

# Regional Freight Mobility Plan **EXECUTIVE SUMMARY**



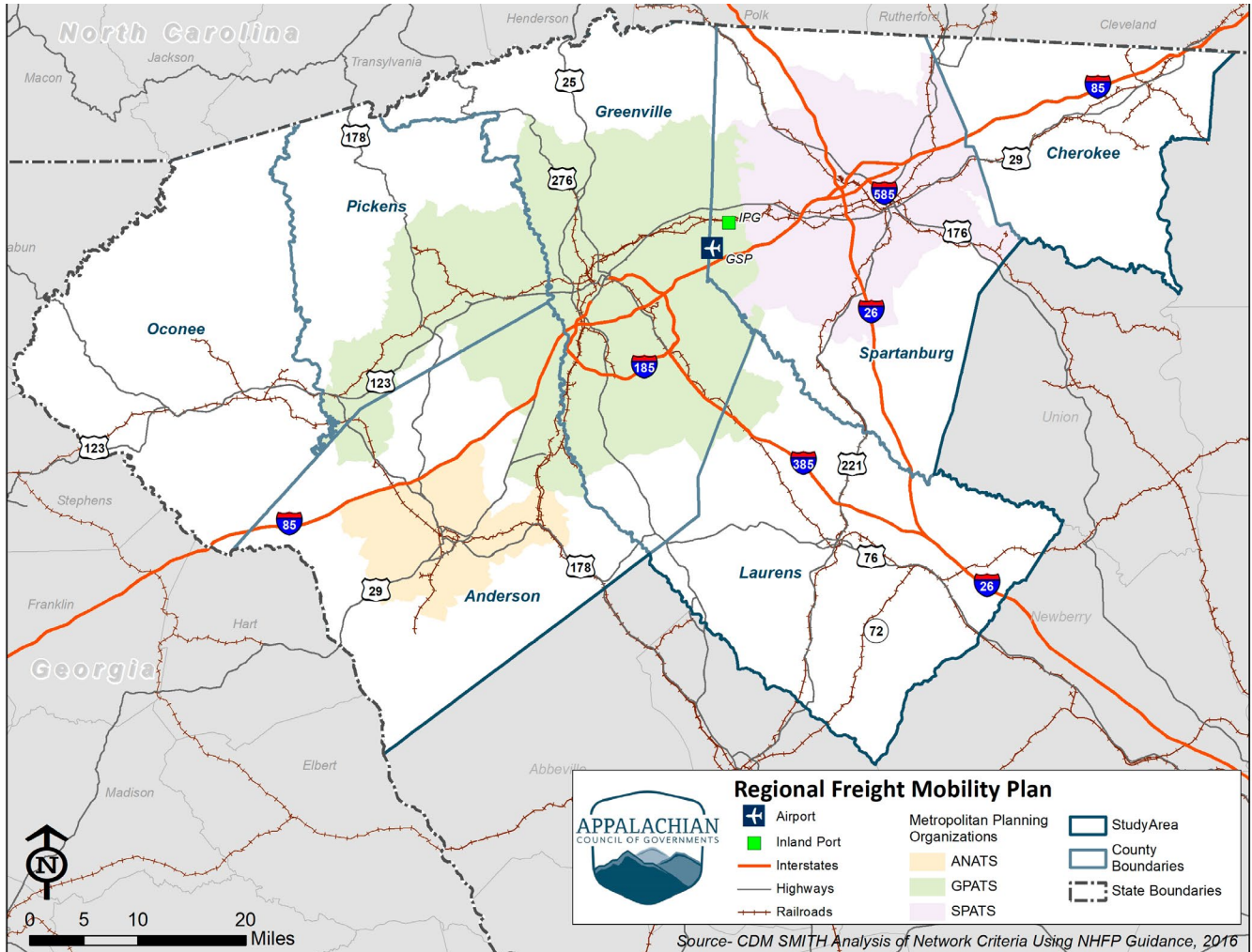
FREIGHT MOVES THE UPSTATE, SOUTH CAROLINA, AND THE SOUTHEAST



# Overview

## Why do we need a Freight Plan?

The **Appalachian Council of Governments' (ACOG) Regional Freight Mobility Plan (Freight Plan)** focuses on providing multimodal freight transportation strategies for the Appalachian Region of South Carolina. Millions of tons and billions of dollars in freight traverse ACOG's multimodal freight transportation network every year. The purpose of the Freight Plan is to serve as a strategic planning tool for the ACOG. The need for a comprehensive strategy to address goods movement in the region results from significant growth in both population and industry that has put pressure on existing infrastructure.








Freight mobility is an important aspect of the area's transportation system performance and a major driving force for the regional economy. The ACOG Freight Plan provides the region with a blueprint for facilitating mobility support for economic growth and minimizes the negative impacts that can come from increased freight movement.

The Freight Plan is a comprehensive, multimodal strategy that addresses freight transportation needs and encourages the safe and efficient movement of freight goods in the ACOG region from both a transportation infrastructure and land use perspective.

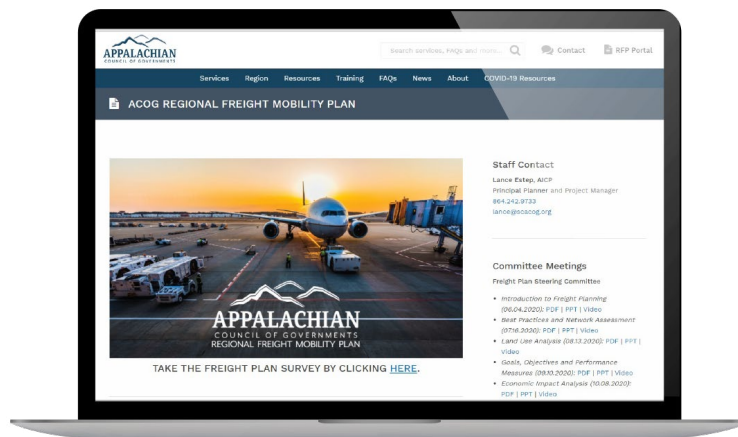
# Public and Stakeholder Engagement

## Who was involved in making this Freight Plan?

Stakeholders play a critical role in identifying freight transportation system deficiencies and opportunities, prioritizing projects, and generating buy-in for public policy and future investment in freight infrastructure.

 <b>Stakeholder &amp; Public Engagement Approach</b>			
	<b>Steering Committee</b>	Regional Policymakers, Elected Officials, Staff	Status Meetings, Webinars
	<b>Freight Advisory Committee</b>	Private & Public Sectors, Universities	In-Person Meetings, Surveys, One-on-One Interviews
	<b>General Public</b>	Citizens of the ACOG Region	Social Media
	<b>Agency Coordination</b>	SCDOT, FHWA, Local Governments, MPOs*	Work Sessions, Emails, Data Sharing, etc.

\* South Carolina Department of Transportation (SCDOT), Federal Highway Administration (FHWA), Local Governments, metropolitan planning organizations (MPOs).



### Economic Impacts of the ACOG's Freight



Accommodated **364,200 jobs**



Earned **\$19.4 billion** in income



Produced **\$34.5 billion** in gross regional product (GRP)



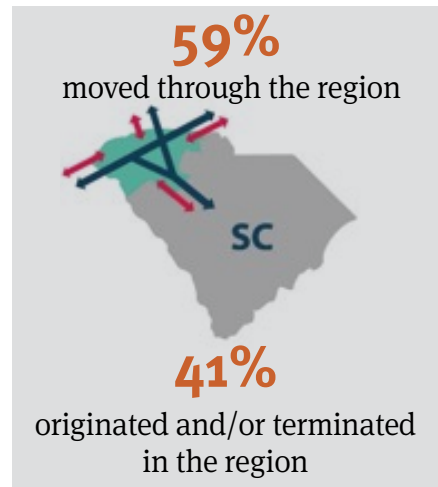
Sold **\$88.2 billion** worth of goods and services



Freight contributes 60 percent of the region's economic output, 51 percent of the gross regional product, 48 percent of the region's income, and 46 percent of the region's jobs. All sectors of the region's economy depend on freight to deliver goods and services, either directly or indirectly.

Considering that the region comprises nearly one-third of the state's economy, it is clear that the region's freight movement plays a pivotal role in both

the regional and South Carolina economies. Not only that, but the region's infrastructure helps facilitate interstate freight movement. The majority of freight moving along the region's multimodal network is through-freight, meaning it both originates and terminates outside of the ACOG study area. The through-freight moving on the region's infrastructure mainly represents interstate trade, predominantly with Georgia, North Carolina, and Florida. Ensuring that the region's freight infrastructure can continue to accommodate the safe, efficient movement of freight now and into the future is critical for the local, state, and national economies.



## Regional Freight Mobility Planning Objectives



The Freight Plan is an integrated planning effort between the ACOG and three **metropolitan planning organizations (MPOs)** in the region: the **Anderson Area Transportation Study (ANATS)**, **Greenville-Pickens Area Transportation Study (GPATS)**, and **Spartanburg Area Transportation Study (SPATS)**. The region includes the six member counties of the ACOG plus Laurens County. Laurens County was included in the freight plan because I-385 emerged as a future freight-related economic growth corridor. In addition, the ACOG worked in close partnership with the **South Carolina Department of Transportation (SCDOT)**, the **Federal Highway Administration (FHWA)**, and other local stakeholders. It was also conducted in close coordination with the **Berkeley-Charleston-Dorchester Council of Governments (BCDCOG)**, which is connected to the ACOG via interstate highway I-26 and is part of the same megaregion (Piedmont). Megaregional coordination recognizes that transportation planning must go beyond traditional planning boundaries to understand the patterns of goods movement and the movement of people to access jobs related to freight. The Freight Plan enhances and expands on relevant plans in the region, which were used to develop the goals and objectives of this plan.

*NOTE: This is the first regional planning project that was a collaboration of the Appalachian Council of Governments, Greenville-Pickens Area Transportation Study, Spartanburg Area Transportation Study and the Anderson Area Transportation Study*



## Economic Impact of Freight

The ACOG region is an economic powerhouse for the state, producing almost a third of the state’s total sales output (31.1 percent) with a quarter of the population and the state’s employment. Freight is a major player in the region’s economy, especially because of the presence of the South Carolina State Ports Authority (SCPA). This is largely because the primary users of SCPA port facilities are manufacturers, which are also disproportionately concentrated within the Upstate Region, such as BMW, Michelin, Fuji, GE Power, and others.

Source: Craig Lee, South Carolina Ports Authority



The economic impact of the region’s freight movement translates to over 360,000 jobs and billions of dollars of income, GRP, and goods and services sold. Freight demand is directly related to the amount of economic activity in a region and businesses and customers depend on all modes to connect them to markets and grow the regional economy. Ensuring that the region’s freight infrastructure can continue to accommodate the **safe, efficient movement of freight now and into the future is critical for the local, state, and national economy.**

### Economic Impacts

(\*numbers include direct, indirect, and induced impacts)

<b>364,249</b>	<b>\$34.5B</b>	<b>\$19.4B</b>	<b>\$88.2B</b>
<b>JOBS</b>	<b>GRP</b>	<b>INCOME</b>	<b>OUTPUT</b>
<b>46%</b>	<b>51%</b>	<b>48%</b>	<b>60%</b>

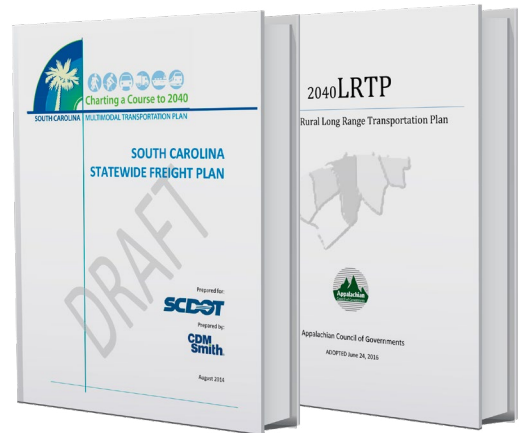
# Goals, Objectives and Performance Measures

Alignment of freight plan goals and objectives with other relevant transportation plans (local, state and federal)

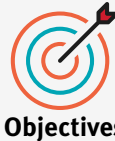
The Freight Plan goals were established after reviewing the Fixing America’s Surface Transportation (FAST) Act federal freight policy goals, **South Carolina Statewide Freight Plan** Update goals, the **ACOG Rural Long Range Transportation Plan (LRTP)** goals, and MPO partner plans. A list of each of the plans reviewed is below. Table III 1 illustrates a comparison of the plans’ goals.



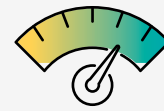
- FAST Act federal freight policy
- South Carolina Statewide Freight Plan Update (2020) (draft)
- ACOG 2016–2040 LRTP
- SPATS 2040 LRTP
- ANATS 2040 LRTP



Broad statement that defines what the region wants to accomplish for the regional freight transportation system as a whole



Explain how the goals relate to specific aspects of the freight system. Objectives are measurable, but not necessarily quantifiable



Serve to measure objectives with data and technical analyses and provide metrics for continued system monitoring

## GOAL 1: MOBILITY AND SYSTEM RELIABILITY

### Objectives

- Increase travel time reliability for highway and freight corridors
- Encourage land development and travel patterns that support freight modes

### Performance Measures

- Truck travel time reliability index
- Proportion of South Carolina’s interstate mileage that operates at less than a Level of Service (LOS) E for urban areas and LOS C for rural areas

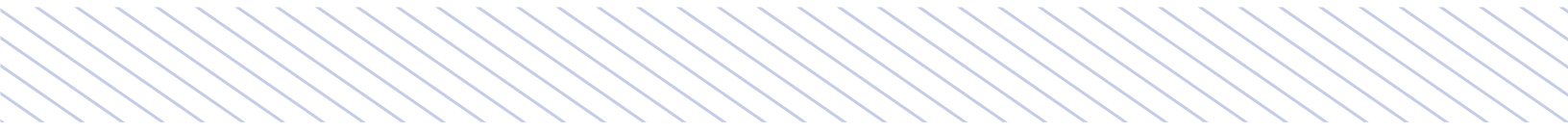
## GOAL 2: SAFETY AND SECURITY

### Objectives

- Reduce the number and rate of crashes, fatalities, and serious injuries across all modes of travel
- Collaborate with SCDOT to improve roadway safety in rural areas
- Identify hazardous corridors and intersections in rural areas

### Performance Measures

- Number of large trucks reported in crashes (fatal, nonfatal, injury reported, hazardous materials) 5-year trends
- Number of public/private truck parking spaces available
- Number of at-grade crossing crashes





### GOAL 3: INFRASTRUCTURE CONDITION

#### Objectives

- Maintain regional freight network roadways and bridges in a state of good repair

#### Performance Measures

- Percent of miles of Interstate and NHS rated at “good” or higher condition
- Percent of miles of non-interstate on regional freight network rated at “good” or higher condition
- Percent of deficient bridge deck area on the regional freight network



### GOAL 4: ECONOMIC AND COMMUNITY VITALITY

#### Objectives

- Create a resilient network by encouraging improvements and access to redundant roadways on the network
- Provide a regional transportation system that supports the efficient movement of people and freight by addressing freight specific bottlenecks
- Adopt and apply Complete Streets policy that specifies steps to identify community context, needs, and recommended design criteria for each transportation project, potential user, and every mode of travel, including freight

#### Performance Measures

- Truck travel time reliability index
- Annual hours of truck delay on freight corridors
- Proportion of system miles on the regional freight network improved in accordance with Complete Streets policy



### GOAL 5: ENVIRONMENTAL

#### Objectives

- Encourage land use planning that supports and promotes the efficient movement of freight
- Minimize or mitigate project impacts on natural resources

#### Performance Measures

- Annual hours of truck delay on freight corridors



### GOAL 6: EQUITY

#### Objectives

- Improve or maintain broad based public participation into all planning and project development processes
- Incorporate freight mobility needs of all modes into prioritization processes
- Engage typically underrepresented groups, such as emergency response and freight movement stakeholders, during transportation planning processes

#### Performance Measures

- Number of freight-beneficial projects programmed into MPOs and COGs Transportation Improvement Program



# Current State of Freight

The ACOG region is a multimodal hub home to a significant amount of freight activity utilizing access to the region’s two major interstates (I-85 and I-26), Inland Port Greer, two Class I railroads, or international airport (Greenville-Spartanburg International Airport).

## What Do Freight Flows in the ACOG Region Look Like?



25% rail

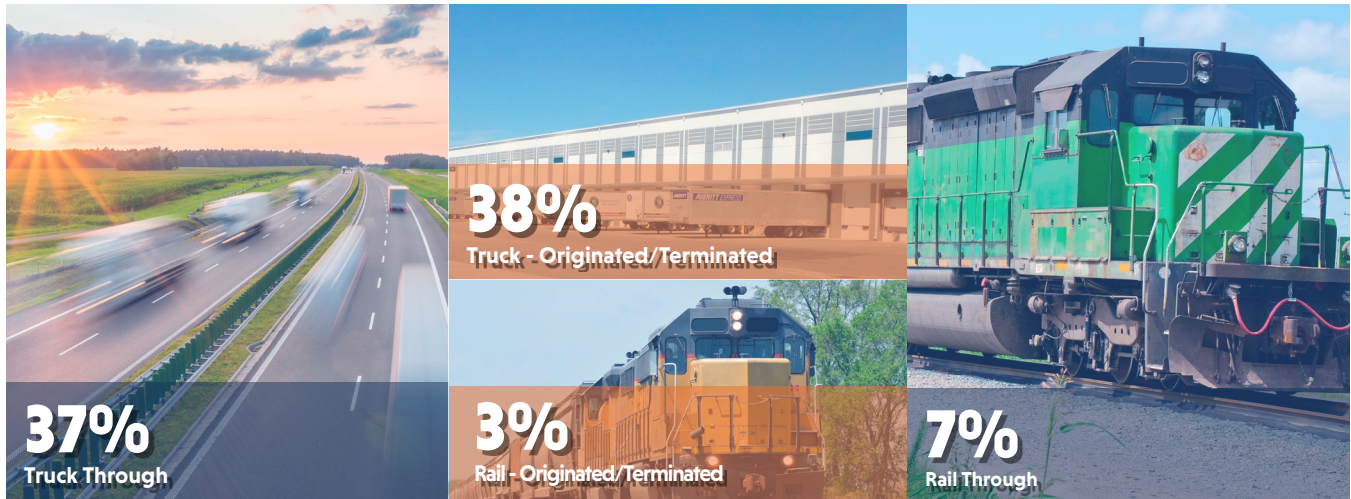


75% truck

Nearly **140 million tons** and **over \$255 billion worth of freight** moved on the **ACOG’s roads and railroads in 2016**. Truck and rail are the major modes for all freight movement in the ACOG region, with most freight tonnage in the Upstate region moving by truck (75 percent). Most truck freight traverses as through traffic (50 percent of freight tonnage), which is typical of regions situated on a major interstate. For inbound/outbound freight, there is slightly more outbound truck movement than inbound, meaning the region is a net producer of truck borne freight. Truck freight moves primarily along I-85, connecting to interstate trade, and to a lesser extent on I-26, connecting the region to the rest of South Carolina.

The remaining 25 percent of freight tonnage moving through the region moves by rail. Rail freight in the ACOG region mostly serves long distance interstate trade not pertaining to South Carolina, with 85 percent of rail freight tonnage classified as through-freight. In total, only 41 percent of all freight tonnage moving within the ACOG region originates or terminates there, regardless of mode.

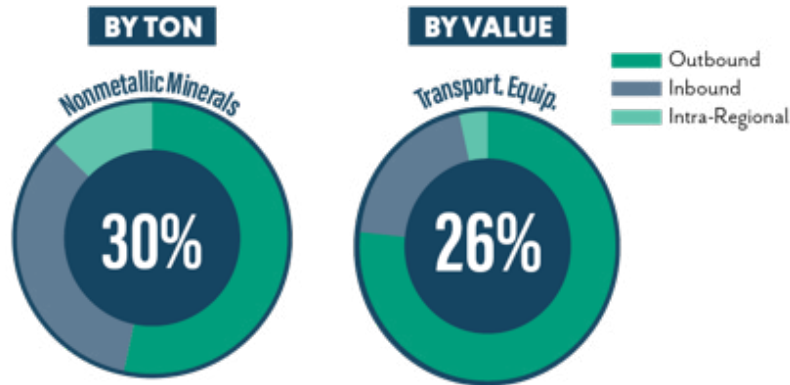
### Origins and Destination of Freight by Mode



By tonnage, bulk commodities dominated tonnage movements, especially nonmetallic minerals (making up 30 percent of the total by tonnage), petrol/ coal, stone, waste, and farm products. By value, the leading commodities are transportation equipment (26 percent of the total by value), machinery, and electrical equipment—all with high values per ton (\$11,200/ton). Despite

only making up 41 percent of freight tonnage, the inbound/outbound freight represents 46 to 60 percent of the region's economy, demonstrating the value that the freight sector plays in the regional, state, and national economy.

## Top Commodities *Originated/Terminated in Region*



## FUTURE FREIGHT FLOWS

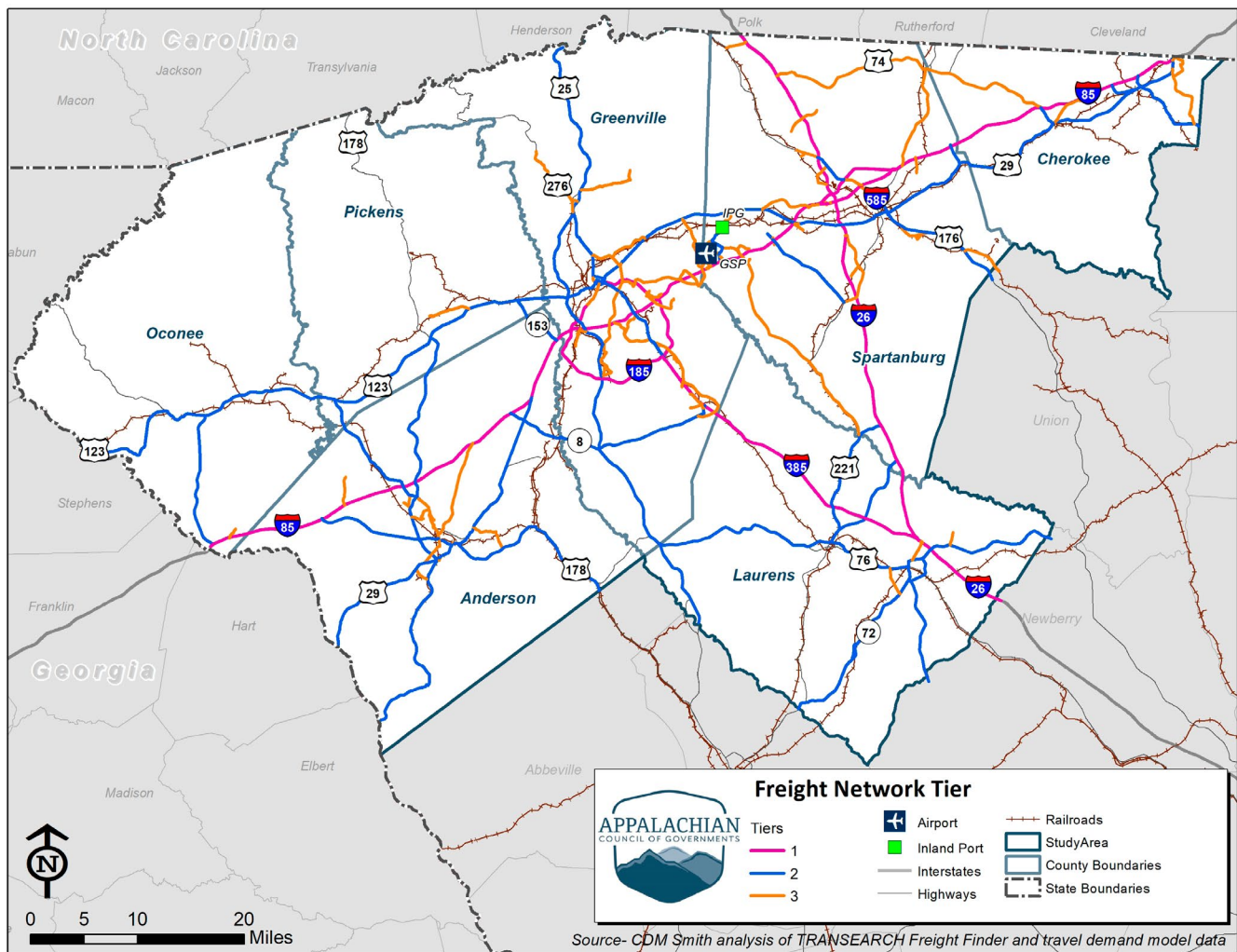
Identifying what kind of freight is moving through the region and what modes this freight depends on is important for planning for future freight growth. By 2040, the freight tonnage traversing the ACOG's roads is expected to increase by 49 percent while rail freight tonnage is expected to increase by 69 percent during this same period. Rail freight tonnage is projected to grow at a higher rate than truck freight by 2040. This is likely because of the opening of Inland Port Greer. Since Inland Port Greer opened in 2013, the ACOG has received direct rail transfers from Port of Charleston, South Carolina. Despite the Greenville-Spartanburg International Airport's new cargo facility, compared to truck and rail freight, freight tonnage through airports and/or other foreign trade zones comprise less than 1 percent of total tonnage.

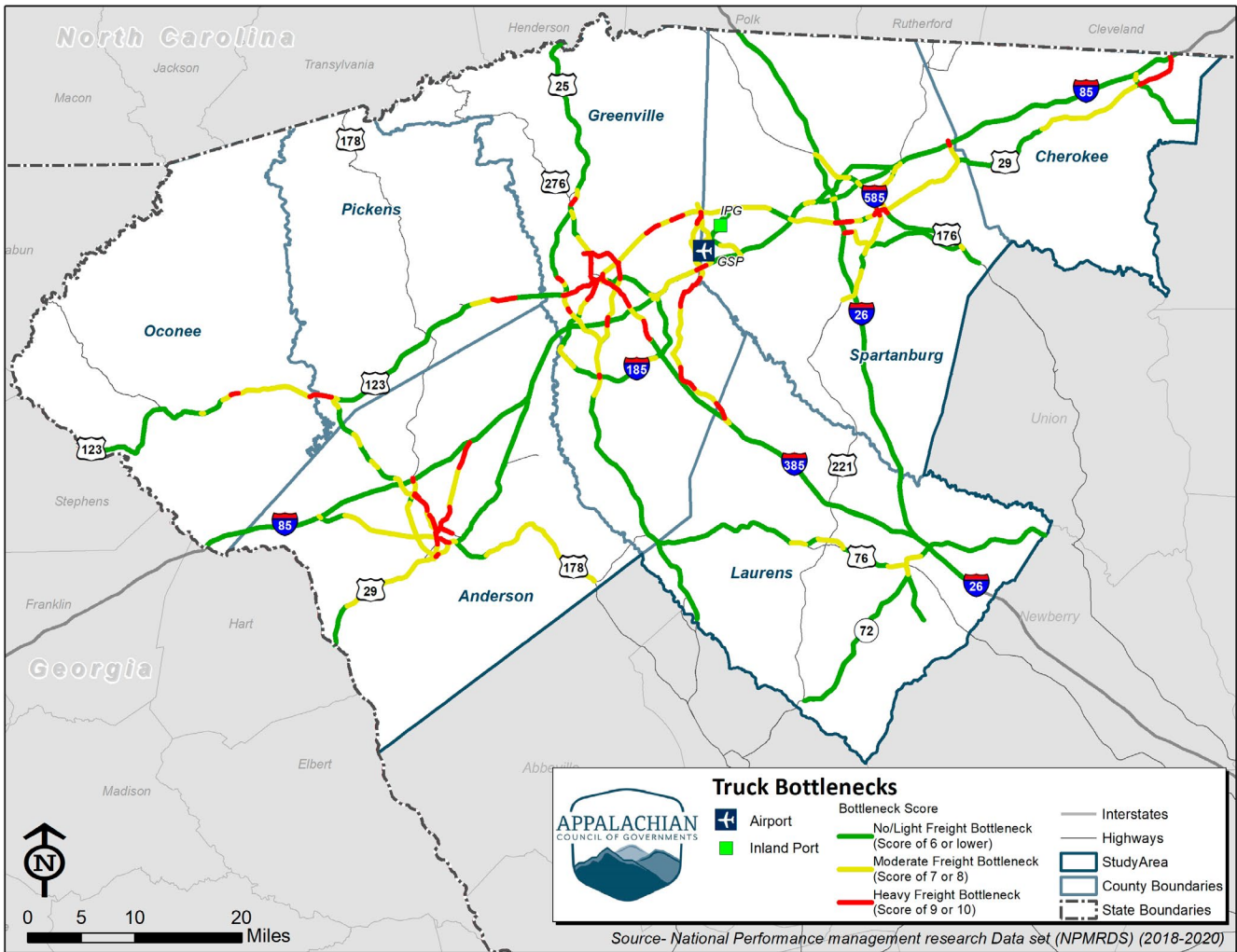
# Identification the Freight Network

## Highways

To focus planning efforts and recommendations on roadways most critical for freight mobility, a regional freight network was identified.

- **TIER 1 – Interstate Highways.** These routes are nationally significant and are designed for long-distance travel and trade. An exception was made for I-385/North Street in downtown Greenville, which connects I-385 with Church Street near downtown. This location is near a pedestrian-oriented area and was thus deemed less appropriate for truck traffic.
- **TIER 2 – Non-Interstate South Carolina Freight Network.** These facilities include routes like U.S. 123 and U.S. 25 that are strategically important to the state of South Carolina but are not part of the interstate highway system.
- **TIER 3 – Local Freight Routes.** These roads provide critical last-mile connections to freight-generating land uses and the other segments of the state/national highway network.





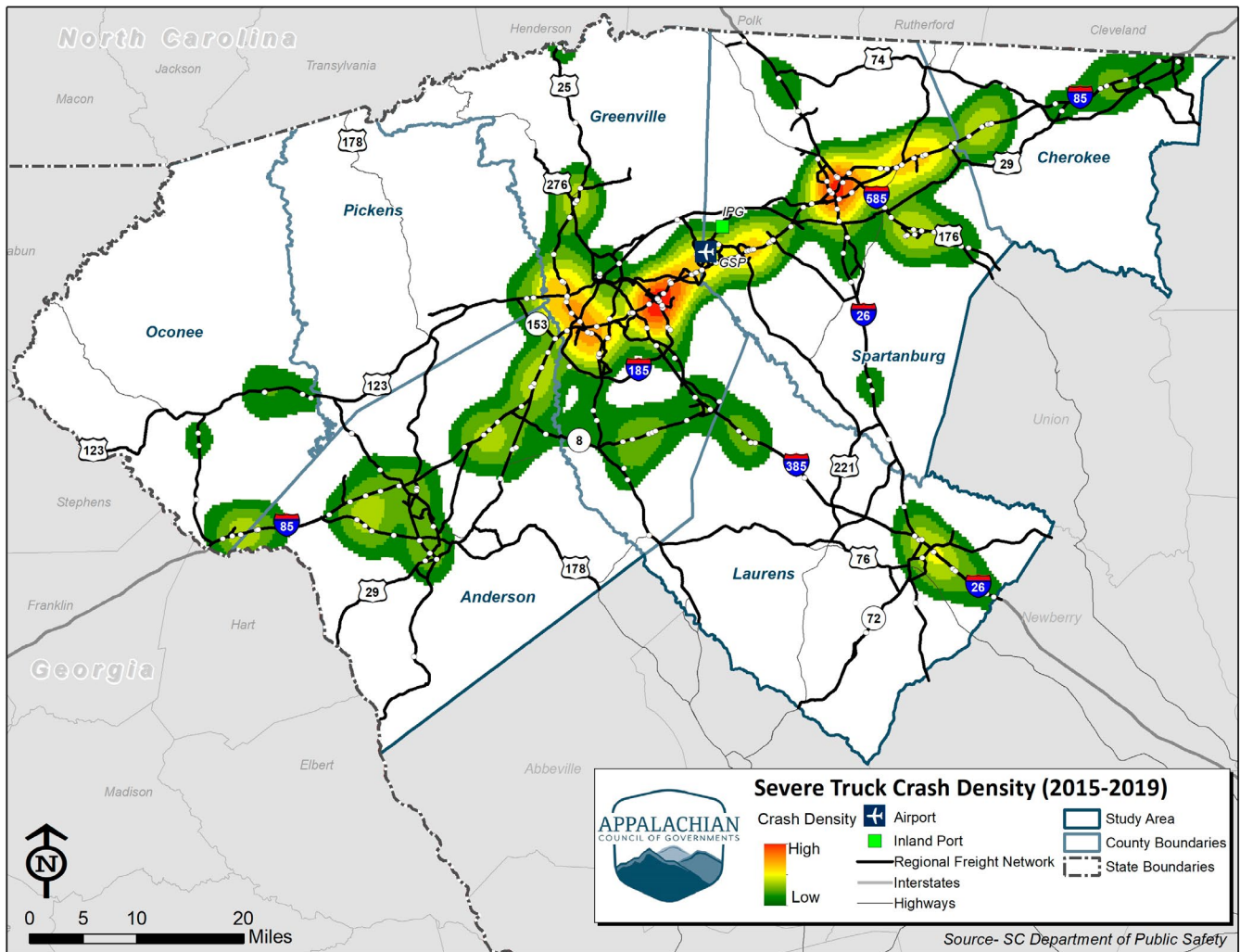
# Forecasting of Needs on the Freight Network

## Safety

Freight-related crashes occur less frequently than many other types of crashes but can be more severe because of the size and weight of the vehicles. It's therefore important to understand where such crashes tend to occur as well as the infrastructure conditions that may contribute to them. A heat map of the seven-county study area showing the density of severe truck-involved crashes from 2015 to 2019 was provided. Any crash that includes one or more fatalities or incapacitating injuries is considered severe.

**Commercial vehicle-involved crash hotspots are found at the I-85/I-385 interchange and near the I-26/I-85 interchange.** The I-85 corridor segment from Greenville to Spartanburg is also the location of a higher number of crashes. This is likely in part due to the amount of congestion along I-85, in a congested highway environment. It is almost impossible for truck drivers to maintain safe driver distances with passenger vehicles primarily because of the speeds and rapid lane changes of some automobile drivers. Stakeholders in the region have suggested that additional lighting on the interstate, better reflective striping, identified safe zones, and more speed enforcement would help address some of the corridor's safety issues.



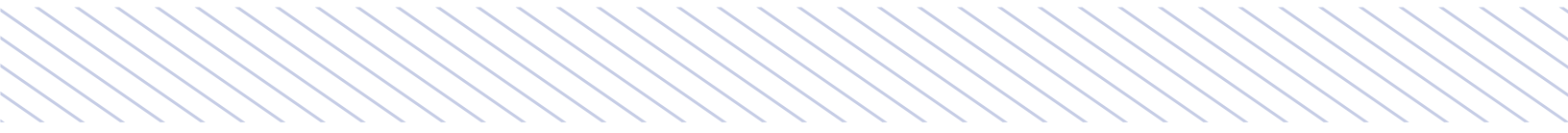
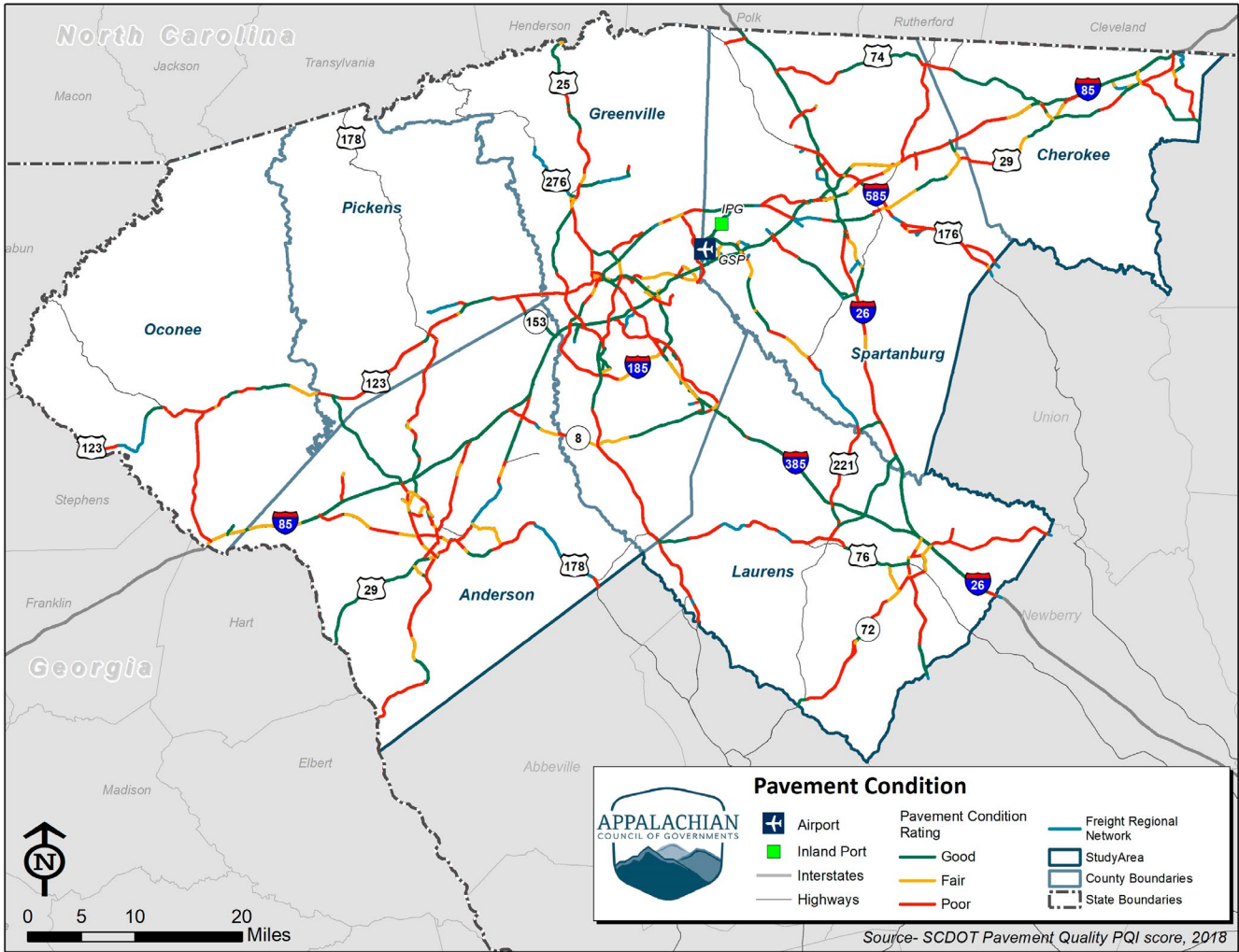


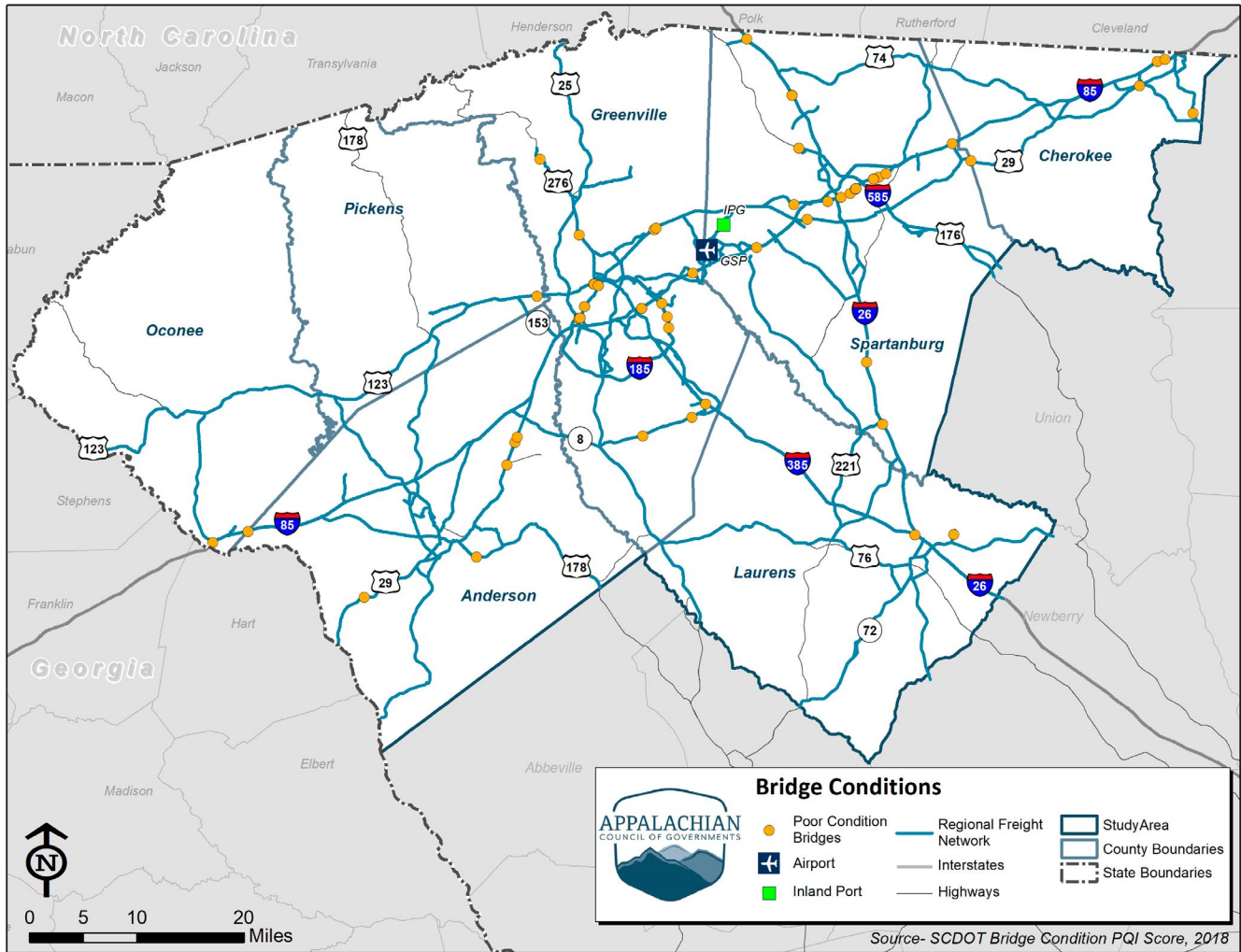
## Pavement and Bridge Conditions



Poor pavement condition reduces freight efficiency and contributes to increased wear and tear on trucks. Bridges in poor condition may require increased maintenance in the future, especially if truck traffic increases. Bridges that are restricted to less than the standard legal weight limit and those with low vertical clearance can impede commerce by forcing trucks to use alternate, less efficient routes. Some of these routings may be circuitous, adding cost and time to shipments.

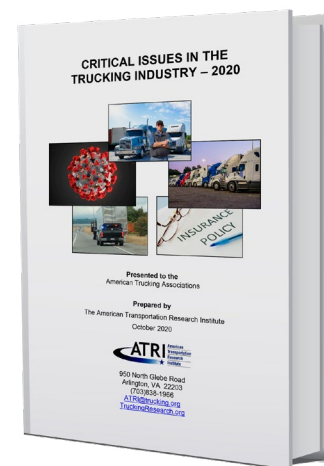
Based on the technical analyses conducted, there are many roadways that are in poor condition, including some on interstate routes. Regional freight network corridors with poor pavement condition should be prioritized for routine maintenance and resurfacing projects. Primary focus in the region will be on interstates because of the volume of truck traffic carried on these facilities. Other facilities on the freight network that require attention include U.S. 29, U.S. 123, and U.S. 25.





## Truck Parking

The I-85 and I-26 corridors carry a significant amount of the states’ trucks and tonnage. According to the I-85 truck parking study completed in July 2017, 21 exits were identified where trucks were parking illegally. Illegal parking occurred most on exits where the larger truck stops were located, suggesting that this occurred because drivers were familiar with the truck stop brands and the amenities offered, but there was still an insufficient supply of available parking spaces. The issue of truck parking was a theme in regional stakeholder feedback as well. Although some new private truck parking facilities have been constructed in the region, available trucking parking is still not adequate. The American Transportation Research Institute’s 2020 Critical Issues in the Trucking Industry report identified truck parking as the third highest ranking issue of concern, climbing two spots from the 2019 study. Although this is generally seen as a state issue, it affects local and regional businesses and contributes to driver turnover and stress. As freight-related industries continue to grow, more truck parking supply will be needed to keep up with the anticipated demand in the ACOG region.



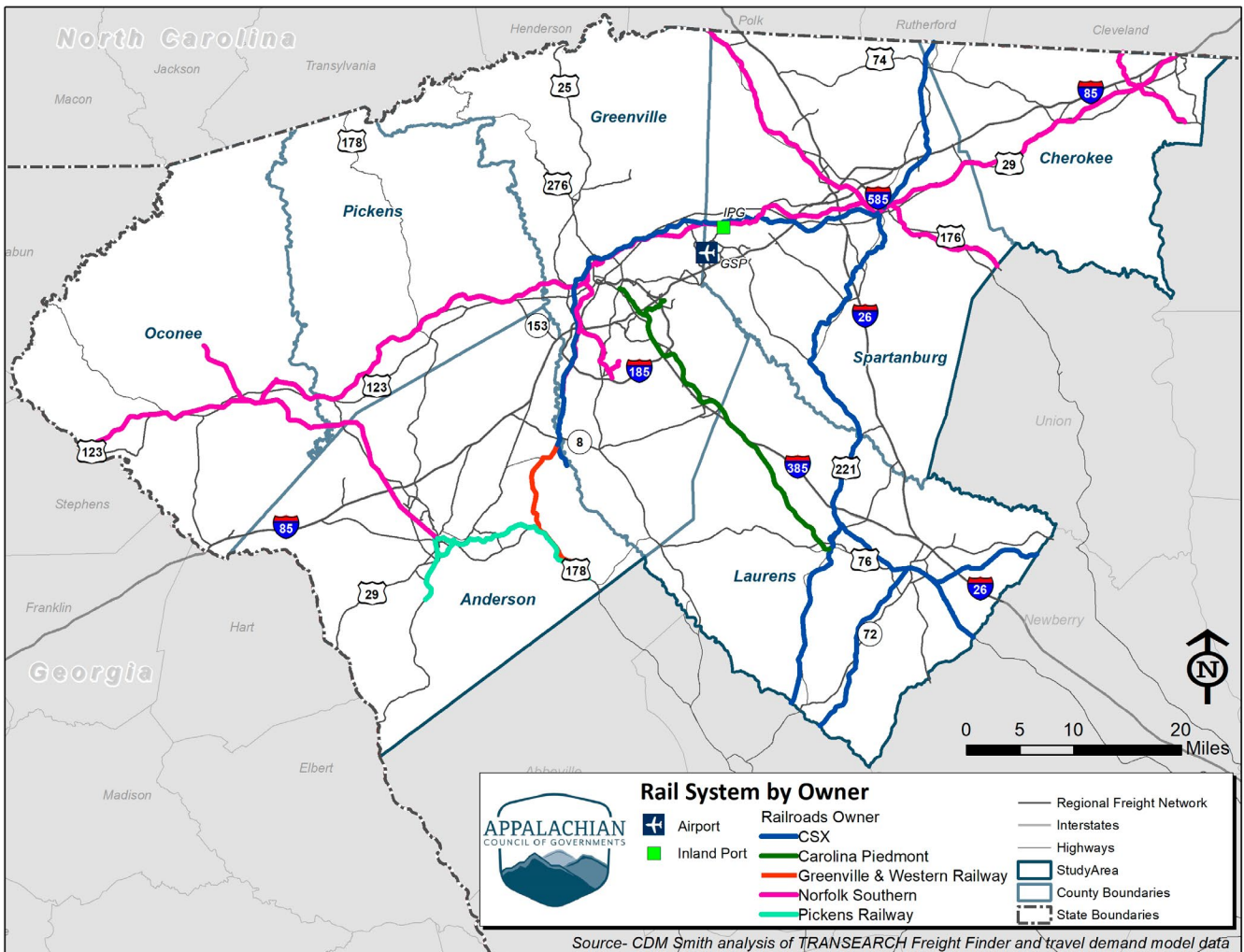


## Truck Driver Safety

Truck drivers are subject to hours-of-service regulations that govern how long they may drive before stopping for rest. Legislation mandating the use of electronic hours of service logging devices prohibit drivers from exceeding their hours-of-service limits. When drivers run out of hours of service, they must pull over regardless of whether there is a safe place to park. Sometimes drivers are forced to park on highway shoulders or other unauthorized locations, resulting in potentially unsafe conditions for the driver, creating safety hazards for other drivers, infrastructure deterioration, and community quality of life issues.

## Railroads

The CSX and Norfolk Southern railroads are Class 1 freight railroads that serve the ACOG region and handle most of the regional rail freight. Norfolk Southern has an intermodal yard near Spartanburg and CSX has an intermodal yard near Laurens. Norfolk Southern is also the primary provider for Inland Port Greer. Other railroads include Carolina Piedmont Railroad, Greenville and Western Railway, and Pickens Railway.





As with the highway mode, through movements make up a considerable share of rail traffic. There is significant rail intermodal (i.e., containerized) traffic moving between the Charleston port terminals and the Upstate. According to South Carolina Ports Authority representatives who attended the July 2020 FAC meeting, approximately 25 percent of inbound marine freight at Charleston leaves the Charleston region by rail. Much of it is then transferred to truck in Inland Port Greer or Inland Port Dillon.

Seventy-five percent of businesses in the ACOG region that use rail to move some of their freight can move that rail freight via a rail siding or spur directly to their facility. Some of these companies may not have rail freight volumes that are large enough to justify the costs of a rail-served site or siding spur; however, they can consolidate a load in a container at the port, which can then be moved to Inland Port Greer and moved to its final location by truck.

There are many large companies in the region that use rail to move a variety of products. BMW is the largest rail customer in the region, receiving 80 to 100 rail cars per day. First Quality Tissue receives wood pulp by rail. Other businesses receive plastic pellets, bulk flour, finished lumber, wood pellets, coil steel, and polyester fibers via rail. Other major rail users in the region include TBT, Michelin, Honeywell, Mitsubishi Polyester Film, BASF, Siskin Steel, CSM Bakery Solutions, 3M, PL Development, and 84 Lumber.

## Air Cargo



Source: Greenville-Spartanburg Airport District

A new **110,000-square foot, \$33 million cargo facility** at Greenville-Spartanburg International Airport (GSP) was opened in 2019. The new facility can handle three Boeing 747-8F aircrafts at the same time with the addition of the 17-acre apron in front of the facility. With the addition of this new facility, the airport will triple the previous handling capacity



**62<sup>nd</sup>**

busiest cargo airport  
in the US (2018)

**224,500**

tons of freight

**\$107,661**

average air commodity  
value per ton  
significantly higher than  
all other modes

## Inland Port Greer

Inland Port Greer opened in 2013 and is located 212 miles inland from the Port of Charleston. Norfolk Southern provides overnight rail service six days per week from the Port of Charleston to the terminal, which operates 24 hours per day, 7 days per week.

**South Carolina was awarded a \$25 million Better Utilizing Investments to Leverage Development (BUILD) grant** to support the expansion at South Carolina Ports Authority's Inland Port Greer and the extension of Norfolk Southern's Carlisle Passing Siding.

### Inland Port Greer



Source: Craig Lee, South Carolina Ports Authority

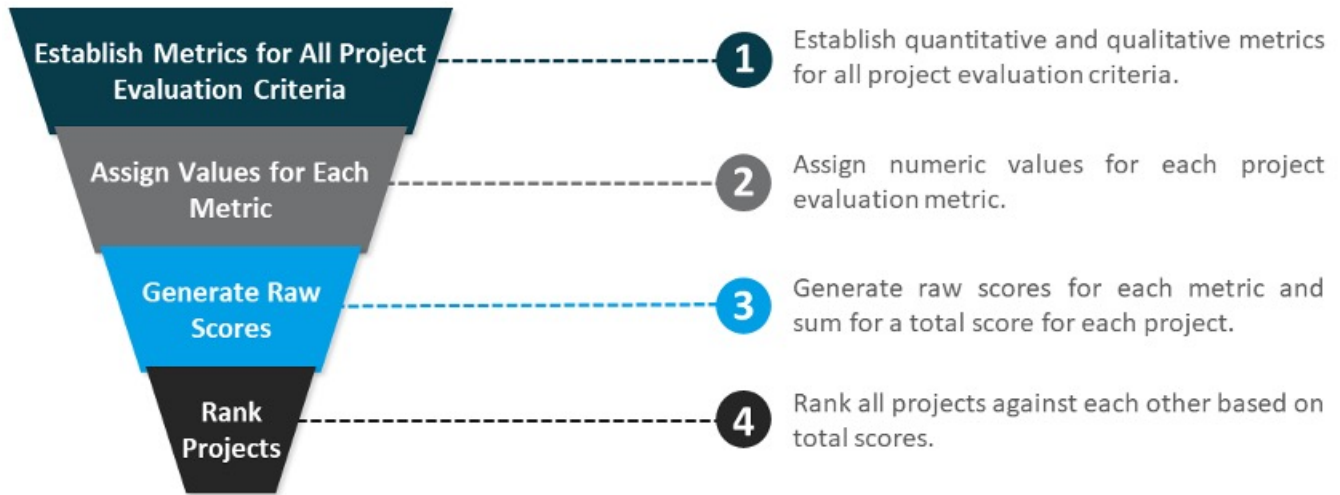
## Freight Mobility Plan Recommendations




### Prioritization




Freight project prioritization is used to assist the ACOG and MPO partners with planning and programming decisions for freight projects in the region. Since the recommended projects vary widely in terms of scope and the goal areas they address, applying a prioritization scoring system can help even the playing field so projects can be easily compared against each other.

The prioritization framework, which is illustrated below, identifies several criteria that determine how well each project addressed the different freight plan goal areas. These criteria are listed in below, along with information about whether the evaluation was qualitative, quantitative, or both, and the data source used to make this determination. This framework aligns with the overarching goal areas, supporting objectives, and performance measures. The criteria used either a “yes/no” or “high/medium/low” scoring system intended to provide higher-level qualifiable criteria at the regional level upon which planners can promote project recommendations into further evaluation and consideration in a more quantifiable analysis.

**Project Evaluation and Prioritization Process**



Goal Area	Evaluation Criteria	Qualitative or Quantitative Evaluation	Data Source
<b>Mobility and System Reliability</b> 	Address a High Congestion Location	Quantitative	ACOG Freight Plan GIS LOS Layer
	Addresses a Freight Bottleneck	Qualitative	ACOG Freight Plan GIS Truck Bottleneck Layer
	Is Project Located on a critical urban freight corridor (CUFC) or critical rural freight corridor(CRFC)?	Qualitative	SCDOT Statewide Freight Plan
	If Project Located on Designated Truck Route?	Qualitative	SCDOT Statewide Freight Plan
	Is Project Located on Tier 1, 2, or 3 Freight Network?	Qualitative	SCDOT Statewide Freight Plan
<b>Safety and Security</b> 	Addresses a Hot Spot Crash Location	Qualitative	SCDOT Highway Safety Statistical Services
	Separates a Highway At-Grade Rail Crossing	Quantitative	ACOG Freight Plan GIS Crossing Hotspots Layer
	Incorporates Intelligent Transportation Systems (ITS)	Qualitative	Project Description
	Supports Truck Parking within a Freight Corridor/Cluster	Qualitative	Project Description and ACOG Freight Plan GIS Industrial Sites and Freight Generators Layer
<b>Infrastructure Condition</b> 	Improves Roadway Condition on the State Freight Network (SFN)	Quantitative and Qualitative	SCDOT Statewide Freight Plan
	Improves Roadway on the Regional Freight Network (RFN)	Quantitative and Qualitative	SCDOT Statewide Freight Plan
	Addresses Poor Bridge Condition	Quantitative and Qualitative	SCDOT Statewide Freight Plan

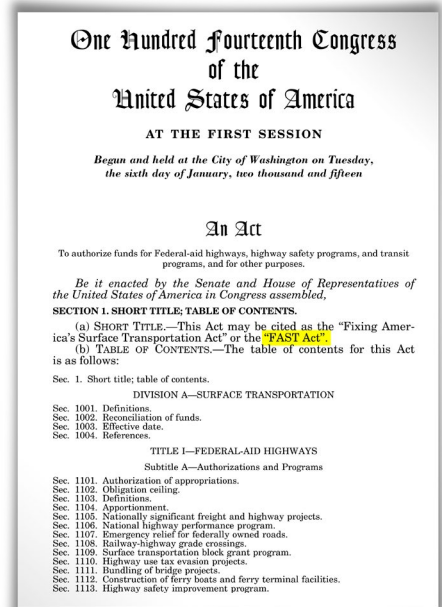
Goal Area	Evaluation Criteria	Qualitative or Quantitative Evaluation	Data Source
<b>Economic and Community Vitality</b> 	Supports an Existing or Future Freight Cluster	Quantitative	ACOG Freight Plan GIS Industrial Sites and Freight Generators Layer
	Supports an Existing or Future Freight Corridor	Quantitative	SCDOT Statewide Freight Plan
	Provides Access to a Freight Generator, Industrial Park, or Intermodal Facility	Quantitative	ACOG Freight Plan GIS Industrial Sites and Freight Generators Layer
<b>Environmental</b> 	Project Avoids Sensitive Land Uses such as Agricultural and Preservation Areas	Quantitative	U.S Environmental Protection Agency Geospatial Resources
	Is Compatible with Surrounding Land Uses	Quantitative	ACOG Land Use Geospatial Resources
<b>Equity</b> 	Project Avoids Environmental Justice (EJ) Populations	Quantitative	U.S Environmental Protection Agency Geospatial Resources
	Improves Public and/or Stakeholder Participation	Qualitative	Project Description

In addition to the freight prioritization framework, an Act 114 prioritization freight filter is proposed to assist with prioritizing regional freight projects within the Act 114 prioritization process for the ACOG and MPO partners. The freight prioritization filter provides an additional point for projects located on the state and proposed regional freight networks. The table below lists the criteria for the Act 114 freight filter. All the roadway projects provided in this plan would qualify for this additional freight prioritization criteria.

**Act 114 Freight Filter Criteria**

**Act 114 Freight Filter Criteria**

- Is project located on a critical rural freight corridor or critical urban freight corridor as defined in the South Carolina Freight Plan Update?
- Is project located on state designated freight network as defined in the South Carolina Freight Plan Update?
- Is project located on the tiered regional freight network as defined in the ACOG Regional Freight Mobility Plan?



# Project Recommendations

In total there are 32 projects under 7 general categories:

1. Corridor Study
2. At Grade Crossing
3. Intersection/Interchange Improvements
4. Bridge Rehabilitation
5. Truck Parking Site
6. Signal Optimization
7. Smart Corridor Study/Transportation Systems and Management Operations (TSMO)

Most of the recommended projects can be completed in the near term, with an estimated timeframe between 2 months to 3 years. For more details on the individual project recommendations, see Chapter 6 of the Freight Plan.

## Policy and Programmatic Recommendations

Policies and programs are different than projects because they are not one-time infrastructure improvements or standalone studies, but rather address broader, systemic courses of action.



***Policies*** are recommendations that provide guidance in the maintenance and investment of the freight infrastructure and movement of goods.



***Programs*** are recommendations for short term interventions to improve the regional freight mobility system or other related decision-making.

There are **21 policy recommendations** and **5 program recommendations** in this Freight Plan.

### POLICIES:

1. Retirement or Retrofit of Aging Heavy-Duty Vehicles and Rail Equipment
2. Inspection and Maintenance of Vehicles
3. Actively Seek and Grow Public-Private Partnerships
4. Integration of Truck Parking into Land Use Plans
5. Increase Interagency Coordination at the State Level
6. Subarea and Neighborhood Freight Plan Program
7. Develop Context-Sensitive Design Guidelines
8. Mauldin/Clemson University International Center for Automotive Research (CU-ICAR) Subarea Plan
9. Automotive and Transportation Industry Collaborations
10. Regional Freight-Related Economic Development Study
11. Regional Supply Chain Resiliency Strategy
12. Develop Interstate Megaregional Freight Plan
13. Regional Freight Security Program
14. Comprehensive Inventory and Assessment of Rail Crossings
15. Highway Rail Crossing Closures
16. Quiet Zone Designations
17. Identify Trespassing Hot Spots



18. Noise and Vibration Impacts
19. Regional Intelligent Transportation Systems (ITS) Master Plan
20. Rail Inland Port Study
21. Transportation Delivery and Logistics Workforce Action Plan

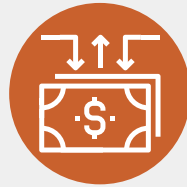
### Other Spin-off Work Products



Relationships



Regional  
Collaboration



Grant Programs



Public/Private  
Partnerships



Private  
Investments

### PROGRAMS

1. Urban Delivery Pilot Program/Wayfinding
2. Incident Management Performance Measure
3. Greenville Regional Traffic Operations Program
4. Ramp Metering Pilot Program
5. FAST ACT Alternative Fuel Corridors Program
6. Interagency Agreements

## Plan Implementation

Implementation of the freight recommendations requires coordination from local, regional, state, and national partners, involving both public and private sectors. Because ACOG is not directly responsible for all regional land use planning, it is necessary that the freight plan is available to the local municipalities and governmental agencies to facilitate their efforts on comprehensive plan updates, mapping updates of the land use and zoning layers, and conduction of developmental services.

For infrastructure improvements, **some of the recommended highway projects are already consistent with the regional MPOs' and COGs' LRTPs and Transportation Improvement Program** and will follow the project development process for implementation. Additional recommended highway projects may either be incorporated into each MPO's unfunded needs process and then moved into the LRTP (should additional funds become available), or be incorporated into SCDOT programs for implementation. Where rail, port, and airport projects are concerned, this freight plan will be made available to the various stakeholders for reference in their selection of improvement projects.

### State and Federal Agencies

Statewide freight plans are used to guide the long range freight planning investments for each state with a focus on the state's entire freight network's needs and issues. While similar to the first/last mile trips, local and regional freight plans are freight planning documents that represent localized freight issues and needs for improving freight and goods movement on a local scale.



These local and regional freight plans serve as puzzle pieces filling in these important pieces of the state’s overall freight puzzle. Freight planning coordination with SCDOT needs to be a two-way dialogue.

Some opportunities to use discretionary federal funding include the **RAISE** (previously known as BUILD) and **INFRA** programs, congressional directed spending requests (earmarks), and U.S. Department of Transportation (USDOT) loan programs such as **TIFIA** and **RRIF**. A summary is provided below.

- REBUILDING AMERICAN INFRASTRUCTURE WITH SUSTAINABILITY AND EQUITY (RAISE) GRANT PROGRAM:** Projects for RAISE funding are evaluated based on merit criteria that include safety, environmental sustainability, quality of life, economic competitiveness, state of good repair, innovation, and partnership. Within these criteria, the Department will prioritize projects that can demonstrate improvements to racial equity, reduce impacts of climate change and create good-paying jobs.
- INFRASTRUCTURE FOR REBUILDING AMERICA (INFRA) GRANT PROGRAM:** In March 2021, the USDOT announced the FY 2021 round of the Infrastructure for Rebuilding America (INFRA) discretionary grant program to fund transportation projects of national and regional significance that are in line with the Biden Administration’s principles for national infrastructure projects that result in good-paying jobs, improve safety, apply transformative technology, and explicitly address climate change and racial equity.
- CONGRESSIONAL MEMBER DIRECTED SPENDING PROJECTS:** also known as earmarks. For the first time in in 10 years Congress is accepting earmark requests for both the House T&I committee infrastructure bill and the regular transportation appropriations bills.
- TRANSPORTATION INFRASTRUCTURE FINANCE AND INNOVATION ACT (TIFIA) GRANT PROGRAM:** provides Federal credit assistance to eligible surface transportation projects, including highway, transit, intercity passenger rail, some types of freight rail, intermodal freight transfer facilities, and some modifications inside a port terminal.
- RAILROAD REHABILITATION & IMPROVEMENT FINANCING (RRIF) LOAN PROGRAM:** Under this program the Department of Transportation is authorized to provide direct loans and loan guarantees up to \$35.0 billion to finance development of railroad infrastructure. The funding may be used to acquire, improve, or rehabilitate intermodal or rail equipment or facilities, develop or establish new intermodal or railroad facilities, reimburse planning and design expenses relating to activities listed above, refinance outstanding debt incurred for the purposes listed above, and finance transit-oriented development



## Metropolitan Planning Organizations

**The ACOG Regional Freight Mobility Plan is an integrated planning effort between the ACOG and the three MPOs in the region: ANATS, GPATS, and SPATS.** Representatives from each of these MPOs were part of the Freight Plan’s Steering Committee and the adoption of this plan will sustain the ongoing dialogue of supporting freight mobility in the region. By design, the recommendations of this Freight Plan are not given numeric scoring but rather relative prioritization on a regional level. Those recommendations should be considered for further analysis and inclusion in local prioritization processes.



## Municipalities, Counties, and Economic Development Organizations

Moving goods and freight is critical to the Appalachian economy. **The development of strategies to target land to preserve for future freight needs will be important as the ACOG region anticipates more freight to travel through in the upcoming decades.** It is recommended that local governments review this Freight Plan and consider approval and/or adoption to take it into consideration and as a reference for future land use decision-making.

Prioritizing developing sites located in existing freight corridors and concentrations that are closest to major freight generators is crucial in preserving the most strategic areas of land for freight-related growth. Any new industrial development should be located adjacent to or in proximity of the freight transportation network. Locating developments close to the freight network will minimize freight impact on the community, while also providing direct access to the network. Once these strategic sites are developed for other uses, it will be difficult to convert them to freight uses in the future.

As highlighted in the Freight Plan, alignment of land use and transportation planning in the freight context provides for appropriate infrastructure design that supports both efficient and safe movement for all modes of transportation. This also prevents potential conflicts in modes and land uses. Regional freight land use planning needs to be coordinated with local municipalities and counties and will need to be adopted into their local zoning and land use planning processes.

## Freight Advisory Committee and Private Sector Interests

As freight volumes in the Appalachian Region are projected to have continued growth, the discussion of regional freight needs and issues should be kept in the forefront of regional coordination. Several of this Freight Plan's recommendations involve key partnerships with and support from the private sector, such as leveraging public-private partnerships for funding non-highway improvements and developing collaborations between industries.

Building on the foundation of the regional freight plan, the continuation of Freight Advisory Committee meetings is important to sustaining the discussion of freight with regional partners. It is recommended that this group continue to meet regularly to share information on freight and economic development-related needs and issues that exist within the Appalachian Region, and oversee the implementation of recommended policies and projects from this Freight Plan. As the regional freight program continues to evolve, this group can continue to provide important feedback and direction for future freight developments. Implementation of the Freight Plan's recommendations, championed by the ACOG, will support the critical role the public and private sector organizations play in the condition of the freight transportation infrastructure and network of relationships.

*Source: Craig Lee, South Carolina Ports Authority*







## *Thank You to our plan development partners:*

### **Freight Advisory Committee**

- Anderson County Economic Development
- Cherokee County Development Board
- Greenville Area Development Corporation
- Laurens County Development Corporation
- Oconee Economic Alliance
- Alliance Pickens
- Spartanburg Economic Futures Group
- Cherokee County
- Greenville County
- Laurens County
- Oconee County
- Pickens County
- Spartanburg County
- SCDOT - Intermodal
- SCDOT - Planning
- SCDOT - Production
- FHWA Community Planning
- Ten at the Top - Upstate Mobility Alliance
- Greenville-Spartanburg International Airport
- South Carolina Ports Authority
- City of Gaffney
- City of Greenville
- City of Greer
- City of Spartanburg
- City of Woodruff
- GPATS MPO
- SPATS MPO
- ANATS MPO and City of Anderson
- Upper Savannah Council of Governments
- ACOG

### **Agency Partners and Technical Steering Committee**

- BMW Manufacturing
- South Carolina Ports Authority
- Carolina Piedmont Shortline Railroad
- C.H. Robinson
- Norfolk Southern
- Michelin
- G&P Trucking
- Maritime Association of South Carolina
- Continental Tires
- SCDOT
- Sunland Logistics
- NAI Earle Furman
- Clemson University, International Center for Automotive Research
- CSX Railroad
- University of South Carolina, Operations and Supply Chain Center at the Darla Moore School of Business
- South Carolina Trucking Association
- Greenville-Spartanburg International Airport
- South Carolina Council on Competitiveness



**APPALACHIAN**  
COUNCIL OF GOVERNMENTS

