

**CHARLESTON AREA TRANSPORTATION STUDY  
(CHATS)  
Freight Advisory Committee**

**September 10, 2020  
1:00 pm**

Join Adobe Connect Meeting

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**A G E N D A**

- I. Call to Order/Welcome
- II. Network and Land Use Analyses Recap
- III. Regional Freight Plan Goals and Objectives
  - a. Performance-Based Planning
  - b. Draft Plan Goals and Objectives
  - c. Draft Plan Performance Measures
- IV. Next Step and Wrap Up
- V. Adjournment



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Adobe Connect

Freight - Amy Livingston

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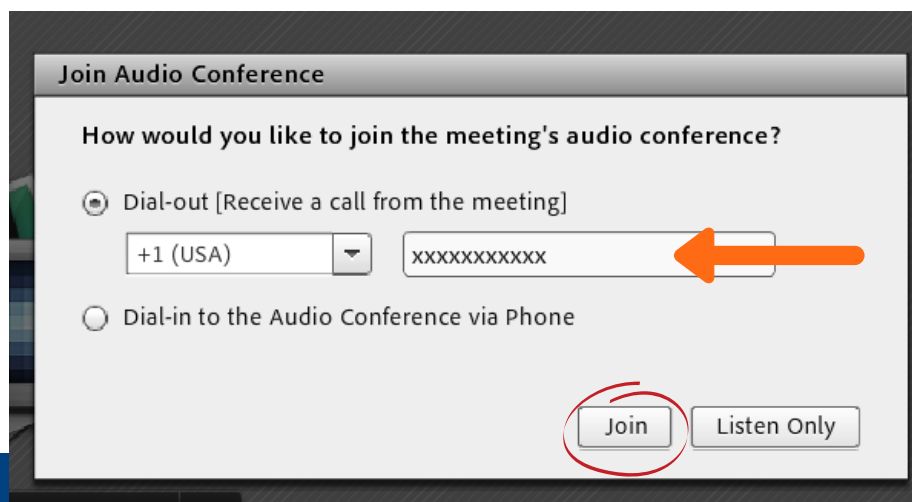
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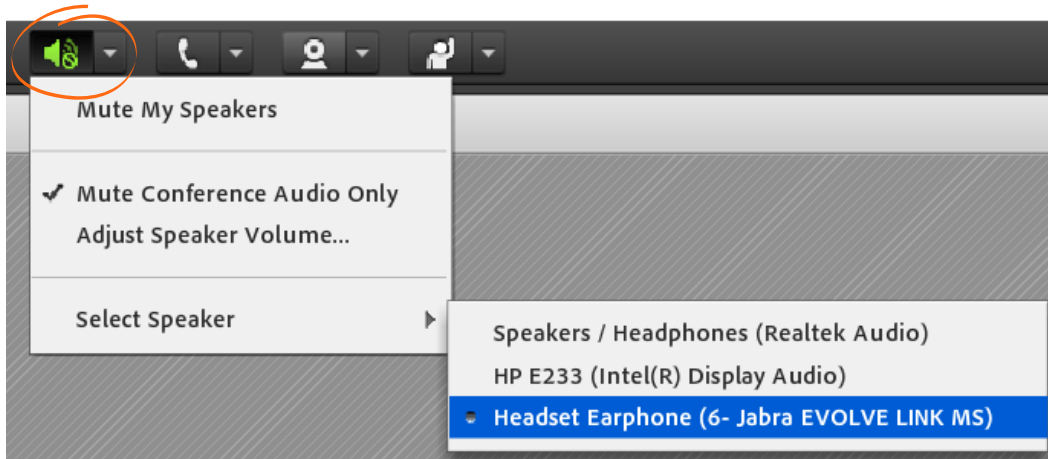
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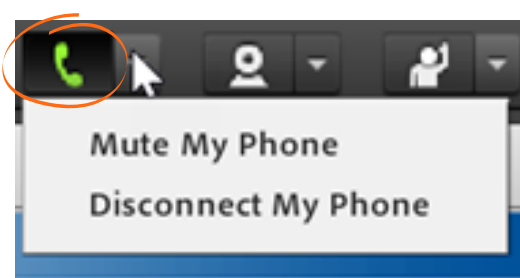
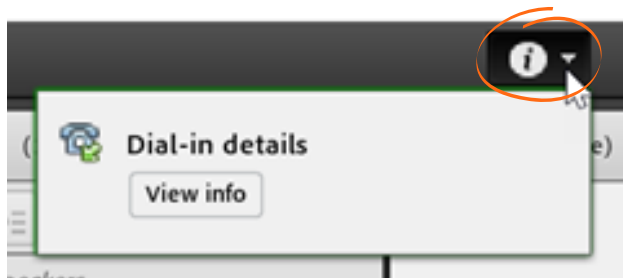
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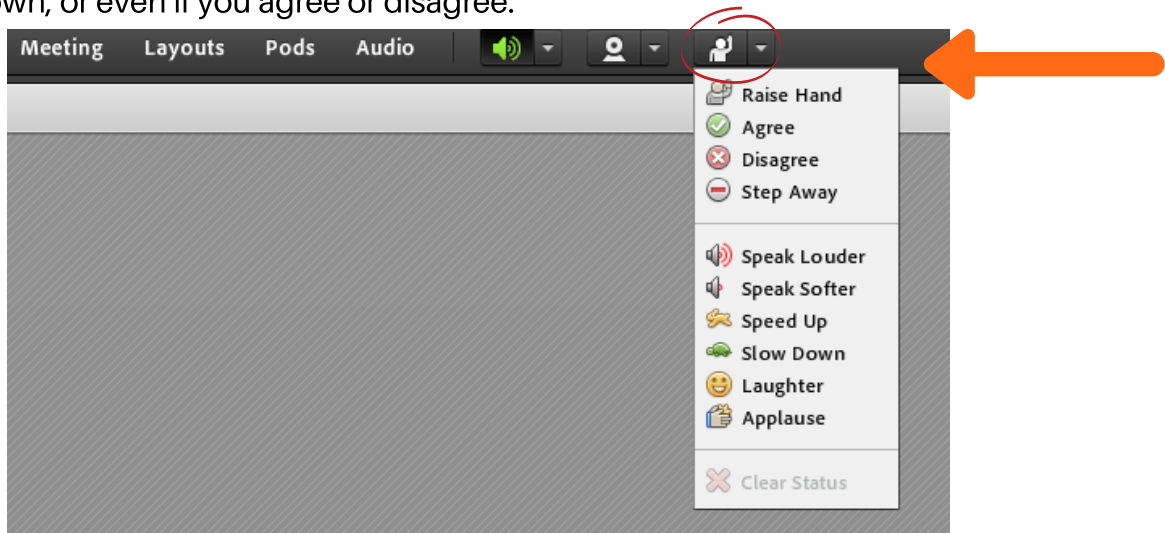


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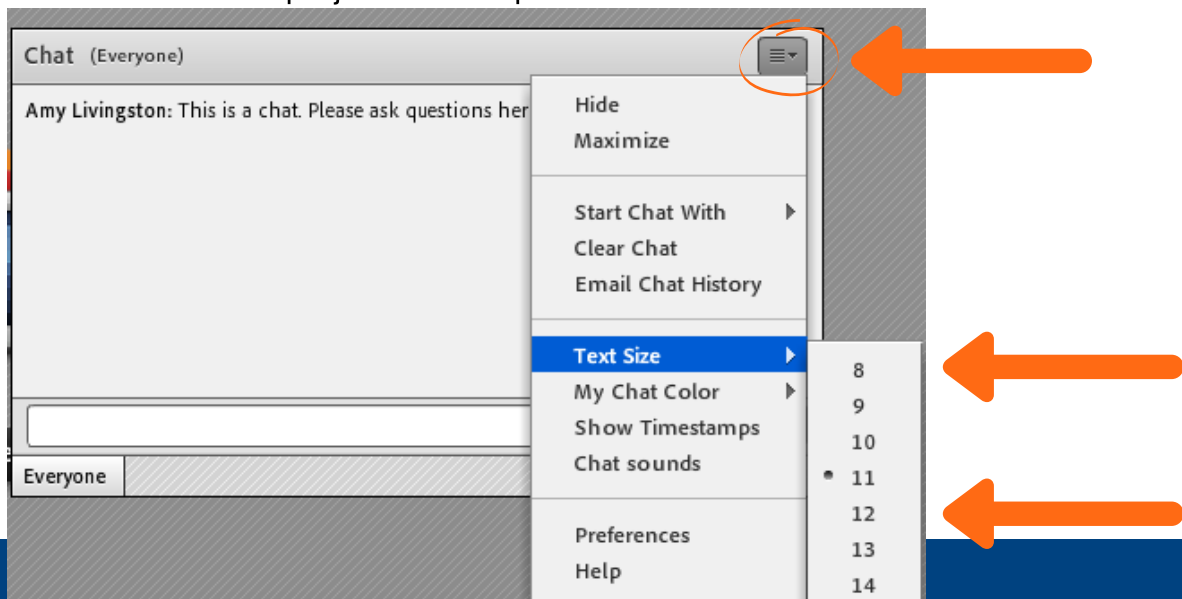
### Raise Your Hand.

On the top tool bar, there is a person with his hand up. Please do this to be called on. Note, there are other tools there that can help us tell if you can hear us, if we should speed up or slow down, or even if you agree or disagree.



### Let's Chat.







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# Welcome

BCD REGIONAL FREIGHT MOBILITY PLAN



-  Mute your microphone unless speaking during a Q&A session
-  Use the "Raise Your Hand" or chat box feature to ask questions
-  Announce your name whenever you speak
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-  *Please pay attention:* A lot of important information will be shared!

# BCD Regional Freight Mobility Plan

Freight Advisory Committee Meeting #4  
September 10, 2020





# Introduction to Speakers

BCD REGIONAL FREIGHT MOBILITY PLAN



**Adam Ivory,**  
**AICP**  
*Atlanta, GA*



**Wade Luther,**  
**AICP**  
*Columbia, SC*



**Krista Goodin,**  
**AICP**  
*Richmond, VA*



**Jenny Humphreys,**  
**AICP**  
*Charleston, SC*

# Freight Advisory Committee

BCD REGIONAL FREIGHT MOBILITY PLAN



- Who is on the Call?





# AGENDA

BCD REGIONAL FREIGHT MOBILITY PLAN



1

Performance-Based  
Planning

2

Draft Regional Freight Goals

3

Draft Regional Freight  
Objectives

4

Draft Regional Freight Performance Measures

# Performance-Based Planning

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- **Framework** – for **evaluating** potential **performance** of long-range transportation plans
- **Goal** – a **broad** statement that defines what we want to **accomplish** for the regional freight transportation system as a whole
- **Objective** – expression of a goal as it relates to **specific** aspects of the freight system, **measurable** but not necessarily quantifiable
- **Performance measures and targets** – serve to **measure** objectives with **data** and technical **analysis**

# Draft Goals and Objectives





## Regional Freight Goals Development

- Comparison of Fixing America's Surface Transportation (FAST) Act, SC Statewide Freight Plan, BCDCOG and CHATS plan goals
- Compatible with BCDCOG and CHATS plans goals
- Enhances BCDCOG plan goals
- Guides development of objectives and freight performance measure

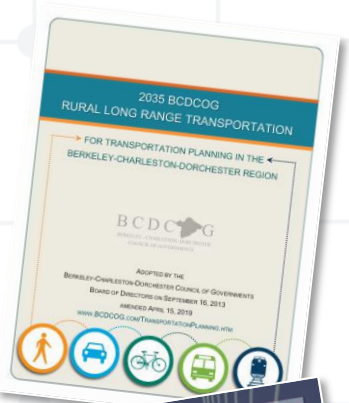
# Goals Comparison

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## Federal, State, and Local Plans – Goals Review

- Fixing America's Surface Transportation (FAST) Act Federal Freight Goals
  - [www.fhwa.dot.gov/fastact/factsheets/nhfpfs.cfm](http://www.fhwa.dot.gov/fastact/factsheets/nhfpfs.cfm)
- SC Statewide Freight Plan Update (draft)
  - [www.scdot.org/inside/pdf/Combined-Notebook-for-July-16-2020.pdf](http://www.scdot.org/inside/pdf/Combined-Notebook-for-July-16-2020.pdf)  
[page 203 of PDF]
- 2035 BCDCOG Rural Long Range Transportation Plan (amended April 2019)
  - [file:///C:/Users/goodinkr/Downloads/2035-BCDCOG-RLRTP\\_Final\\_as-amended-4-15-19\\_reduced.pdf](file:///C:/Users/goodinkr/Downloads/2035-BCDCOG-RLRTP_Final_as-amended-4-15-19_reduced.pdf)
- CHATS 2040 Long Range Transportation Plan
  - <https://bcdcog.com/long-range-transportation-plan/>



# Goals Comparison

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	FAST Act Federal Freight Goals	SC Freight Plan Update Goals	BCDCOG Rural LRTP Goals	CHATS 2040 LRTP Goals
	Congestion Reduction System Reliability	Mobility and System Reliability	Accessibility and Mobility	Mobility/Reliability
	Safety	Safety	Enhance Transportation Safety	Safety
	Infrastructure Condition	Infrastructure Condition	Maintain the Existing Transportation Network	System Preservation
	Freight Movement and Economic Vitality	Economic and Community Vitality	Economic Vitality	Community
	Environmental Sustainability	Environmental	Protect the Environment	Environment
	N/A	Equity (new)	N/A	Community
	N/A	N/A	N/A	Coordination/Best Practices

# Draft Regional Freight Goals

BCD REGIONAL FREIGHT MOBILITY PLAN



***RECOMMEND: Adopt SC Freight Plan Goals including new equity goal***



Mobility and System Reliability



Safety



Infrastructure Condition



Economic and Community Vitality



Environmental



Equity

- ✓ Aligned with FAST Act, SC Statewide Freight Plan, SC Statewide MTP
- ✓ Compatible with MPO partners goals
- ✓ Enhances BCDCOG Rural LRTP goals
- ✓ Guides freight performance measure development



# Stop and Pause

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***Please type your questions in the questions box for open discussion***

# Objectives Development

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- Compatible with SC Statewide Freight Plan objectives
- Alignment with similar BCDCOG and CHATS plans goals and objectives
- Related to draft regional freight goals
- Measurable but not necessarily quantifiable

# Objectives Comparison

BCD REGIONAL FREIGHT MOBILITY PLAN



Proposed BCD Freight Goal Area	BCDCOG Rural LRTP Objectives	CHATS LRTP Objectives
Mobility and System Reliability	<ul style="list-style-type: none"><li>• Improve and expand upon the existing transportation system to better accommodate non-motorized traffic and give residents alternatives to driving.</li><li>• Encourage land development and travel patterns that support automobiles, transit, and non-motorized travel.</li><li>• Encourage municipalities to participate in annual SCDOT Transportation Alternatives Program (TAP) funding process.</li></ul>	<ul style="list-style-type: none"><li>• Increase travel time reliability for highway and transit corridors</li><li>• Improve the reliability of transit</li><li>• Reduce congestion in primary commuter corridors Increase transit services, and provide enhanced transit amenities and facilities</li><li>• Support/promote ride-sharing, such as vanpool, carpool, and park-and-ride</li><li>• Adopt and apply access management policies and controls along congested corridors to improve safety and increase capacity</li></ul>

# Objectives Comparison

BCD REGIONAL FREIGHT MOBILITY PLAN



Proposed BCD Freight Goal Area	BCDCOG Rural LRTP Objectives	CHATS LRTP Objectives
Safety	<ul style="list-style-type: none"><li>• Collaborate with SCDOT to improve roadway safety in the rural areas of Berkeley, Charleston, and Dorchester Counties.</li><li>• Identify hazardous corridors and intersections in the rural areas of Berkeley, Charleston, and Dorchester Counties.</li><li>• Increase awareness of bicycle and pedestrian safety in the rural areas of Berkeley, Charleston, and Dorchester Counties.</li></ul>	<ul style="list-style-type: none"><li>• Reduce the number and rate of crashes, fatalities, and serious injuries across all modes of travel</li><li>• Provide a safe environment for transportation users through engineering, enforcement, and education activities</li></ul>

# Objectives Comparison

BCD REGIONAL FREIGHT MOBILITY PLAN



Proposed BCD Freight Goal Area	BCDCOG Rural LRTP Objectives	CHATS LRTP Objectives
Infrastructure condition	<ul style="list-style-type: none"><li>• Collaborate with SCDOT to improve the condition of roadways in the rural areas.</li></ul>	<ul style="list-style-type: none"><li>• Allocate resources to maintain or improve the system's pavement conditions</li><li>• Allocate resources to maintain or improve bridge conditions</li><li>• Maintain or improve transit assets in a state of good repair</li></ul>

# Objectives Comparison

BCD REGIONAL FREIGHT MOBILITY PLAN



Proposed BCD Freight Goal Area	BCDCOG Rural LRTP Objectives	CHATS LRTP Objectives
Economic and Community Vitality	<ul style="list-style-type: none"><li>• Ensure minimal traffic congestion along key highway/roadway corridors to large employment centers.</li><li>• Provide a regional transportation system and alternatives and solutions supporting efficient movement of citizens and freight and economic development growth.</li></ul>	<ul style="list-style-type: none"><li>• Support equity of active transportation investment and expand mode choice</li><li>• Improve network connectivity</li><li>• Adopt and apply Complete Streets policy that specifies steps to identify community context, needs, and recommended design criteria for each transportation projects, potential users, and every mode of travel</li><li>• Improve transit access to jobs/ employment centers</li><li>• Improve transit access to traditionally disadvantaged populations</li><li>• Support the efficient movement of goods by addressing freight specific bottlenecks and providing efficient and reliable freight corridors</li></ul>

# Objectives Comparison

BCD REGIONAL FREIGHT MOBILITY PLAN



Proposed BCD Freight Goal Area	BCDCOG Rural LRTP Objectives	CHATS LRTP Objectives
Protect the Environment	<ul style="list-style-type: none"><li>• Maintain and improve air and water quality in the BCD Region.</li><li>• Preserve and Protect Open Space, Wildlife &amp; Habitat in the BCD Region.</li><li>• Ensure that transportation projects avoid or minimize negative impacts upon the region's resources.</li></ul>	<ul style="list-style-type: none"><li>• Minimize or mitigate project impacts on the natural environment</li></ul>
Equity		<ul style="list-style-type: none"><li>• Engage typically under-engaged groups such as emergency response and freight movement stakeholders during development of the LRTP and other planning processes</li></ul>



# Draft Supporting Objectives

BCD REGIONAL FREIGHT MOBILITY PLAN



## Mobility and System Reliability Goal

- Objective: Increase travel time reliability for highway and freight corridors (CHATS)
- Objective: Encourage land development and travel patterns that support freight modes (BCDCOG)



## Safety and Security Goal

- Objective: Reduce the number and rate of crashes, fatalities, and serious injuries across all modes of travel (CHATS)
- Objective: Collaborate with SCDOT to improve roadway safety in the rural areas of Berkeley, Charleston, and Dorchester Counties (BCDCOG)
- Objective: Identify hazardous corridors and intersections in the rural areas of Berkeley, Charleston, and Dorchester Counties (BCDCOG)

# Draft Supporting Objectives

BCD REGIONAL FREIGHT MOBILITY PLAN



## Infrastructure Condition Goal

- Objective: Maintain regionally significant roadways and bridges in a state of good repair

## Economic and Community Vitality Goal

- Objective: Create a resilient network by encouraging improvements and access to redundant roadways on the network
- Objective: Provide a regional transportation system that supports the efficient movement of people and freight by addressing freight specific bottlenecks (combo of BCDCOG/CHATS)
- Objective: 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 (CHATS)

# Draft Supporting Objectives

BCD REGIONAL FREIGHT MOBILITY PLAN



## Environmental Goal

- Objective: Encourage land use planning that supports and promotes the efficient movement of freight
- Objective: Minimize or mitigate project impacts on the region's natural resources (BCDCOG/CHATS)

## Equity Goal

- Objective: Improve or maintain broad-based public participation into all planning and project development processes
- Objective: Incorporate freight mobility needs of all modes into prioritization processes
- Objective: Engage typically under-engaged groups such as emergency response and freight movement stakeholders during transportation planning processes (CHATS)

# Stop and Pause

BCD REGIONAL FREIGHT MOBILITY PLAN



***Please type your questions in the questions box for open discussion***

# Draft Performance Measures



# Performance Measures

BCD REGIONAL FREIGHT MOBILITY PLAN



In the public sector, performance measures provide a means to assess how the transportation system and/or a transportation agency is functioning and operating. Performance measures help inform decision-making and create better accountability for efficient and effective program implementation.

- **Plan Development** – *Provide a means to quantify baseline system performance and impacts of plan options to support trade-off decisions and help communicate the anticipated impacts of different investment strategies.*
- **Plan Implementation** – *Support plan implementation by emphasizing agency goals/objectives and integrating them into budgeting, program structure, project selection, and project/program implementation policies.*
- **Accountability** – *Facilitate tracking and reporting on system performance relative to plan goals and objectives to support accountability for plan implementation and results.*

# Draft Performance Measures

BCD REGIONAL FREIGHT MOBILITY PLAN



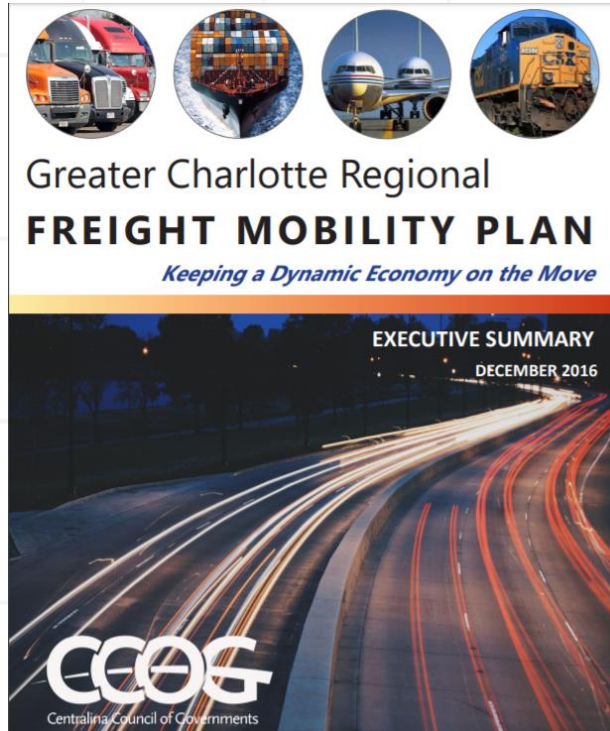
## Methodology

- Peer review of similar regional freight plans
  - Applicable measures from peer freight plans
- Performance measures comparison
  - SC Statewide Freight Plan
  - BCDCOG 2035 LRTP
  - CHATS 2040 LRTP
- Rail and incident management performance measures

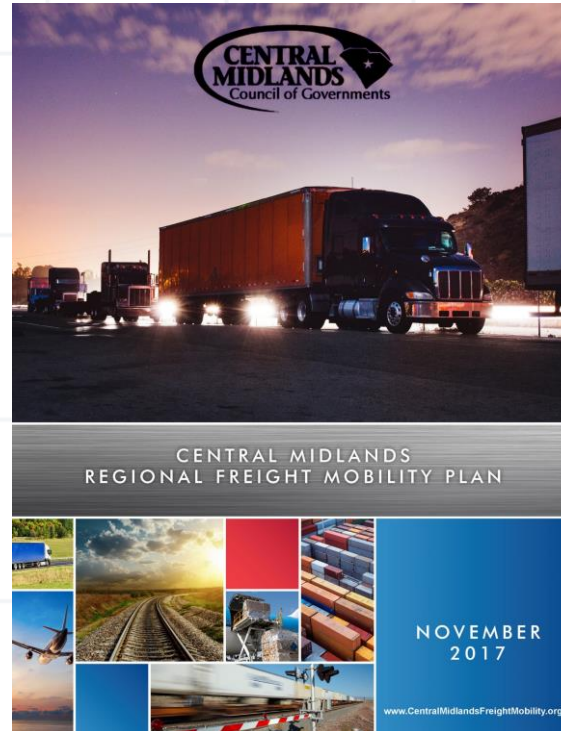


# Peer Review

BCD REGIONAL FREIGHT MOBILITY PLAN



**Greater Charlotte**  
Regional Freight  
Mobility Plan



**Central Midlands**  
Regional Freight  
Mobility Plan

2018  
**MIAMI-DADE COUNTY  
FREIGHT PLAN UPDATE**



PREPARED FOR  
Miami-Dade Transportation  
Planning Organization  
**TP**  
Miami-Dade Transportation  
Planning Organization

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**MARLIN**

JUNE 2018

**Miami-Dade County**  
Freight Plan Update

# Peer Performance Measures

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**Safety** – truck related incidents, at-grade crossings crashes, truck parking, security at facilities



**Economic** – truck travel time, hours of truck delay, intelligent transportation system investment, funding for freight infrastructure



**Infrastructure condition** – interstate/National Highway System (NHS) condition, deficient bridges, weight restrictions, number of ITS partnerships/programs



**Environmental** – air quality, hours of truck delay, alternative energy investment

# Peer Performance Measures

BCD REGIONAL FREIGHT MOBILITY PLAN



**Reliability** – truck travel time, bottlenecks, level of service, intermodal connections



**Efficiency** – backhaul movements, hours of truck delay



**Coordination** – number of participants, number of freight stakeholder meetings



**Mode choice** – number of designated intermodal connectors/facilities

# Performance Measures Comparison

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Goal Area	Performance Measure	Data Source	Plan
<b>Safety</b>	• Number of rate of crashes involving trucks	SCDOT	SCDOT
	• Number of Fatalities	SCDOT	SCDOT, CHATS, BCDCOG
<b>Infrastructure Condition</b>	• Percent of state-maintained roadway miles in good condition	SCDOT	SCDOT, CHATS, BCDCOG
	• Percent of state-maintained bridges in satisfactory condition	SCDOT, NBIS	SCDOT, CHATS, BCDCOG
<b>Environmental</b>	• Annual hours of peak excessive delay	Inrix, SCDOT	SCDOT, CHATS, BCDCOG
<b>Reliability</b>	• Truck Travel Time Reliability (TTTR) Index	Inrix, SCDOT	SCDOT, CHATS, BCDCOG
	• Percent of person miles traveled on the interstate system that are reliable	Inrix, SCDOT	SCDOT, CHATS, BCDCOG
	• Percent of Primary Roadway miles operating at less than LOS "X" for urban areas and LOS "X" for rural areas	SCDOT	SCDOT, CHATS, BCDCOG

# Proposed Regional Freight PMs

## RECOMMEND:



- Adopt federally-required freight performance measures included in SC Freight Plan
  - Mobility/reliability
  - Safety
  - Infrastructure condition
  - Economy/community
- Utilize assistance from SCDOT to streamline data collection and analysis
- Add regional specific measures such as complete streets policy and at-grade crossing incidents



# Proposed Regional Freight PMs

BCD REGIONAL FREIGHT MOBILITY PLAN



GOALS	PROPOSED PERFORMANCE MEASURES	DATA SOURCE
 <b>Mobility and System Reliability</b>	<ul style="list-style-type: none"><li>• <b>Truck travel time reliability (TTTR) index</b> [SC Freight Plan, BCDCOG, CHATS]</li><li>• Proportion of South Carolina's Interstate mileage that operates at less than a <b>Level of Service</b> (LOS) E for urban areas and LOS C for rural areas [<u>SC Freight Plan</u>, BCDCOG]</li></ul>	SCDOT
 <b>Safety and Security</b>	<ul style="list-style-type: none"><li>• Number of <b>large trucks</b> reported in <b>crashes</b> (fatal, non-fatal, injury reported, hazardous materials) <b>five-year trends</b> [SC Freight Plan, BCDCOG, CHATS]</li><li>• Number of public/private <b>truck parking spaces</b> available</li><li>• <b>At-Grade crossing crashes</b> [Greater Charlotte Freight Plan]</li></ul>	SCDOT

*TTTR Index - The reliable amount of time it takes to get from point A to point B that you can depend on*



# Proposed Regional Freight PMs

BCD REGIONAL FREIGHT MOBILITY PLAN



GOALS	PROPOSED PERFORMANCE MEASURES	DATA SOURCE
<b>Infrastructure Condition</b>	<ul style="list-style-type: none"><li>• <b>Percent of miles of Interstate and NHS</b> rated at “good” or higher condition [SC Freight Plan, BCDCOG, CHATS]</li><li>• <b>Percent of miles of non-interstate</b> on regional freight network rated at “good” or higher condition [BCDCOG, CHATS]</li><li>• <b>Percent of deficient bridge deck area</b> [SC Freight Plan, BCDCOG, CHATS]</li></ul>	SCDOT
<b>Economic and Community Vitality</b>	<ul style="list-style-type: none"><li>• <b>TTRI index</b> [SC Freight Plan, BCDCOG, CHATS]</li><li>• Annual <b>hours of truck delay</b> on freight corridors [SC Freight Plan, CHATS]</li><li>• Proportion of <b>system miles</b> on the regional freight network <b>improved</b> in accordance with <b>Complete Streets</b> policy [CHATS]</li></ul>	SCDOT BCDCOG



# Proposed Regional Freight PMs

BCD REGIONAL FREIGHT MOBILITY PLAN



## GOALS

## PROPOSED PERFORMANCE MEASURES

## DATA SOURCE

### Environmental

- Maintain the percent change in **Vehicle Miles Traveled** (VMT) at or below **population growth rate** [CHATS]
- Annual **hours** of **truck delay** on freight corridors [SC Freight Plan, CHATS]

SCDOT  
BCDCOG



# Questions and Answers

BCD REGIONAL FREIGHT MOBILITY PLAN



***Please type your questions in the questions box and our project team will answer them***

***If we do not get to all the questions, we'll prepare written responses and post them to the website with the meeting recording***