Greater Charlotte Regional Freight Mobility Plan

Coordinating Committee Meeting #2

Webinar Update

September 15, 2015
9:00am—11:00am

Welcome

Centralina Council of Governments

CDM Smith®

Agenda

- Welcome and Introductions
- Data Collection Status
- Existing Conditions Progress to Date
  - General Inventory
  - Mapping
  - Current Relevant Planning
  - Truck Parking
- Data Needs
- Schedule
- Questions

Source: The Charlotte Observer

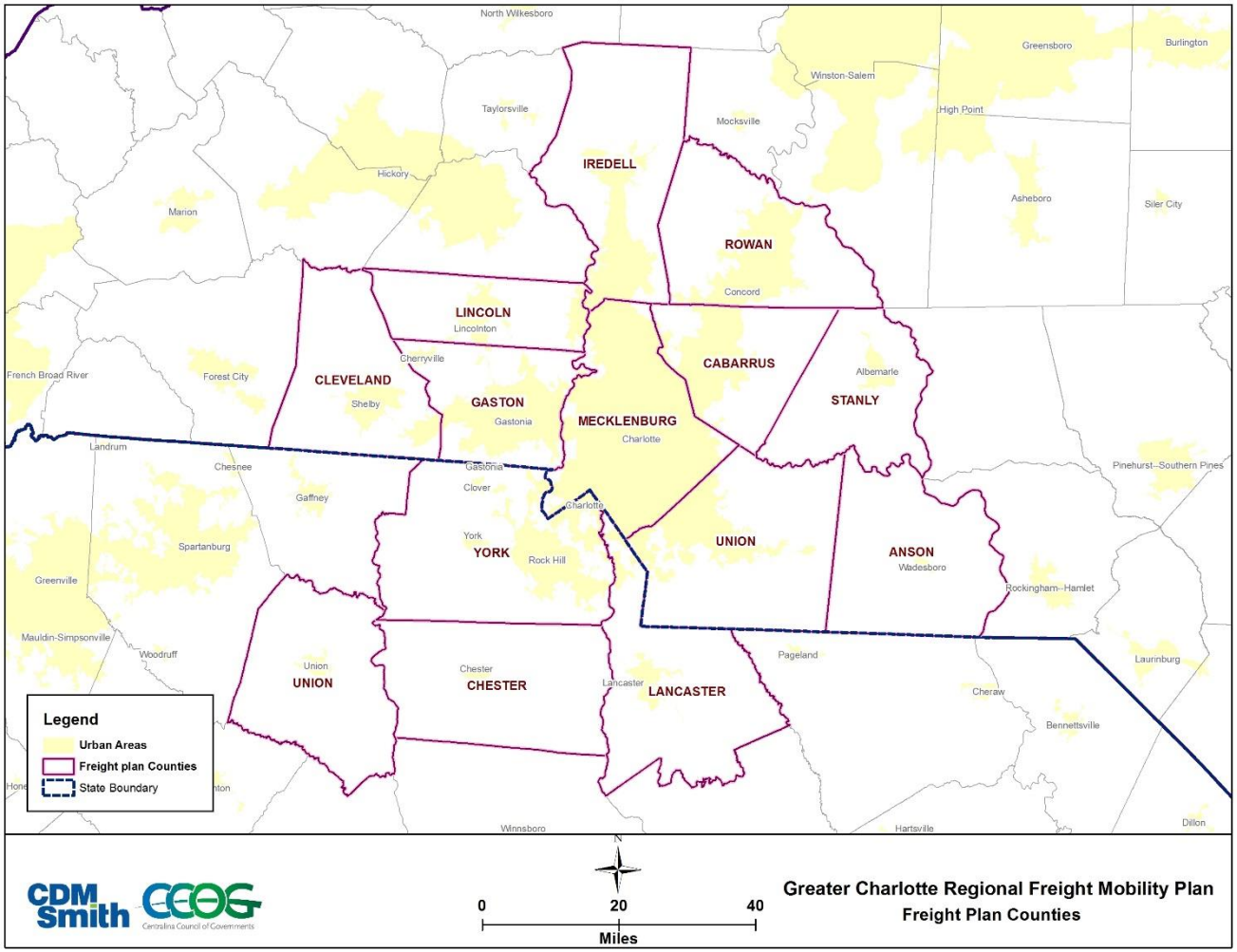
DATA COLLECTION STATUS

Data Collection Status

- Sub consultants getting under contract
- Data files from Coordinating Committee
- Truck parking inventory and utilization
- Existing plan summary
- Safety data
- Mapping

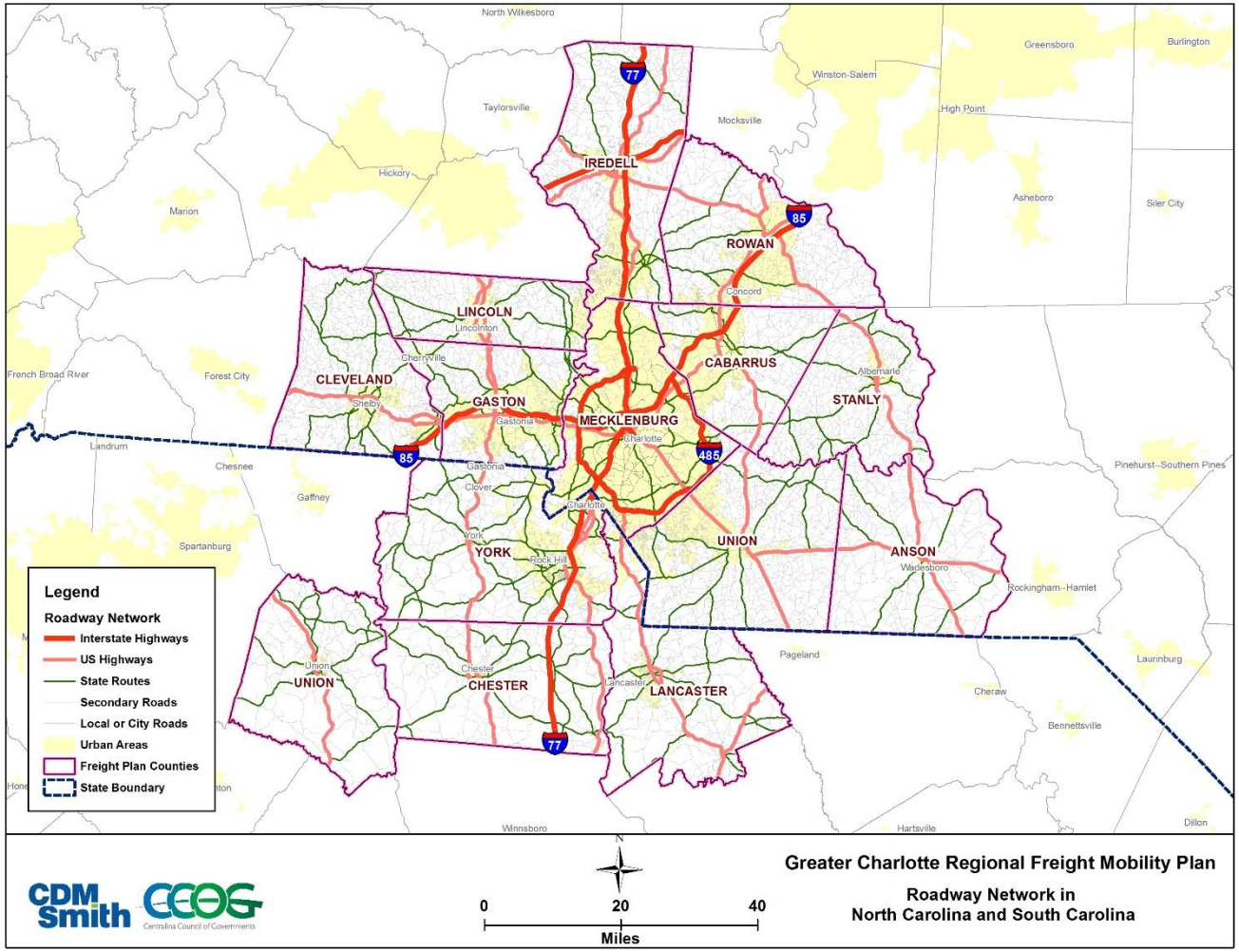
EXISTING CONDITIONS PROGRESS TO DATE

Study Area Boundary



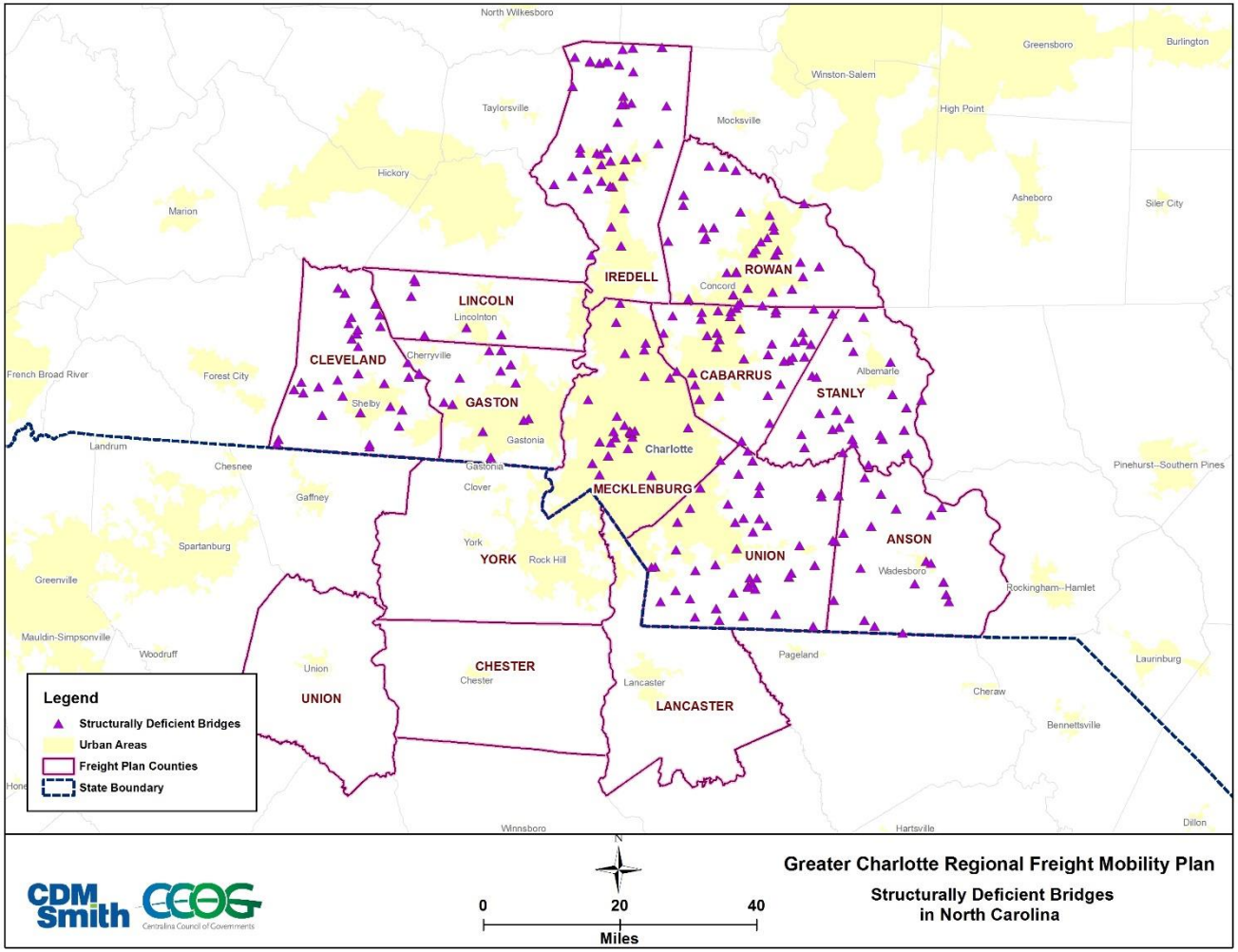
Truck Roadway Network Inventory

Roadway Type	Miles
Interstate	556.86
US Highway	920.06
State	1,846.41
Local	12,051.34



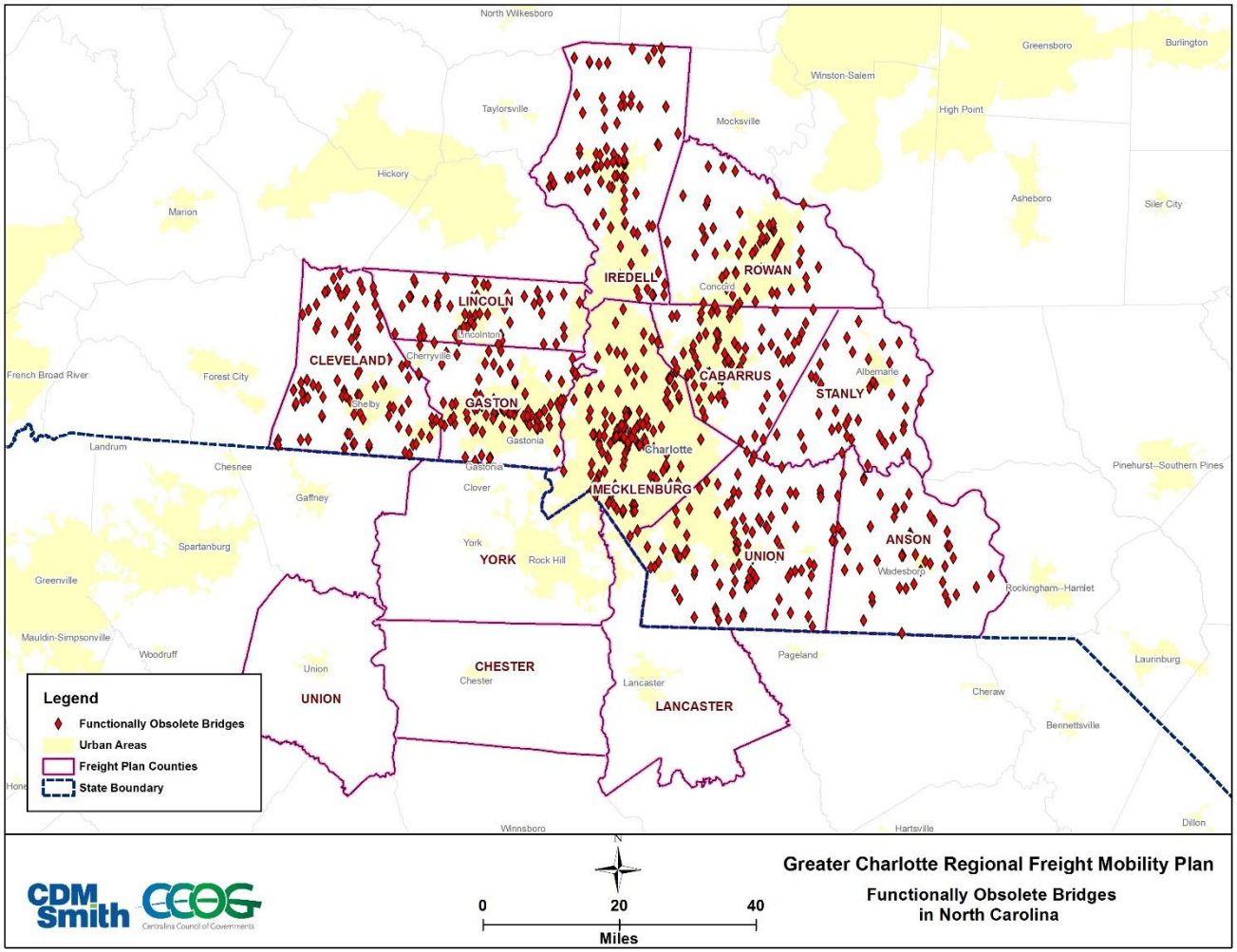
Bridges—Structurally Deficient

- North Carolina: 282 Bridges
- South Carolina: No Data



Bridges—Functionally Obsolete

- North Carolina: 831 bridges
- South Carolina: No Data



Truck Parking Demand

- Observations
  - Heavy utilization of truck parking facilities along I-77 between Exit 65 and Exit 36 in Iredell County. Trucks parked on multiple I-77 interchange and rest area ramps.
  - Heavy utilization of I-85 truck parking facilities from Exit 71 in Rowan County to Exit 39 in Mecklenburg. Trucks observed being parked on shoulders, ramps and side streets.
  - Heavy utilization of I-77 facilities south of the city all the way Chester County, SC.

Truck Parking Inventory

Truck Parking Facilities:

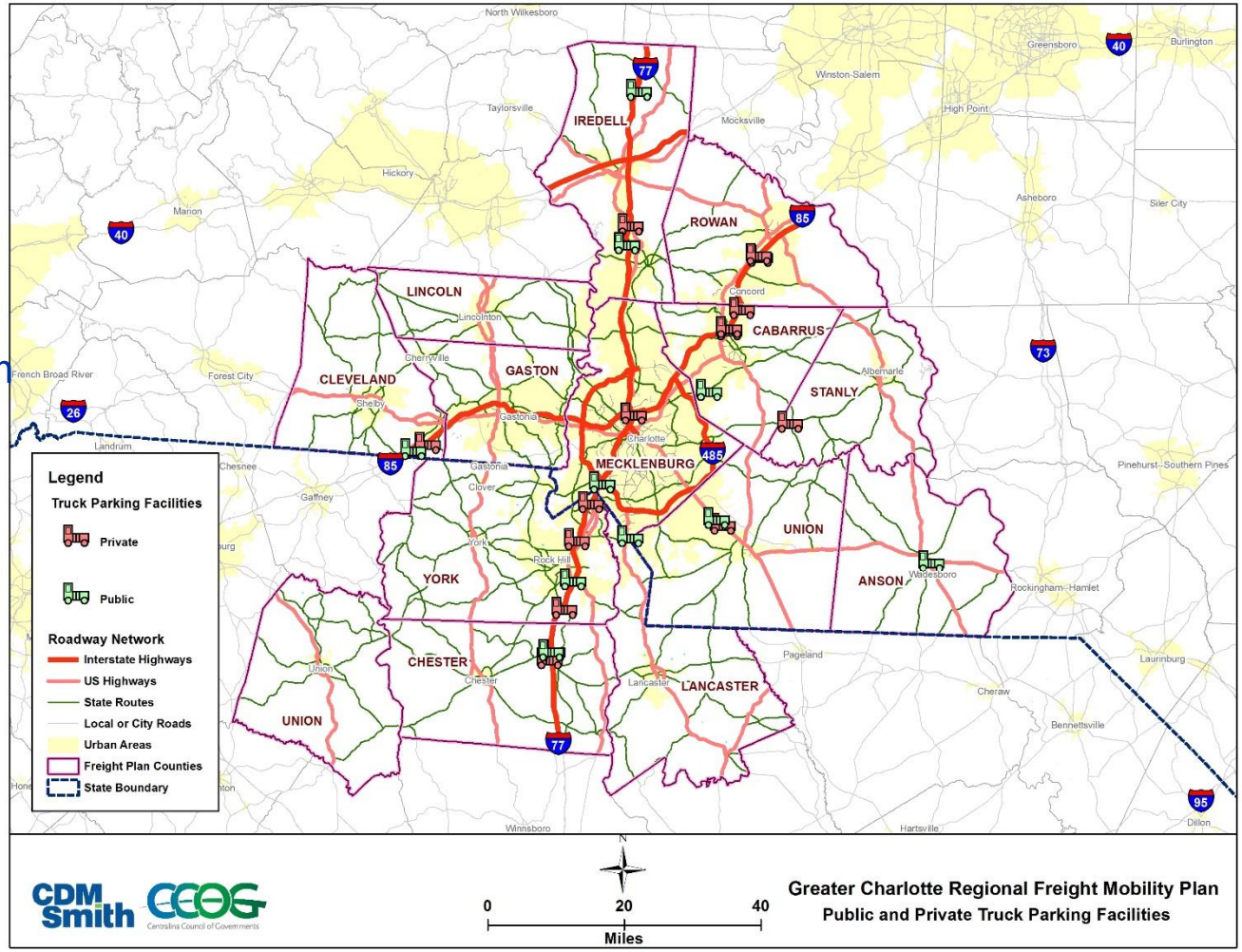
- 10 Public
- 16 Private

Private truck stops:

- http://www.truckstops.com
- 2015 National Truck Stop Directory.

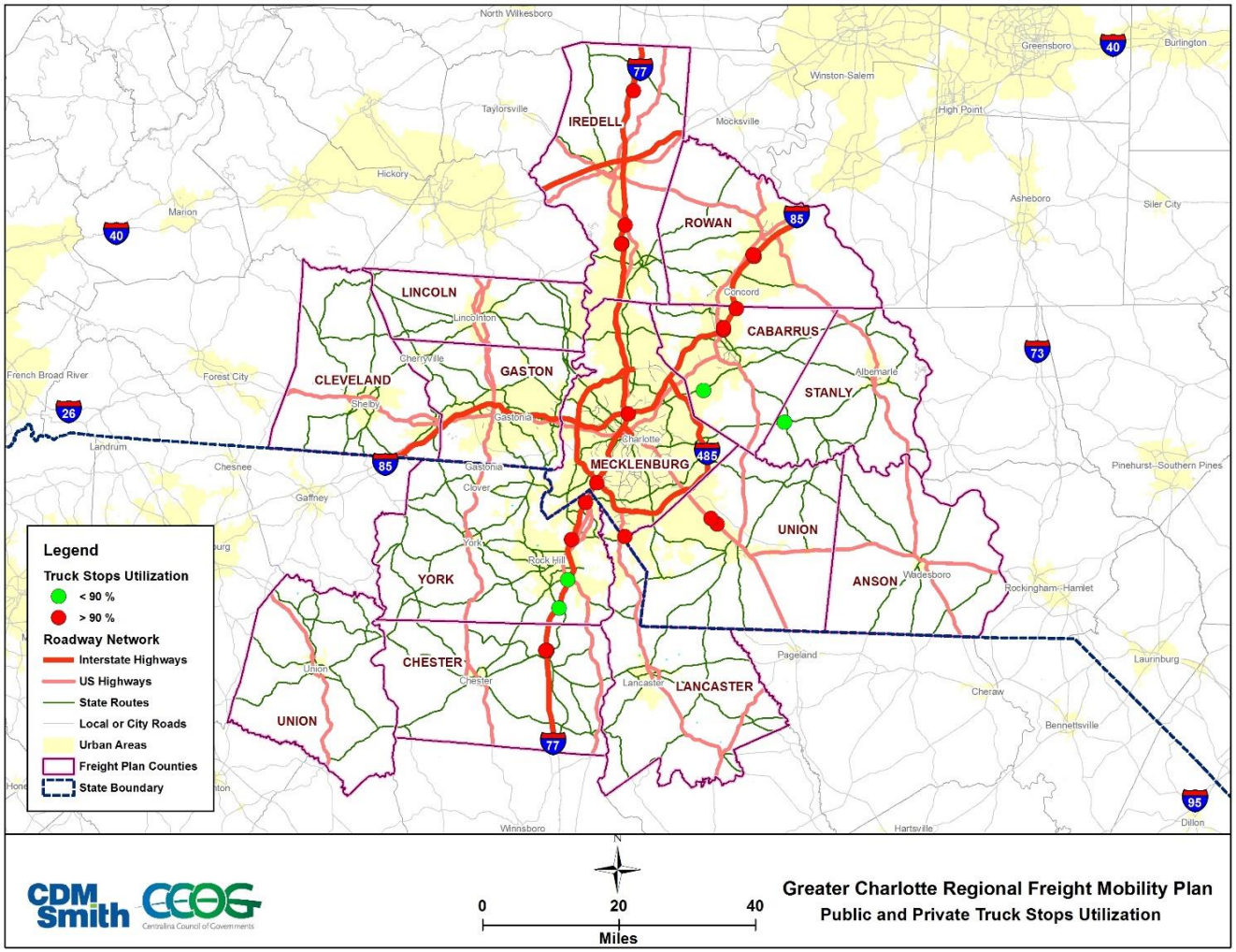
Public rest areas, welcome centers and visitor centers:

- NCDOT
- SCDOT
- Field Visits



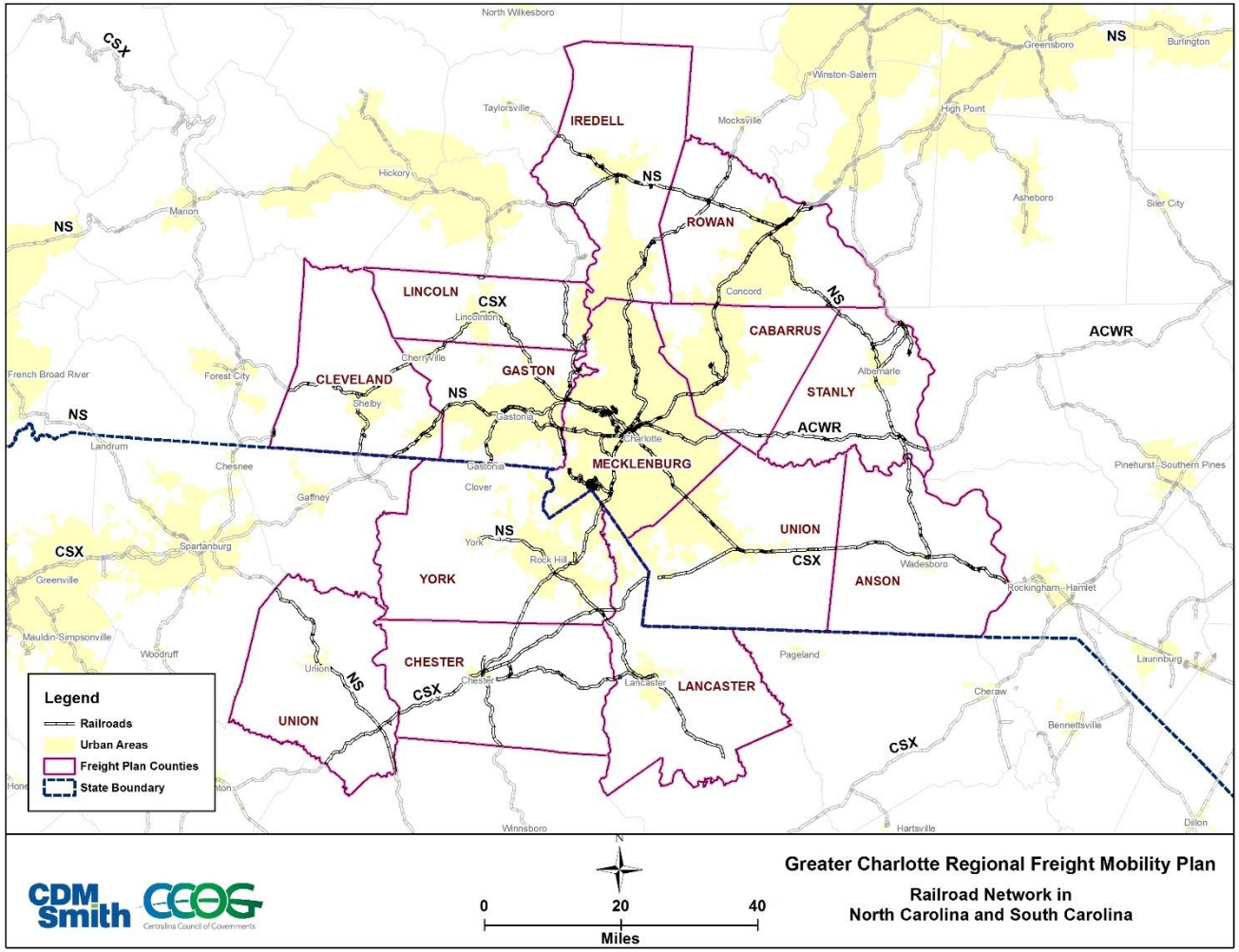
Truck Parking Utilization

Of the 26 truck parking locations where data was collected, only 5 are less than 90% utilized



Region's Railroads

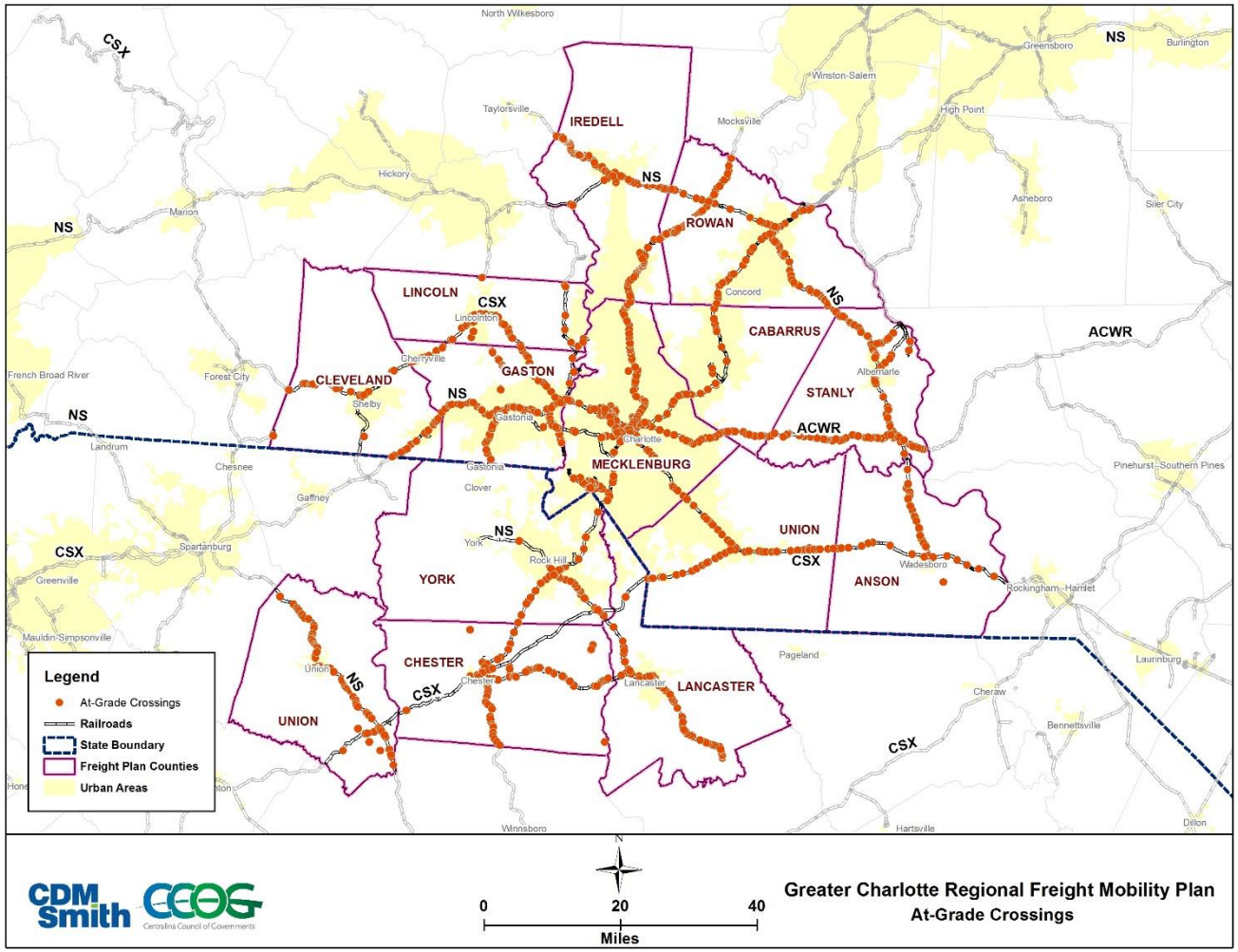
Railroad Owner	Miles
Aberdeen Carolina & Western Railway	50.8
Alexander Railroad Company	13.6
Charlotte Area Transit System	21.5
Carolina Coastal Railway	13.5
CSX	335.0
NCDOT	1.0
Norfolk Southern	593.7
Piedmont & Northern Railway	15.5
Winston-Salem Southbound Railway	42.10
Lancaster & Chester	66.8
Others/Unknown	10.0



Rail/Highway at-Grade Crossings

North Carolina - 1,158 crossings

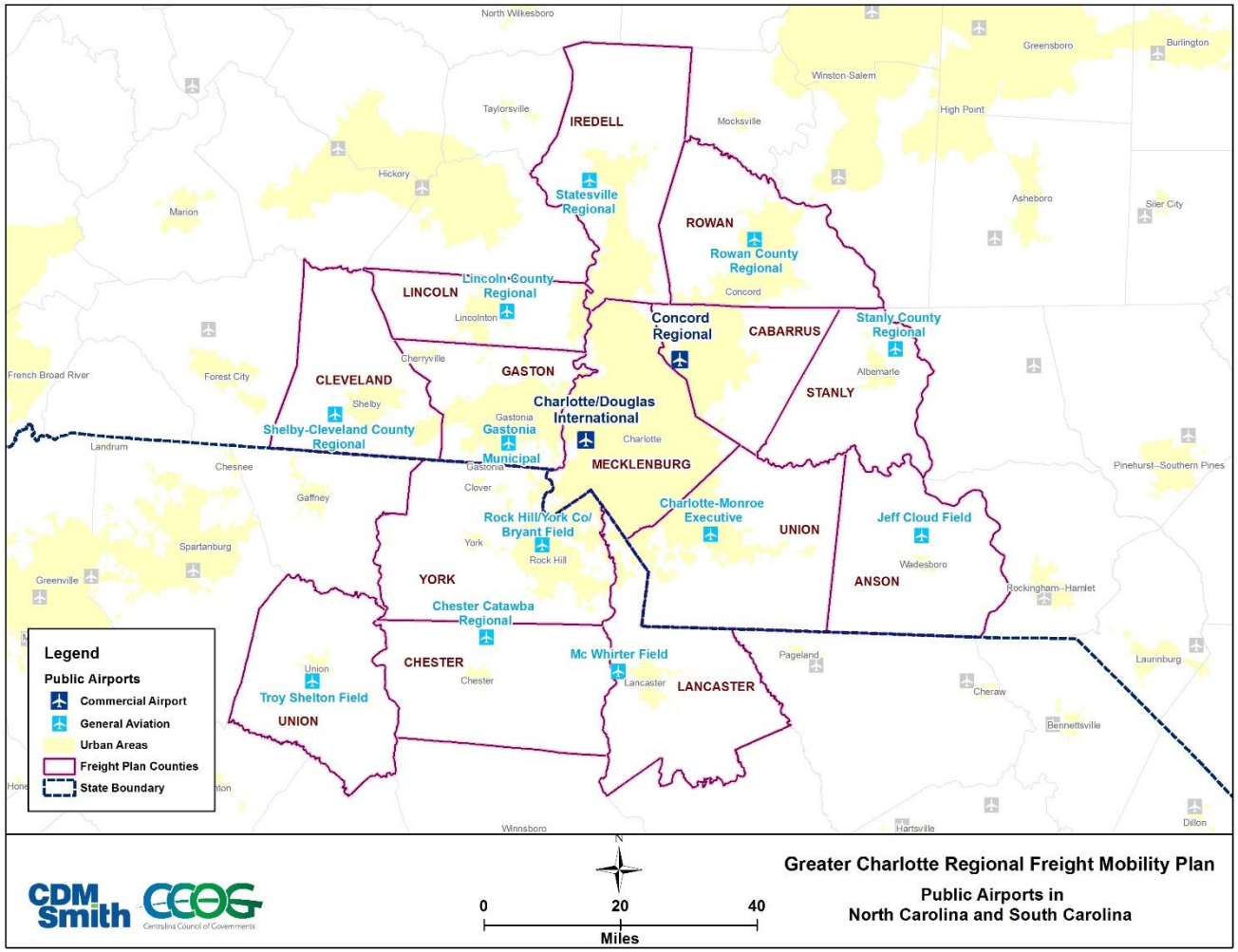
South Carolina - 343 crossings



Region's Airports

Commercial Service Airports - 2

General Aviation Airports - 12



CURRENT RELEVANT FREIGHT PLANNING

Current Relevant Freight Planning

- Cabarrus-Rowan Metropolitan Planning Organization (CRMPO) Draft 2040 Metropolitan Transportation Plan (MTP) (March 2014)
- Charlotte Region Transportation Planning Organization (CRTPO) MTP (April 2014)
- Gaston-Cleveland-Lincoln Metropolitan Planning Organization (GCLMPO) MTP
- Stanly County Comprehensive Transportation Plan (CTP) (2012)
- Anson County Comprehensive Transportation Plan (CTP) (2012)
- Rock Hill-Fort Mill Area Transportation Study (RFATS) 2035 Long Range Transportation Plan (LRTP)
- Catawba Regional Council of Governments LRTP
- NCDOT Seven Portals Study (2011)
- Piedmont Improvement Program
- Charlotte Railroad Improvement and Safety Program (CRISP)
- NCDOT Statewide Logistics Plan (2008)
- South Carolina Statewide Freight Plan (2014)

Relevant Freight Findings

Cabarrus-Rowan Metropolitan Planning Organization (CRMPO)	Primary truck and freight routes: NC 49, NC 73, NC 3, US 70, NC 150, US 52 and I-85. An important part of freight movement for the MPO's region is the NS rail yard in the City of Charlotte where shippers are able to distribute goods throughout the US.
Gaston-Cleveland-Lincoln Metropolitan Planning Organization (GCLMPO)	Identified two (2) freight-related goals and fourteen (14) objectives. Identified the major freight highway infrastructure: • I-85 through Gaston County • US 74 through Cleveland County • US 321 and I-85 interchange Major linkages of the region's economy to NS, CSX and Charlotte-Douglas International Airport.

Relevant Freight Findings

Charlotte Region Transportation Planning Organization (CRTPO)	Identified two (2) freight goals with nine (9) associated objectives.
	Inventoried regional freight assets and statistics such as # of trucking companies, 2011 FAF data analysis, intermodal freight facilities, etc.
	Identified the following congested corridors that impact freight movement: • I-485 in southern Mecklenburg County • I-77 through Mecklenburg County and southern Iredell County • US 74 in Mecklenburg and Union Counties
	Five major freight (5) terminals: • The Charlotte-Douglas International Airport • Norfolk Southern Intermodal Freight Terminal • CSX Intermodal Freight Terminal • North Carolina State Ports Authority • Pipeline Tank Farms (Paw Creek, Mecklenburg County)

Relevant Freight Findings

Rocky River Regional Planning Organization (RPO)	Information gleaned from the Stanly and Anson County CTPs.
	Aberdeen Carolina and Western (ACWR) operates two to three freight trains per day on NS ROW in Stanly County.
	Two rail carriers serve Anson County— Winston-Salem Southbound Railway (WSSR) and CSX. • WSSR operates from Winston-Salem through Lexington and Albemarle to Wadesboro, serving industries in the central Piedmont counties of Forsyth, Davidson, Stanly, and Anson. • CSX operates from Wilmington through Lumberton, Rockingham and Wadesboro continuing to South Carolina.

Relevant Freight Findings

Rock Hill-Fort Mill Area Transportation Study (RFATS)	Established 1 freight goal.
	The north of the RFATS Area includes a light-industrial region along I-77 and I-485 near Pineville, with a strong relationship with the greater Charlotte region.
	FAF shows significant truck movements along the major highway corridors of I-77, US-21, SC-72, SC-5, and SC-161.
	Region served by NS, CSX and the Lancaster and Chester (L&C) Railroad.
	Two freight recommendations: • Undertake a comprehensive Freight Study for the region • Review existing policies and practices on the preservation of rail-served industrial sites and preservation of industrial railroad corridors.

Relevant Freight Findings

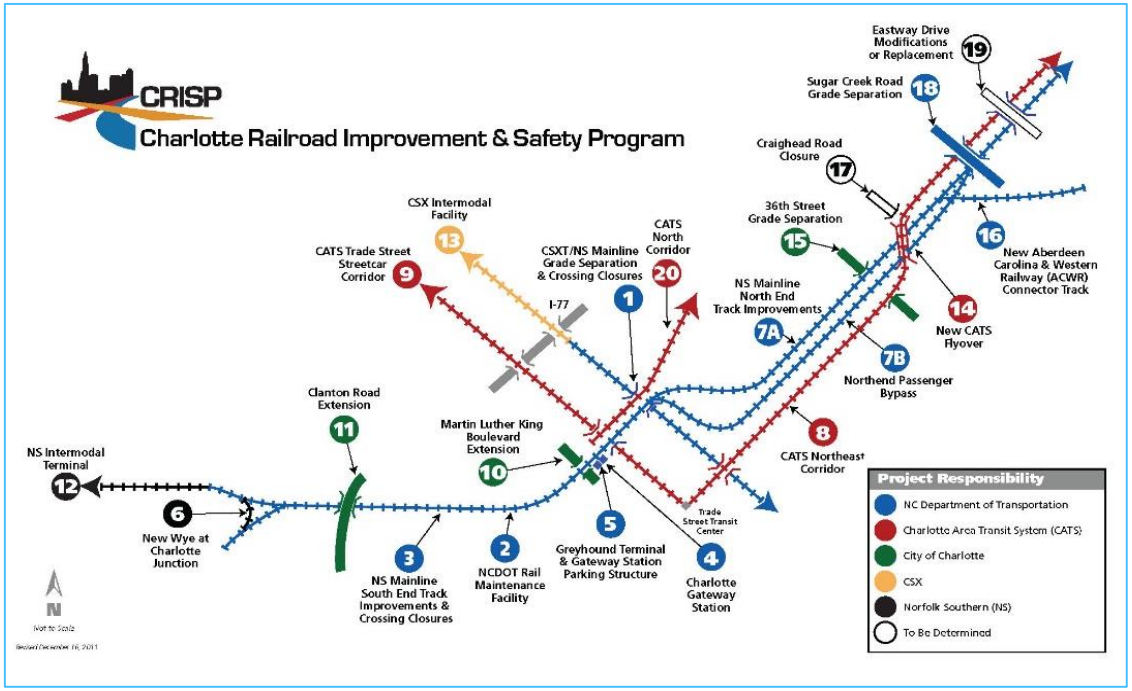
Seven Portals Study (2011)	Investigated potential "logistics villages" within each of the seven NC economic development regions.
	Provided recommendations for infrastructure and policy improvements to increase economic activity and transportation efficiency
	Encourages coordination and partnerships to establish common freight goals and priorities for the region.
	Recommends enhancing access to ports in the State as well as to Charleston, Norfolk, and Savannah for increasing international trade.
	Asks regions to identify and coordinate all regional logistics/transportation planning and business marketing efforts.
	Recommends regions focus on the needs of five business sectors that lie at the heart of a strategic development plan: • Logistics and distribution • Advanced manufacturing • Energy • Defense and security • Bio-technology

Relevant Freight Findings

Charlotte Railroad Improvement and Safety Program (CRISP)

Objectives of CRISP include modernizing existing track infrastructure, improving safety and efficiency, and improving the environment and local quality of life.

Improvements include grade separations of the NS mainline and improvements to train turning movements.



Relevant Freight Findings

Piedmont Improvement Program	NCDOT received $545 million through the American Recovery and Reinvestment Act (ARRA) program to improve the NCRR corridor between Charlotte and Raleigh
	Est. Completion September 2017.
	Includes 12 miles of new track, 15 new grade separations, and the replacement of 51 public and private crossings.

Relevant Freight Findings

	Recommendations were developed for the state and the region
2008 North Carolina Statewide Logistics Plan	Work with NCDOT to develop MAP-21 compliant freight performance.
	Initiate data collection and analysis programs to assess the effectiveness of completed projects, consistent with MAP-21 regulations and metrics as approved by the USDOT and NCDOT.
	Participate in CONNECT and other regional and statewide initiatives.
	Retain freight-oriented variables in the project ranking and congestion management processes.
	Implement Seven Portals Study recommendations for “logistics villages” and general freight-oriented development.

FREIGHT NETWORK IDENTIFICATION

Freight Network Identification

- The identification of the freight network will be based on the following questions:
  - Is this network responsible for movement of significant numbers of goods between cities and trade centers within the region and/or beyond its borders?
  - Does the network play a significant role in the economy or the region?
  - Does the network provide access to important intermodal facilities or freight origins/destinations?

Tiers Defined

- Tier 1: National Primary Freight Network
  - The FHWA (per MAP-21) defined a draft Primary Freight Network (PFN) "based on an inventory of national freight volumes" of 27,000 miles of highways in the US that are of current importance and 3,000 miles of future importance. Tier 1 corridors will include the PFN within the region.
- Tier 2: Remainder of the Interstates
  - Interstates that are not on the PFN would be considered Tier 2.
- Tier 3: Critical Regional Freight Network
  - Critical regional freight corridors would include urban and rural principal arterial roadways that are important to the movement of freight in region.
- Tier 4: Freight Connectors
  - Those transportation related nodes or links important freight that tie into other Tier 1, 2 or 3 nodes or links.

Potential Multimodal Criteria for Freight Network Tiering

- Tier 1: National Primary Freight Network
  - FHWA Draft PFN
  - All Class I Railroads
  - Airports with >$100 million in value annually
- Tier 2: Remainder of the Interstates
  - Includes roadways not in Tier 1 such as I-495 and I-77 south of Charlotte
  - Railroads not included in the Tier 1 that have >500 thousand gross tons per mile annually.
  - Airports not included in Tier 1 that have >$10 million in value annually

Potential Multimodal Criteria for Freight Network Tiering

- Tier 3: Critical Regional Freight Network
  - Urban and Rural principal arterials not included in Tier 1 and Tier 2 that have >25% ADTT
  - Roadways that provide access to energy exploration, development, installation, or production areas, or connect the PFN (Tier 1), or Interstate System (Tier 2) that accommodate 50,000 20 foot equivalent units per year; or 500,000 tons per year of bulk commodities.
  - Active Railroads not included in Tier 1 or Tier 2
  - Commercial service airports not included in Tier 1 or Tier 2

Potential Multimodal Criteria for Freight Network Tiering

- Tier 4: Freight Connectors
  - Intermodal and roadway facilities that connect urban areas and are necessary for the movement of freight.
  - Criteria will be more qualitative in nature to identify those critical links between facilities that may not have a large amount of freight, but have a large impact on the connectivity of the system. Possible criteria include:
    - Particularly long detour routes if primary route is closed
    - Posted weight limits
    - Short line railroad connectivity
    - Airports of strategic importance
    - Number of businesses served by connector

ANALYSIS TO COME

Analysis to Come

- Commodity flows analysis
- Highway and rail traffic volumes
- Bottleneck analysis and major routes/network identification (truck and rail)
- Economic impacts of trucks and rail

All will be assembled into an Existing Conditions report.

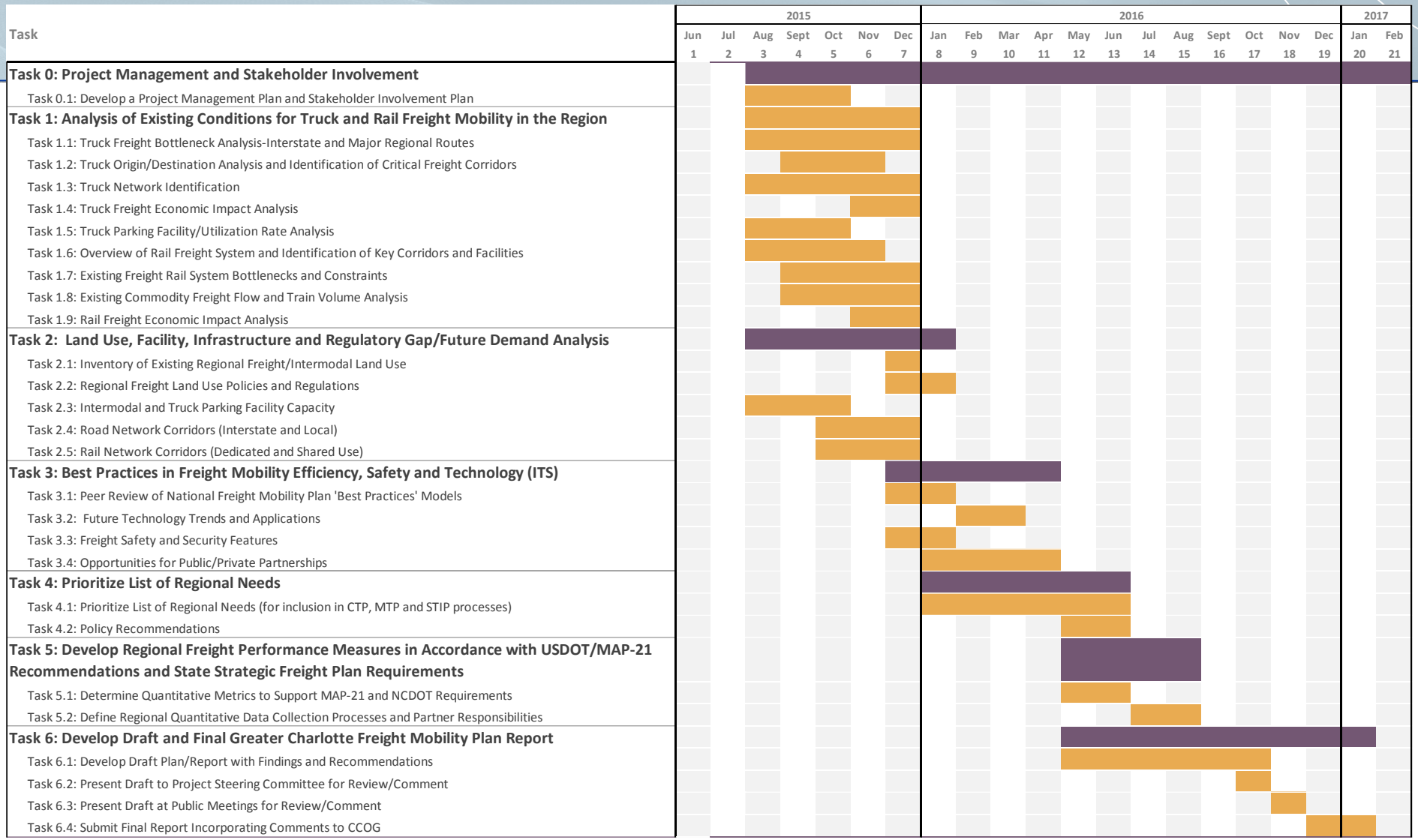
REMAINING DATA NEEDS

Data Needs

- Bridge inventory for South Carolina
- Updated roadway GIS file for NC that includes I-485 completion
- Recent significant development/trends that are not included in planning documents
- What's missing?

SCHEDULE

Schedule



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Questions and Open Discussion

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