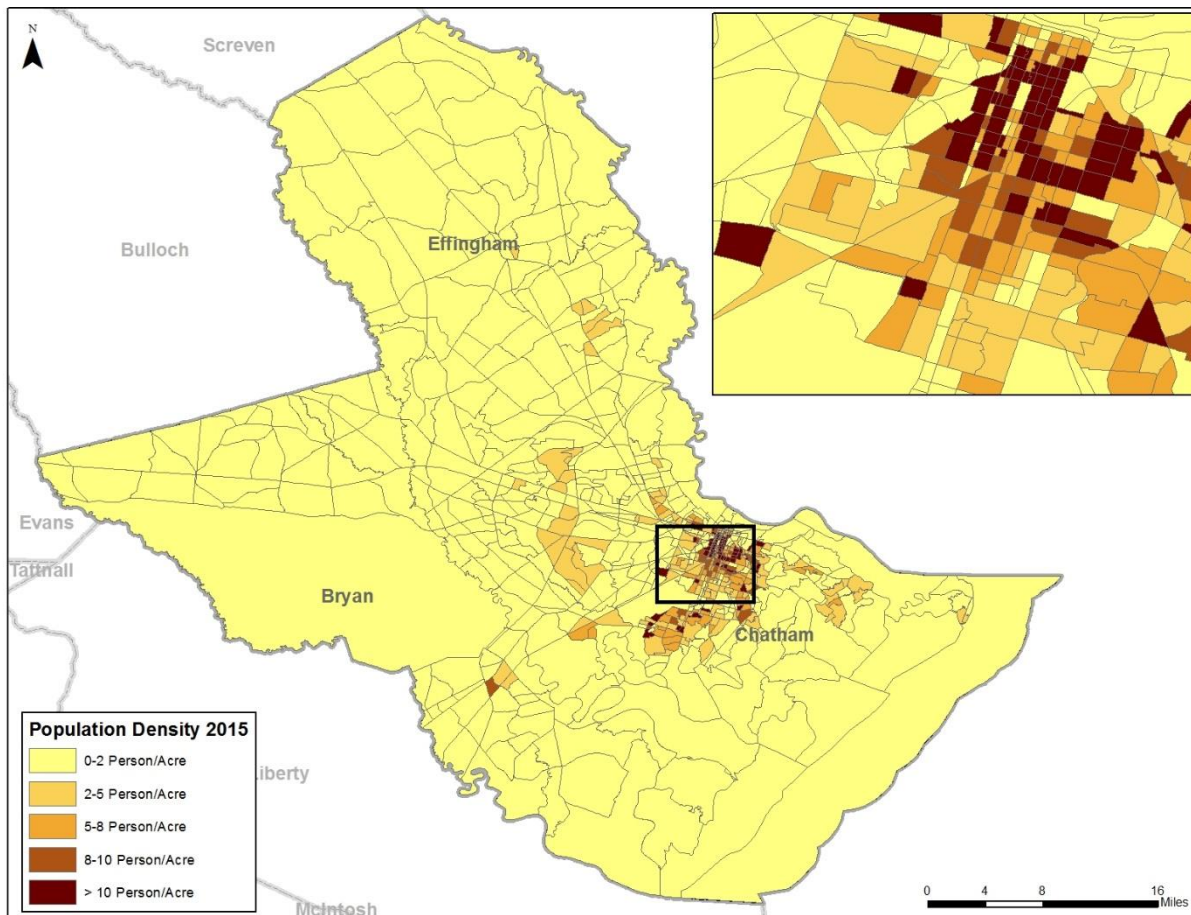


Table 6 lists 83 TAZs with 2015 population per acre greater than 10. It is recommended these TAZs are reviewed and confirmed by the MPO staff to be all TAZs with significant group housing or dense mobile homes.

TABLE 6: TAZS WITH 2015 POPULATION PER ACRE GREATER THAN 10.00

TAZ ID	Population per Acre (2015)	TAZ ID	Population per Acre (2015)
43	15.21	341	12.00
106	12.10	343	14.64
112	10.18	344	10.80
114	15.25	346	23.00
115	11.73	347	10.71
123	11.45	348	16.40
132	10.42	349	10.25
138	13.69	350	13.71
141	12.15	351	18.79
148	27.00	352	30.83
154	14.09	353	20.53
156	11.00	354	27.80
160	11.00	355	18.94
161	13.13	356	24.42
162	12.60	358	18.39
163	17.52	361	13.14
169	21.51	362	18.33
171	12.07	363	18.33
172	11.57	364	22.75
173	11.82	365	22.00
174	15.26	366	20.41
187	10.12	367	19.67
189	14.21	368	18.71
190	11.19	371	21.09

TAZ ID	Population per Acre (2015)
192	14.13
229	11.80
248	10.15
255	13.68
260	17.42
265	10.80
268	22.54
273	10.19
294	21.82
327	41.46
328	27.14
331	25.43
332	11.33
336	10.00
337	16.17
338	18.83
339	16.67
340	11.14

TAZ ID	Population per Acre (2015)
374	22.35
378	24.24
380	12.35
381	16.73
384	20.29
385	15.59
388	15.07
390	13.33
391	13.89
396	11.54
421	10.46
426	12.94
436	10.06
441	15.81
442	14.49
443	17.86
468	10.05

5. 2015 Available Employment Acres

According to *GDOT's Socio-Economic Data Development Guide*, available land should be reviewed to confirm sufficient land capacity accommodates future development allocation. The acres available and the acres needed for employment are calculated using the following equations:

$$\text{Acres Available for Employment} = [\# \text{ acres} - (\# \text{ households} / 4)] * 0.25$$

$$\text{Acres Needed for Employment} = (0.00573921028 \text{ acres} / \text{employee}) * (\# \text{ employees})$$

The acres needed for employment should be less than or equal to the acres available for employment. If this is not the case, then there may be certain TAZs that support multi-story office buildings and high-density housing. If the value of acres available for employment is negative, this may be explained by denser housing (greater than 4 households per acre) or multi-family housing throughout the area.

There are 110 TAZs, listed in Table 7, that have negative acres available for employment or fewer acres available than needed. It is recommended the MPO staff verify if these are TAZs with dense housing or multi-story office buildings.

TABLE 7: TAZS WHERE ACRES NEEDED FOR EMPLOYMENT ARE MORE THAN ACRES AVAILABLE

TAZ ID	Acres Available for employment	Acres Needed for employment	TAZ ID	Acres Available for employment	Acres Needed for employment
106	-2.94	0.19	327	-2.88	0.11
114	-2.31	0.21	332	-1.19	0.31
115	-3.38	0.57	333	-2.63	3.24
132	-4.56	0.16	334	-1.88	1.23
138	-5.38	0.03	336	-1.31	0.03
148	-5.13	0.71	337	-0.94	0.84
153	-0.06	0.00	338	-4.94	0.36
154	-1.69	0.01	339	-3.69	0.44
156	-0.38	0.00	340	-3.00	0.52
160	-1.63	0.16	341	-1.19	2.79
161	-1.69	0.09	342	0.75	2.27
162	-5.38	0.01	343	-1.94	0.21
163	-4.13	0.00	344	-0.56	0.29
169	-6.13	0.57	347	-0.38	0.28
171	-8.13	0.02	348	-4.38	1.11
172	-1.75	0.20	349	-0.69	0.44
173	-2.44	0.02	350	-2.19	0.52
174	-5.13	0.18	351	-5.75	0.28
186	-0.06	0.03	352	-15.13	0.42
187	-1.31	0.53	353	-8.25	0.18
189	-2.63	0.01	354	-7.13	0.08
190	-2.31	0.21	355	-4.44	0.13
192	-3.31	0.14	356	-12.38	1.62
195	10.44	25.94	358	-6.88	0.30

TAZ ID	Acres Available for employment	Acres Needed for employment
201	-1.31	0.42
204	-1.31	0.01
205	-0.19	0.13
220	7.75	10.34
229	-0.69	0.29
232	1.13	2.55
238	-0.25	0.46
248	-12.25	3.36
255	-1.63	1.58
260	-14.81	0.06
265	-2.13	0.72
268	-14.31	0.06
271	-1.31	2.51
286	4.63	5.74
292	-4.50	3.50
294	-19.25	0.02
309	2.25	2.31
310	2.19	6.48
313	1.94	4.37
314	0.50	6.12
315	3.00	16.06
316	3.06	6.36
317	0.94	2.21
318	0.00	1.20
319	-1.25	1.14
320	-0.06	1.08
321	-1.75	1.39

TAZ ID	Acres Available for employment	Acres Needed for employment
359	-0.81	0.24
361	-0.56	0.21
362	-2.50	0.07
363	-5.06	0.49
364	-4.69	0.55
365	-2.56	0.98
366	-5.44	0.12
367	-5.13	0.82
368	-2.19	0.13
369	-0.81	0.77
371	-7.81	0.52
374	-5.50	0.10
378	-9.31	0.67
379	-0.75	0.00
381	-9.44	0.90
383	0.81	1.23
384	-1.81	0.41
385	-4.06	0.15
388	-2.44	1.87
390	-0.75	0.11
391	-3.13	0.52
392	0.06	0.57
395	0.31	0.55
396	-2.63	0.20
421	-1.63	0.10
426	-0.69	0.68
436	-3.00	0.01

TAZ ID	Acres Available for employment	Acres Needed for employment
322	0.94	3.92
323	2.56	3.37
324	0.38	0.61
325	1.50	2.37

TAZ ID	Acres Available for employment	Acres Needed for employment
441	-2.81	1.31
442	-5.56	0.52
443	-11.25	0.05
530	38.25	38.45

6. Students to Service Employment Ratios

In TAZs that contain schools, there is typically one service employee to every 12 students. If the ratio is significantly higher than 12, those TAZs should be confirmed that unique or atypical schools exist or are planned. Table 8 represents the 35 TAZs which the MPO staff needs to check.

TABLE 8: TAZS WITH STUDENTS TO SERVICE RATIO HIGHER THAN 12.00

TAZ ID	Students to service 2015
82	66.00
123	19.09
177	223.00
262	14.00
270	20.78
366	36.43
370	14.15
380	52.69
382	145.07
432	114.50
452	81.00
480	47.65
539	88.22
541	45.24

TAZ ID	Students to service 2015
627	36.38
644	42.00
677	15.79
683	78.48
697	20.83
700	319.00
705	380.00
714	187.00
775	17.21
785	111.40
796	45.86
809	13.80
823	255.00
827	184.00

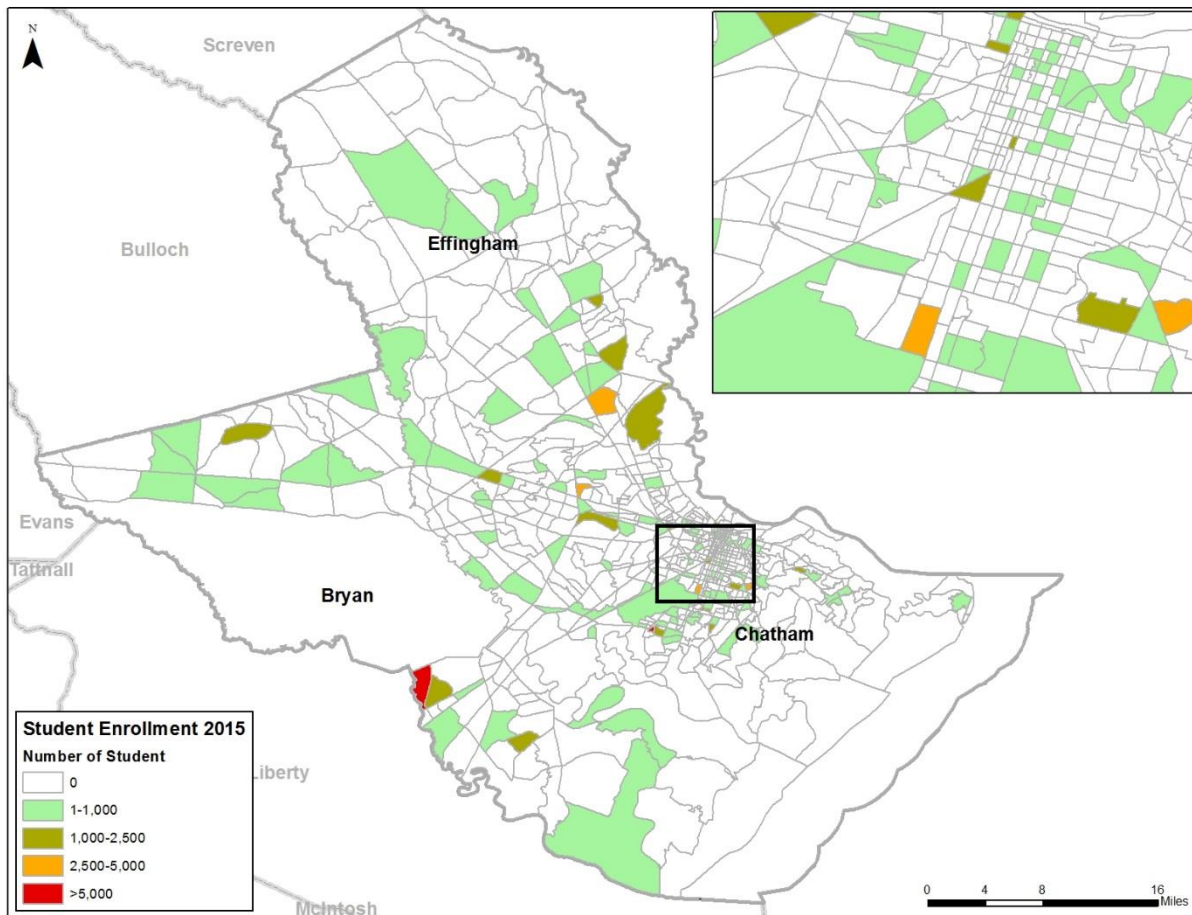
TAZ ID	Students to service 2015
559	18.51
568	86.67
569	58.50
609	18.13

TAZ ID	Students to service 2015
837	46.83
839	24.45
873	61.30

7. School Enrollment

Overall, the ratio of non-college school enrollment to total population is 30% which is slightly higher than the recommended range of 20%. Figure 1 illustrates all the school locations with number of school enrollment. The school locations shown in the map need to be verified by MPO staff.

FIGURE 2: 2015 SCHOOL LOCATIONS



CONCLUSIONS

It is recommended that MPO staff review and confirm the following items. A spreadsheet including the following review TAZs highlighted is attached to this document as well:

- Check the population, household, and employment values for TAZs 7, 8, 9, 31, 32, 51, 73, 75, 76, 77, 125, 139, 140, 200, 302, 357, 402, 410, 450, 478, 502, 514, 538, 573, 574, 631, 651, 684, 717, 725, 726, 727, 746 and 748. These TAZs have zero values for population, household, and employment.
- Check the population and household value for TAZs 52, 54, 55, 56, 57, 104, 105, 108, 143, 144, 145, 146, 149, 176, 220, 230, 237, 241, 242, 244, 246, 251, 252, 267, 270, 274, 289, 301, 303, 305, 306, 307, 308, 309, 311, 315, 325, 329, 375, 401, 403, 404, 405, 409, 411, 412, 413, 427, 433, 439, 440, 449, 470, 473, 475, 477, 480, 481, 484, 501, 504, 511, 516, 518, 519, 520, 521, 528, 529, 530, 531, 532, 533, 537, 539, 540, 542, 572, 657, 682, 728 and 733. These TAZs have zero total population and households.
- Check the employment value for TAZs 27, 38, 48, 66, 72, 74, 134, 141, 153, 156, 158, 163, 167, 181, 214, 234, 235, 240, 283, 284, 300, 379, 387, 428, 437, 462, 463, 467, 469, 487, 552, 570, 605, 606, 618, 629, 630, 635, 636, 638, 649, 650, 652, 653, 654, 656, 658, 661, 663, 665, 666, 680, 691, 692, 695, 710, 713,

718, 720, 747, 749, 781, 806, 814, 815, 816, 842, 845, 849, 850, 854, 860, 861, 863, 869, 870, 871, 872, 874 and 875. These TAZs have zero employment.

- Check the population and household value, and the housing types, of TAZs 121, 183, 228, 316, 327, 328, 331, 346, 423, 424. These TAZs have a population to household ratio greater than 7, which should correspond to some form of group housing within the TAZ.
- Check the housing types for TAZs 148, 169, 174, 189, 248, 260, 268, 294, 321, 332, 333, 334, 336, 338, 339, 340, 341, 343, 348, 350, 351, 352, 353, 354, 355, 356, 358, 362, 363, 364, 365, 366, 367, 368, 371, 374, 378, 381, 384, 385, 388 and 443. These TAZs have households per acre greater than 6, which indicates multi-family or group housing land use in the TAZ.
- Check the housing types for TAZs 43, 106, 112, 114, 115, 123, 132, 138, 141, 148, 154, 156, 160, 161, 162, 163, 169, 171, 172, 173, 174, 187, 189, 190, 192, 229, 248, 255, 260, 265, 268, 273, 294, 327, 328, 331, 332, 336, 337, 338, 339, 340, 341, 343, 344, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 358, 361, 362, 363, 364, 365, 366, 367, 368, 371, 374, 378, 380, 381, 384, 385, 388, 390, 391, 396, 421, 426, 436, 441, 442, 443 and 468. These TAZs have population per acre greater than 10, which indicates multi-family or group housing land use in the TAZ.
- Check if TAZs 106, 114, 115, 132, 138, 148, 153, 154, 156, 160, 161, 162, 163, 169, 171, 172, 173, 174, 186, 187, 189, 190, 192, 195, 201, 204, 205, 220, 229, 232, 238, 248, 255, 260, 265, 268, 271, 286, 292, 294, 309, 310, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 327, 332, 333, 334, 336, 337, 338, 339, 340, 341, 342, 343, 344, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 358, 359, 361, 362, 363, 364, 365, 366, 367, 368, 369, 371, 374, 378, 379, 381, 383, 384, 385, 388, 390, 391, 392, 395, 396, 421, 426, 436, 441, 442, 443 and 530 have dense housing or multi-story office buildings, since they have acres available for employment less than acres needed for employment.
- Check that adequate service employment is allocated to TAZs 82, 123, 177, 262, 270, 366, 370, 380, 382, 432, 452, 480, 539, 541, 559, 568, 569, 609, 627, 644, 677, 683, 697, 700, 705, 714, 775, 785, 796, 809, 823, 827, 837, 839 and 873. These TAZs have a ratio of number of students to service employees higher than 12.
- Check school enrollments. The proportion of population enrolled in schools in the model region is higher than the recommended range.

A-2-2: 2045 Socioeconomic Data Review Memo



Date	To
04/04/2018	Coastal Region Metropolitan Planning Organization (CORE MPO)
	From
	Habte Kassa, GDOT
 MEMORANDUM	 CC
	Jing Xu, AICP, HNTB Chandra Khare, HNTB
	 Subject
	Review of CORE MPO 2045 Socioeconomic Data

This memo summarizes HNTB's review, on behalf of the Georgia Department of Transportation (GDOT), of the 2045 travel demand model socio-economic (SE) data prepared by the Metropolitan Planning Organization (MPO) for the Coastal Region Metropolitan Planning Organization (CORE MPO) Long Range Transportation Plan (LRTP).

The following section includes reviews and observations of the CORE MPO SE data for the 2045 forecast year that will be used as input into the travel demand model (TDM). The SE data was reviewed at two geographic levels: the aggregated TDM region including the entirety of Bryan, Chatham and Effingham counties and individual traffic analysis zones (TAZs).

The **regional level** included a summary overview of:

6. 2045 Total Population and Growth Rate from 2015 to 2045;
7. 2045 Total Households and Growth Rate from 2015 to 2045;
8. 2045 Total Employment and employment by Category and Growth Rates from 2015 to 2045;
9. 2045 Total Students and Growth Rate from 2015 to 2045; and
10. 2045 Density Ratios.

The **individual TAZ-level** review included a reasonableness check on:

8. TAZs with No 2045 SE data;
9. Growth Rates between 2015 and 2045 SE data;
10. 2045 Persons per Household Ratios;
11. 2045 Household Density;
12. 2045 Population Density;
13. 2045 Available Employment Acres;

14. 2045 Student to Service Employment Ratios; and
15. 2045 Student Enrollment.

Absent local development knowledge, the review was based on the 2045 SE data provided, *Georgia MPO Travel Demand Models Socio-Economic Data Development Guides*. This document offers the observed facts that need attention and confirmation. The observations do not necessarily suggest any revisions assuming the SE data reasonably reflects the region's approved development plans.

REGIONAL LEVEL SE DATA REVIEW

Table 1 provides a summary of the SE data in the TDM area for 2015 and 2045 and shows the growth in absolute and percentage terms for each county and by the overall TDM area. The average annual growth rate between 2015 and 2045 for population is 0.88% for the entire TDM area. The average annual growth rate for households is 0.85% and 0.6% for employment. Among the four categories of employment, the Manufacturing has the highest average annual growth rate (0.7%). The retail, and Agriculture and Construction have similar growth rates, 0.63% and 0.61% respectively. The average annual growth rate of the service employment is the lowest (0.56%) among the four categories for the entire TDM area. The average annual growth rate of student is 0.22%.

Bryan county has higher annual average growth rate for population (1.55%), household (1.55%) and the total employment (0.92%). But the student number is reduced in year 2045 which needs to be checked. Chatham county has highest number of population, household and employment, and the average annual growth rates are close to the growth rates for the entire TDM area. The average annual growth rates are 0.74%, 0.72%, 0.57% and 0.23% for population, household, total employment and student respectively. Effingham county has higher growth rate than the average growth rate for the TDM area for population (1.13%), household (1.12%) and employment (0.79%). The student growth is much higher for this county, 1.27%.

TABLE 1: TDM AREA SE DATA SUMMARY

Area	SE Variable	2015	2045	Absolute Growth	Growth Rate (2015 – 2045)	Average Annual Growth Rate (2015 - 2045)
Bryan County	Population	32,985	52,283	19,298	59%	1.55%
	Households	11,423	18,134	6,711	59%	1.55%
	Employment (Total)	7,119	9,384	2,265	32%	0.92%
	Service	4,603	5,861	1,258	27%	0.81%
	Retail	1,106	1,566	460	42%	1.17%
	Agriculture & Construction	533	700	167	31%	0.91%
	Manufacturing	877	1,258	381	43%	1.21%
	Student	16,481	14,097	-2,384	-14%	-0.52%
Chatham County	Population	273,795	341,420	67,625	25%	0.74%
	Households	104,907	129,942	25,035	24%	0.72%
	Employment (Total)	130,385	154,629	24,244	19%	0.57%

Area	SE Variable	2015	2045	Absolute Growth	Growth Rate (2015 – 2045)	Average Annual Growth Rate (2015 - 2045)
	Service	79,594	93,371	13,777	17%	0.53%
	Retail	15,263	18,211	2,948	19%	0.59%
	Agriculture & Construction	5,855	6,880	1,025	18%	0.54%
	Manufacturing	29,673	36,167	6,494	22%	0.66%
	Student	81,981	87,807	5,826	7%	0.23%
Effingham County	Population	54,291	75,982	21,691	40%	1.13%
	Households	18,423	25,739	7,316	40%	1.12%
	Employment (Total)	7,785	9,859	2,074	27%	0.79%
	Service	4,520	5,512	992	22%	0.66%
	Retail	783	945	162	21%	0.63%
	Agriculture & Construction	622	841	219	35%	1.01%
	Manufacturing	1,860	2,560	700	38%	1.07%
	Student	8,277	12,072	3,795	46%	1.27%
TDM Area	Population	361,071	469,685	108,614	30%	0.88%
	Households	134,753	173,815	39,062	29%	0.85%
	Employment (Total)	145,289	173,872	28,583	20%	0.60%
	Service	88,717	104,743	16,026	18%	0.56%
	Retail	17,152	20,722	3,570	21%	0.63%
	Agriculture & Construction	7,010	8,422	1,412	20%	0.61%
	Manufacturing	32,410	39,985	7,575	23%	0.70%
	Student	106,739	113,976	7,237	7%	0.22%

Table 2 represents some commonly used ratios to check the SE data. The average household size increased slightly from 2015 to 2045, which is in-line with GDOT's *Socio-Economic Data Development Guide*. The availability of jobs per person decreased marginally with the ratio of population to employment increasing from 2.49 in 2015 to 2.70 in 2045. The employees per household decreased from 1.08 in 2010 to 1.00 in 2045. The proportion of school enrollment decreased from 30% in 2015 to 24% in 2045. At the regional level, the persons per household ratio, population density, household density, and employees per household ratio in 2045 appear to be within reasonable ranges compared to GDOT. The school enrollment to total population ratio is 24%, which is also within the recommended range.

TABLE 2: COMMONLY USED RATIOS OF DENSITY

Ratio	2015	2045	Change (2015 - 2045)	GDOT's Recommended Range
Persons per Household	2.68	2.70	0.02	2-3
Population to Employment	2.49	2.70	0.22	Generally stay constant
Population per Acre	0.36	0.47	0.11	< 10
Household per Acre	0.13	0.17	0.04	< 6
Employees per Household	1.08	1.00	-0.08	1-3
Proportion of Population Enrolled in Schools	0.30	0.24	-0.05	Around 0.20 (i.e. 20%)

TRAFFIC ANALYSIS ZONE (TAZ) LEVEL SE DATA REVIEW

A TAZ-level review was conducted following *GDOT's Socio-Economic Data Development Guides* to ensure the future SE data values are consistent with what is deemed as reasonable.

1. TAZs with No SE Data

All TAZs have 2045 SE data recorded. There are 28 TAZs with zero total population, households, and employment; 55 TAZs with zero total population and households; and 82 TAZs with zero employment. It is recommended the MPO verify these TAZs to be within the National Refugee Area or other vacant land. These TAZs are also highlighted in the SE data spreadsheet sent by the MPO.

TABLE 3: TAZS WITH NO 2045 SE DATA

Zero Value Field	TAZ ID
Population, Households, and Employment	7, 8, 9, 31, 32, 51, 73, 75, 76, 77, 125, 139, 140, 200, 302, 357, 402, 410, 450, 478, 502, 514, 538, 573, 631, 684, 717
Population and Households Only	52, 54, 55, 56, 57, 108, 143, 144, 176, 220, 230, 270, 274, 305, 306, 307, 308, 309, 311, 315, 325, 329, 401, 403, 404, 405, 409, 411, 412, 413, 433, 440, 449, 470, 473, 475, 477, 480, 481, 501, 504, 511, 516, 518, 519, 520, 521, 529, 530, 531, 532, 533, 537, 542, 682
Employment Only	27, 38, 48, 66, 72, 74, 134, 141, 153, 156, 158, 163, 167, 181, 214, 234, 235, 240, 283, 284, 300, 379, 387, 437, 462, 463, 467, 469, 487, 552, 570, 574, 605, 606, 618, 629, 630, 635, 636, 638, 649, 650, 651, 652, 653, 654, 656, 658, 661, 663, 665, 666, 680, 691, 692, 695, 710, 718, 720, 725, 726, 747, 749, 781, 806, 814, 815, 816, 842, 845, 849, 850, 854, 860, 861, 863, 869, 870, 871, 872, 874, 875

2. Growth Rates between 2015 and 2045 SE Data

As per GDOT's *Socio-Economic Data Development Guides*, TAZs that have 2045 households growing by more than 500% should be reviewed for any planned developments. There are 26 TAZs where households grew by more than 500% (see Table 4). Among these 26 TAZs, 23 also have population growth more than 500%. Three more TAZs with population growth higher than 500% are 27, 300 and 652. It is recommended the MPO staff review and confirm these TAZs is suitable for high growth.

TABLE 4: TAZS WITH HOUSEHOLD GROWTH BY MORE THAN 500 %

TAZ ID	2015 Household	2045 Household	Household Growth
228	1	39	3800%
245	2	13	550%
297	4	111	2675%
331	1	45	4400%
345	1	27	2600%
387	1	16	1500%
424	1	74	7300%
429	2	31	1450%
491	1	62	6100%
557	2	58	2800%
559	9	73	711%
613	1	491	49000%
624	4	186	4550%
628	5	232	4540%
633	6	44	633%
635	2	229	11350%
637	39	266	582%
650	9	119	1222%
663	8	118	1375%
704	25	164	556%
720	13	228	1654%
741	47	389	728%

TAZ ID	2015 Household	2045 Household	Household Growth
747	9	130	1344%
749	1	206	20500%
750	43	286	565%
751	9	130	1344%

3. 2045 Persons per Household Ratios

According to *GDOT's Socio-Economic Data Development Guides* the ratio of persons per household should range between 1 and 7. Values exceeding 7 should correspond to some form of group housing within the TAZ. 8 TAZs (represented in Table 5) has a ratio of persons per household higher than 7 in both 2015 and 2015 and needs to be verified by the MPO.

TABLE 5: TAZS WITH 2045 PERSONS PER HOUSEHOLD > 7

TAZ ID	Person per HH 2015	Person per HH 2045
121	9.74	8.21
228	680.00	22.26
316	26.33	10.33
327	7.19	7.19
328	597.00	597.00
331	356.00	10.13
423	19.82	16.76
424	316.00	7.65

4. 2045 Household Density

According to *GDOT's Socio-Economic Data Development Guide*, the number of households per acre in most TAZs should be less than 6. A value of 6 typically corresponds to a three-story multifamily building. Values exceeding 6 should accordingly correspond to larger or denser multifamily housing. Table 6 lists 62 TAZs with households per acre greater than 6. Most of those TAZs (42) also have a household density greater than 6 in 2015 as well. 20 TAZs which have household density higher than 6 in only 2045 have been highlighted in the Table. It is recommended the MPO staff verify the housing type in these TAZs.

TABLE 6: TAZS WITH HOUSEHOLDS PER ACRE GREATER THAN 6.00

TAZ ID	Household per Acre (2015)	Household per Acre (2045)	TAZ ID	Household per Acre (2015)	Household per Acre (2045)
114	5.85	7.00	350	9.00	10.14
115	5.64	7.42	351	10.57	11.14
132	5.92	7.00	352	24.17	24.83
138	5.79	6.90	353	10.95	12.63
148	7.90	10.10	354	11.60	13.73
153	4.07	6.21	355	8.44	9.31
154	5.23	8.14	356	14.42	15.16
156	4.50	9.83	358	10.11	10.11
162	5.39	6.39	359	5.44	6.78
169	6.39	7.39	361	5.29	7.00
171	5.83	6.48	362	10.67	12.67
174	6.10	6.49	363	9.40	9.73
189	6.21	6.47	364	8.69	9.56
248	6.68	6.84	365	7.15	8.23
260	7.59	8.79	366	7.95	9.05
268	8.24	8.83	367	7.90	8.10
294	10.04	10.18	368	9.00	9.57
319	5.67	6.58	369	5.63	7.38
321	6.15	6.62	371	9.68	10.32
332	7.17	8.17	374	7.38	7.92
333	7.23	7.69	378	9.96	10.12
334	8.29	9.86	379	4.80	6.27
336	7.50	11.17	381	14.07	14.87
337	5.25	6.17	384	8.14	10.29
338	10.58	13.25	385	6.95	7.50
339	8.92	9.58	388	6.60	7.40

TAZ ID	Household per Acre (2015)	Household per Acre (2045)
340	7.43	8.00
341	6.71	7.86
343	6.21	6.21
346	2.50	6.83
348	8.67	8.67

TAZ ID	Household per Acre (2015)	Household per Acre (2045)
390	6.00	8.50
426	4.32	7.44
441	5.07	7.14
442	5.51	6.98
443	6.50	7.90

5. 2045 Population Density

According to GDOT's *Socio-Economic Data Development Guide*, the ratio of population to acres usually do not exceed 10. TAZs with population per acre higher than 10 are generally identified as multifamily or group housing land use. Figure 1 shows 2045 population density and the higher densities are found in the Chatham county which needs to be reviewed.

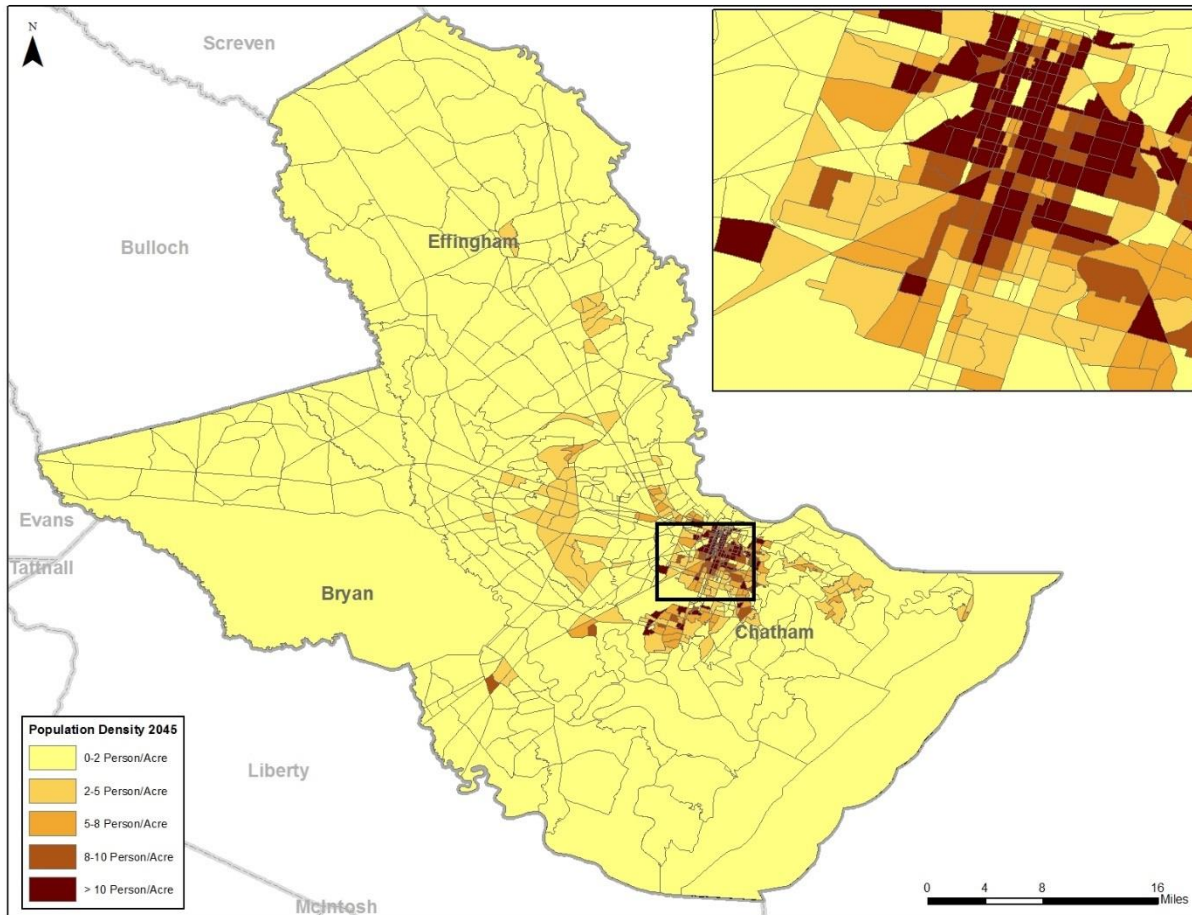
FIGURE 1: 2045 POPULATION DENSITY (PERSON/ACRE)


Table 7 lists TAZs with 2045 population per acre greater than 10. Among these 116 TAZs, 83 TAZs, had population density greater than 10 per acre in 2015. The 33 TAZs with only higher density than 10 population per acre in 2045 are highlighted as bold. It is recommended these TAZs are reviewed and confirmed by the MPO staff to be all TAZs with significant group housing or dense mobile homes.

TABLE 7: TAZS WITH 2045 POPULATION PER ACRE GREATER THAN 10.00

TAZ ID	Population per Acre (2015)	Population per Acre (2045)	TAZ ID	Population per Acre (2015)	Population per Acre (2045)
43	15.21	16.29	338	18.83	25.08
106	12.10	13.53	339	16.67	17.67
112	10.18	11.75	340	11.14	12.07
114	15.25	18.15	341	12.00	13.71
115	11.73	16.27	343	14.64	14.64

TAZ ID	Population per Acre (2015)	Population per Acre (2045)
123	11.45	11.93
132	10.42	13.05
133	8.38	10.38
138	13.69	16.60
141	12.15	14.79
145	0.00	15.00
147	5.11	11.78
148	27.00	32.38
153	9.79	15.50
154	14.09	20.91
155	6.68	10.63
156	11.00	23.50
160	11.00	11.77
161	13.13	15.76
162	12.60	15.02
163	17.52	18.63
164	8.98	10.45
166	9.67	10.48
169	21.51	23.95
171	12.07	13.68
172	11.57	13.61
173	11.82	13.25
174	15.26	16.28
181	8.47	10.05
184	9.21	11.67
186	9.30	11.91
187	10.12	10.83
189	14.21	14.74

TAZ ID	Population per Acre (2015)	Population per Acre (2045)
344	10.80	10.80
346	23.00	32.17
347	10.71	10.71
348	16.40	16.40
349	10.25	10.25
350	13.71	15.43
351	18.79	19.71
352	30.83	31.92
353	20.53	24.47
354	27.80	32.80
355	18.94	20.88
356	24.42	26.05
358	18.39	18.39
359	9.33	12.11
361	13.14	16.71
362	18.33	22.50
363	18.33	19.00
364	22.75	24.69
365	22.00	24.38
366	20.41	22.68
367	19.67	20.14
368	18.71	20.14
369	6.50	10.88
370	5.57	10.57
371	21.09	22.68
373	9.50	13.88
374	22.35	23.69
378	24.24	24.64

TAZ ID	Population per Acre (2015)	Population per Acre (2045)
190	11.19	12.62
192	14.13	15.00
201	9.41	11.03
204	9.76	11.30
205	7.83	10.67
212	9.16	14.57
229	11.80	11.90
248	10.15	10.49
255	13.68	13.76
260	17.42	20.15
265	10.80	10.96
268	22.54	24.02
271	9.36	11.79
273	10.19	12.84
292	9.84	10.41
294	21.82	22.22
321	9.46	10.54
326	9.76	10.88
327	41.46	41.46
328	27.14	27.14
331	25.43	32.57
332	11.33	13.67
334	9.71	13.29
336	10.00	18.33
337	16.17	18.25

TAZ ID	Population per Acre (2015)	Population per Acre (2045)
379	9.33	12.47
380	12.35	13.15
381	16.73	18.40
384	20.29	24.57
385	15.59	16.73
386	7.75	11.50
388	15.07	16.73
389	5.80	11.80
390	13.33	18.33
391	13.89	14.95
394	9.08	11.58
395	8.38	12.13
396	11.54	12.43
397	7.56	10.89
421	10.46	11.14
424	7.90	14.15
426	12.94	21.85
427	0.00	11.31
436	10.06	10.37
437	9.09	11.21
441	15.81	21.76
442	14.49	18.73
443	17.86	21.61
444	9.45	11.66
468	10.05	10.22

6. 2045 Available Employment Acres

According to GDOT's *Socio-Economic Data Development Guide*, available land should be reviewed to confirm sufficient land capacity accommodates future development allocation. The acres available and the acres needed for employment are calculated using the following equations:

$$\text{Acres Available for Employment} = [\# \text{ acres} - (\# \text{ households} / 4)] * 0.25$$

$$\text{Acres Needed for Employment} = (0.00573921028 \text{ acres} / \text{employee}) * (\# \text{ employees})$$

The acres needed for employment should be less than or equal to the acres available for employment. If this is not the case, then there may be certain TAZs that support multi-story office buildings and high-density housing. If the value of acres available for employment is negative, this may be explained by denser housing (greater than 4 households per acre) or multi-family housing throughout the area.

There are 148 TAZs, listed in Table 8, that have negative acres available for employment or fewer acres available than needed. Among these TAZs 110 TAZs had fewer acres available than needed in 2015 as well. It is recommended the MPO staff verify if these TAZs have such development as dense housing or multi-story buildings.

TABLE 8: TAZS WHERE 2045 ACRES NEEDED FOR EMPLOYMENT ARE MORE THAN ACRES AVAILABLE

TAZ ID	Acres Available for employment	Acres Needed for employment	TAZ ID	Acres Available for employment	Acres Needed for employment
106	-6.31	0.23	322	0.56	4.69
112	-1.19	0.02	323	2.19	4.03
113	-1.56	0.85	324	0.00	0.74
114	-3.75	0.25	325	1.50	2.84
115	-7.06	0.69	327	-2.88	0.11
130	1.50	1.53	332	-1.56	0.37
132	-7.13	0.19	333	-3.00	3.87
133	-1.81	0.01	334	-2.56	1.47
138	-8.69	0.03	336	-2.69	0.03
141	-3.31	0.00	337	-1.63	1.00
145	-4.38	1.83	338	-6.94	0.48
147	0.19	0.88	339	-4.19	0.45
148	-8.00	0.94	340	-3.50	0.54
153	-1.94	0.00	341	-1.69	2.91
154	-5.69	0.02	342	0.75	2.36

TAZ ID	Acres Available for employment	Acres Needed for employment
155	-0.69	2.33
156	-4.38	0.00
158	-1.50	0.00
160	-2.56	0.17
161	-4.25	0.10
162	-9.25	0.01
163	-5.50	0.00
164	-1.00	0.01
165	0.13	0.46
167	-0.38	0.00
169	-8.69	0.69
171	-11.00	0.03
172	-4.31	0.23
173	-3.44	0.02
174	-6.06	0.19
177	-0.63	0.26
180	-0.50	0.18
182	0.00	0.28
186	-1.75	0.04
187	-2.19	0.64
188	0.06	0.61
189	-2.94	0.01
190	-4.19	0.22
191	-1.94	0.26
192	-4.56	0.14
195	10.44	26.97
201	-3.19	0.44
203	-1.13	0.01

TAZ ID	Acres Available for employment	Acres Needed for employment
343	-1.94	0.22
344	-0.56	0.30
345	0.06	0.34
346	-1.06	0.19
347	-0.38	0.29
348	-4.38	1.15
349	-0.69	0.46
350	-2.69	0.54
351	-6.25	0.29
352	-15.63	0.44
353	-10.25	0.24
354	-9.13	0.11
355	-5.31	0.13
356	-13.25	1.69
358	-6.88	0.31
359	-1.56	0.24
361	-1.31	0.21
362	-3.25	0.08
363	-5.38	0.51
364	-5.56	0.57
365	-3.44	1.01
366	-6.94	0.14
367	-5.38	0.85
368	-2.44	0.14
369	-1.69	0.80
370	-0.25	0.26
371	-8.69	0.54
373	-0.44	0.06

TAZ ID	Acres Available for employment	Acres Needed for employment
204	-4.19	0.01
205	-3.06	0.16
213	0.94	1.01
220	7.75	12.38
222	3.38	4.52
229	-0.81	0.30
232	0.13	2.66
238	-0.38	0.48
248	-12.94	4.02
255	-1.88	1.65
259	1.13	1.61
260	-19.75	0.08
265	-2.81	0.75
268	-16.31	0.06
271	-3.31	2.61
276	0.06	2.57
286	3.94	6.88
292	-6.88	3.64
294	-19.69	0.02
309	2.25	2.76
310	2.19	7.76
312	1.94	2.56
313	1.56	5.23
314	0.13	7.32
315	3.00	19.23
316	2.69	7.61
317	0.56	2.64
318	-0.38	1.44

TAZ ID	Acres Available for employment	Acres Needed for employment
374	-6.38	0.11
376	0.50	0.93
378	-9.56	0.70
379	-2.13	0.00
380	0.06	0.10
381	-10.19	1.08
383	0.81	1.47
384	-2.75	0.49
385	-4.81	0.18
386	-0.31	0.06
388	-3.19	2.24
389	-0.63	0.11
390	-1.69	0.13
391	-4.06	0.54
392	-0.69	0.68
393	0.06	0.54
394	0.19	0.29
395	-0.63	0.65
396	-3.38	0.23
397	-0.25	0.04
421	-3.44	0.12
426	-7.31	0.81
427	4.19	4.95
436	-3.38	0.01
437	-0.44	0.00
438	0.13	0.32
441	-8.25	1.57
442	-11.00	0.63

TAZ ID	Acres Available for employment	Acres Needed for employment
319	-1.94	1.37
320	-0.44	1.29
321	-2.13	1.66

TAZ ID	Acres Available for employment	Acres Needed for employment
443	-17.56	0.05
444	-2.94	0.06
530	38.25	46.03

7. 2045 Students to Service Employment Ratios

In TAZs that contain schools, there is typically one service employee to every 12 students. In the 2045 SE data, there are 14 TAZs with students to service employment ratio higher than 12. Among these 14, 5 TAZs have higher students to service employment ratio in 2015 too. Table 9 represents the 14 TAZs which the MPO needs to check.

TABLE 9: TAZS WITH STUDENTS TO SERVICE RATIO HIGHER THAN 12.00 IN 2045

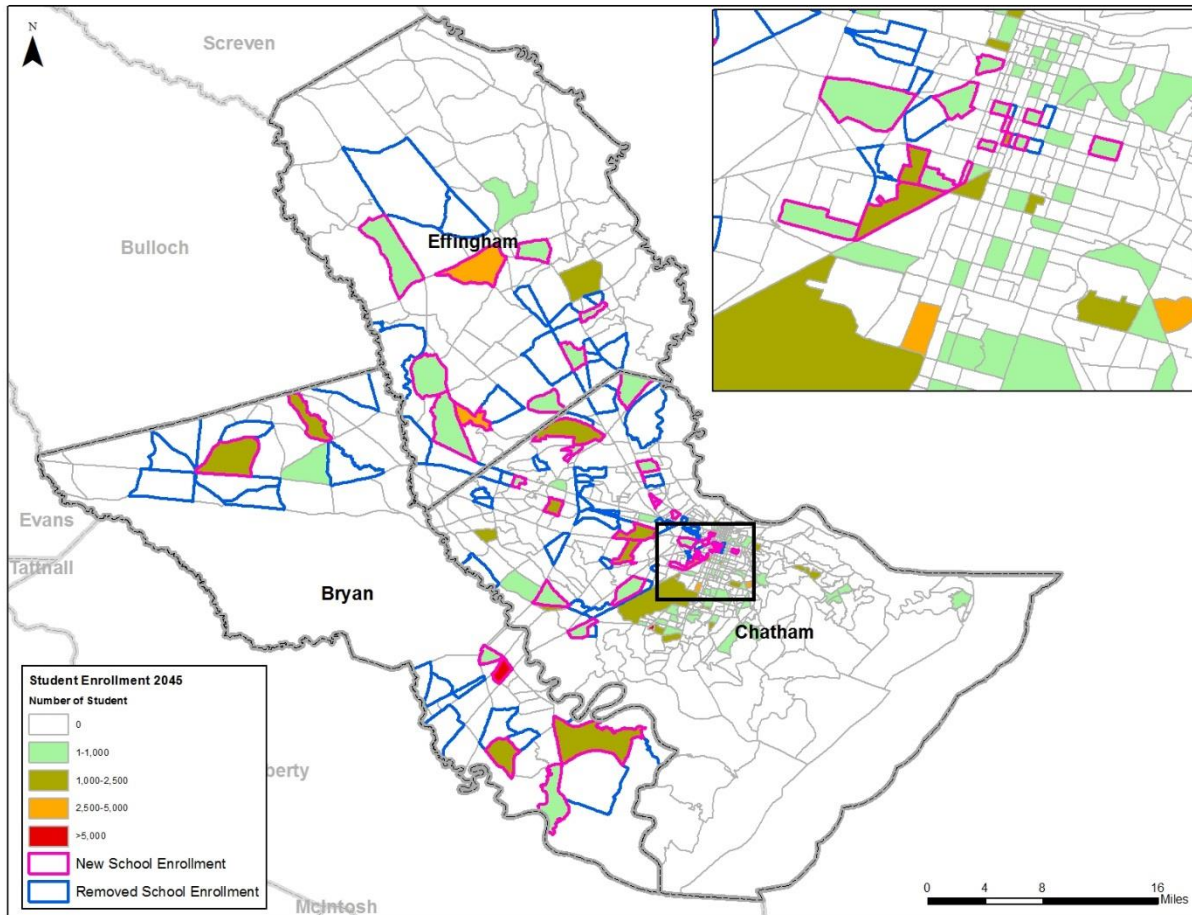
TAZ ID	Students to service 2015	Students to service 2045
82	66.00	76.32
123	19.09	22.08
177	223.00	257.88
262	14.00	16.19
270	20.78	21.47
335	12.00	12.06
445	0.00	12.13
447	0.00	114.54
709	0.00	501.25
742	0.00	14.26
746	0.00	43.97
795	0.00	93.13
830	0.00	34.64
868	0.00	28.38

8. School Enrollment

Overall, the ratio of non-college school enrollment to total population is 24% which is slightly higher than the recommended range of 20%. Table 10 represents 6 TAZs where the student growth in 2045 have been more than 100%. There has been new school development which have been represented in Table 11. Figure 2 illustrates all the school locations with number of school enrollment.

TABLE 10: TAZS WHERE 2045 STUDENT GROWTH ARE MORE THAN 100%

TAZ ID	2015 Student	2045 Student	Student Growth
420	258	748	190%
657	530	1,692	219%
671	418	1,980	374%
706	14	739	5181%
778	70	694	891%
783	592	1,497	153%

FIGURE 2: 2045 SCHOOL LOCATIONS


From Figure 2 it can be seen that there are many TAZs which has new school as well there are TAZs from where school enrollment has been removed. Table 11 and Table 12 respectively lists the TAZs with new school development and TAZs with removed school enrollment. MPO's review and confirmation of the school changes are required.

TABLE 11: TAZS WITH NEW SCHOOL DEVELOPMENT

TAZ ID	2015 Student	2045 Student
163	0	200
367	0	822
371	0	396
375	0	200
381	0	906

TAZ ID	2015 Student	2045 Student
601	0	818
610	0	1,678
626	0	468
640	0	2,233
678	0	877

TAZ ID	2015 Student	2045 Student
383	0	2,339
388	0	200
425	0	905
440	0	952
445	0	508
447	0	137
448	0	1,211
451	0	814
459	0	1,317
465	0	343
485	0	641
494	0	819
495	0	437
510	0	641
547	0	1,334
549	0	1,094
558	0	144
563	0	381

TAZ ID	2015 Student	2045 Student
681	0	97
694	0	2,130
709	0	1,200
730	0	5,896
732	0	236
739	0	1,148
742	0	550
746	0	2,199
780	0	22
787	0	745
795	0	780
800	0	2,734
808	0	593
811	0	801
830	0	829
836	0	2,623
868	0	755

TABLE 12: TAZS WITH REMOVED SCHOOL DEVELOPMENT

TAZ ID	2015 Student	2045 Student
366	765	0
370	368	0
380	843	0
382	2,176	0
431	743	0
432	458	0
437	983	0

TAZ ID	2015 Student	2045 Student
677	616	0
680	17	0
683	3,296	0
687	91	0
688	74	0
692	1,657	0
697	979	0

TAZ ID	2015 Student	2045 Student
452	810	0
458	374	0
461	604	0
469	404	0
479	401	0
480	1,096	0
484	114	0
512	198	0
515	1,573	0
533	434	0
536	806	0
539	4,499	0
540	210	0
541	1,538	0
544	619	0
559	759	0
567	239	0
568	520	0
569	468	0
609	435	0
627	473	0
628	1,308	0
631	609	0
632	857	0
644	210	0
668	121	0

TAZ ID	2015 Student	2045 Student
699	674	0
700	638	0
705	760	0
714	561	0
718	6,264	0
719	1,089	0
724	893	0
725	696	0
738	99	0
740	692	0
747	1,193	0
748	107	0
775	241	0
785	1,114	0
789	103	0
791	36	0
796	321	0
797	726	0
804	152	0
809	69	0
812	88	0
823	765	0
827	368	0
837	843	0
839	2,176	0
873	613	0

CONCLUSIONS

It is recommended that MPO staff review and confirm the following items. A spreadsheet including the following review TAZs highlighted is attached to this document as well:

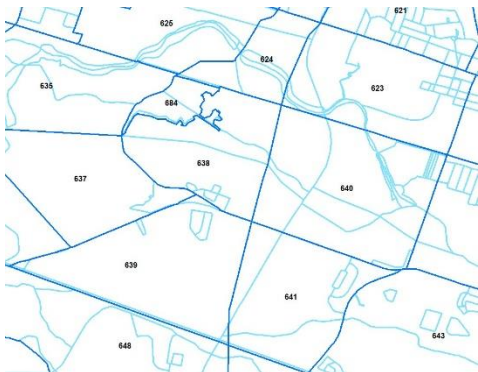
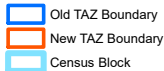
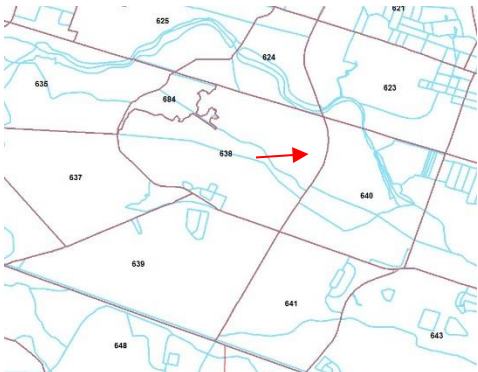



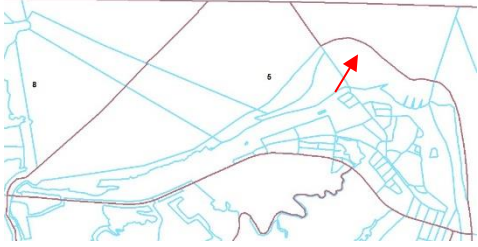
- Confirm that the population to employment ratio increases from 2015 to 2045. This is due to the population being estimated to grow faster than employment.
- Confirm the proportion of population enrolled in schools decreases from 0.30 to 0.24.
- Confirm no future development is expected for TAZs 7, 8, 9, 31, 32, 51, 73, 75, 76, 77, 125, 139, 140, 200, 302, 357, 402, 410, 450, 478, 502, 514, 538, 573, 631, 684 and 717, all of which have zero values for population, households and employment.
- Confirm no future residential development is expected for TAZs 52, 54, 55, 56, 57, 108, 143, 144, 176, 220, 230, 270, 274, 305, 306, 307, 308, 309, 311, 315, 325, 329, 401, 403, 404, 405, 409, 411, 412, 413, 433, 440, 449, 470, 473, 475, 477, 480, 481, 501, 504, 511, 516, 518, 519, 520, 521, 529, 530, 531, 532, 533, 537, 542 and 682, all of which have zero values for population and households.
- Confirm no future industrial or business development is expected for 27, 38, 48, 66, 72, 74, 134, 141, 153, 156, 158, 163, 167, 181, 214, 234, 235, 240, 283, 284, 300, 379, 387, 437, 462, 463, 467, 469, 487, 552, 570, 574, 605, 606, 618, 629, 630, 635, 636, 638, 649, 650, 651, 652, 653, 654, 656, 658, 661, 663, 665, 666, 680, 691, 692, 695, 710, 718, 720, 725, 726, 747, 749, 781, 806, 814, 815, 816, 842, 845, 849, 850, 854, 860, 861, 863, 869, 870, 871, 872, 874 and 875, all of which have zero values for employment.
- Confirm household growth by more than 500% from 2015 to 2045 is accurate for TAZs 228, 245, 297, 331, 345, 387, 424, 429, 491, 557, 559, 613, 624, 628, 633, 635, 637, 650, 663, 704, 720, 741, 747, 749, 750 and 751.
- Confirm TAZs 228, 424, 121, 316, 327, 328, 331 and 423 will have 2045 persons per household ratios more than 7.
- Confirm TAZs 114, 115, 132, 138, 148, 153, 154, 156, 162, 169, 171, 174, 189, 248, 260, 268, 294, 319, 321, 332, 333, 334, 336, 337, 338, 339, 340, 341, 343, 346, 348, 350, 351, 352, 353, 354, 355, 356, 358, 359, 361, 362, 363, 364, 365, 366, 367, 368, 369, 371, 374, 378, 379, 381, 384, 385, 388, 390, 426, 441, 442 and 443 will have dense housing or multi-story buildings, as all of these TAZs have a ratio of households per acre greater than 6.00.
- Confirm TAZs 43, 106, 112, 114, 115, 123, 132, 133, 138, 141, 145, 147, 148, 153, 154, 155, 156, 160, 161, 162, 163, 164, 166, 169, 171, 172, 173, 174, 181, 184, 186, 187, 189, 190, 192, 201, 204, 205, 212, 229, 248, 255, 260, 265, 268, 271, 273, 292, 294, 321, 326, 327, 328, 331, 332, 334, 336, 337, 338, 339, 340, 341, 343, 344, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 358, 359, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 373, 374, 378, 379, 380, 381, 384, 385, 386, 388, 389, 390, 391, 394, 395, 396, 397, 421, 424, 426, 427, 436, 437, 441, 442, 443, 444 and 468 will have significant group housing or dense mobile homes, as all of these TAZs have persons per acre greater than 10.
- Confirm TAZs 106, 112, 113, 114, 115, 130, 132, 133, 138, 141, 145, 147, 148, 153, 154, 155, 156, 158, 160, 161, 162, 163, 164, 165, 167, 169, 171, 172, 173, 174, 177, 180, 182, 186, 187, 188, 189, 190, 191, 192, 195, 201, 203, 204, 205, 213, 220, 222, 229, 232, 238, 248, 255, 259, 260, 265, 268, 271, 276, 286, 292, 294, 309, 310, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 327, 332, 333,

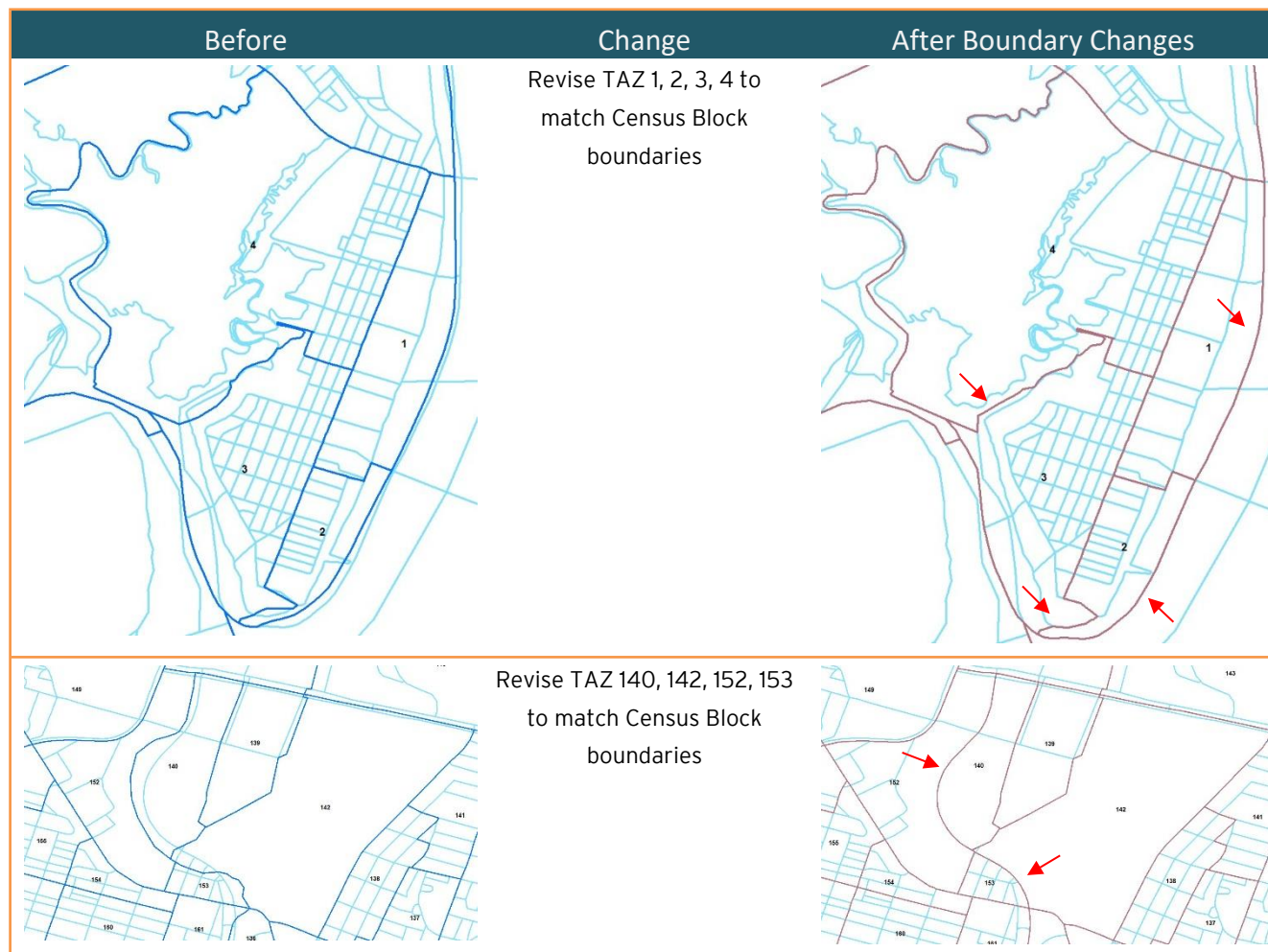
334, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 358, 359, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 373, 374, 376, 378, 379, 380, 381, 383, 384, 385, 386, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 421, 426, 427, 436, 437, 438, 441, 442, 443, 444 and 530 have dense development projected since they have acres available for employment less than acres needed for projected employment.

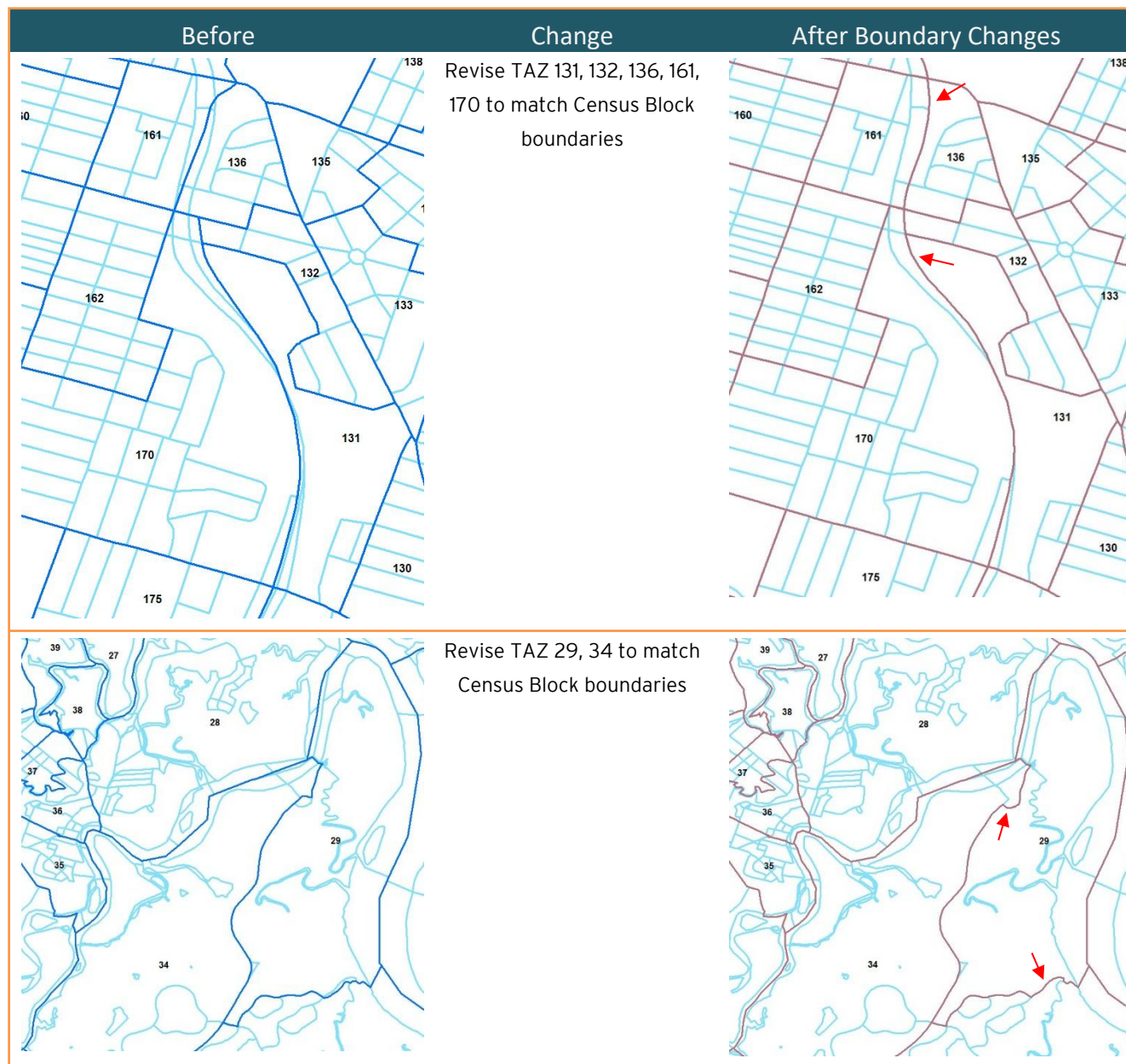
- Confirm the school enrollment and service employment for TAZs 82, 123, 177, 262, 270, 335, 445, 447, 709, 742, 746, 795, 830 and 868, all of which have a student to service employee ratio greater than 12.
- Confirm school enrolment growth by more than 100% from 2015 to 2045 is accurate for 420, 657, 671, 706, 778 and 783.
- Confirm new school development for TAZs 163, 367, 371, 375, 381, 383, 388, 425, 440, 445, 447, 448, 451, 459, 465, 485, 494, 495, 510, 547, 549, 558, 563, 601, 610, 626, 640, 678, 681, 694, 709, 730, 732, 739, 742, 746, 780, 787, 795, 800, 808, 811, 830, 836 and 868.
- Confirm school enrollment removed for development for TAZs 366, 370, 380, 382, 431, 432, 437, 452, 458, 461, 469, 479, 480, 484, 512, 515, 533, 536, 539, 540, 541, 544, 559, 567, 568, 569, 609, 627, 628, 631, 632, 644, 668, 677, 680, 683, 687, 688, 692, 697, 699, 700, 705, 714, 718, 719, 724, 725, 738, 740, 747, 748, 775, 785, 789, 791, 796, 797, 804, 809, 812, 823, 827, 837, 839 and 873.

A-3. Savannah TAZ Boundary Changes

A-Table 3: Savannah TAZ Boundary Changes

Before	Change	After Boundary Changes
	<p>Revise TAZ 623, 624, 638, 639, 640, 641 to match Census Block boundaries</p> <p>  </p>	
	<p>Revise TAZ 531 and 532 to follow Jimmy Deloach Pkwy</p>	
	<p>Revise TAZ 5 to match Census Block boundaries</p>	





A-4. DESCRIPTION OF LRTP NETWORKS

Long Range Transportation Plan (LRTP) Networks

1. 2015 Base year (1st Network)

2. Do-nothing system projects (2nd Network)

- 2015 Base year (1st Network) + any projects which either opened to traffic since the base year or currently under construction

3. Existing + Committed (E+C) system projects (3rd Network)

- Do-Nothing (2nd Network) + projects with construction (CST) funded in the STIP years 2018-2021

4. Completion of STIP system projects (4th Network)

- E+C (3rd Network) + projects with preliminary engineering (PE) and right of way (ROW) funded in the STIP years 2018-2021

5. Long Range Transportation Plan System projects (5th Network)

- Completion of STIP (4th Network) + all identified projects to address future transportation needs through 2045

6. Financially Constrained (6th Network)