



CAMBRIDGE
SYSTEMATICS

CORE MPO REGIONAL FREIGHT TRANSPORTATION PLAN UPDATE

presented to

CORE MPO

*Economic Development and Freight Advisory
Committee Meeting*

presented by

Cambridge Systematics, Inc.

with AECOM and Symbioscity



October 19, 2023

AGENDA

- Overview of the Final Report
- Revised Final Recommendations
- Next Steps





REVIEW OF KEY FINDINGS & NEEDS



FINAL REPORT: TABLE OF CONTENTS

Plan Purpose and Overview

- Purpose of the study along with vision, goals, and objectives
- Summary of stakeholder outreach

Freight in the CORE MPO Region

- Inventory of the network and an analysis of current and future freight demand

Freight System Assessment

- Outlines the region's needs based on an assessment of conditions, land use analysis, and stakeholder outreach

Strategies and Recommendations

- Strategies and recommendations for improvements to land use and infrastructure
- Discussion of potential funding sources to meet the region's investment needs

- ➔ Each technical task and its key findings are reflected in the Final Report
- ➔ Interested readers are referred to the detailed technical memos for more information
- ➔ The technical findings provided the foundation for identifying needs



PLAN PURPOSE AND OVERVIEW

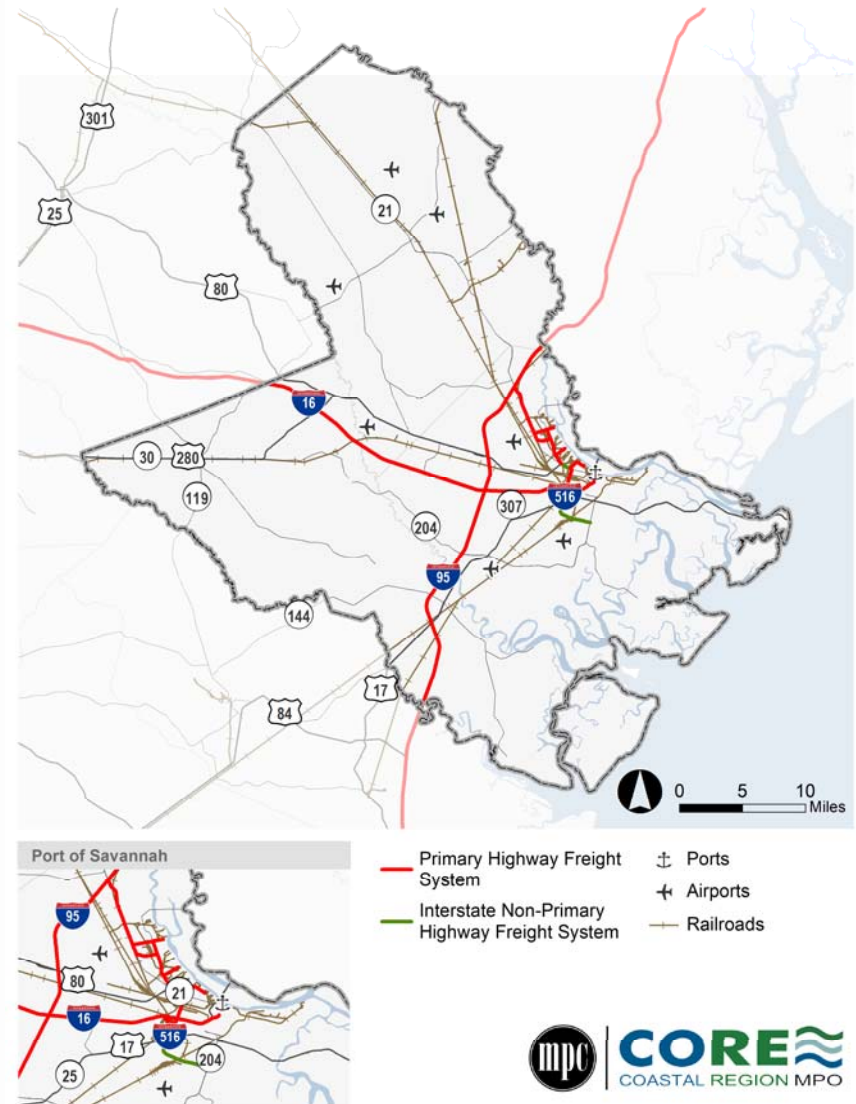
- Provides an overview of the study along with the vision, goals, and objectives
- Summarizes stakeholder outreach activities conducted as part of the study
 - » 2 stakeholder forums (virtual and hybrid), online stakeholder survey, and 10 one-on-one stakeholder interviews

Regional Freight Transportation Goals and Objectives



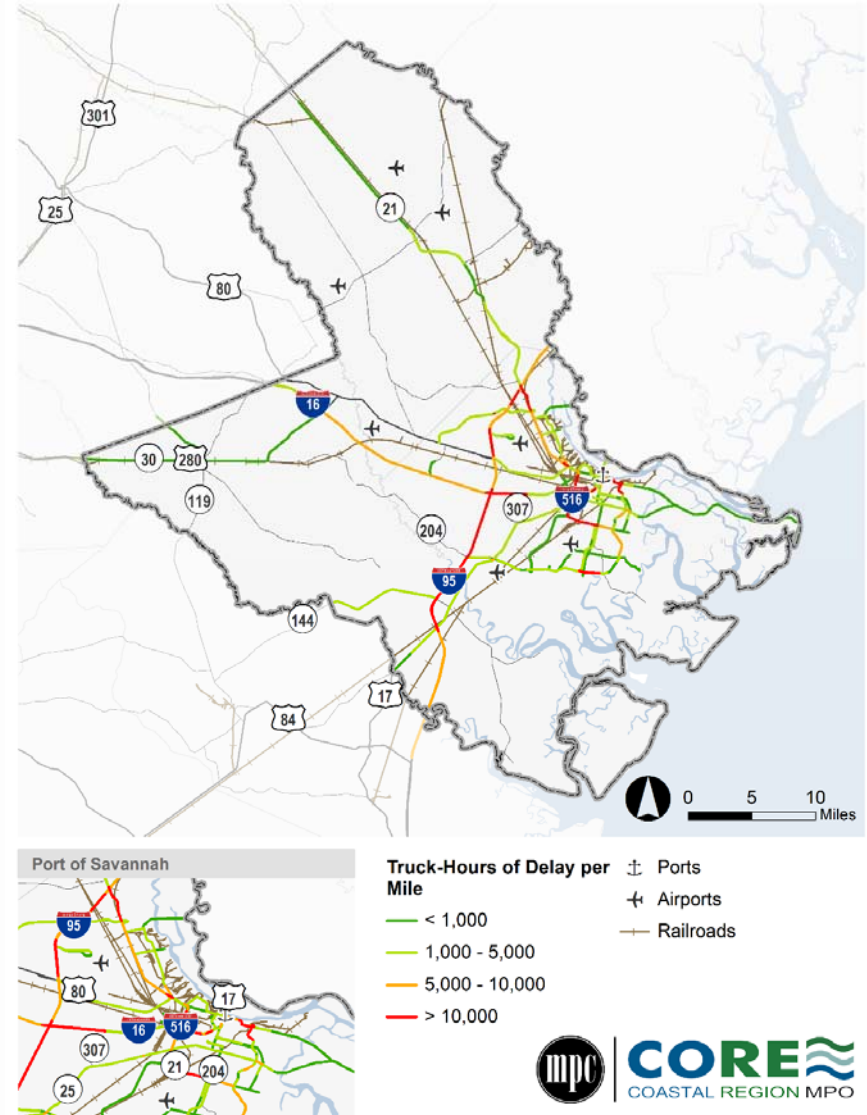
FREIGHT IN THE CORE MPO REGION

- Provides an overview of the CORE MPO region's multimodal freight network and its economic impact
- Summarizes findings of the following technical tasks
 - » Task 2.1: Existing and Future Freight and Goods Movement Assessment
 - » Task 2.3: Forecasting of Future Freight Growth
 - » Task 2.4: Regional Freight Profiles and Assessment
 - » Task 4: Economic Development Market Assessment



FREIGHT SYSTEM ASSESSMENT

- Assesses the condition and performance of the freight network as well as its community and environmental impacts
- Identifies the region's key investment needs
- Summarizes the findings of the following technical tasks
 - » Task 2.8: Freight Needs Assessment and Analysis
 - » Task 3: Land Use Assessment, and Task 5: Environmental and Community Impact Scan and Analysis



FREIGHT SYSTEM ASSESSMENT: OVERVIEW OF NEEDS

Safety

- Some freight corridors exhibit crash rates that exceed region-wide averages.
- Certain at-grade rail crossings have experienced multiple crashes over the past ten years

Congestion and Reliability

- Freight corridors experience some of the most significant congestion and reliability challenges
- This results in higher costs for businesses and negatively impacts other roadway users

Freight Network Connectivity

- The lack of network connectivity and redundancy contributes to congestion and reliability challenges.

Community and Environment

- 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

- 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.

Truck Parking

- Future growth in trucking activity may quickly consume existing truck parking capacity.

Resiliency

- Several of the region's freight assets are at risk to disruption from multiple hazards.



FREIGHT SYSTEM ASSESSMENT: STRATEGIES & RECOMMENDATIONS

- Defines a comprehensive set of strategies for improving the freight network and reducing its negative impacts
- It develops short-, mid-, and long-term strategies for addressing critical freight needs
- These strategies are presented as “solution packages” that combine infrastructure, operational, and policy-level recommendations to address critical freight needs.
- Summarizes the findings of the following technical tasks
 - » Task 6: Land Use Recommendations
 - » Task 7: Draft Recommendations – Identification Of Improvements, Strategies, and Solutions

Advance Strategic Capacity Expansions, Proactively Increase Network Connectivity

Implement Operational Strategies to Enhance Freight Mobility and Safety

Support Increased Capacity, Enhanced Operations, and Safety on the Freight Rail Network

Implement Technology Strategies to Enhance Freight Operations and Safety

Increase Access to Safe Truck Parking

Improve Freight Network Resiliency

Mitigate Freight Impacts on Communities and the Environment

Integrate Freight Considerations into Land Use Planning

FREIGHT SYSTEM ASSESSMENT: PRIORITIZATION FRAMEWORK

➤ Initiatives prioritized along 3 dimensions

- » Time frame = Complexity + Cost
- » Group A or B = CORE MPO Boundaries
- » Tier = Impact (Score)

Safety and Security (25 pts)

- Rate of truck crashes (5)
- Rate of serious injury truck crashes (5)
- Rate of fatal truck crashes (5)
- Highway-rail crashes (5)
- Amount of public truck parking (5)

Accessibility, Mobility, and Connectivity (25 pts)

- Truck delay (10)
- Truck Travel Time Index (10)
- Percentage of freight corridors actively managed with ITS (5)

State of Good Repair (15 pts)

- Percentage of bridges on freight corridors in good condition (5)
- Percentage of pavements on freight corridors in good condition (10)

System Performance (15 pts)

- Truck Travel Time Reliability (TTTR) Index on Interstate corridors (15)

Environment and Quality of Life (10 pts)

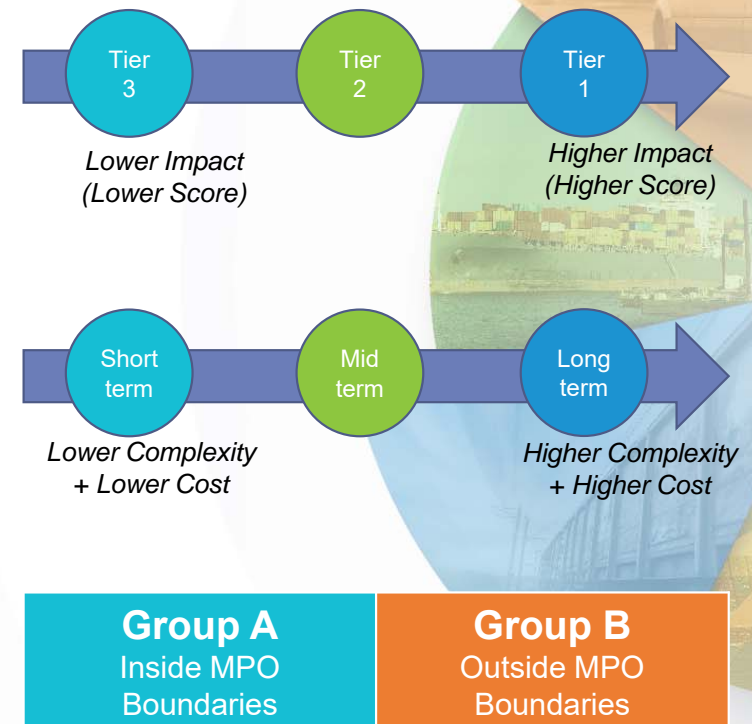
- Rate of truck crashes in EJ/Disadvantaged communities (5)
- Highway-rail incidents in EJ/Disadvantaged communities (5)

Intergovernmental Coordination (5 pts)

- Project is multi-jurisdictional or involves a private sector partnership (5)

Project Readiness (5 pts)

- Project lacks constraints (e.g., funding, environmental) and can proceed relatively quickly (5)





REVISED FINAL RECOMMENDATIONS

OVERVIEW OF FEEDBACK ON DRAFT “SOLUTIONS PACKAGES”

Advance Strategic Capacity Expansions, Proactively Increase Network Connectivity

- Reconsider local impacts of increased connectivity in the Pine Barren Road and Rockingham Farms areas

Support Increased Capacity, Enhanced Operations, and Safety on the Freight Rail Network

- Expand to include other freight modes

Increase Access to Safe Truck Parking

- Discuss opportunities for alternative fuels and incorporating green infrastructure

Improve Freight Network Resiliency

- Consider social vulnerability and truck driver well-being
- Include additional emissions, sea level rise resources, and green infrastructure resources

Mitigate Freight Impacts on Communities and the Environment

- Discuss the connection between resiliency and community and environmental impacts

Integrate Freight Considerations into Land Use Planning

- Review and define terminology to help readers
- “Reserved right-of-way” as a strategy instead of “land banking”



REVISED SOLUTIONS PACKAGES

Advance Strategic Capacity Expansions, Proactively Increase Network Connectivity

- 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

- 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

- Ensure that shippers have an alternative to trucking and support economic competitiveness.

Implement Technology Strategies to Enhance Freight Operations and Safety

- Use technology and information to ease freight-related congestion and improve the mobility and efficiency of freight operations.

Increase Access to Safe Truck Parking

- Improve safety for truck drivers and provide relief for areas that experience unauthorized truck parking.

Improve Freight Network Resiliency

- Improve the freight network's ability to withstand and recover from disruptions.

Mitigate Freight Impacts on Communities and the Environment

- Avoid where possible and limit the negative impacts of freight to communities and the environment.

Integrate Freight Considerations into Land Use Planning

- Guide where and how freight-generating land uses are developed to limit negative environmental impacts, community impacts, and freight-related congestion.



CHANGES WITHIN SOLUTIONS PACKAGES

Advance Strategic Capacity Expansions, Proactively Increase Network Connectivity

- Removed or revised network connectivity recommendations in the Pine Barren Rd. and Rockingham Farms areas

Implement Operational Strategies to Enhance Freight Mobility and Safety

- Clarified that the proposed US 17 Corridor Study should be a Phase 2 extending to Liberty County

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

- Added air cargo- and port-specific recommendations to reflect the multimodal component of the revised solutions package
- Added emphasis on the importance of collaboration for making the recommendations feasible

Implement Technology Strategies to Enhance Freight Operations and Safety

- No changes

Increase Access to Safe Truck Parking

- Added recommendation to align truck parking investments with State alternative fuel initiatives and to incorporate green infrastructure into facilities

Improve Freight Network Resiliency

- Incorporated resiliency recommendations from Plan 2040
- Expanded initial recommendations based on information from the AASHTO Center for Environmental Excellence and the FHWA Office of Planning

Mitigate Freight Impacts on Communities and the Environment

- Added recommendation to measure and monitor emissions at the regional level
- Revised the green infrastructure recommendation to perform further study at the corridor level to identify specific opportunities

Integrate Freight Considerations into Land Use Planning

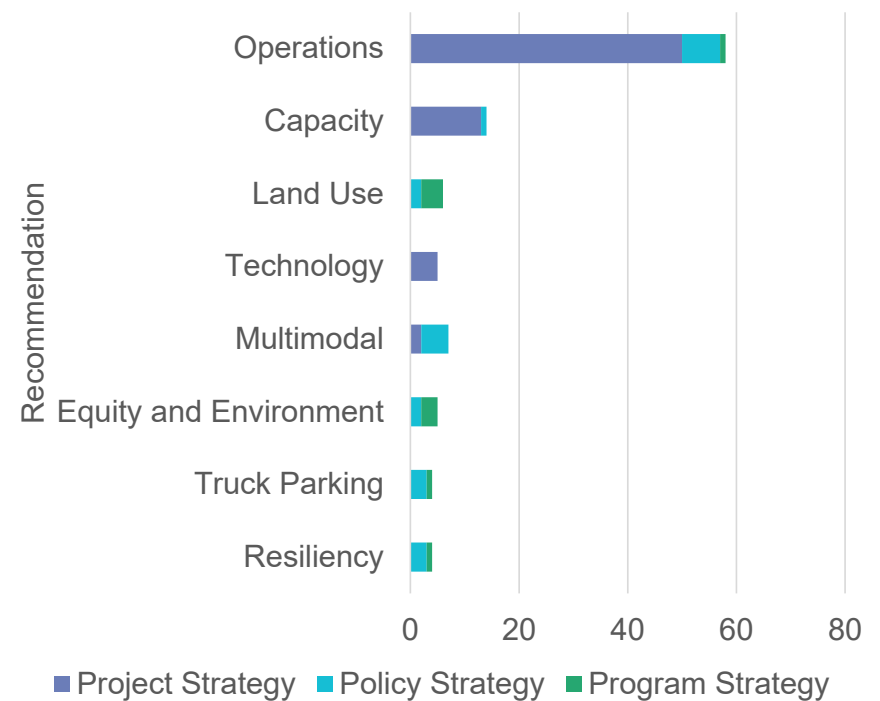
- Provided definitions and more detailed language where needed

FINAL REGIONAL FREIGHT PLAN RECOMMENDATIONS



Summary of Recommended Strategies

Type	No. of Recommendations	Percent of Total
Project	79	68.0%
Policy	23	22.3%
Program	10	9.7%
Total	103	100.0%





NEXT STEPS



NEXT STEPS

- Documentation and source files are being finalized for completion of the Regional Freight Transportation Plan Update
- Project will close out on October 31st

