

REGIONAL FREIGHT TRANSPORTATION PLAN UPDATE

EXECUTIVE SUMMARY



OCTOBER 31, 2023

Regional Freight Transportation Plan Update

Executive Summary

Prepared for



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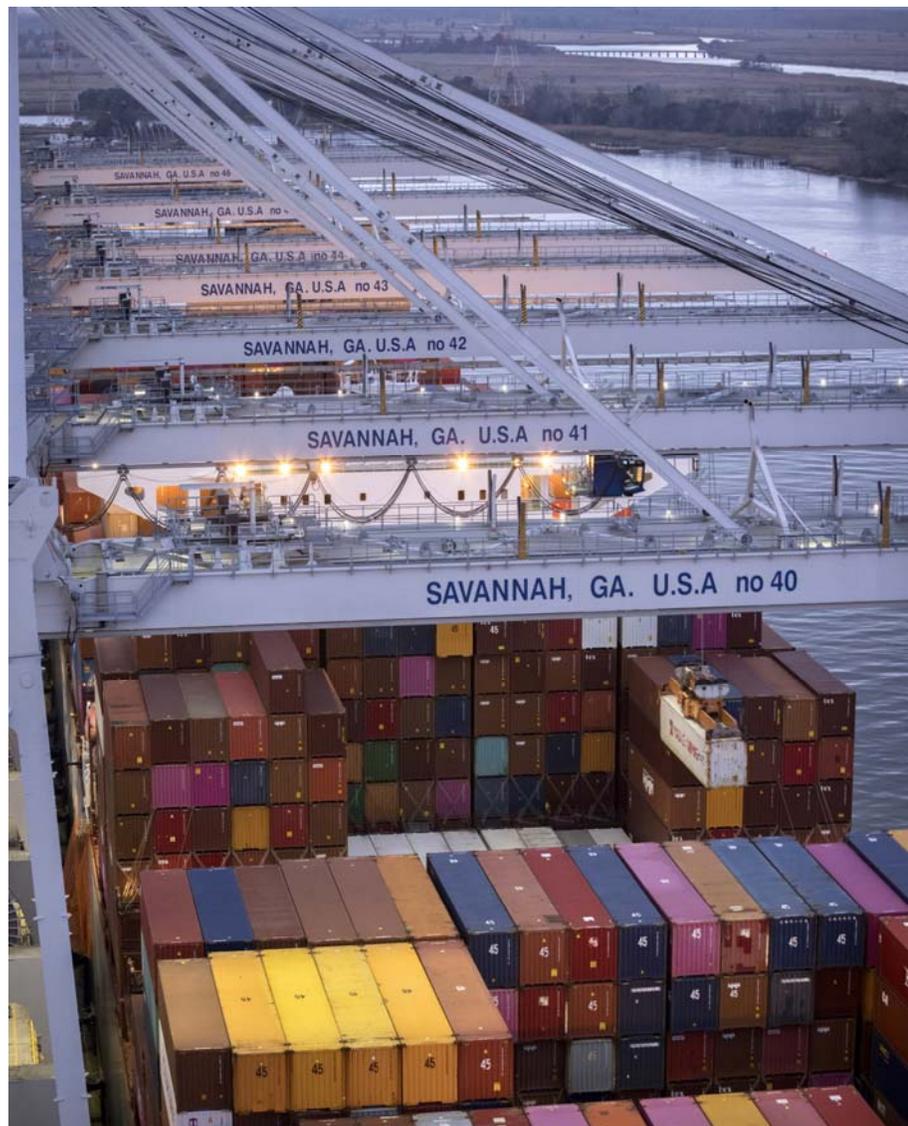
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1 PLAN PURPOSE AND OVERVIEW

The Coastal Region Metropolitan Planning Organization (CORE MPO) region serves a gateway for global trade and for freight movement in the Southeast, due in large part to the Port of Savannah—the Nation’s fourth-largest container port. In addition to the Port of Savannah, the region contains a comprehensive multimodal network of freight railroads and rail yards, major highways, cargo-serving airports, as well as a substantial warehousing/distribution/logistics industry to manage freight movements over that network. In addition, the region is an emerging manufacturing hub for businesses looking to create and ship a diverse portfolio of finished products to clients around the globe. Overall, goods movement in the Savannah region has a major impact on the regional and State economy.

1.1 Purpose of the Regional Freight Transportation Plan Update

Since the 2016 Regional Freight Transportation Plan was completed, much has changed in the region. Among other developments, the Savannah Harbor Expansion Project (SHEP) has completed, the Mason Mega Rail Project has substantially increased on-dock rail capacity at the Port of Savannah, the Georgia Department of Transportation’s (GDOT) Modern Mobility Improvement Program (MMIP) is expanding and enhancing the region’s highway network, and the Hyundai Motor Group is developing an electric vehicle (EV) and battery manufacturing plant in Bryan County capable of producing up to 300,000 vehicles annually. Given those developments, the region’s continued economic and population growth, and the growing intensity of freight movements between the Savannah and Atlanta regions, it is critically important to update the 2016 Regional Freight Transportation Plan. To that end, the CORE MPO has developed the 2023 Regional Freight Transportation Plan Update to provide a comprehensive blueprint for meeting the region’s freight needs.



Credit: Georgia Ports Authority.

1.2 Vision, Goals, and Objectives

The vision for the Regional Freight Transportation Plan reflects the 2045 Metropolitan Transportation Plan's vision. That vision emphasized the importance of taking a comprehensive approach to addressing transportation needs that incorporates community values, needs, land use and modal alternatives.

The vision for the Regional Freight Transportation Plan is to promote sustainable economic growth throughout the region by ensuring safe, equitable, and quality access to an efficient and resilient shared multimodal network for people and goods.

Defining goals and objectives was a critical first step for determining the strategic direction of the Regional Freight Transportation Plan and generally for taking a Transportation Performance Management-based approach to long-range planning.¹ Goals and objectives establish the means to measure and manage performance. The Regional Freight Transportation Plan Update goals and objectives are presented in Figure 1.1 and Figure 1.2, respectively.

¹ <https://www.tpmtools.org/guidebook/chapter-01/>.

FIGURE 1.1 REGIONAL FREIGHT TRANSPORTATION PLAN GOALS



SAFETY AND SECURITY

Provide a safe and secure multimodal freight network.



STATE OF GOOD REPAIR

Maintain a state of good repair of infrastructure critical to goods movement.



ACCESSIBILITY, MOBILITY, & CONNECTIVITY

Improve the accessibility and connectivity of the multimodal freight network to freight and industrial hubs, enhance connectivity between freight modes, and reduce barriers to mobility.



SYSTEM PERFORMANCE

Improve the reliability of freight movements and the resiliency of the multimodal freight network to support economic competitiveness.



ENVIRONMENT & QUALITY OF LIFE

Improve equity by preventing or minimizing adverse impacts of freight operations on communities and the environment while increasing community awareness of freight's importance to providing a high quality of life.



INTERGOVERNMENTAL COORDINATION

Build public and private freight partnerships to help maximize freight funding opportunities and the transportation and economic development impacts of the investments brought by those funds.

Source: CORE MPO.

FIGURE 1.2 REGIONAL FREIGHT TRANSPORTATION PLAN OBJECTIVES

SAFETY AND SECURITY

Reduce the number and rate of fatalities and injuries involving freight movements.

Improve access to truck parking in the region.

STATE OF GOOD REPAIR

Maintain freight assets at acceptable conditions.

ACCESSIBILITY, MOBILITY, & CONNECTIVITY

Reduce the number and magnitude of freight bottlenecks.

Increase the number and improve the quality of connections between freight modes.

Improve and enhance the safety, mobility and system connectivity through integration of intelligent transportation systems (ITS) technologies.

SYSTEM PERFORMANCE

Provide reliable and predictable travel times along freight corridors using intelligent transportation systems (ITS) technologies and other methods.

Improve system resiliency by increasing redundancy and reducing the risk of disruptions due to environmental conditions and man-made events.

ENVIRONMENT & QUALITY OF LIFE

Facilitate partnerships between CORE MPO, GDOT, Georgia Ports Authority, freight service providers (including motor carriers, railroads, and others), and city and county governments.

INTERGOVERNMENTAL COORDINATION

Prevent (where possible) and reduce disproportionate negative freight impacts to environmental justice communities.

Reduce emissions and other environmental impacts associated with freight movements.

Source: CORE MPO.

1.3 Stakeholder Engagement

Stakeholder engagement was critical throughout the development of the Regional Freight Transportation Plan update to ensure that residents, businesses, community leaders, and other stakeholders had an opportunity to actively participate in the process and support the final project recommendations. Stakeholder engagement as part of the Regional Freight Transportation Plan Update was designed to identify key partner agencies, local governments, citizens, and the business community and to outline ways in which they can provide meaningful input to project processes and outcomes. As a result, there were many stakeholders in both the public and private sectors that contributed valuable knowledge and insight into the update of this plan. In accordance with the CORE MPO's Public Participation Plan, the goals of public participation for the Regional Freight Transportation Plan were to:

- Inform residents, businesses, and other stakeholders of the Regional Freight Transportation Plan and how they can be involved in the plan.
- Ensure that stakeholders had adequate, appropriate, and meaningful opportunities to participate.
- Utilize the Steering Committee to reach interested parties in the community and within the planning area.

Stakeholder engagement included outreach to several groups that understand freight movement and trends within the state. Of those groups, the Economic Development and Freight Advisory Committee (EDFAC), was one of the most important in guiding the Regional Freight Transportation Plan Update outcomes. The EDFAC is an established committee of the CORE MPO. This group served as the primary stakeholder group to provide input and guidance on the update of the Regional Freight Study. The project team engaged with the EDFAC throughout the plan development process. The EDFAC includes representatives from the following organizations.

Other groups that participated in stakeholder engagement include private and economic development stakeholders, who were able to provide industry-specific feedback that is essential in understanding the challenges and needs of the diverse business communities within the state. Public sector stakeholders comprised the Steering Committee and provided feedback from the user perspective. In addition, stakeholders participated in the Regional Freight Transportation Plan Update through one-on-one interviews, public forums, and online surveys.

2 FREIGHT IN THE CORE MPO REGION

In the CORE MPO region, freight moves through a transportation system that encompasses all modes. The region is served by a deepwater port, two Class I railroads, three rail terminals (including the Mason Mega Rail Terminal), and one commercial service airport that also provides cargo services. The region’s roadway network connects all these assets to provide truck access from the intermodal terminals (seaports, rail yards, and airports) to origins or destinations of goods.

2.1 Economic Contribution of Freight Transportation to the CORE MPO Region

Freight-intensive industries are those that are major producers and/or consumers of goods in the CORE MPO region, or industries that provide either storage or carry services for freight production and freight attractions in the region. In 2021, freight-intensive industries provided nearly 45,000 jobs throughout the CORE MPO region.² This accounted for approximately 18 percent of all jobs. This is an increase over 2011 values as the freight-intensive industry share of total

employment rose from about 16 percent to 18 percent. Construction, transportation equipment manufacturing, and truck transportation are particularly notable as these industry sectors accounted for representing 23,771 jobs or 53 percent of the total employment under the freight-intensive industries in the region. Furthermore, four industry sectors added more than 1,300 to 3,000 jobs each to the region over the

2011–2021 time period. These included couriers and messengers (e.g., express delivery services of parcels), construction, warehousing and storage, and truck transportation. Overall, the data demonstrate that freight intensive industries are an increasingly important source of jobs for the region.

45,000 jobs provided by freight-intensive industries to the CORE MPO region.

18% of all jobs in the region are in freight-intensive sectors.

FREIGHT INTENSIVE INDUSTRIES

 Agriculture, Forestry, Fishing, & Hunting	 Construction
 Mining, Quarrying, & Oil & Gas Extraction	 Manufacturing
 Utilities	 Transportation & Warehousing

2.2 Multimodal Freight Network

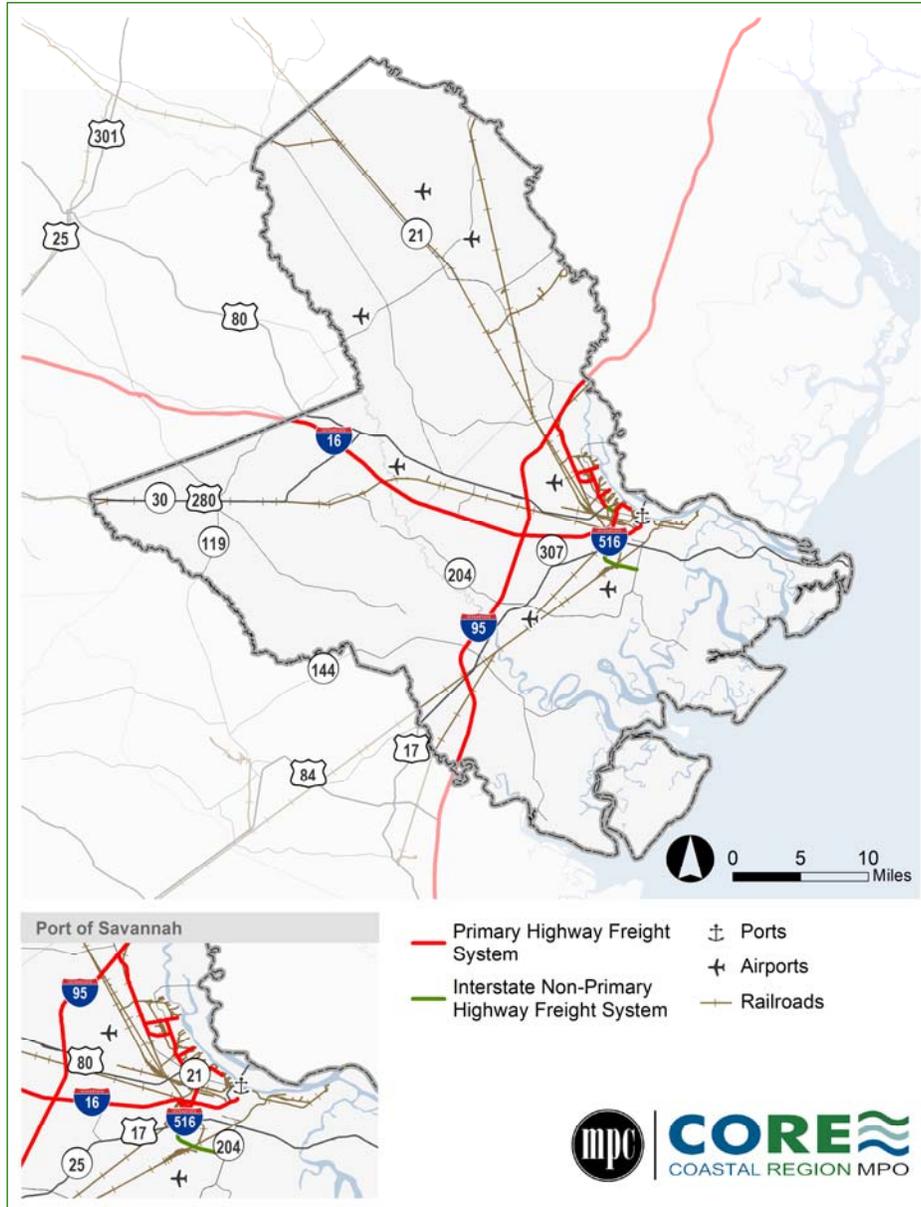
The multimodal freight network consists of the elements of the transportation system that moves goods using various freight modes throughout the region: highway, railroad, marine, and aviation.

² Regional Economic Models, Inc. (REMI) TranSight model for Georgia regions, Atlanta, and the rest of the U.S.

Highways

The roadway network provides a critical connection between users and producers of goods throughout the State, the Nation, and the world. The CORE MPO region's highways are a vital part of the multimodal freight network as they carry the majority of freight traffic and serve as a connection to the Port of Savannah and the region's rail terminals. The region's highway freight network is comprised of approximately 8,694 miles of roadways, 311 bridges, 22 truck parking facilities, and several intelligent transportation system (ITS) devices that work to improve the safety and mobility of the CORE MPO region's highway network for people and freight.^{3,4}

FIGURE 2.1 NATIONAL HIGHWAY FREIGHT NETWORK



Source: Federal Highway Administration.

³ Highway Performance Monitoring System, Year 2020.

⁴ National Bridge Inventory, 2022.

Rail

The CORE MPO region represents a key node in the statewide freight rail system, a status that is only growing as the Port of Savannah continues to experience record freight volumes year over year. Ongoing rail capacity expansion projects at the Port of Savannah should further cement the region's status as a critical freight hub for Georgia and the southeastern United States, and freight rail service will continue to play a major role in this dynamic in the years ahead.

There is approximately 278.9 miles of rail in the CORE MPO region. Freight railroads are categorized as Class I, Class II, or Class III based on their annual revenues.⁵ Class I railroads are the largest, and generally carry freight longer distances across states and internationally into Canada and Mexico. Class II railroads tend to operate regionally while Class III railroads are typically short-line operations that provide direct, last-mile connections to key destinations in the freight network, including ports and industrial facilities.

Class I Railroads in the CORE MPO Region

- CSX Transportation (CSX)
- Norfolk Southern (NS)

Class III Railroads in the CORE MPO Region

- Georgia Central Railway (GC)
- PVTX (private railroad serving Georgia Power and Georgia Pacific facilities)
- Savannah Port Terminal Railroad (SAPT)
- Savannah & Old Fort Railroad (SVHO)
- Riceboro Southern Railway (RSOR)
- Ogeechee Railroad Company (ORC)
- Allegheny & Western Railway Company (AWRY)

Freight rail terminals are facilities where the transfer of freight between rail and other transportation modes, including but not limited to the movement of containers and trailers, bulk transloads, and automobile distribution. These facilities are critical components of the region's multimodal freight network. The Mason Mega Rail Terminal is one of the region's rail intermodal terminals and is adjacent to the Port of Savannah's Garden City Terminal, allowing for the transfer of shipping containers between rail and ships. It combined formerly separate CSX Transportation and Norfolk Southern terminals which allowed for the addition of 97,000 new feet of rail at Garden City Terminal. The more efficient terminal design provided by the Mason Mega Rail Terminal doubled the Port of Savannah's rail lift capacity to 1 million containers annually.⁶

⁵ Current Surface Transportation Board thresholds establish Class I carriers as any carrier earning revenue greater than \$943.9 million, Class II carriers as those earning revenue between \$42.4 million and \$943.9 million, and Class III carriers as those earning revenue less than \$42.4 million (<https://www.stb.gov/reports-data/economic-data/>).

⁶ [Mason Mega Rail—Georgia Ports Authority \(gaports.com\)](https://www.gaports.com/mason-mega-rail/).



Credit: Georgia Ports Authority.

Ports

The Savannah River and the region's coastal location provides a valuable waterborne connection to national and international markets. The Port of Savannah is critically important to the regional and State economy and generates much of the freight traffic through the region. The Port of Savannah is the largest and fastest growing container terminal in America and the 3rd busiest container port complex in U.S., after L.A./Long Beach and New York-New Jersey.⁷ It is the largest gateway for agricultural exports. In 2021, despite the COVID-19 pandemic's substantial disruption of national and international supply chains, the Georgia Ports Authority handled 41.6 million tons of trade, including 5.6 million twenty-foot equivalent container units (TEU).

The Port of Savannah is comprised of two terminals: Garden City and Ocean. The Garden City Terminal handles container traffic and has on-terminal rail intermodal access. It occupies about 1,345 acres and has over 1.1 million square feet of warehousing.^{8 9} There are ongoing efforts to expand the Garden City Terminal (i.e., Garden City Terminal West) to include a container yard with a capacity of 750,000 TEUs. The Ocean Terminal handles breakbulk, roll-on/roll-off, and container traffic. However, this facility is in the

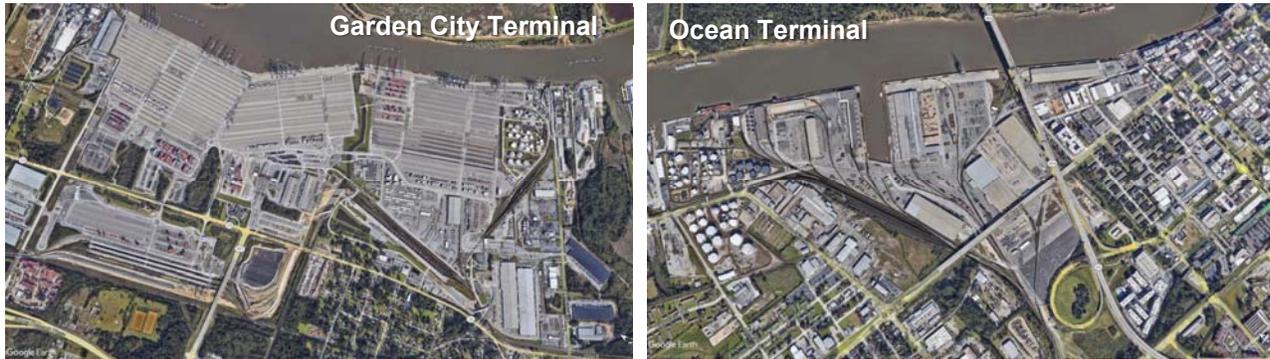
⁷ Georgia Ports Authority, <https://gaports.com/facilities/port-of-savannah/>.

⁸ Georgia Ports Authority, 2021 Annual Report, <https://gaports.dcatalog.com/v/FY21-Annual-Report/?1655986353>.

⁹ Georgia Ports Authority, <https://gaports.com/facilities/port-of-savannah/garden-city-terminal/>.

process of being converted to primarily handle containers. It covers 200.4 acres and provides more than 1.4 million square feet of storage.¹⁰

FIGURE 2.2 DEEPWATER TERMINALS AT THE PORT OF SAVANNAH



Source: Google Earth.

Air

Air cargo has a significant role in the multimodal freight network as it provides the fastest service for long-distance shipments of goods. The high service quality provided by air cargo results in higher shipping costs for this mode. As a result, air cargo tends to be limited to high-value and low-weight goods such as medical supplies, flowers, and electronics.

There are seven airports in the three-county region. However, Savannah-Hilton Head International Airport (SAV) is the only public airport and the only one that handles cargo in the region. Dedicated cargo carriers at SAV include Air Cargo Carriers, Federal Express (FedEx), Martinaire Aviation, Sky Way Enterprises, and Suburban Air Freight.^{11,12} In total, there is about 138,000 square feet of air cargo warehouse space at SAV.¹³ This includes an approximately 80,000-square foot general cargo building open to all carriers as well as an approximately 58,000-square foot air cargo facility dedicated to a single tenant. Both facilities are along Bob Harmon Road which is accessed by SR 307/Dean Forest Road. As air cargo is typically interchanged with highway freight, SAV impacts these and surrounding roadways by generating truck traffic to and from its air cargo facilities.

2.3 Freight Demand

The needs of the Savannah region's freight system are driven by both the current and future demand for freight transportation. This section of the report examines the demand for freight transportation services in the region by analyzing the commodities flows underlying that demand. Overall, in 2019 nearly 163 million tons of freight worth \$367 billion were transported to, from, within, or through (i.e., truck and rail only) the

¹⁰ <https://gaports.com/facilities/port-of-savannah/ocean-terminal/>.

¹¹ Savannah-Hilton Head International Airport, *Comprehensive Annual Financial Report, 2020*, <https://savannahairport.com/wp-content/uploads/2021/07/Savannah-Airport-Commission-2020-Comprehensive-Annual-Financial-Report.pdf>.

¹² <http://savannahairport.com/about/general-aviation>.

¹³ Savannah/Hilton Head International Airport Short-Term Development Program Draft Environmental Assessment, November 2019, https://savannahairport.com/wp-content/uploads/2019/11/191111_SAV-Short-Term-CIP-Draft-EA_rev1a_2s_rfs.pdf.

CORE MPO Region as shown in Figure 2.3. This is projected to more than double in 2050 and grow to over 392 million tons worth \$895 billion.

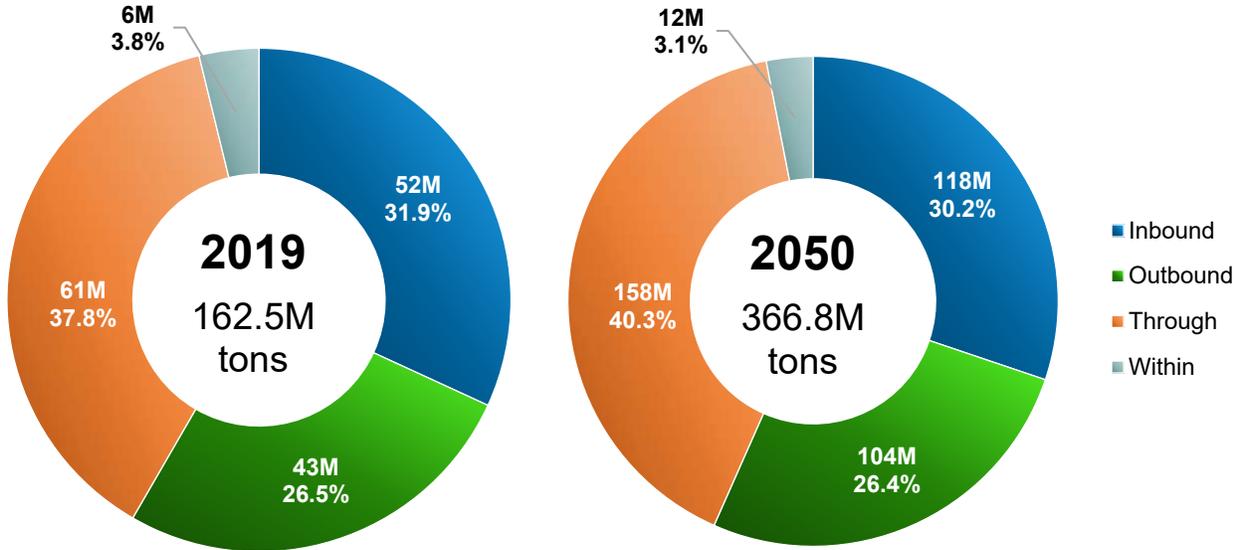
FIGURE 2.3 FREIGHT DEMAND IN THE CORE MPO REGION, 2019 AND 2050

	 TOTAL TONNAGE	 TOTAL VALUE
2019	162.5 MILLION TONS	\$366.7 BILLION
2050	366.8 MILLION TONS	\$895.1 BILLION

Source: TRANSEARCH; USA Trade Online; Cambridge Systematics, Inc. analysis.

Figure 2.4 shows the flow of goods by tonnage across the study region by direction in 2019 and 2050. In 2019, almost 38 percent of all freight tonnage was moved through the region without making a stop. Through movements accounted for the largest share of tonnage. This is due, in large part, to freight shipments traveling along I-95 as it provides access to Florida and major population centers along the east coast. The prevalence of through movements also is due to the region’s rail network as CSX Transportation and Norfolk Southern have main lines traversing the study area. Inbound shipments accounted for the next highest share of goods by total tonnage. They represented 32 percent of total tons in 2019. Outbound shipments represented 27 percent of goods in 2019. About 4 percent of tonnage has an origin or destination within the region.

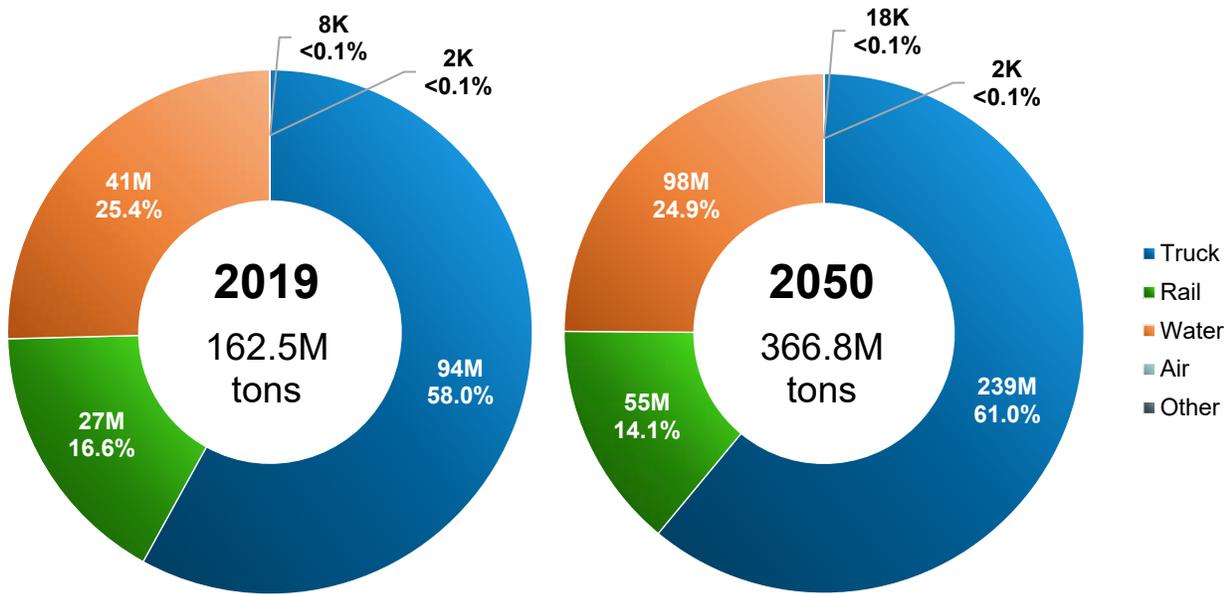
FIGURE 2.4 CORE MPO TONS BY DIRECTION, 2019 AND 2050



Source: TRANSEARCH; U.S. Census Bureau, USA Trade Online; Cambridge Systematics, Inc. analysis.

Figure 2.5 shows the total tonnage by mode for 2019 and 2050. The majority of freight in the CORE MPO region is moved by truck—over 58 percent in 2019. By 2050, trucking is projected to increase its share of total goods moved throughout the region to about 61 percent.

FIGURE 2.5 CORE MPO TONS BY MODE, 2019 AND 2050



Source: TRANSEARCH; U.S. Census Bureau, USA Trade Online; Cambridge Systematics, Inc. analysis.

2.4 Trends Impacting Freight in the CORE MPO Region

Future demand for freight transportation in the CORE MPO region may be impacted several factors. Emerging freight modes, new freight activity centers, and changes in the growth trajectory for the Port of Savannah all have the potential to alter where and how goods move on the region’s multimodal freight network.

Emerging Freight Modes

While freight modes such as trucks and trains have been in use for over a century, advancements in technology have begun to change available modes to include options such as drones, delivery robots, and connected and autonomous trucks deployed in platoons. Emerging freight modes – such as drones and personal delivery devices – have the potential to increase the demand for freight transportation services on the CORE MPO region’s multimodal network. Drones are lightweight aircraft which operate remotely without a pilot physically onboard whereas a delivery robot is an automated robot which conducts deliveries on the ground. Delivery robots (also called personal delivery devices) are being deployed mostly in urban markets.¹⁴ In Georgia, State law was amended to account for the advent of personal delivery devices on the State’s transportation network.¹⁵

Connected and autonomous vehicles may also be viewed as an emerging freight mode. Connected vehicle (CV) technology utilizes short-range communications (commonly referred to as V2X or vehicle-to-everything) to sense what other travelers are doing and to identify potential hazards. Vehicle-to-vehicle (V2V) and

¹⁴ Gizmodo. (2021). “Domino’s Has a New Pizza Delivery Robot That Lets You Track Your Order While It Drives It Over.” <https://gizmodo.com/Domino-s-has-a-new-pizza-delivery-robot-lets-you-track-1846710108>.

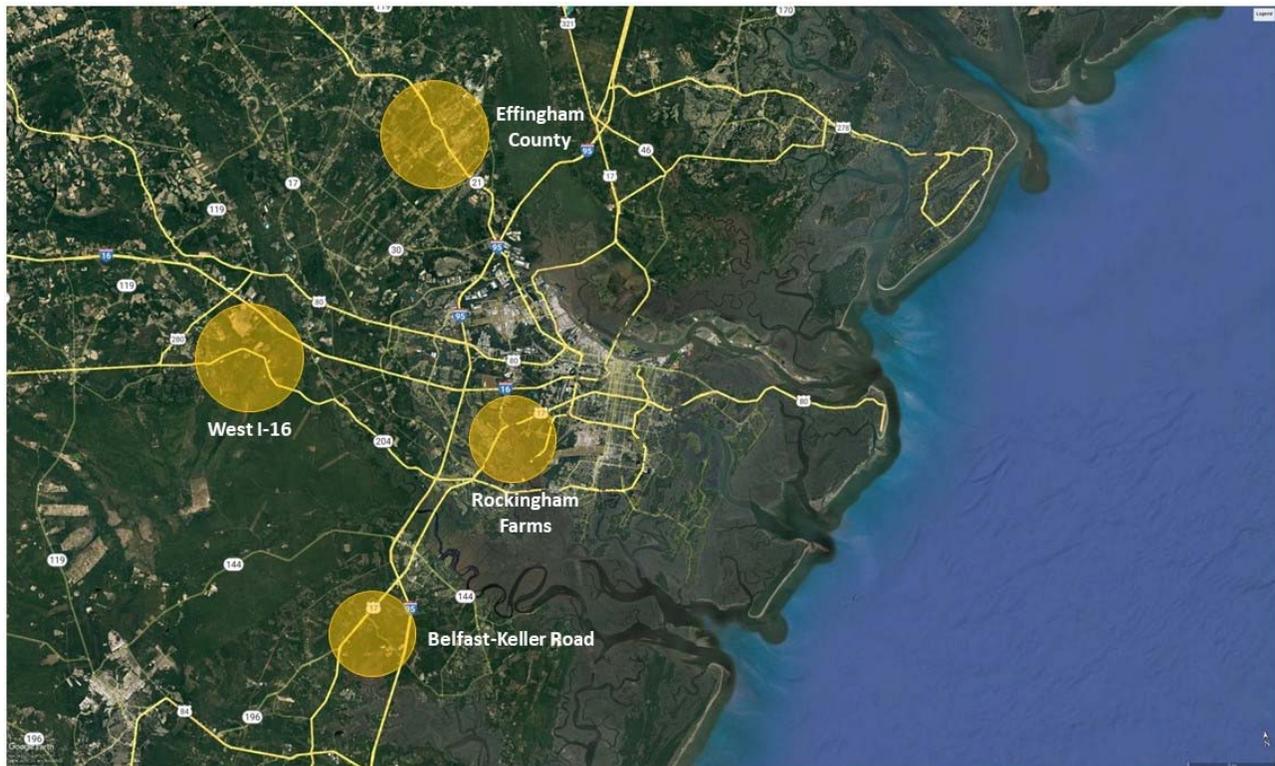
¹⁵ <https://www.legis.ga.gov/api/legislation/document/20212022/207968>.

vehicle-to-infrastructure (V2I) allow for vehicles to have an awareness of each other's location. An increasing number of trucks are using connected and autonomous technologies including sensors, communications, and/or processing software technologies for both steering and braking assistance. Due to ongoing industry challenges to attract new drivers and the continued need to improve safety, the benefits of greater vehicle automation to the trucking industry are substantial. However, it should be noted that currently there are no viable commercial systems for fully autonomous trucks.

Emerging Freight Activity Centers

The emergence of new freight activity centers is another trend impacting the CORE MPO region. While historically the region's industrial and freight activity centered on areas adjacent to the Port of Savannah and east of downtown along President Street, new activity centers are being developed to the north (i.e., north Effingham County), south (i.e., Rockingham Industrial Park in Savannah and the Belfast Commerce Park in Bryan County), and west (i.e., West I-16) of the region's urban core as shown in Figure 2.6. These emerging freight activity centers have the potential to increase in freight demand throughout the region, especially on the highway and rail networks. They also will alter where freight moves in the region. As Hyundai Motor Company currently is developing a major assembly plant in Bryan County, the emergence of these freight activity centers will be hastened as automotive parts suppliers already have begun acquiring land within these areas in anticipation of the new plant.

FIGURE 2.6 EMERGING FREIGHT CLUSTERS

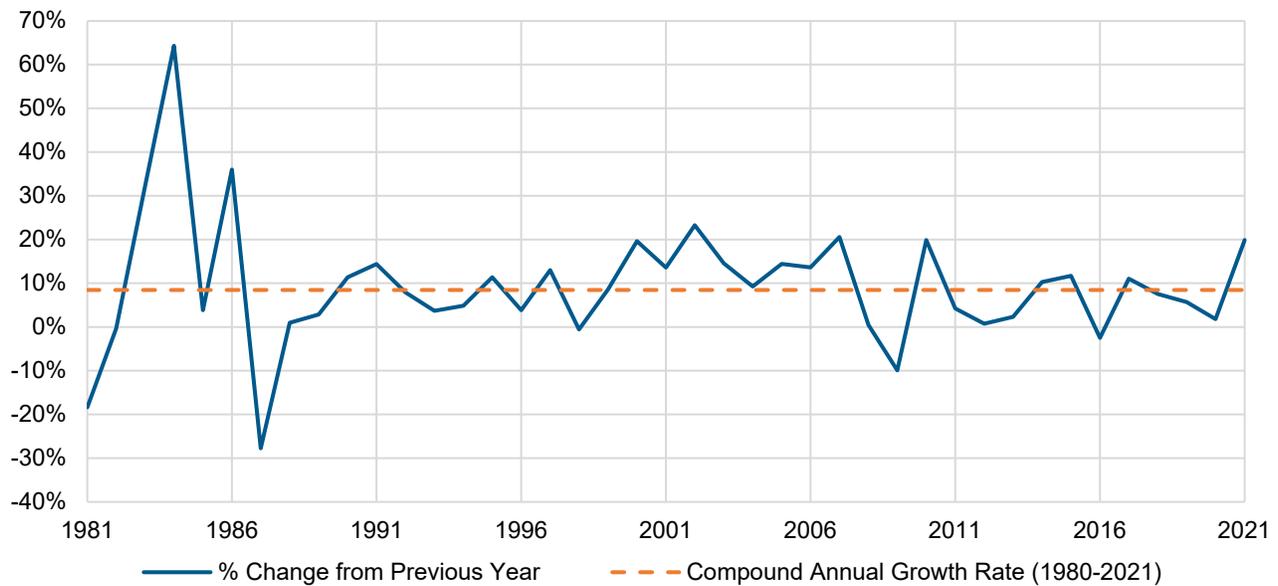


Source: Cambridge Systematics.

Port of Savannah Growth

Growth at the Port of Savannah is another major trend impacting freight in the CORE MPO region. Infrastructure expansion efforts currently underway at the Port of Savannah will grow its annual throughput capacity from 6 million TEUs to approximately 10.7 million TEUs per year.¹⁶ Given historical growth trends, the Port’s current infrastructure expansion efforts is expected to meet future demand. Historically, the Port of Savannah has experienced annual growth in container trade of about 8.5 percent based on 1980–2021 container volumes as shown in Figure 2.7.¹⁷ However, since the onset of the COVID-19 pandemic, annual growth has been closer to about 10.5 percent based on 2019–2021 container volumes. Container traffic increased from nearly 4.6 million TEUs in 2019 to over 5.6 million in 2021. 2022 container volumes exceeded 2021 levels.¹⁸

FIGURE 2.7 PORT OF SAVANNAH CONTAINER TRADE (TEUS), 1980–2021



Source: Georgia Ports Authority; American Association of Port Authorities.

A key question is will growth return to the historical norm, or has the pandemic changed the trajectory of growth and represents a new normal. Returning to this historical rate of growth, the Port of Savannah would reach the limit of its published program of expanded capacity (i.e., 10.7 million TEUs) by 2029. Should the recent higher growth rate which has been experienced since the onset of the COVID-19 pandemic continue, the port would reach the limit of its published program of expanded capacity by 2027. Sustained higher than normal growth at the Port of Savannah would substantially increase freight demand across the region’s highway and rail networks as goods imported or exported by water also must travel on those modes.

¹⁶ Georgia Ports Authority, 2021 Annual Report.

¹⁷ Georgia Ports Authority, “By the Numbers,” Total Annual Container Trade for Calendar Years 2017 through 2021, May 2022, <https://gaports.com/wp-content/uploads/2022/05/CY21-Annual-Container-Trade.pdf?1667954238>; American Association of Port Authorities, “Port Industry Statistics,” North America Container Traffic 1980-2018, <https://www.aapa-ports.org/unifying/content.aspx?ItemNumber=21048>.

¹⁸ Georgia Ports Authority, “Port of Savannah Total Annual Container Trade for Calendar Years 2018 through 2022,” <https://gaports.com/wp-content/uploads/2023/05/CY22-Annual-Container-Trade.pdf?1698369946>, Accessed October 26, 2023.

3 FREIGHT SYSTEM ASSESSMENT

While the CORE MPO region's multimodal freight network contributes significantly to the economic prosperity of the region, key freight needs and opportunities limits its ability to further contribute to the region's success. As shown in Table 3.1, there are several needs and opportunities on the CORE MPO region's multimodal freight network within the framework of seven critical performance areas: congestion and reliability, infrastructure conditions and network connectivity, safety, truck parking, resiliency, community and environmental impacts, and land use. As freight demand is projected to grow substantially over the long-term, the region's freight needs will be exacerbated unless actions are taken now. To this end, these needs and opportunities served as the basis for the recommendations and strategies proposed as part of the Regional Freight Transportation Plan Update.

TABLE 3.1 OVERVIEW OF NEEDS AND OPPORTUNITIES

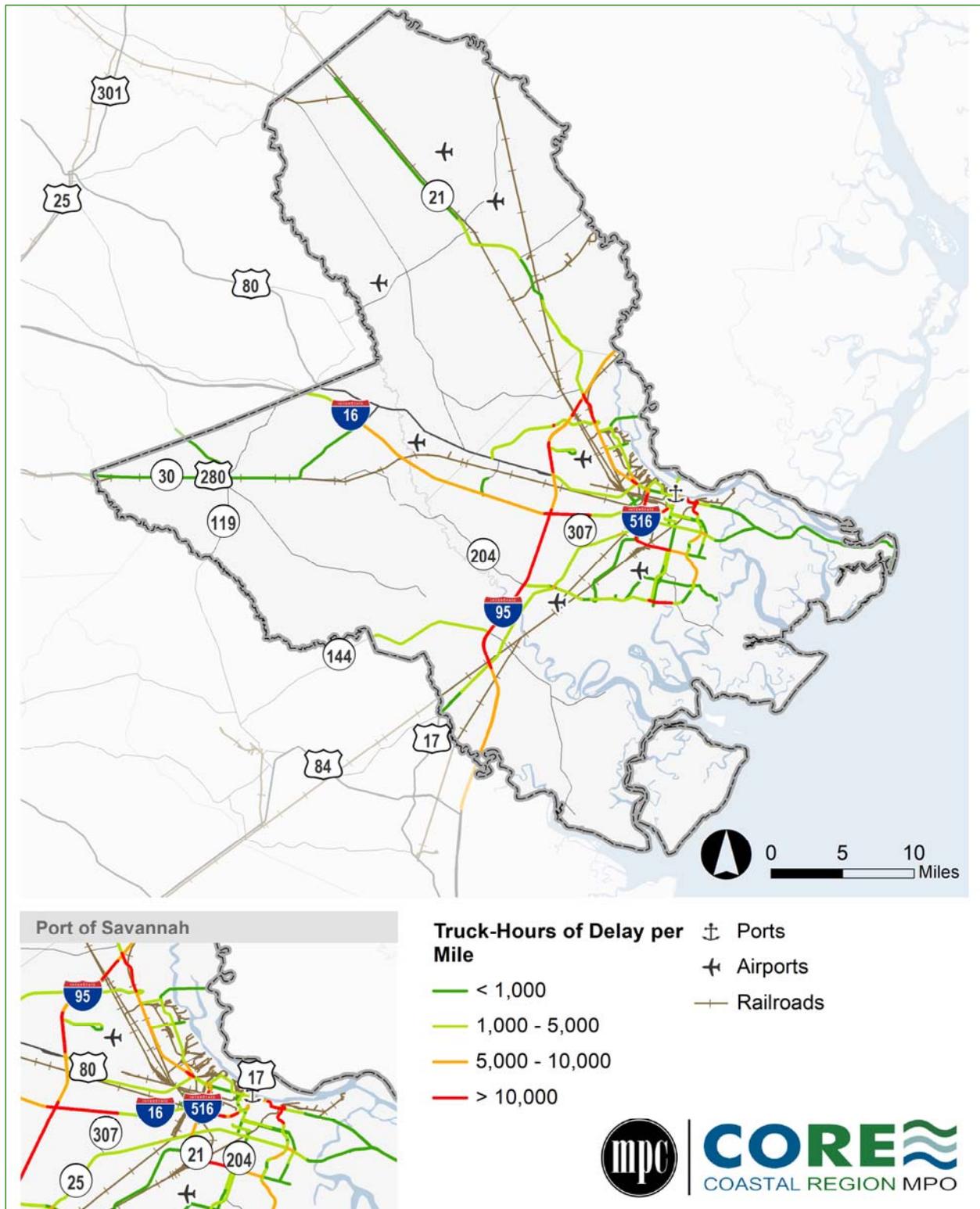
Need or Opportunity	Summary
Congestion and Reliability	<ul style="list-style-type: none"> Multiple freight routes exhibit high levels of congestion or unreliable travel times. The prevalence of at-grade crossings contributes to the region's congestion and reliability challenges.
Infrastructure Conditions and Network Connectivity	<ul style="list-style-type: none"> Several freight corridors have poor pavement conditions. Some bridges crossing freight routes have low vertical clearances and act as physical constraints to freight mobility. Related to congestion and reliability challenges is the lack of roadway connectivity in certain parts of the region. At-grade crossings and infrastructure conditions (i.e., pavement conditions and low vertical clearances) contribute to access challenges for existing multimodal connections.
Safety	<ul style="list-style-type: none"> Multiple corridors that are critical to freight mobility exhibit crash rates that exceed regionwide averages. Some at-grade rail crossings have experienced multiple crashes over the past 10 years.
Truck Parking	<ul style="list-style-type: none"> Truck parking capacity appears to satisfy current demand, but capacity is becoming constrained. Future growth in trucking activity may quickly consume existing capacity and worsen the existing need.
Resiliency	<ul style="list-style-type: none"> Several of the region's freight assets are at risk to disruption from multiple hazards.
Community and Environmental Impacts	<ul style="list-style-type: none"> Some communities are disproportionately impacted by goods movement, including experiencing more intense truck congestion, accommodating a greater share of freight activity and its associated negative externalities, and have higher rates of truck-involved crashes.
Land Use	<ul style="list-style-type: none"> Freight-generating land uses are becoming more prevalent throughout the region. Though these industries bring jobs and other economic benefits, they also further strain the region's multimodal freight network and sometimes result in conflicts with residential, commercial, and other land uses.

Source: CORE MPO; Cambridge Systematics; AECOM; Symbioscity.

3.1 Congestion and Reliability

Fast and reliable truck transportation is critical to modern supply chains and the companies that rely on them. The ability of the CORE MPO region to support these supply chains impacts economic development opportunities and quality of life across the region. As a result, addressing needs related to congestion and unreliability is a crucial element of the Regional Freight Transportation Plan Update. One measure of congestion is Annual Truck Hours of Delay per Mile. This measure emphasizes corridors with both a substantial difference between actual and reference travel times as well as those that carry high volumes of trucks. Truck delay is largely concentrated on a handful of the region's major freight corridors including I-95, I-16, I-516, and SR 21.

FIGURE 3.1 TRUCK-HOURS OF DELAY PER MILE



Source: National Performance Management Research Data Set, 2021; AECOM; Cambridge Systematics.

3.2 Infrastructure Conditions and Network Connectivity

Poor pavement conditions, bridge conditions, and a lack of network connectivity can impact the cost and safety of travel for passengers and freight. Cracked and rutting roadway surfaces can cause additional wear and tear on freight vehicles as well as damage the goods they are transporting. The vertical clearance of bridges can impact freight mobility as trucks are forced to divert to less efficient routes if a facility does not have sufficient vertical clearance. Building and maintaining the freight network to a condition that facilitates the efficient movement of goods is a critical regionwide need.

FIGURE 3.2 VERTICAL CLEARANCE AT E. LATHROP AVENUE



Source: Google.

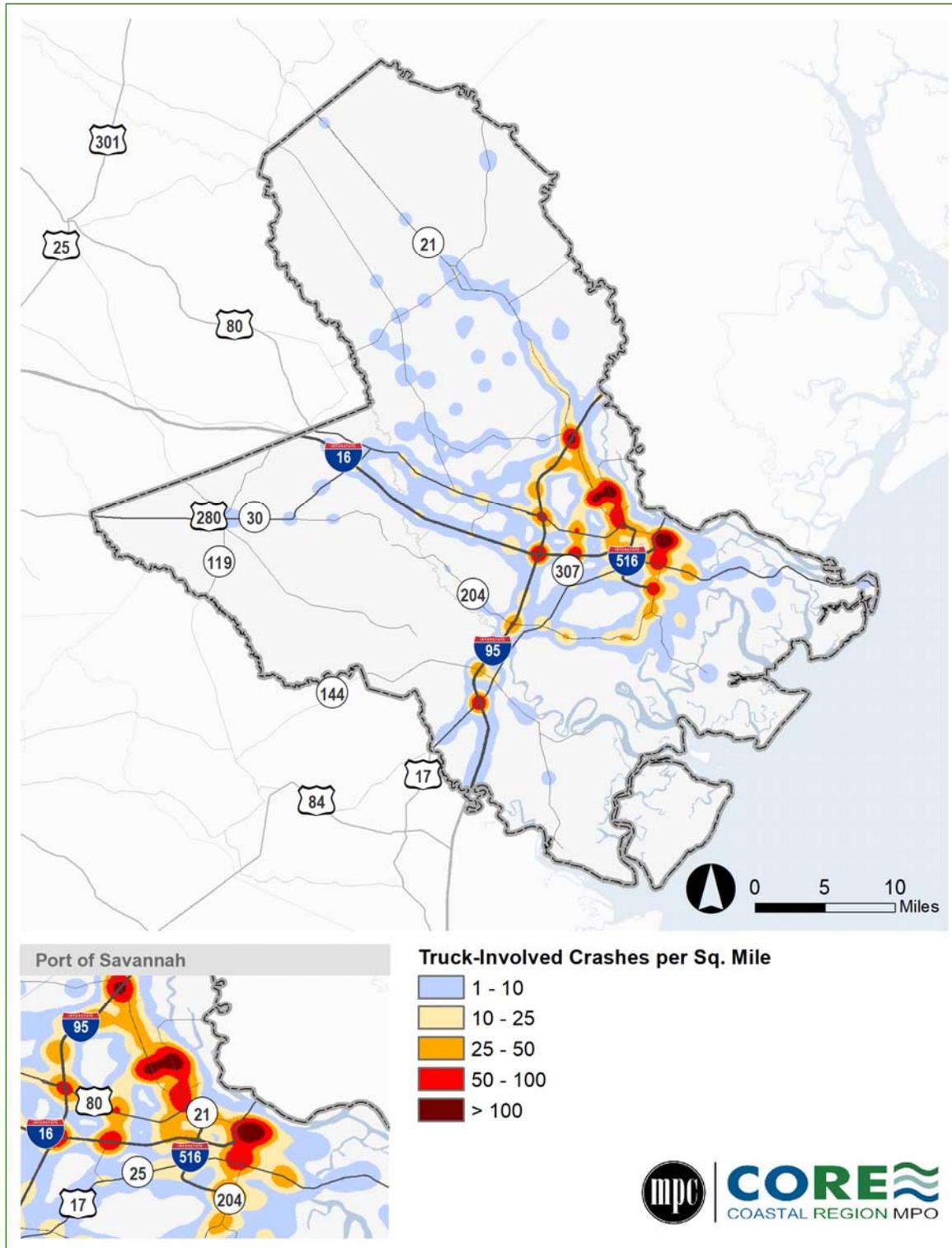
There are also highway network connectivity challenges throughout the CORE MPO region. As the region has grown and new freight activity centers are emerging, formerly rural communities are now experiencing an influx of freight-oriented developments. While these developments are situated on or adjacent to major freight corridors, the existing highway network does not efficiently handle the origin-destination patterns generated by these developments.

Effingham County provides an example of this challenge as warehouses, distribution centers, and other freight-oriented land uses have been developed along or near freight corridors such as SR 21, McCall Road, and Old Augusta Road. While the current roadway network provides adequate north-south connectivity to I-95 and the Port of Savannah, it does not provide sufficient east-west connectivity to I-16. This contributes to congestion and reliability challenges on corridors such as SR 21.

3.3 Safety

Transportation safety is extremely important and is one of the highest transportation priorities. Roadway safety represents an important measure of performance not only because of the potential loss of life and damage to property, but also because of the role it plays in congestion and unreliability. There were 3,716 crashes involving trucks in the region based on 2016–2020 data. Truck crashes were concentrated on major freight corridors such as I-95, I-16, SR 21, and SR 307.

FIGURE 3.3 TRUCK-INVOLVED CRASHES, 2016–2020



Source: GDOT Numetrics Database; Cambridge Systematics, Inc. analysis.

3.4 Truck Parking

Truck drivers must be able to park in safe, designated facilities for safety and to adhere to various federal and state regulations. As a result, truck parking is an essential element of the CORE MPO region's multimodal freight network. Current truck parking capacity appears to satisfy current demand, but capacity is becoming constrained. An analysis of truck trip trajectory data suggested that during peak periods, about 75 percent of the region's truck parking spaces are occupied.¹⁹ In addition, some stakeholders observed that the region generally lacks truck parking given the level of trucking activity and provided examples of unauthorized truck parking occurring in industrial parks and on roadway shoulders. Given the region's projected growth in freight activity and planned capacity expansions at the Port of Savannah, the region's existing truck parking needs will worsen over time.

3.5 Resiliency

The FHWA defines resilience as “the ability to anticipate, prepare for, and adapt to, changing conditions and withstand, respond to, and recover rapidly from disruptions.”²⁰ Freight resiliency entails the ability of the multimodal freight network to withstand disruptions with minimal impacts to safety and the economy. As large-scale disruptions to the freight network and associated supply chains have become more common, resiliency has become a much more important component of freight transportation planning. Because of this, investments in improving the resiliency of its multimodal freight network is important for the CORE MPO region.

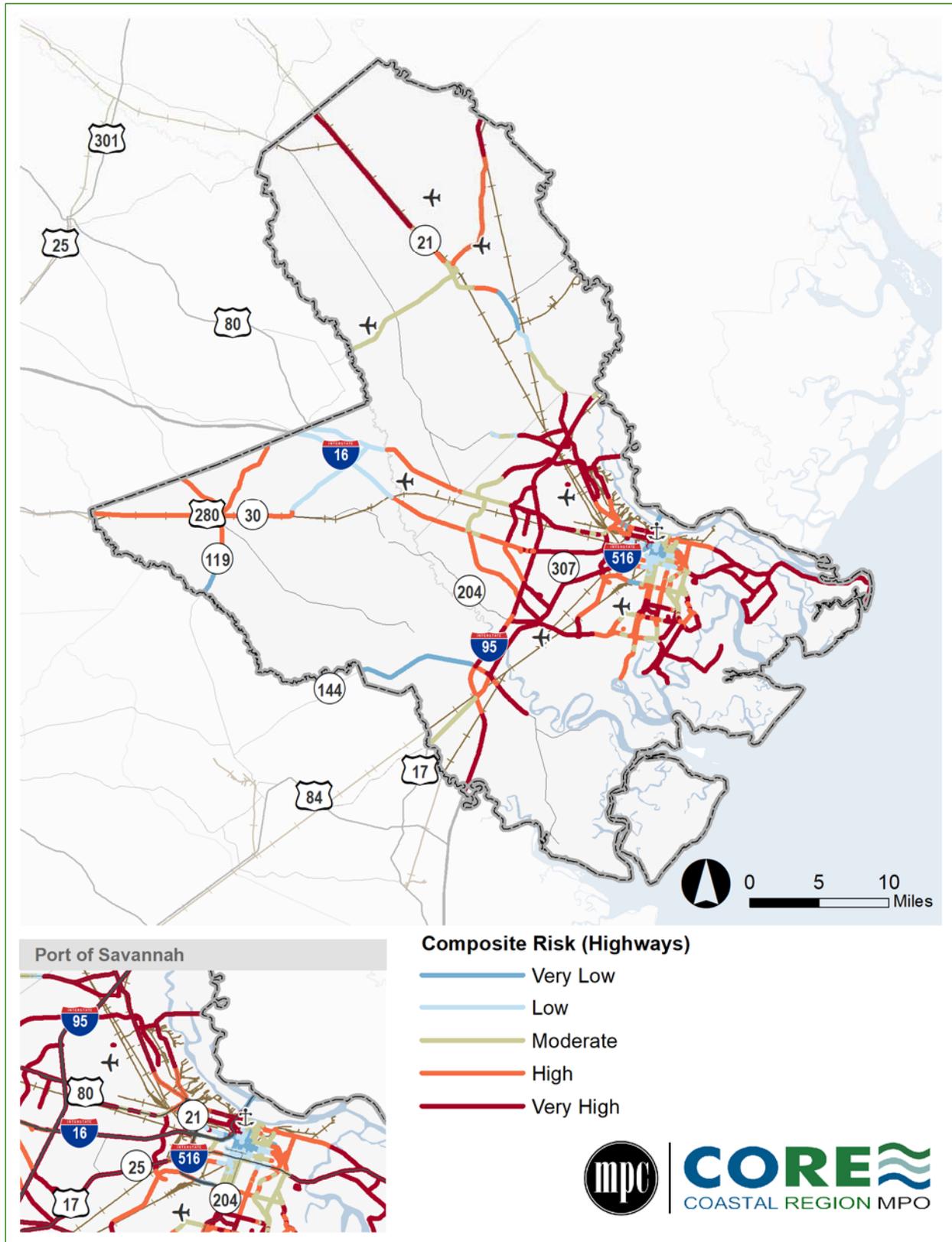
Based on data from the Federal Emergency Management Agency (FEMA) National Risk Index (NRI), much of the region and its multimodal freight network is at risk to disruption from multiple hazards—namely sea level rise/coastal flooding, riverine flooding, and hurricanes.²¹ These hazards place several of the region's major freight terminals at risk to disruption. For example, Figure 3.4 shows highway assets in the CORE MPO region and depicts their composite risk vulnerability (only arterial roadways and Interstate highways are included in the map). Overall, it shows that several of the region's major highway freight corridors are at risk for disruption from various hazards.

¹⁹ Refer to the Task 2.6: Truck Parking Inventory and Truck Restrictions memorandum for more details.

²⁰ FHWA: <https://www.fhwa.dot.gov/legsregs/directives/orders/5520.cfm>.

²¹ Federal Emergency Management Agency, National Risk Index Technical Documentation, version 1.18.1, November 2021.

FIGURE 3.4 VULNERABLE HIGHWAY ASSETS



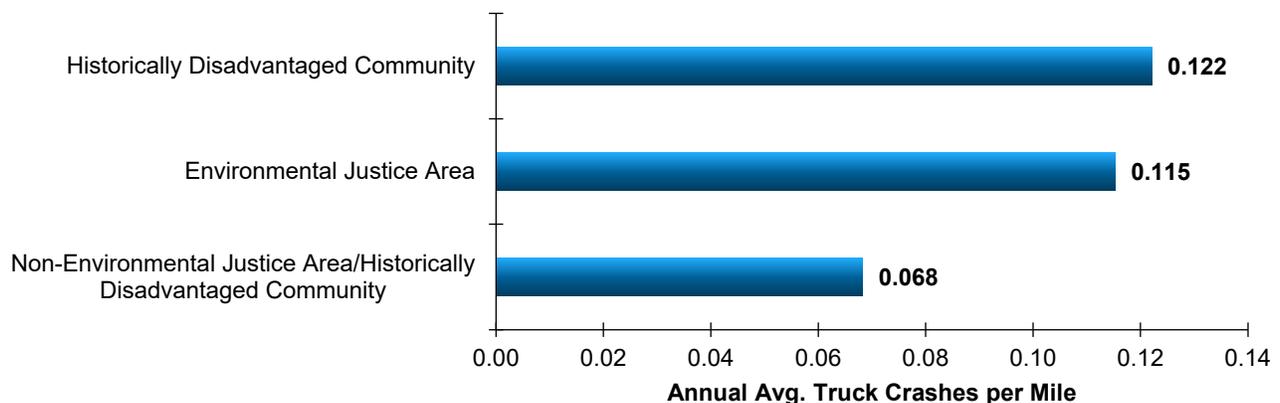
Source: FEMA, 2022; Highway Performance Management System, 2021; Cambridge Systematics, Inc. analysis.

3.6 Community and Environmental Impacts

Transportation equity seeks fairness in mobility and accessibility to meet the needs of all community members.²² A core tenet of transportation equity is ensuring that the benefits and burdens of the transportation system are equitably distributed, especially underserved communities.²³ In advancing freight transportation equity across the CORE MPO region, the Regional Freight Transportation Plan Update investigated the distribution of the negative impacts related to highway infrastructure relative to Environmental Justice (EJ) and Historically Disadvantaged Communities. EJ communities as those with shares of minority populations and low-income populations that exceed the regional average. Historically Disadvantaged communities are defined by U.S. DOT as Census tracts according to six indicators related to transportation access, health, and environment, among others.²⁴ Key findings of the analysis included the following:

- **Congestion and Reliability.** EJ areas on average experience truck travel times that are less reliable than non-EJ area/historically disadvantaged communities. In addition, on average they also experience more intense truck congestion than non-EJ area/historically disadvantaged communities.
- **Freight Activity.** Due to historical land use development patterns, freight assets such as major highways and rail terminals tend to be clustered in those communities. As a result, EJ areas and historically disadvantaged communities often bear a disproportionate share of freight activity and its associated negative externalities. The analysis found that historically disadvantaged and EJ areas handle larger shares of trucking activity compared to non-EJ areas/historically disadvantaged communities.
- **Safety.** Relative to non-EJ areas/historically disadvantaged communities, EJ areas and historically disadvantaged communities experience a higher rate of truck-involved crashes (see Figure 3.5). At-grade crossings also are potential safety hazards as they present an opportunity for trains to collide with vehicles, pedestrians, or other roadway users. 90 percent of at-grade crossings are located in EJ areas and historically disadvantaged communities.

FIGURE 3.5 COMPARISON OF TRUCK-INVOLVED CRASH RATES ACROSS COMMUNITIES



Source: Federal Railroad Administration, Highway-Rail Crossing Inventory; Cambridge Systematics, Inc.

²² FHWA, Transportation Planning and Capacity Building. Transportation Equity. https://www.planning.dot.gov/planning/topic_transportationequity.aspx.

²³ Federal Register Vol. 86, No. 14, Monday, January 25, 2021. Presidential Documents: Executive Order 13985 of January 20, 2021. <https://www.govinfo.gov/content/pkg/FR-2021-01-25/pdf/2021-01753.pdf>.

²⁴ CDC Social Vulnerability Index, Census America Community Survey, EPA Smart Location Map, HUD Location Affordability Index, EPA EJ Screen, FEMA Resilience Analysis & Planning Tool, and FEMA National Risk Index.

Environmental considerations are an important aspect of freight transportation planning, project development and operations. Transportation networks intertwine with wildlife habitats and can have adverse effects such as loss of habitat, degradation of habitat quality, crashes that can reduce animal populations, and population fragmentation and isolation. The 2040 Chatham County-Savannah Comprehensive Plan observed that upland areas of the region have forested and vegetated isolated wetlands that are frequently targeted for development and that Chatham County was estimated to have lost 5.5 square miles of wetlands between 1996–2016.²⁵

The burning of fossil fuels such as coal and oil, along with deforestation, land-use changes, and other activities have caused the concentrations of heat-trapping greenhouse gases (GHG) to increase significantly in the Earth's atmosphere.²⁶ Among the various GHG, CO₂ is the largest source of U.S. emissions and has accounted for over 75 percent of total U.S. gross emissions across the 1990–2020 time period.²⁷ Transportation activities accounted for 36.2 percent of U.S. CO₂ emissions from fossil fuel combustion in 2020. For the Savannah urbanized area, truck traffic on NHS roadways was estimated to generate approximately 619 metric tons of CO₂ per mile in 2021.

3.7 Land Use

Transportation has a strong relationship with land use and development patterns in the CORE MPO region. For example, additional roadway and transit capacity may be necessary to support an influx of new homes and businesses, while modifications to current intersection designs and new truck parking facilities may be necessary to accommodate trucks serving those homes and businesses. Likewise, these transportation investments spur new development (and redevelopment) as companies and communities take advantage of improved accessibility and new capacity.

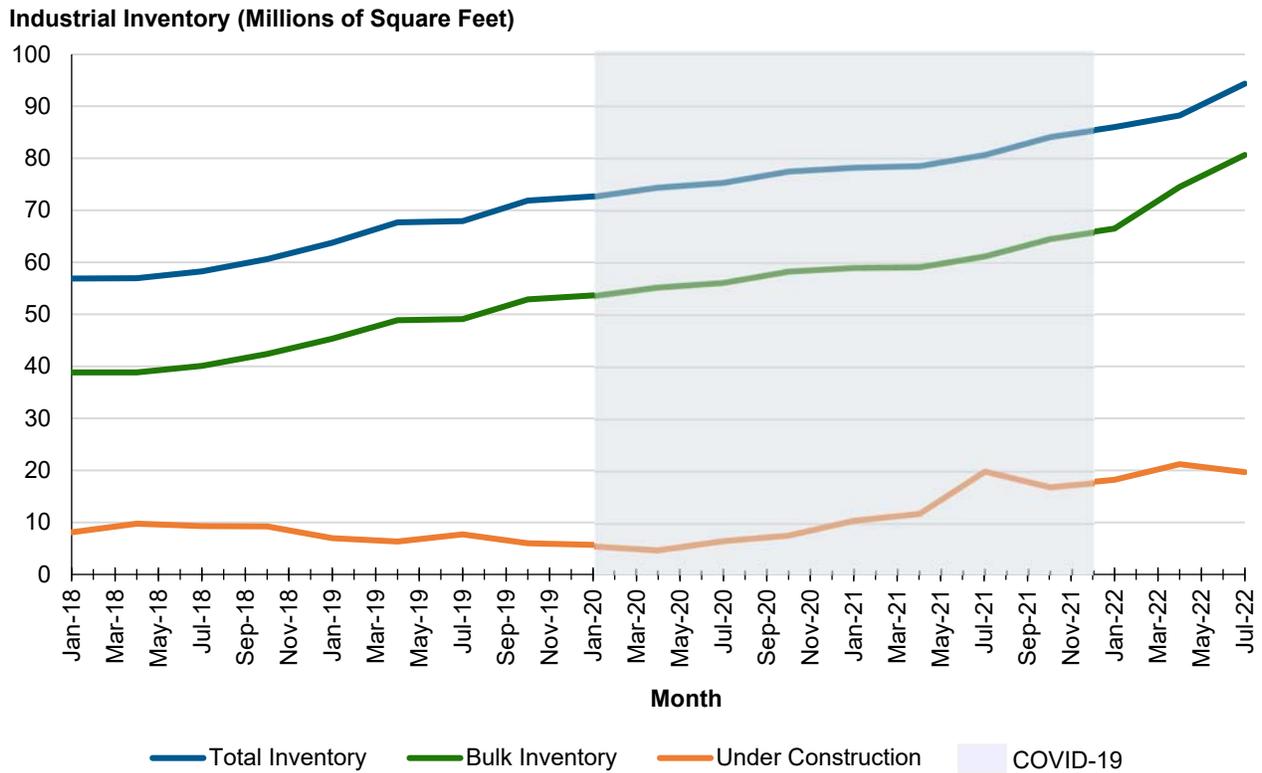
Overall, freight-generating land uses (i.e., manufacturing, transportation and logistics, etc.) have been increasing throughout the region at a rapid pace. As shown in Figure 3.6, between July of 2018 and July of 2022, warehouse inventory across the region increased from 57 million square feet to 94 million square feet, an average increase of 9.3 million square feet annually. Bulk inventory (defined as facilities that are 100,000 square feet or larger) increased from 39 million square feet to 81 million square feet over this same time period, an average annual increase of 10.5 million square feet. This represents a significant acceleration in the construction of bulk inventory since 2018, as the prior 5-year period (2013–2018) saw a total increase in bulk inventory of 13.8 million square feet across the region, or 2.8 million square feet per year.

²⁵ Plan 2040: Chatham County-Savannah Comprehensive Plan.

²⁶ Intergovernmental Panel on Climate Change, Climate Change 2021, <https://www.ipcc.ch/report/ar6/wg1/>.

²⁷ United States Environmental Protection Agency, "Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2020," <https://www.epa.gov/system/files/documents/2022-04/us-ghg-inventory-2022-main-text.pdf>. Washington DC, 2021. <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2019>.

FIGURE 3.6 SAVANNAH INDUSTRIAL REAL ESTATE INVENTORY



Source: Colliers Quarterly Industrial Market Reports, 2018–2022.

Currently, land use planning is disjointed across the three counties and municipalities that comprise the study area. Because of this, there is little consistency in land use strategies resulting in a patchwork of approaches that do not adequately communicate with or complement each other and compromise the region’s ability to handle such substantial freight-related growth. As freight volumes and freight generating industries in the region continue to rapidly grow, it will become increasingly challenging to meet the region’s transportation needs without greater consistency and collaboration in land use planning.

4 STRATEGIES AND RECOMMENDATIONS

This section of the report defines a comprehensive set of strategies for improving the performance and reducing the negative impacts of the regional goods movement system while capitalizing on development opportunities. It develops short-, mid-, and long-term strategies for addressing critical freight needs and deficiencies while mitigating potential negative impacts. These strategies are presented as “solution packages” that combine infrastructure, operational, and policy-level recommendations to address critical freight needs. Accompanying the strategies and recommendations is an implementation plan that outlines the action steps, potential funding sources, and planning-level cost estimates needed to execute the recommendations.

4.1 Project Identification, Evaluation, and Prioritization

The recommendations and strategies presented in this memorandum were initially identified through stakeholder interviews, public meetings, discussions with the Steering Committee, feedback from the EDFAC, the findings of the needs assessment conducted as part of the Regional Freight Transportation Plan Update, and through a review of previous projects and studies. The project identification process is shown in Figure 4.1.

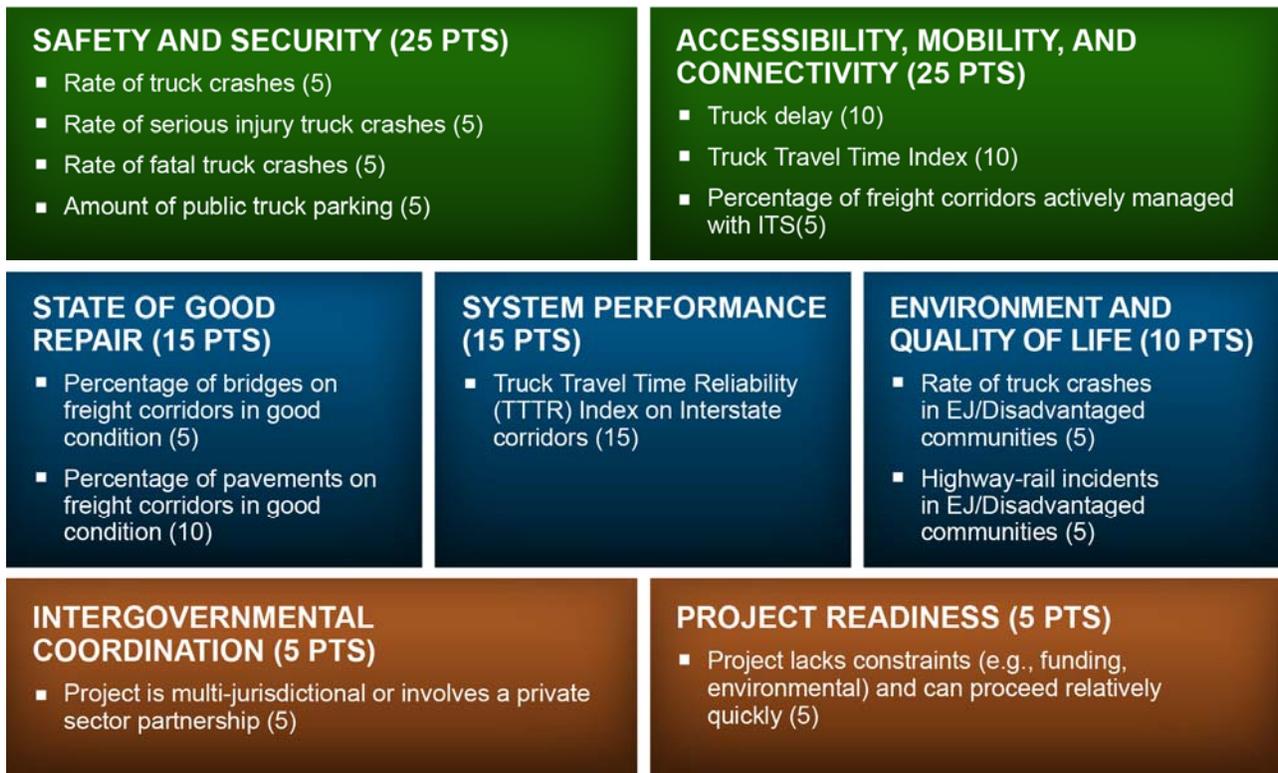
FIGURE 4.1 PROJECT IDENTIFICATION PROCESS



Source: Cambridge Systematics.

After project identification, the Regional Freight Transportation Plan moved on to scoring the recommendations for the purpose of prioritizing projects. Projects were scored according to their ability to positively impact the transportation network and advance the region’s freight transportation goals. As shown in Figure 4.2, projects were eligible to receive a maximum of 100 points. The Safety and Security as well as the Accessibility, Mobility, and Connectivity goal areas accounted for the most points a project may receive. This is reflective of feedback from the EDFAC as well as public outreach.

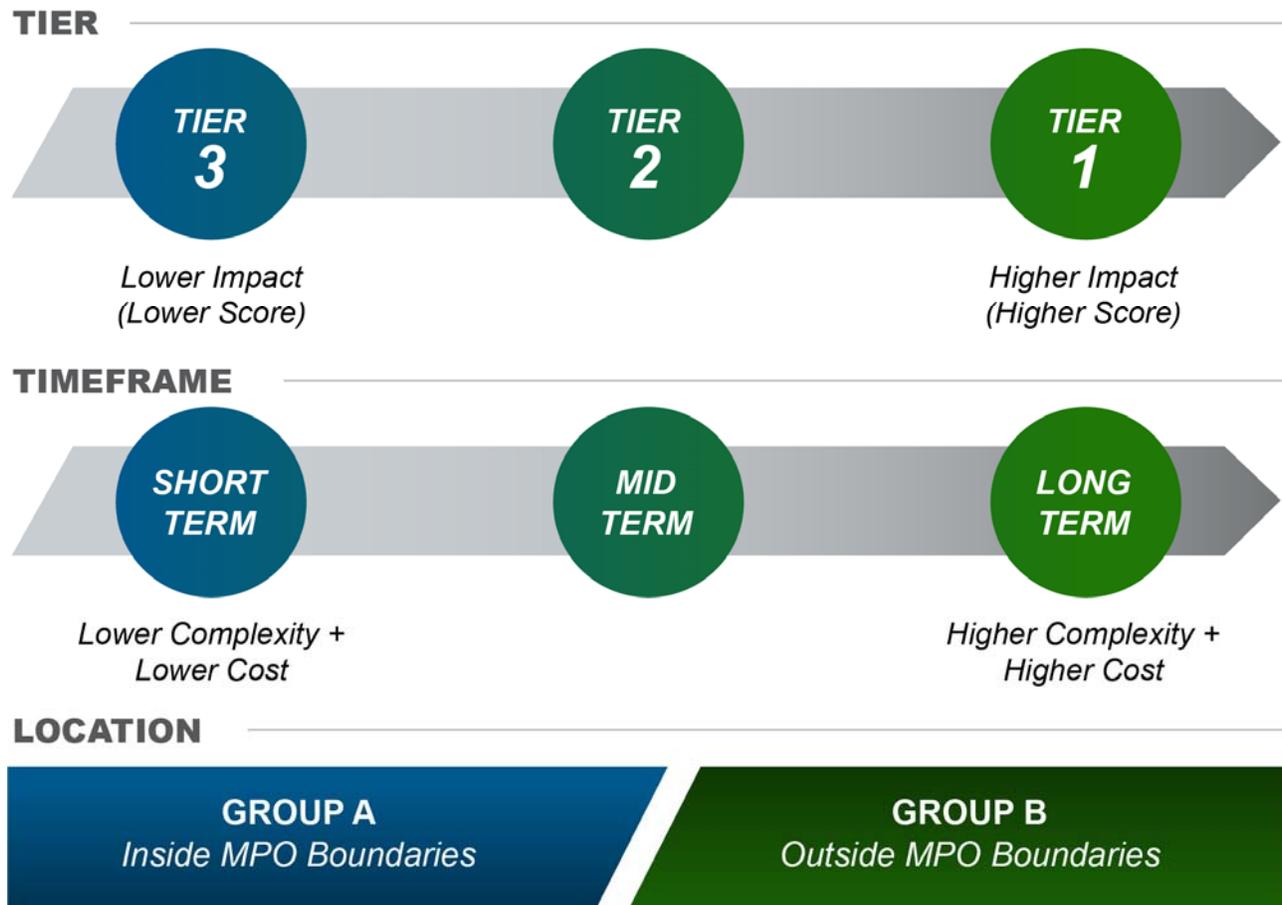
FIGURE 4.2 PROJECT SCORING



Source: Cambridge Systematics.

After the recommended projects were scored, they were then prioritized according to three factors which are illustrated in Figure 4.3:

- **Tier**—Projects with a potentially higher impact to the freight network (as indicated by the project score) were designated as Tier 1 while those with lower potential impacts were designated as Tier 3.
- **Timeframe**—Projects were separated into implementation timeframes based on their potential complexity and cost.
- **Location**—Group A projects are those that are inside the CORE MPO boundaries. As such, they are eligible to be included in the Transportation Improvement Program (TIP). Group B projects are those that fall outside of MPO boundaries but are still important to regional freight mobility.

FIGURE 4.3 PROJECT PRIORITIZATION PROCESS

Source: Cambridge Systematics.

4.2 Recommendations and Implementation Plan

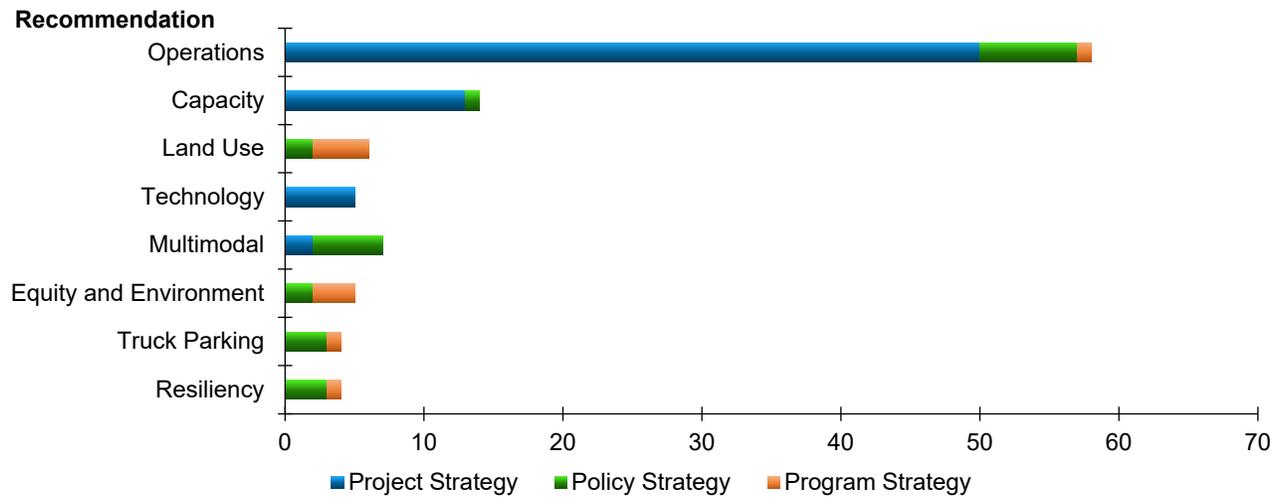
From the quantitative and qualitative analysis, the project identification process resulted in eight broad, overarching recommendations. Those eight recommendations are shown in Figure 4.4. Each overarching recommendation is comprised of a set of specific project, policy, and program recommendations. Project recommendations are those that make capital, operational, or technology investments on the multimodal freight network. Policy recommendations are those that provide guidelines or principles that shape the way the region approaches its freight needs. Programmatic recommendations are those that feature ongoing actions, initiatives, or activities. Figure 4.5 and Table 4.1 summarize the recommendations by category and by type. In total, 103 specific recommendations were made as part of the Regional Freight Transportation Plan Update.

FIGURE 4.4 REGIONAL FREIGHT TRANSPORTATION PLAN RECOMMENDATIONS

Advance Strategic Capacity Expansions, Proactively Increase Network Connectivity	<ul style="list-style-type: none">• Provide relief to existing bottlenecks and get ahead of new demand by expanding the physical footprint of the network.
Implement Operational Strategies to Enhance Freight Mobility and Safety	<ul style="list-style-type: none">• Improve the ease, efficiency, and safety of freight operations with minimal impacts to the footprint of the network.
Support Increased Capacity, Enhanced Operations, and Safety on the Multimodal Freight Network	<ul style="list-style-type: none">• Ensure that shippers have an alternative to trucking and support economic competitiveness.
Implement Technology Strategies to Enhance Freight Operations and Safety	<ul style="list-style-type: none">• Use technology and information to ease freight-related congestion and improve the mobility and efficiency of freight operations.
Increase Access to Safe Truck Parking	<ul style="list-style-type: none">• Improve safety for truck drivers and provide relief for areas that experience unauthorized truck parking.
Improve Freight Network Resiliency	<ul style="list-style-type: none">• Improve the freight network's ability to withstand and recover from disruptions.
Mitigate Freight Impacts on Communities and the Environment	<ul style="list-style-type: none">• Avoid where possible and limit the negative impacts of freight to communities and the environment.
Integrate Freight Considerations into Land Use Planning	<ul style="list-style-type: none">• Guide where and how freight-generating land uses are developed to limit negative environmental impacts, community impacts, and freight-related congestion.

Source: Cambridge Systematics.

FIGURE 4.5 SUMMARY OF RECOMMENDATIONS BY CATEGORY



Source: Cambridge Systematics.

TABLE 4.1 SUMMARY OF RECOMMENDATIONS BY TYPE

Type	No. of Recommendations	Percent of Total
Project	79	68.0%
Policy	23	22.3%
Program	10	9.7%
Total	103	100%

Source: CORE MPO; Cambridge Systematics; AECOM; Symbioscity.

The overarching recommendations, as well as the specific recommendations that comprise them, are listed in the Appendix.

5 CLOSING THOUGHTS

The CORE MPO region has prospered, in part, due to the economic benefits that stem from serving as a global center for trade. In addition, the region has successfully leveraged its strengths in logistics to become an emerging manufacturing hub for businesses looking to create and ship a diverse portfolio of finished products to clients around the globe. However, this success also has created challenges in the form of freight-induced congestion, environmental impacts, and safety, among others. The recommendations and action steps outlined in the Regional Freight Transportation Plan Update are crucial to addressing these challenges and demonstrate the region's continued commitment to supporting economic development, environmental sustainability, equity, and improved quality of life for its residents and businesses.

Implementation will only be successful with the participation and collaboration of all public- and private-sector users and owners of the transportation system. CORE MPO has an important role to play in identifying and planning for long-term strategic investments in the transportation network and helping to guide land use decisions that impact that network; GDOT is essential for maintaining, operating, and where appropriate expanding State-owned freight transportation infrastructure; GPA is a critical partner as the owner and operator of the Port of Savannah, which is the primary driver of freight activity throughout the region. However, those partners cannot be solely responsible for implementing all of the policy, program, and project recommendations. These recommendations can only become actionable with strong coordination with and cooperation among all stakeholders both public and private: motor carriers, railroads, warehousing and logistics providers, shippers, manufacturers, industrial real estate developers, and other freight industry stakeholders, as well as with Federal and other State agencies, cities, and counties.



Appendix A. List of Strategies and Recommendations

A.1 Advance Strategic Expansions to Capacity and Proactively Increase Network Connectivity in Emerging Freight Clusters

TABLE A.1 STRATEGIC EXPANSIONS TO CAPACITY AND PROACTIVELY INCREASE NETWORK CONNECTIVITY

Name	Type	Description	Key Stakeholders ¹	Cost	Source(s)	Tier	Implementation Timeframe	Funding Source(s)
I-16 Widening	Project Strategy	Widen I-16 from 4 to 6 lanes between I-95 and SR 67 in Bulloch County border.	GDOT , CORE MPO, Chatham County, Bryan County, Bulloch County	\$481,000,000	CORE MPO FY2021–2024 TIP, Coastal Empire Study	Tier 1A	Long-term	State MFT, INFRA, MEGA, NHFP, NHPP
I-95 Auxiliary Lanes	Project Strategy	Add an auxiliary lane to in each direction between SR 21 and U.S. 17.	GDOT , CORE MPO, Chatham County, Bryan County, Effingham County, Savannah, Pooler, Port Wentworth	\$121,000,000	Coastal Empire Study	Tier 1A	Long-term	State MFT, INFRA, MEGA, NHFP, NHPP
Belfast Keller Road Widening	Project Strategy	Widen Belfast Keller Road to a 6-lane divided section between I-95 and Great Ogeechee Parkway.	GDOT , Bryan County, Richmond Hill	\$3,500,000	Belfast Keller Road Transportation Assessment, Coastal Empire Study	Tier 1B	Midterm	State MFT, PROTECT (Discretionary and Formula), RSTP, STBG
John Carter Road Widening	Project Strategy	Widen John Carter Road to 4 lanes from Little Neck Road to Old River Road. Identify and implement operational improvements as suggested in the Chatham County 2023 TSPLOST.	Chatham County , CORE MPO	\$15,000,000	Chatham County 2023 TSPLOST, Coastal Empire Study	Tier 1A	Midterm	State MFT, RSTP, STBG
Old River Road Widening	Project Strategy	Widen Old River Road to 4 lanes between SR 204 and I-16.	Chatham County , Effingham County , CORE MPO	\$16,000,000	CORE MPO FY2021–2024 TIP, Coastal Empire Study	Tier 1A	Midterm	State MFT, RSTP, STBG

Name	Type	Description	Key Stakeholders ¹	Cost	Source(s)	Tier	Implementation Timeframe	Funding Source(s)
State Route 204 Widening	Project Strategy	Widen SR 204 to 4 lanes between Old River Road and I-95.	GDOT , CORE MPO, Savannah, Chatham County	\$16,000,000	Coastal Empire Study	Tier 1A	Long-term	State MFT, INFRA, RAISE, RSTP
State Route 21 Widening	Project Strategy	Widen SR 21 to 6 lanes between SR 30 and 9 th St. in Rincon; provide raised median and median opening at every 1,000 ft; provide sidewalk where not present (for urban section).	GDOT , Chatham County , Effingham County , CORE MPO	\$68,000,000	Effingham County Transportation Master Plan (N-20), Coastal Empire Study	Tier 1A	Long-term	State MFT, PROTECT (Formula), STBG
Effingham Parkway Widening and Extension	Project Strategy	This project consists of three parts: (a) widen Effingham Parkway to 4 lanes; (b) extend the corridor north to SR 21 in Springfield; (c) extend the corridor south to Jimmy Deloach Parkway in Savannah. For the southern extension, consider connecting to Jimmy Deloach Pkwy. via Expansion Boulevard and existing utility easements. ²	GDOT , Effingham County , Chatham County , CORE MPO	(a) \$61,000,000 (b) \$59,000,000 (c) \$33,000,000	Effingham County Transportation Master Plan (N-22), Coastal Empire Study	(a) Tier 1B (b) Tier 1B (c) Tier 1A	(a) Long-term (b) Long-term (c) Midterm	State MFT, RAISE, RSTP, STBG
Blue Jay Road Extension and Freight Upgrades	Project Strategy	Extend Blue Jay Road from SR 21 to U.S. 80/U.S. 280; widen travel lanes and improve roadway structures to support truck movements.	Effingham County , Bryan County , GDOT	\$45,000,000	Coastal Empire Study, Effingham County Transportation Master Plan (ID N-19 and N-21)	Tier 1B	Midterm	State MFT, PROTECT (Discretionary and Grant), RSTP, STBG
Low Ground Road Extension East	Project Strategy	Extend Low Ground Road east from McCall Road to SR 21.	Effingham County , GDOT	\$14,333,000	Coastal Empire Study, Effingham County Transportation Master Plan (ID N-8)	Tier 3B	Long-term	State MFT, RSTP, STBG
Low Ground Road Extension West	Project Strategy	Extend Low Ground Road West from bend towards Blue Jay Road to SR 17.	Effingham County , GDOT	\$7,060,000	Coastal Empire Study, Effingham County Transportation Master Plan (ID N-16)	Tier 3B	Long-term	State MFT, RSTP, STBG

Name	Type	Description	Key Stakeholders ¹	Cost	Source(s)	Tier	Implementation Timeframe	Funding Source(s)
U.S. 80 Widening	Project Strategy	Widen SR 26/U.S. 80 to 4 lanes between the Bryan County border and SR 17 in Effingham County	GDOT , Bulloch County, Bryan County, Effingham County	\$176,000,000	Coastal Empire Study, North Bryan Transportation Study	Tier 1B	Long-term	State MFT, PROTECT (Discretionary and Grant), RSTP, STBG
Long Bridge Road Extension and Freight Upgrades	Project Strategy	This project consists of two parts: (a) Extend Long Bridge Road northwest to SR 119 and construct the roadway accommodate freight movements; (b) Widen travel lanes and improve structure of the existing roadway to support truck movement. Add the improved and extended roadway to the Effingham County truck ordinance as an extension of the Old Augusta Road truck route.	Effingham County , GDOT	(a) \$12,751,000 (b) \$6,926,000	Effingham County Transportation Master Plan (ID-N-12)	(a) Tier 2B (b) Tier 2B	Medium-term	State MFT, RSTP, STBG
Proactively Increase Network Redundancy in Emerging Freight Clusters	Policy Strategy	Conduct a study to evaluate the need and alternatives for increased network redundancy in the emerging Belfast-Keller Road and Rockingham Farms freight clusters.	CORE MPO , Bryan County, Chatham County	\$300,000	Regional Freight Transportation Plan	Tier 2A	Short-term	FHWA Discretionary PL Funds
Gateway Parkway Extension	Project Strategy	Extend Gateway Parkway east to connect to SR 21 and west to connect to the planned Effingham Parkway. This would increase network redundancy in an emerging freight center by providing a new east-west connection. This recommendation requires coordination with Norfolk Southern as it would cross the rail line.	Effingham County , GDOT, Norfolk Southern	\$14,800,000	Stakeholder Outreach, Regional Freight Transportation Plan	Tier 2B	Midterm	State MFT, RSTP, STBG

Source: CORE MPO Regional Freight Transportation Plan Update, 2023.

¹ Note: The recommended lead sponsor agency is indicated with **bold** type.

² Note: The Regional Freight Transportation Plan Update proposes an alternative alignment to those recommended in the Coastal Empire Study and the Effingham County Transportation Master Plan.

A.2 Implement Operational Strategies to Enhance Freight Mobility and Safety

TABLE A.2 OPERATIONAL STRATEGIES TO ENHANCE FREIGHT MOBILITY AND SAFETY

Name	Type	Description	Key Stakeholders ¹	Cost	Source(s)	Tier	Implementation Timeframe	Funding Source(s)
Transportation Improvements in the Vicinity of the Bryan County Megasite	Project Strategy	Construct multilane roundabout at U.S. 280 at I-16 interchange and implement other improvements such as widening of adjacent roadways and the construction of a new access point to I-16.	GDOT, Bryan County	\$175,000,000	North Bryan Transportation Study, GDOT PI No. 0016618, Coastal Empire Study	Tier 1B	Midterm	Funded
U.S. 17 at Belfast Keller Rd Intersection Improvement	Project Strategy	Convert the unsignalized intersection to a signalized intersection.	GDOT, Bryan County	\$500,000	Richmond Hill-South Bryan County Transportation Study, Coastal Empire Study	Tier 1B	Short-term	State MFT (incl. LMIG and Other GDOT Funding Opportunities)
U.S. 17 at Chatham Pkwy Intersection Improvement	Project Strategy	Provide dual eastbound left-turn lanes, a westbound right-turn lane, and a southbound right-turn lane.	GDOT, Chatham County, CORE MPO	\$5,300,000	Coastal Empire Study	Tier 1A	Midterm	STBG, State MFT (incl. LMIG and Other GDOT Funding Opportunities)
SR 21 at Old Augusta Rd Intersection Improvement	Project Strategy	Widen SR 21 to provide additional through lanes and dual northbound right-turn lanes.	GDOT, Effingham County	\$2,100,000	Effingham County Transportation Master Plan (ID I-30), Coastal Empire Study	Tier 1B	Short-term	STBG, State MFT (incl. LMIG and Other GDOT Funding Opportunities)
U.S. 80 at U.S. 280 Intersection Improvement	Project Strategy	Convert the signalized intersection to a multilane roundabout.	GDOT, Effingham County	\$5,900,000	Coastal Empire Study, GDOT PI 0018386	Tier 1B	Midterm	Funded
U.S. 80 at Chatham Parkway Intersection Improvement	Project Strategy	Remove Heidt Avenue access to the intersection; converting the four-legged intersection to a T-intersection to eliminate the existing split phasing and allow more green time for U.S. 80.	GDOT, CORE MPO, Garden City	\$900,000	Coastal Empire Study	Tier 1A	Short-term	STBG, State MFT (incl. LMIG and Other GDOT Funding Opportunities)

Name	Type	Description	Key Stakeholders ¹	Cost	Source(s)	Tier	Implementation Timeframe	Funding Source(s)
I-16 at Pooler Parkway Interchange Improvement	Project Strategy	Provide dual southbound left-turn lanes from Pooler Parkway onto the I-16 eastbound ramp; provide an additional shared lane on the I-16 westbound exit ramp and configure the lanes as dual westbound left-turn lanes and a westbound right-turn lane.	GDOT , Chatham County, CORE MPO	\$4,700,000	Coastal Empire Study	Tier 1A	Short-term	STBG, NHFP, State MFT (incl. LMIG and Other GDOT Funding Opportunities)
I-95 at Airways Avenue/Pooler Parkway	Project Strategy	Coordinate signal timing, remove the median opening and signal at Mill Creek Circle, widen Pooler Parkway approaching the I-95 interchange, and reconfigure the Benton Boulevard intersection.	Chatham County , GDOT, CORE MPO, Savannah-Hilton Head Intl. Airport	\$3,100,000	Chatham County 2023 TSPLOST, Coastal Empire Study	Tier 1A	Short-term	STBG, NHFP, State MFT (incl. LMIG and Other GDOT Funding Opportunities)
SR 204 at Old River Road Intersection Improvement	Project Strategy	Convert the unsignalized intersection to a single-lane roundabout.	GDOT , CORE MPO, Chatham County	\$4,000,000	Coastal Empire Study	Tier 1A	Short-term	STBG, RSTP, HSIP, State MFT (incl. LMIG and Other GDOT Funding Opportunities)
U.S. 80 at SR 17/SR 30 Intersection Improvement	Project Strategy	Convert the signalized intersection to a multilane roundabout with an eastbound bypass right-turn lane from U.S. 80.	GDOT , Effingham County	\$6,000,000	Effingham County Transportation Master Plan (ID I-19), Coastal Empire Study	Tier 1B	Midterm	STBG, RSTP, HSIP, State MFT (incl. LMIG and Other GDOT Funding Opportunities)
Truman Parkway at East President Street	Project Strategy	Elevate East Bay Street and reconstruct the interchange to eliminate the railroad and vehicular traffic conflict.	Chatham County, Savannah and Old Fort Railroad , GDOT, CORE MPO	\$98,000,000	CORE MPO 2045 Metropolitan Transportation Plan, Coastal Empire Study	Tier 1A	Long-term	INFRA, MEGA, NHFP, NHPP, RCE, State MFT (incl. LMIG and Other GDOT Funding Opportunities)

Name	Type	Description	Key Stakeholders ¹	Cost	Source(s)	Tier	Implementation Timeframe	Funding Source(s)
Old River Road Freight and Safety Improvements	Project Strategy	A relatively high density of truck-involved crashes was observed in the area around Old River Road between U.S. 80 and I-16. Widen travel lanes and improve roadway structure to support truck movements. Add safety upgrades, including restriping, paved shoulders, and rumble strips. Consider adding turning lanes at the truck entrances for major freight generators along this route.	Effingham County, GDOT	\$12,508,000	Effingham County Transportation Master Plan (ID N-15), Regional Freight Transportation Plan Update	Tier 2B	Short-term	STBG, RSTP, HSIP, State MFT (incl. LMIG and Other GDOT Funding Opportunities)
SR 21 South Safety and Operational Improvements	Project Strategy	Make the following improvements along SR 21 from Minus Avenue to Smith Avenue: install a raised median, upgrade signalized intersections, implement school zone enhancements, consolidate driveways, upgrade crosswalks so that they are compliant with the Americans with Disabilities Act, and install a multiuse path along both sides of SR 21.	Chatham County, CORE MPO, GDOT	\$4,250,000	SR 21 Access Management Study	Tier 1A	Short-term	STBG, HSIP, TA, State MFT (incl. LMIG and Other GDOT Funding Opportunities)
SR 21 North Safety and Operational Improvements	Policy Strategy	SR 21 between I-95 and Gulfstream Road experiences significant truck delay. Further study this segment of SR 21 and develop solutions focusing on access management, safety, and operations. Specific focus should be given to the intersection of SR 21 and Gulfstream Road and also on access management near the I-95 interchange.	CORE MPO, Chatham, County, GDOT	\$200,000	Regional Freight Transportation Plan	Tier 1A	Short-term	FHWA Discretionary PL Funds
SR 307 and SR 21 At-Grade Rail Separation and Operational Improvements	Project Strategy	Construct a grade-separated crossing of SR 307/Bourne Avenue over CSX Railroad crossing #632473Y and SR 21/Augusta Road and make necessary adjustments to the street network to make the separation feasible.	GDOT, CSX Transportation, Chatham County, CORE MPO	\$36,410,000	SR 307 Corridor Study (ID GS-01)	Tier 1A	Long-term	INFRA, NHFP, NHPP, RCE, State MFT (incl. LMIG and Other GDOT Funding Opportunities)

Name	Type	Description	Key Stakeholders ¹	Cost	Source(s)	Tier	Implementation Timeframe	Funding Source(s)
SR 307/Dean Forest Road Grade Separation at Norfolk Southern Crossing #855067U	Project Strategy	Construct a grade-separated crossing of SR 307/Dean Forest Road over Norfolk Southern crossing #885067U and make necessary adjustments to the street network to make the separation feasible.	GDOT, Norfolk Southern, Chatham County, CORE MPO	\$17,600,000	SR 307 Corridor Study (GS-02)	Tier 1A	Long-term	INFRA, NHFP, NHPP, RCE, State MFT (incl. LMIG and Other GDOT Funding Opportunities)
Chatham Multimodal Community Improvement Project (CMCIP)	Project Strategy	The CMCIP makes numerous rail improvements near the Port of Savannah that will eliminate 11 at-grade crossings, allow for more efficient rail operations at the Port, and lessen impacts to the surrounding community. The CMCIP was awarded a Railroad Crossing Elimination (RCE) Grant in fiscal year 2022.	GDOT, CSX Transportation, Chatham County, CORE MPO	\$2,805,000 <i>(non-Federal contribution, remainder of total project cost)</i>	Chatham County RCE Grant Award	Tier 1A	Midterm	STBG, HSIP, State MFT (incl. Quick Response, LMIG, and Other GDOT Funding Opportunities)
SR 307 Access Management from Pine Meadow Drive to SR 26/ U.S. 80/Louisville Road	Project Strategy	Construct raised median along SR 307 beginning south of Pine Meadow Drive to Morgan Industrial Boulevard; construct restricted crossing U-turn (RCUT) intersection at Old Dean Forest Road; construct southbound U-turn eyebrow at Prosperity Drive and Morgan Industrial Boulevard intersections; construct northbound U-turn eyebrow at Jamaica Run Road.	Chatham County, GDOT, CORE MPO	\$19,300,000	SR 307 Corridor Study (AC-01)	Tier 2A	Midterm	STBG, HSIP, TA, State MFT (incl. LMIG and Other GDOT Funding Opportunities)
SR 307 Access Management from SR 26// U.S. 80// Louisville Road to Robert B. Miller Road	Project Strategy	Construct raised median along SR 307 from SR 26/U.S. 80/Louisville Road to Robert B. Miller Road; construct northbound U-turn eyebrows at Old Louisville Road, Distribution Drive, and Davidson Road; construct southbound U-turn eyebrows at Sonny Perdue Drive and Product Support Road; construct restricted crossing U-turn (RCUT) intersection at Hangar Road/Darque Road and Billy B. Hair Drive.	Chatham County, GDOT, CORE MPO	\$28,560,000	SR 307 Corridor Study (AC-02)	Tier 2A	Midterm	STBG, HSIP, TA, State MFT (incl. LMIG and Other GDOT Funding Opportunities)

Name	Type	Description	Key Stakeholders ¹	Cost	Source(s)	Tier	Implementation Timeframe	Funding Source(s)
SR 307 at Distribution Drive	Project Strategy	Convert the unsignalized intersection to a signalized intersection.	Chatham County , GDOT, CORE MPO	\$695,000	SR 307 Corridor Study (IN-01)	Tier 2A	Short-term	State MFT (incl. LMIG and Other GDOT Funding Opportunities)
SR 307 at SR 26//U.S. 80// Louisville Road Auxiliary Lanes	Project Strategy	Install dual left-turn lanes and extend right-turn lane storage for each approach; install pedestrian signals, crosswalks, and ramps.	Chatham County , GDOT, CORE MPO	\$3,190,000	SR 307 Corridor Study (IN-02)	Tier 2A	Short-term	STBG, State MFT (incl. LMIG and Other GDOT Funding Opportunities)
SR 307 Corridor Signal Retiming	Project Strategy	Conduct a signal timing review to improve vehicular flow through time-of-day coordinated operations and optimize signal cycle length, splits, and offsets; replace existing three-section permissive signal heads on SR 307 at Old Louisville Road intersection with four-section flashing yellow arrow signal heads; replace existing five-section protected/permissive signal heads on SR 307 at Robert B. Miller Road with four-section flashing yellow arrow signal heads.	Chatham County , GDOT, CORE MPO	\$425,000	SR 307 Corridor Study (IN-03)	Tier 2A	Short-term	State MFT (incl. LMIG and Other GDOT Funding Opportunities)
SR 307 at SR 25//U.S. 17// Ogeechee Road Intersection Improvements	Project Strategy	Install dual eastbound left-turn lanes; remove free-flow channelization for the westbound right-turn lane to accommodate eastbound dual left-turn receiving lanes; shift westbound through lanes north to accommodate additional eastbound left-turn lane; modify signal phasing to provide protected-only operation for eastbound left-turn movement and permitted-overlap phasing for westbound right-turn movement.	Chatham County , GDOT, CORE MPO	\$1,060,000	SR 307 Corridor Study (IN-04)	Tier 2A	Short-term	STBG, State MFT (incl. LMIG and Other GDOT Funding Opportunities)
SR 307 at Jamaica Run Road	Project Strategy	Convert the unsignalized intersection to a signalized intersection; install a westbound left-turn lane and a westbound right-turn lane.	Chatham County , GDOT, CORE MPO	\$580,000	SR 307 Corridor Study (IN-05)	Tier 2A	Short-term	State MFT (incl. LMIG and Other GDOT Funding Opportunities)

Name	Type	Description	Key Stakeholders ¹	Cost	Source(s)	Tier	Implementation Timeframe	Funding Source(s)
SR 307 at Morgan Industrial Boulevard	Project Strategy	Convert the unsignalized intersection to a signalized intersection.	Chatham County , GDOT, CORE MPO	\$760,000	SR 307 Corridor Study (IN-06)	Tier 2A	Short-term	State MFT (incl. LMIG and Other GDOT Funding Opportunities)
SR 307 at SR 26//U.S. 80// Louisville Road Interchange	Policy Strategy	Monitor the intersection of U.S. 80 and SR 307 for future growth and performance. If performance continues to deteriorate, convert the intersection to an interchange.	GDOT , Chatham County, CORE MPO	TBD	SR 307 Corridor Study (GS-03)	Tier 2A	Long-term	TBD
Lane Improvements at SR 17 and U.S. 80//SR 26	Project Strategy	Install southbound dual left turn lanes and provide an overlap phase for the westbound right turn movement	Effingham County , GDOT	\$670,000	Effingham County Transportation Master Plan (ID I-19)	Tier 3B	Short-term	State MFT (incl. LMIG and Other GDOT Funding Opportunities)
Lane Improvements at SR 21 and SR 119	Project Strategy	Install additional northbound dual left turn lane and provide overlap phase for eastbound right turn movement	Effingham County , GDOT	\$838,000	Effingham County Transportation Master Plan (ID I-20)	Tier 3B	Short-term	State MFT (incl. LMIG and Other GDOT Funding Opportunities)
Traffic Signal at SR 21 and McCall Road (North)	Project Strategy	Signalize intersection, install northbound left turn lane, provide permissive-protected signal phase for westbound and northbound left turn movements, provide overlap phase for eastbound right turn movement	Effingham County , GDOT	\$1,321,000	Effingham County Transportation Master Plan (ID I-39)	Tier 3B	Short-term	STBG, State MFT (incl. LMIG and Other GDOT Funding Opportunities)
Lane Improvements at SR 21 and 9 th Street	Project Strategy	Install eastbound right turn lane, provide permissive-protected signal phase for side street left turning movements, provide overlap phase for eastbound right turn movement	Effingham County , GDOT	\$187,000	Effingham County Transportation Master Plan (ID I-12)	Tier 3B	Short-term	State MFT (incl. Quick Response, LMIG, and Other GDOT Funding Opportunities)
Lane Improvements at SR 21 and Fort Howard Road	Project Strategy	Remove channelized islands at Rincon Commercial Park Dr. and Fort Howard Road; convert existing northbound right-turn lane to a through lane; install northbound right-turn lane; convert westbound left-turn lane to dual left-turn; provide overlap phases for northbound and westbound right-turn movements	Effingham County , GDOT	\$905,000	Effingham County Transportation Master Plan (ID I-23)	Tier 3B	Short-term	State MFT (incl. LMIG and Other GDOT Funding Opportunities)

Name	Type	Description	Key Stakeholders ¹	Cost	Source(s)	Tier	Implementation Timeframe	Funding Source(s)
Lane Improvements at SR 21 and Walmart Access Driveway	Project Strategy	Install northbound right turn lane	Effingham County, GDOT	\$244,000	Effingham County Transportation Master Plan (ID I-24)	Tier 3B	Short-term	State MFT (incl. LMIG and Other GDOT Funding Opportunities)
Median U-turn (MUT) Intersection at SR 21 and Towne Park Dr	Project Strategy	Prohibit left turns along SR 21; convert intersection to partial MUT configuration; provide U-turn locations north and south of the intersection.	Effingham County, GDOT	\$1,748,000	Effingham County Transportation Master Plan (ID I-25)	Tier 3B	Short-term	STBG, State MFT (incl. LMIG and Other GDOT Funding Opportunities)
Median U-turn (MUT) Intersection at SR 21 and Westwood Dr	Project Strategy	Prohibit left turns Along SR 21, converting intersection to partial MUT configuration, Provide U-turn locations north and south of the intersection	Effingham County, GDOT	\$1,748,000	Effingham County Transportation Master Plan (ID I-26)	Tier 3B	Short-term	STBG, State MFT (incl. LMIG and Other GDOT Funding Opportunities)
Lane Improvements at SR 21 and McCall Road (South)	Project Strategy	Install additional northbound left turn lane, install additional eastbound left turn lane, convert eastbound right turn lane to a channelized free-flowing movement	Effingham County, GDOT	\$1,088,000	Effingham County Transportation Master Plan (ID I-27)	Tier 3B	Short-term	STBG, State MFT (incl. LMIG and Other GDOT Funding Opportunities)
Lane Improvements at SR 21 SB and Goshen Road	Project Strategy	Install westbound left turn lane along Goshen Road	Effingham County, GDOT	\$670,000	Effingham County Transportation Master Plan (ID I-28)	Tier 3B	Short-term	State MFT (incl. LMIG and Other GDOT Funding Opportunities)
Lane Improvements at SR 21 NB and Goshen Road	Project Strategy	Install eastbound left turn and westbound right turn lanes on Goshen road, widen SR 21 southbound to three through lanes, provide permissive-protected signal phasing for eastbound left turn movement	Effingham County, GDOT	\$2,044,000	Effingham County Transportation Master Plan (ID I-29)	Tier 3B	Short-term	STBG, State MFT (incl. LMIG and Other GDOT Funding Opportunities)
Median U-turn (MUT) Intersection at SR 21 and Old Augusta Road	Project Strategy	Prohibit left turns along SR 21, converting intersection to partial MUT configuration, provide U-turn locations north and south of the intersection, Convert eastbound right turn lane to channelized free-flow conditions with downstream merge	Effingham County, GDOT	\$1,922,000	Effingham County Transportation Master Plan (ID I-30)	Tier 3B	Short-term	STBG, State MFT (incl. LMIG and Other GDOT Funding Opportunities)

Name	Type	Description	Key Stakeholders ¹	Cost	Source(s)	Tier	Implementation Timeframe	Funding Source(s)
Traffic Signal at U.S. 80 and Sand Hill Road	Project Strategy	Install traffic signal with southbound left and right turn lanes	Effingham County, GDOT	\$1,696,000	Effingham County Transportation Master Plan (ID I-32)	Tier 3B	Short-term	STBG, State MFT (incl. LMIG and Other GDOT Funding Opportunities)
Traffic Signal at U.S. 80 and Old River Road Connector	Project Strategy	Conduct signal warrant study and install signal.	Effingham County, GDOT	\$652,000	Effingham County Transportation Master Plan (ID I-41)	Tier 3B	Short-term	State MFT (incl. LMIG and Other GDOT Funding Opportunities)
Traffic Signal at SR 21 and 4 th St	Project Strategy	Signalize intersection and install westbound left turn lane	Effingham County, GDOT	\$1,108,000	Effingham County Transportation Master Plan (ID I-43)	Tier 3B	Short-term	STBG, State MFT (incl. LMIG and Other GDOT Funding Opportunities)
SR 21 at Fort Howard Road Safety Improvements	Project Strategy	Convert driveways along Fort Howard Road and SR 21 within 500 ft of their intersection to right in/right out or RCUT configuration	Effingham County, GDOT	\$335,000	Effingham County Transportation Master Plan (ID I-21)	Tier 3B	Short-term	State MFT (incl. LMIG and Other GDOT Funding Opportunities)
SR 21 at Ebenezer Road Truck Safety Improvements	Project Strategy	Move back stop bar for the eastbound through/left lane, modify northbound right turn lane to provide wider curb radius	Effingham County, GDOT	\$109,000	Effingham County Transportation Master Plan (ID I-35)	Tier 3B	Short-term	State MFT (incl. Quick Response, LMIG, and Other GDOT Funding Opportunities)
Old River Road at U.S. 80 Lane Improvements	Project Strategy	Construct Old River Road Connector and convert existing segment of Old River Road to one-way; install westbound left-turn lane at the new intersection of U.S. 80 at the Old River Rd Connector (future traffic signal in project I-41)	Effingham County, GDOT	\$752,000	Effingham County Transportation Master Plan (ID I-1)	Tier 3B	Short-term	State MFT (incl. LMIG and Other GDOT Funding Opportunities)
Long Bridge Road Freight Upgrades	Project Strategy	Widen travel lanes and improve roadway structure to support truck movement. Upon completion, addition of this roadway to the County truck ordinance (as an extension of the Old Augusta Road truck route) should be considered.	Effingham County, GDOT	\$6,926,000	Effingham County Transportation Master Plan (ID N-11)	Tier 3B	Short-term	STBG, State MFT (incl. LMIG and Other GDOT Funding Opportunities)

Name	Type	Description	Key Stakeholders ¹	Cost	Source(s)	Tier	Implementation Timeframe	Funding Source(s)
Rahn Station Road Freight Upgrades	Project Strategy	Widen travel lanes and improve roadway structure to support truck movement. Upon completion, addition of this segment to the County truck ordinance as truck routes should be considered.	Effingham County, GDOT	\$9,112,000	Effingham County Transportation Master Plan (ID N-10)	Tier 3B	Midterm	State MFT (incl. LMIG and Other GDOT Funding Opportunities)
Blue Jay Road/McCall Road Freight Upgrades	Project Strategy	Widen travel lanes and improve roadway structure to support truck movement. Upon completion, addition of these segments to the County truck ordinance as truck routes should be considered.	Effingham County, GDOT	\$18,478,000	Effingham County Transportation Master Plan (ID N-9)	Tier 3B	Long-term	STBG, RSTP, State MFT (incl. LMIG and Other GDOT Funding Opportunities)
Pine Barren Road Freight Upgrades	Project Strategy	Widen and reconstruct roadway structure to support truck traffic. Upon completion (or simultaneously), connect to John Carter Road via the John Carter-Pine Barren Road Connector project.	Chatham County, GDOT, CORE MPO	\$7,000,000	Chatham County 2023 TSP/STP, Regional Freight Plan Update	Tier 2A	Midterm	STBG, State MFT (incl. LMIG and Other GDOT Funding Opportunities)
McCall Road (south) Freight Improvements	Project Strategy	Widen travel lanes and improve roadway structure to support truck movement. Upon completion this roadway should be considered for addition to the County truck ordinance.	Effingham County, GDOT	\$9,485,000	Effingham County Transportation Master Plan (ID N-18)	Tier 2B	Medium-term	STBG, RSTP, State MFT (incl. LMIG and Other GDOT Funding Opportunities)
U.S. 80 at Skidaway Road and SR 204// Truman Parkway Area Safety Improvements	Policy Strategy	The area around U.S. 80 at Skidaway Road and SR 204/Truman Parkway experiences a relatively high rate of truck-involved crashes. Perform a safety audit at this location to identify potential solutions for improving truck safety.	Savannah, CORE MPO, GDOT	TBD	Regional Freight Transportation Plan	Tier 1B	Short-term	FHWA Discretionary PL Funds
U.S. 280 at SR 204 Multilane Roundabout	Project Strategy	Convert the stop-controlled intersection of U.S. 280 and SR 204 to a multilane roundabout. Remove the U.S. 280 East-to-SR 204 East connector roadway.	Bryan County, GDOT	\$1,580,000	Regional Freight Transportation Plan	Tier 2A	Midterm	STBG, RSTP, HSIP, State MFT (incl. LMIG and Other GDOT Funding Opportunities)

Name	Type	Description	Key Stakeholders ¹	Cost	Source(s)	Tier	Implementation Timeframe	Funding Source(s)
U.S. 17 Corridor Study Phase II	Policy Strategy	As a second phase to the pending U.S. 17 Corridor Study, extend the analysis south to SR 196 in Liberty County.	Bryan County, GDOT	\$300,000	South Bryan Transportation Study, Chatham County 2023 TSP/OST, Regional Freight Transportation Plan	Tier 1A	Short-term	FHWA Discretionary PL Funds
U.S. 80 East Operational Improvements	Policy Strategy	Coordinate with the ongoing U.S. 80 Corridor Study to revisit signal timing and other operational challenges along U.S. 80 between Pooler Parkway and I-516.	Chatham County, CORE MPO, GDOT	TBD	Regional Freight Transportation Plan	Tier 1B	Short-term	FHWA Discretionary PL Funds
East-West Connectivity: DeRenne Avenue Access Control	Policy Strategy	As redevelopment occurs along the north side of DeRenne Avenue between White Bluff Road and Truman Pkwy., the region should work to close existing driveways and increase access control via a combination of new frontage roads and existing parallel roads.	Savannah, CORE MPO, GDOT	\$0	Regional Freight Transportation Plan	Tier 1B	Short-term	Not Applicable
East-West Connectivity: Truman Pkwy. at SR 204// Abercorn St. Interchange Modification Report	Policy Strategy	Perform an interchange modification report to identify solutions for easing congestion and making the route is more viable for freight activity, including converting to an interchange.	Chatham County, Savannah, CORE MPO, GDOT	\$300,000	Regional Freight Transportation Plan	Tier 1A	Midterm	FHWA Discretionary PL Funds
Port Area Pavement Condition Improvements	Project Strategy	Upgrade pavements throughout the constitutionally exempt subarea bounded by the Savannah River and the municipal limits of Garden City, Savannah, and Port Wentworth in unincorporated Chatham County.	Chatham County, Georgia Ports Authority, GDOT	\$50,100,000	Stakeholder Outreach, Regional Freight Transportation Plan	Tier 2B	Midterm	State MFT (incl. Quick Response, LMIG, and Other GDOT Funding Opportunities)

Name	Type	Description	Key Stakeholders ¹	Cost	Source(s)	Tier	Implementation Timeframe	Funding Source(s)
Jimmy DeLoach Pkwy. at Expansion Boulevard	Project Strategy	Increase intersection turning radii, or install a mountable curb, to accommodate truck traffic. Measure the sight distance at this intersection and increase if determined to be insufficient.	Chatham County , GDOT, CORE MPO	\$32,000	Stakeholder Outreach, Regional Freight Transportation Plan	Tier 2B	Short-term	State MFT (incl. Quick Response, LMIG, and Other GDOT Funding Opportunities)
Freight Corridor Lighting Study	Policy Strategy	Stakeholders noted that a significant amount of trucking activity occurs in the early morning and dusk hours before sunrise. Consider performing a lighting study for key freight corridors such as SR 307, SR 21, and others.	CORE MPO , Chatham County , Effingham County, Bryan County, GDOT	\$200,000	Stakeholder Outreach, Regional Freight Transportation Plan	Tier 2B	Midterm	FHWA Discretionary PL Funds
Old Louisville Road Improvements	Project Strategy	Design and construct road improvements on Old Louisville Road between State Route 307 to Heidt Road.	Chatham County , GDOT, CORE MPO	\$8,500,000	Chatham County 2023 TSPLOST	Tier 1A	Midterm	STBG, State MFT (incl. LMIG and Other GDOT Funding Opportunities)
East-West Connectivity: I-95 at SR 204// Gateway Interchange	Policy Strategy	Perform an interchange study to improve and upgrade the existing interchange.	Chatham County , GDOT, CORE MPO	\$9,000,000 ²	Chatham County 2023 TSPLOST	Tier 1A	Midterm	FHWA Discretionary PL Funds
Truman Parkway Improvement Project	Project Strategy	Upgrade Truman Pkwy. between President Street and SR 204 to include resurfacing, shoulder and median improvements, guardrail upgrades, drainage improvements and other maintenance work.	Chatham County , CORE MPO, GDOT	\$10,000,000	Chatham County 2023 TSPLOST	Tier 1A	Midterm	STBG, State MFT (incl. LMIG and Other GDOT Funding Opportunities)
Pooler Parkway Operational Improvements	Project Strategy	Implement capacity, operational and safety improvements on Pooler Parkway in the City of Pooler.	Chatham County , CORE MPO, GDOT	\$5,835,692	Chatham County 2023 TSPLOST	Tier 1A	Short-term	STBG, State MFT (incl. LMIG and Other GDOT Funding Opportunities)

Source: CORE MPO Regional Freight Transportation Plan Update, 2023.

¹ Note: The recommended lead sponsor agency is indicated with **bold** type.

² Note: The project cost includes the local match for Federal funds to improve and upgrade the existing interchange.

A.3 Support Increased Capacity, Enhanced Operations, and Safety on the Multimodal Freight Network

TABLE A.3 INCREASED CAPACITY, ENHANCED OPERATIONS, AND SAFETY ON THE MULTIMODAL FREIGHT NETWORK

Name	Type	Description	Key Stakeholders ¹	Cost	Source(s)	Tier	Implementation Timeframe	Funding Source(s)
Support Expansion of Local Freight Rail Capacity	Policy Strategy	Partner with railroads to perform a feasibility study that identifies potential locations for shared rail yards, including engaging with rail operators to determine the potential of leasing space at nearby rail yards.	CSX, Norfolk Southern, CORE MPO, GDOT	Not Applicable	Stakeholder Outreach, Regional Freight Transportation Plan	Tier 2A	Short-term	MPO Staff Time
Support Expansion of Regional Freight Rail Capacity	Policy Strategy	Partner with rail operators and the State to identify existing sidings that could be extended or potential development sites for new sidings as a strategy for increasing the region's rail capacity.	CSX, Norfolk Southern, CORE MPO, GDOT	Not Applicable	Stakeholder Outreach, Regional Freight Transportation Plan	Tier 2B	Short-term	MPO Staff Time
Support Capacity and Operational Improvements at SAV	Policy Strategy	Coordinate with SAV to identify and prioritize landside access improvements to air cargo facilities.	Savannah-Hilton Head Intl. Airport, CORE MPO, GDOT	Not Applicable	Stakeholder Outreach, Regional Freight Transportation Plan	Tier 2A	Short-term	MPO Staff Time
Support Capacity and Operational Improvements at the Port of Savannah	Policy Strategy	Coordinate with the Georgia Ports Authority to identify and prioritize landside access improvements to port facilities.	Georgia Ports Authority, CORE MPO, GDOT	Not Applicable	Stakeholder Outreach, Regional Freight Transportation Plan	Tier 2A	Short-term	MPO Staff Time
Implement Rail Quiet Zones	Policy Strategy	Identify candidate crossings for quiet zones and work with the region's rail operators and the State to meet the requirements for quiet zones for the selected crossings.	CSX, Norfolk Southern, CORE MPO, GDOT	Not Applicable	Stakeholder Outreach, Regional Freight Transportation Plan	Tier 2B	Short-term	MPO Staff Time

Name	Type	Description	Key Stakeholders ¹	Cost	Source(s)	Tier	Implementation Timeframe	Funding Source(s)
Rail Crossing Safety Improvements	Project Strategy	The region has nearly 200 at-grade rail crossings, but highway-rail incidents were concentrated at 34 crossings. The region should upgrade the safety equipment at these crossings.	CSX, Norfolk Southern, Chatham County, Bryan County, Effingham County, CORE MPO, GDOT	\$6,900,000	Regional Freight Transportation Plan	Tier 2B	Midterm	HSIP
Rough Rail Crossings Improvements	Project Strategy	Rough rail crossings impact the safety and operations of the region's freight corridors. Partner with the region's railroads to prioritize and upgrade pavement conditions at the 30 worst crossings. Consider installing full-depth rubber crossings for improved operations and maintenance.	CSX, Norfolk Southern, Chatham County, Bryan County, Effingham County, CORE MPO, GDOT	\$17,700,000	Stakeholder Outreach, Regional Freight Transportation Plan	Tier 2B	Midterm	HSIP, State MFT (incl. Quick Response, LMIG, and Other GDOT Funding Opportunities)

Source: CORE MPO Regional Freight Transportation Plan Update, 2023.

¹ Note: The recommended lead sponsor agency is indicated with **bold** type.

A.4 Implement Technology Strategies to Enhance Freight Operations and Safety

TABLE A.4 TECHNOLOGY STRATEGIES TO ENHANCE FREIGHT OPERATIONS AND SAFETY

Name	Type	Description	Key Stakeholders ¹	Cost	Source(s)	Tier	Implementation Timeframe	Funding Source(s)
Deploy Freight Signal Priority along U.S. 80	Project Strategy	Deploy freight signal priority along U.S. 80 between I-95 and SR 21 to connect to the Brampton Road Connector project.	GDOT , Chatham County, CORE MPO	\$900,000	Regional Freight Transportation Plan	Tier 1A	Midterm	STBG, CMAQ, State MFT (incl. Quick Response, LMIG, and Other GDOT Funding Opportunities)
Truck Parking Availability System Pilot	Project Strategy	Partner with GDOT to conduct a truck parking availability system pilot project at the I-95 Southbound Georgia Welcome Center.	GDOT , Savannah, Chatham County, CORE MPO	TBD	Regional Freight Transportation Plan	Tier 2A	Midterm	STBG, ITD, AID
Lathrop Avenue Over-Height Warning System	Project Strategy	Deploy an advanced warning system to alert over-height trucks at the intersection E. Lathrop Avenue and the Norfolk Southern rail line north of Louisville Road	Savannah , CORE MPO, GDOT	\$58,000	Stakeholder Outreach, Regional Freight Transportation Plan	Tier 1A	Short-term	STBG, State MFT (incl. Quick Response, LMIG, and Other GDOT Funding Opportunities)
President Street At-Grade Crossing Dynamic Message Sign	Project Strategy	Deploy a freight ITS solution, including a dynamic message sign at this crossing to alert motorists and motor carriers that the crossing blocked.	Chatham County , Savannah, GDOT, CORE MPO	\$104,000	Stakeholder Outreach, Regional Freight Transportation Plan	Tier 1A	Short-term	STBG, State MFT (incl. Quick Response, LMIG, and Other GDOT Funding Opportunities)
Real-Time Information Signage for Port Traffic	Project Strategy	Provide drivers with real-time travel times to the terminal gates via dynamic message signs (DMS). DMS should be provided at the following locations: I-95 southbound at the Georgia/South Carolina state line, Jimmy DeLoach Parkway east of I-95, I-16 eastbound west of I-95, I-16 eastbound west of U.S. 280, and I-95 south of I-16. ²	GDOT , Georgia Ports Authority, CORE MPO, Chatham County	\$293,000	Coastal Empire Study, Regional Freight Transportation Plan	Tier 2A	Midterm	STBG, CMAQ, State MFT (incl. Quick Response, LMIG, and Other GDOT Funding Opportunities)

Source: CORE MPO Regional Freight Transportation Plan Update, 2023.

¹ Note: The recommended lead sponsor agency is indicated with **bold** type.

² Note: The Regional Freight Transportation Plan proposes a different location for this dynamic message sign than what was proposed in the Coastal Empire Study. The analysis of truck GPS data indicated that some trucks access the port via the I-16-to-U.S. 280-to-U.S. 80 where they then connect to either Jimmy DeLoach Pkwy. or SR 307.

A.5 Increase Access to Safe Truck Parking

TABLE A.5 INCREASE ACCESS TO SAFE TRUCK PARKING

Name	Type	Description	Key Stakeholders ¹	Cost	Source(s)	Tier	Implementation Timeframe	Funding Source(s)
Regional Truck Parking Demand Estimation Study	Policy Strategy	Conduct a study to estimate the truck parking demand generated by new commercial and industrial developments.	Chatham County, Bryan County, Effingham County, CORE MPO, GDOT, FHWA	\$300,000	Regional Freight Transportation Plan	Tier 2A	Short-term	FHWA Discretionary PL Funds
Incorporate Truck Parking into Traffic Impact Assessments	Policy Strategy	Revise local traffic impact assessment processes to include anticipated truck volumes at a site, the impacts of staging near the site, and the potential for truck parking demand generated farther from the site. The truck parking demand estimates generated from the revised traffic impact assessments can then be used to evaluate parking requirements for new freight-generating developments.	Chatham County, Bryan County, Effingham County, CORE MPO, GDOT	\$100,000	Regional Freight Transportation Plan	Tier 2A	Short-term	FHWA Discretionary PL Funds
Revise Planning Ordinances and Policies to Include Truck Parking	Policy Strategy	Local governments throughout the region should revise planning ordinances to include onsite truck parking minimums.	Chatham County, Bryan County, Effingham County, CORE MPO	Not Applicable	Regional Freight Transportation Plan	Tier 2A	Midterm	MPO and County Staff Time
Incorporate Zero Emissions Fueling and Other Green Infrastructure into Truck Parking Facilities	Policy Strategy	The CORE MPO region is an ideal candidate for alternative fuel charging given the presence of the Port of Savannah and the drayage trucks that serve it. The CORE MPO, GDOT, and GPA should consider partnering to pursue Federal funding for the development of a truck parking facility that offers alternative fuel charging.	Chatham County, Bryan County, Effingham County, CORE MPO, GDOT, GPA	Not Applicable	Regional Freight Transportation Plan	Tier 2A	Short-term	MPO, County, GDOT, and GPA Staff Time

Source: CORE MPO Regional Freight Transportation Plan Update, 2023.

¹ Note: The recommended lead sponsor agency is indicated with **bold** type.

A.6 Improve Freight Network Resiliency

TABLE A.6 IMPROVE FREIGHT NETWORK RESILIENCY

Name	Type	Description	Key Stakeholders ¹	Cost	Source(s)	Tier	Implementation Timeframe	Funding Source(s)
Implement the Natural Resources Strategies Recommended in Plan 2040—Chatham County-Savannah Comprehensive Plan	Policy Strategy	The 2020 Update of the Plan 2040—Chatham County-Savannah Comprehensive Plan put forth several recommendations to improve the resiliency of the CORE MPO region. Recommendations made as part of Plan 2040 should be the first step towards improving the region's resiliency to climate change and extreme weather events.	CORE MPO, GDOT, Georgia Ports Authority, Chatham County, Bryan County, Effingham County	Not Applicable	Plan 2040—Chatham County-Savannah Comprehensive Plan	Tier 2A	Midterm	MPO, County, GDOT, and GPA Staff Time
Engineering Informed Vulnerability Assessment for a Selection of Critical Freight Assets	Policy Strategy	Conduct a detailed engineering vulnerability assessment for a selection of critical freight assets. A detailed engineering vulnerability assessment evaluates risks to particular transportation assets in response to climate stressors. These assessments would help the CORE MPO anticipate the effectiveness of specific adaptation measures and their respective return on investment if adopted.	CORE MPO, GDOT, Georgia Ports Authority, Chatham County, Bryan County, Effingham County	\$500,000	Plan 2040—Chatham County-Savannah Comprehensive Plan	Tier 2A	Midterm	PROTECT (Discretionary and Formula), FHWA Discretionary PL Funds
Freight Supply Chain Resilience Study	Policy Strategy	Conduct a Freight Supply Chain Resilience Study that analyzes the elements of the freight supply chain in the region and identifies: (1) the supply chains for critical goods or services; (2) potential effects on these supply chains from different disaster scenarios and disaster scenario combinations; and (3) levels of resiliency in critical freight supply chains.	CORE MPO, GDOT, Georgia Ports Authority, Chatham County, Bryan County, Effingham County	\$500,000	Regional Freight Transportation Plan	Tier 2A	Midterm	PROTECT (Discretionary and Formula), FHWA Discretionary PL Funds

Name	Type	Description	Key Stakeholders ¹	Cost	Source(s)	Tier	Implementation Timeframe	Funding Source(s)
Implement Action Plan for Handling Disruptions to Freight Assets	Program Strategy	Implement the action plan for handling supply chain disruptions as a set of policies for the region's freight system stakeholders and operators.	CORE MPO, GDOT, Georgia Ports Authority, Chatham County, Bryan County, Effingham County, Savannah	Not Applicable	Regional Freight Transportation Plan	Tier 2A	Long-term	MPO, GDOT, and GPA Staff Time

Source: CORE MPO Regional Freight Transportation Plan Update, 2023.

¹ Note: The recommended lead sponsor agency is indicated with **bold** type.

A.7 Mitigate Freight Impacts on Communities and the Environment

TABLE A.7 MITIGATE FREIGHT IMPACTS ON COMMUNITIES AND THE ENVIRONMENT

Name	Type	Description	Key Stakeholders ¹	Cost	Source(s)	Tier	Implementation Timeframe	Funding Source(s)
Adopt and Track Freight Equity Indicators	Program Strategy	Define and track over time a set of freight equity indicators so that the region may assess freight equity impacts, identify areas of need, and proactively address freight transportation equity issues.	CORE MPO , Chatham County, Bryan County, Effingham County, Savannah	Not Applicable	Regional Freight Transportation Plan	Tier 2A	Midterm	MPO Staff Time
Develop a Freight Equity Analysis Screening Tool	Policy Strategy	Develop and deploy a freight equity analysis and evaluation screening tool to help the region proactively address freight transportation equity concerns.	CORE MPO , Chatham County, Bryan County, Effingham County, Savannah	Not Applicable	Regional Freight Transportation Plan	Tier 2A	Midterm	MPO Staff Time
Partner with Chatham Area Transit (CAT) to Incorporate Industrial Hubs into Transit Routes	Program Strategy	Partner with CAT to include industrial employment centers in the region's transit strategy.	Chatham Area Transit, CORE MPO , Chatham County, Bryan County, Effingham County, Savannah	Not Applicable	Regional Freight Transportation Plan	Tier 2A	Midterm	MPO and CAT Staff Time
Install Green Infrastructure along Freight Routes and in Industrial Hubs	Policy Strategy	Incorporate green infrastructure such as bioswales, planter boxes, and street trees into the design of freight corridors.	CORE MPO, GDOT , Chatham County, Bryan County, Effingham County, Savannah	Not Applicable	Regional Freight Transportation Plan	Tier 2A	Midterm	MPO and GDOT Staff Time

Name	Type	Description	Key Stakeholders ¹	Cost	Source(s)	Tier	Implementation Timeframe	Funding Source(s)
Estimate and Monitor Transportation Emissions to Support Mobility 2045 Environmental Goals	Policy Strategy	The CORE MPO should consider estimating and monitoring transportation emissions on a periodic basis. This would allow the CORE MPO to periodically assess and (as necessary) adjust its initiatives to reduce vehicle-miles traveled, thereby reducing transportation emissions. The Drawdown Georgia Project's Georgia GHG Emissions Tracker tool could serve as the basis for the CORE MPO to develop its own tool for monitoring transportation emissions in the region.	CORE MPO , Chatham County, Bryan County, Effingham County, Savannah	Not Applicable	Regional Freight Transportation Plan	Tier 2A	Midterm	MPO Staff Time

Source: CORE MPO Regional Freight Transportation Plan Update, 2023.

¹ Note: The recommended lead sponsor agency is indicated with **bold** type.

A.8 Integrate Freight Considerations into Land Use Planning

TABLE A.8 INTEGRATE FREIGHT CONSIDERATIONS INTO LAND USE PLANNING

Name	Type	Description	Key Stakeholders ¹	Cost	Source(s)	Tier	Implementation Timeframe	Funding Source(s)
Support Freight-Intensive Use Clustering, Infilling, and Right-of-Way Reservation	Program Strategy	Support infill development at existing freight clusters, promote the reuse or redevelopment of legacy freight facilities to meet emerging needs, and where possible reserve right-of-way adjacent to existing freight clusters for future freight network improvements.	CORE MPO , Chatham County, Bryan County, Effingham County	Not Applicable	Regional Freight Transportation Plan	Tier 2A	Midterm	MPO Staff Time
Discourage Greenfield Freight Development Except for Specific Strategic Sites	Policy Strategy	Discourage greenfield freight-related development except for sites that currently have (or will have as part of the development) direct rail and/or Interstate access.	CORE MPO , Chatham County, Bryan County, Effingham County	Not Applicable	Regional Freight Transportation Plan	Tier 2A	Midterm	MPO Staff Time
Develop a Regional Freight-Efficient Land Use Plan	Policy Strategy	Develop a FELU plan that provides a framework for improving freight efficiency and helping the region to navigate current and future freight-related land use challenges.	CORE MPO, Chatham County, Bryan County, Effingham County , GDOT, FHWA	\$350,000	Regional Freight Transportation Plan	Tier 2A	Short-term	FHWA Discretionary PL Funds
Encourage Consistent Land Use Categories	Policy Strategy	Encourage consistent land use categories at the county and municipal level to allow for more effective and coordinated land use planning across the region.	CORE MPO , Chatham County, Bryan County, Effingham County	Not Applicable	Regional Freight Transportation Plan	Tier 2A	Midterm	MPO Staff Time
Study the Impacts of Potential Industrial Expansion into South Carolina	Policy Strategy	There is potential for freight-oriented growth to begin to shift into Jasper County, South Carolina. Study the potential land use and traffic impacts to the region of industrial expansion into Jasper County, South Carolina.	CORE MPO, Chatham County, Bryan County, Effingham County , GDOT, FHWA	\$350,000	Regional Freight Transportation Plan	Tier 2A	Midterm	FHWA Discretionary PL Funds

Name	Type	Description	Key Stakeholders ¹	Cost	Source(s)	Tier	Implementation Timeframe	Funding Source(s)
Encourage Community Improvement Districts to Support Freight Operations and Address Challenges in Freight Clusters	Program Strategy	Foster the creation of community improvement districts (CID) centered on freight clusters to create a new mechanism for funding and implementing freight system improvements.	Savannah Economic Development Authority, Effingham County Industrial Development Authority, Development Authority of Bryan County, Savannah Harbor-Interstate 16 Corridor Joint Development Authority, Chatham County, Bryan County, Effingham County, CORE MPO	Not Applicable	Regional Freight Transportation Plan	Tier 2A	Short-term	MPO Staff Time

Source: CORE MPO Regional Freight Transportation Plan Update, 2023.

¹ Note: The recommended lead sponsor agency is indicated with **bold** type.