



NC State Freight Plan

Board of Transportation,
ED & IR Committee Briefing

September 7, 2016



Agenda

- Introductions
- Tasks/deliverables/schedule for plan development
- Trends that will impact future freight flows in NC
- Next steps



Team Overview

Cambridge Systematics

- Multimodal freight planning
- Economic modeling
- Stakeholder outreach

IEM

- Hazardous cargo movement

AECOM

- Freight rail
- Maritime plan

Baseline Mobility

- Data collection
- GIS analysis

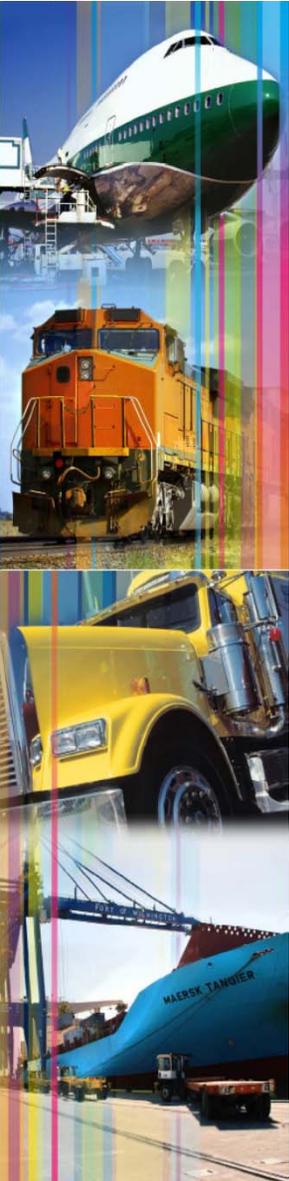
Volkert

- Highway assessment
- Asset management

Supply Chain Edge

- Freight data
- Supply chain optimization





WHY A STATE FREIGHT PLAN?



Demand for Freight Transportation

➤ Population

- » Construction materials
- » Consumer goods
- » Waste

➤ Employment

- » Construction materials
- » Raw materials and intermediate goods
- » Final products
- » Waste

Historical Population Trends

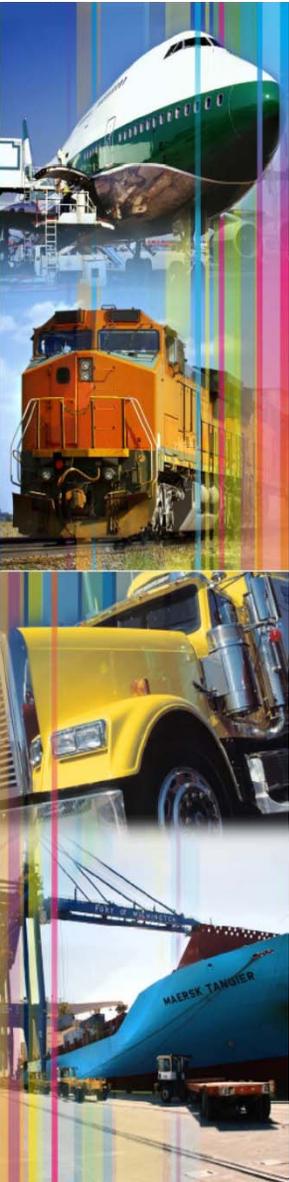
Year	Population, 2004	Percent of Total, 2004	Population, 2014	Percent of Total, 2014	Percent Change, 2004 to 2014
North Central Region	1,849,432	21.6%	2,326,414	23.4%	25.8%
Southwest Region	1,781,617	20.8%	2,202,342	22.2%	23.6%
Piedmont-Triad Region	1,496,115	17.5%	1,654,885	16.6%	10.6%
Southeast Region	891,745	10.4%	1,036,686	10.4%	16.3%
Sandhills Region	811,249	9.5%	869,571	8.7%	7.2%
Western Region	630,232	7.4%	697,176	7.0%	10.6%
Northeast Region	564,593	6.6%	605,127	6.1%	7.2%
Northwest Region	528,169	6.2%	548,186	5.5%	3.8%
State of North Carolina	8,553,152	100%	9,940,387	100%	16.2%

Source: U.S. Census Bureau, Population Division

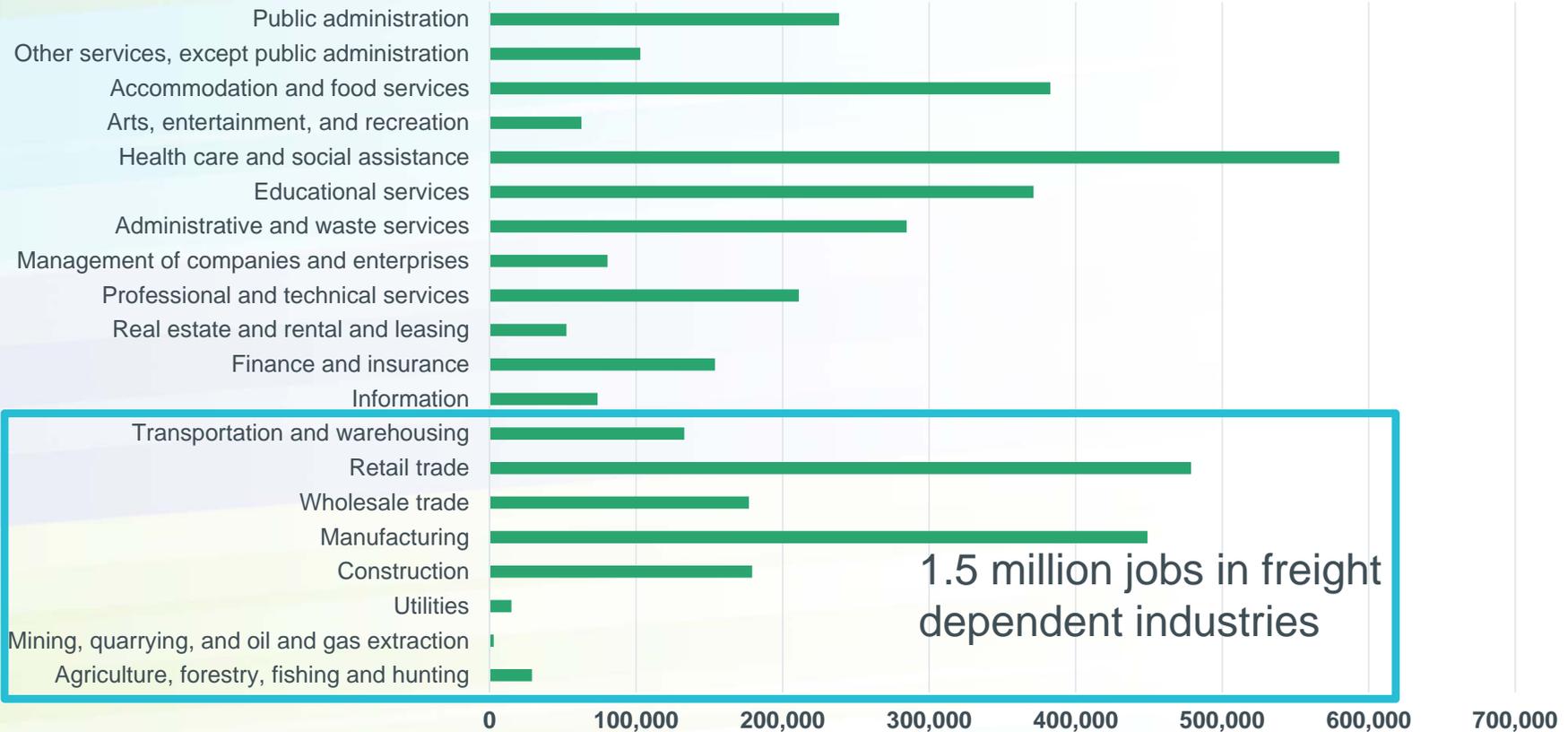
2014 Employment by Industry, Percentage

Industry	Share of Total
Agriculture, forestry, fishing and hunting	0.7%
Mining, quarrying, and oil and gas extraction	0.1%
Utilities	0.4%
Construction	4.4%
Manufacturing	11.1%
Wholesale trade	4.4%
Retail trade	11.8%
Transportation and warehousing	3.3%
Information	1.8%
Finance and insurance	3.8%
Real estate and rental and leasing	1.3%
Professional and technical services	5.2%
Management of companies and enterprises	2.0%
Administrative and waste services	7.0%
Educational services	9.2%
Health care and social assistance	14.3%
Arts, entertainment, and recreation	1.5%
Accommodation and food services	9.4%
Other services, except public administration	2.5%
Public administration	5.9%

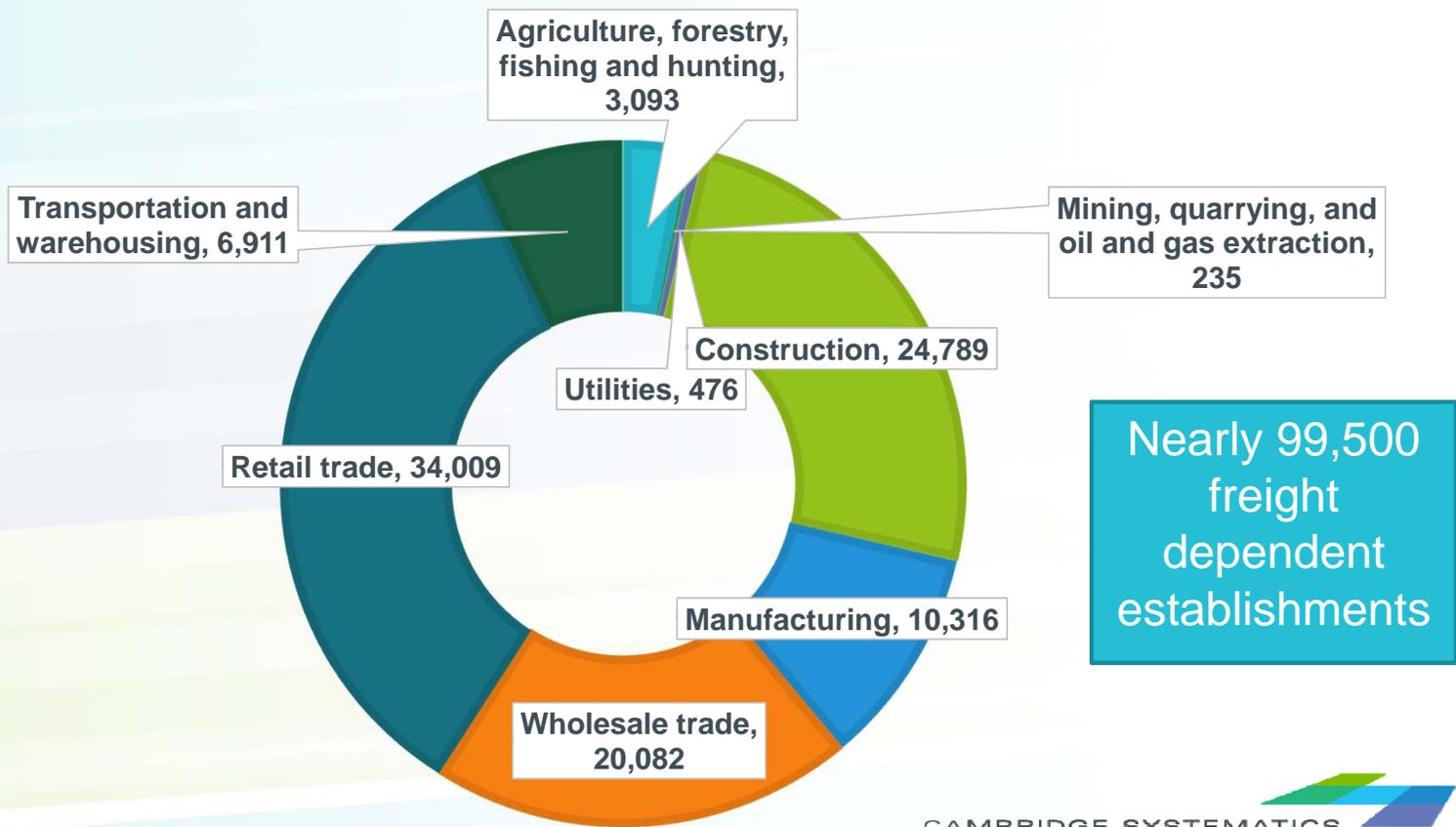
36.2% jobs in freight dependent industries

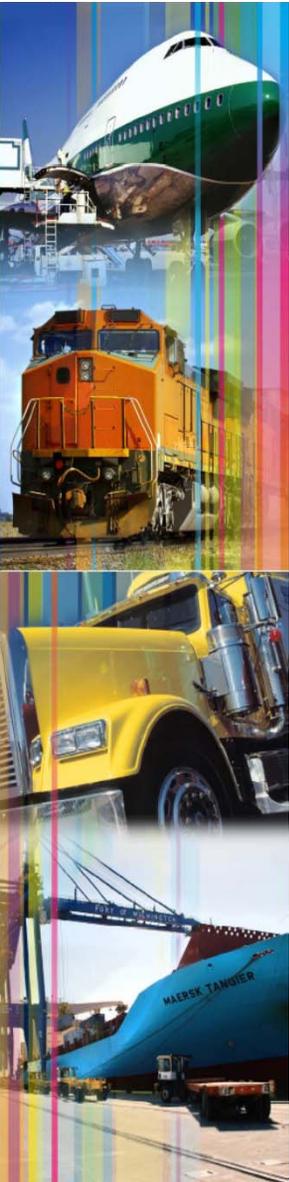


Employment by Industry, 2014



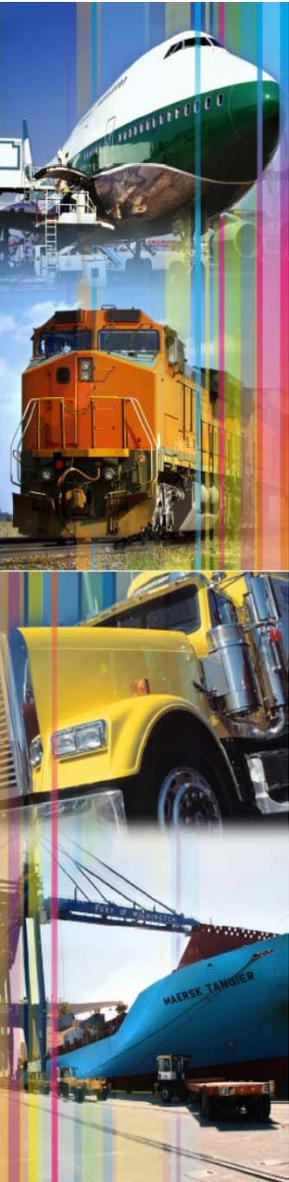
Number of Establishments in Freight Dependent Industries, 2014





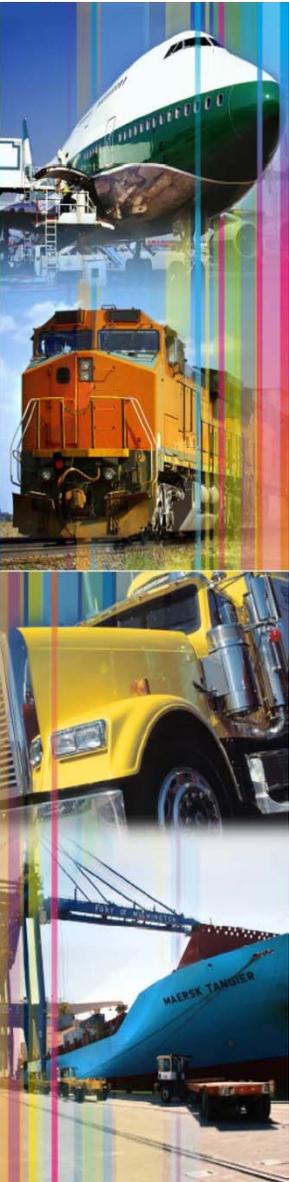
MAP 21 and FAST Act Freight Provisions

- Establishes the National Highway Freight Program (NHFP) to enhance efficient movement of goods on the National Highway Freight Network (NHFN)
- The FAST Act requires the establishment of a National Highway Freight Network, which will consist of the following components:
 - » The Primary Highway Freight System (PHFS);
 - » Critical Rural and Urban Freight Corridors; and
 - » Those portions of the Interstate System that are not part of the PHFS.
- A specified national amount for the NHFP is deducted from the States' base apportionments proportional to each State's share of total FY 2015 highway apportionments.



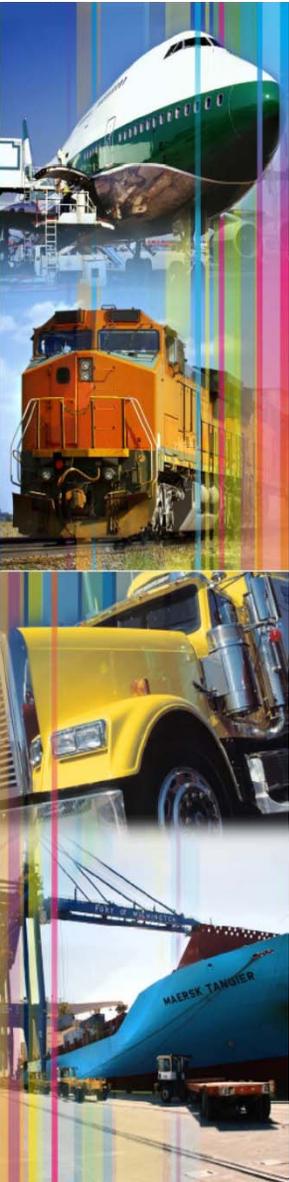
NHFP Key Goals

- Investing in improvements that strengthen economic competitiveness, reduce congestion, reduce the cost of freight transportation, improve reliability, and increase productivity;
 - » Rural and urban areas;
 - » Improving the state of good repair, efficiency and productivity of the NHFN;
- Improving State flexibility to support multi-State corridor planning and address highway freight connectivity; and
- Reducing the environmental impacts of freight movement on the NHFN.



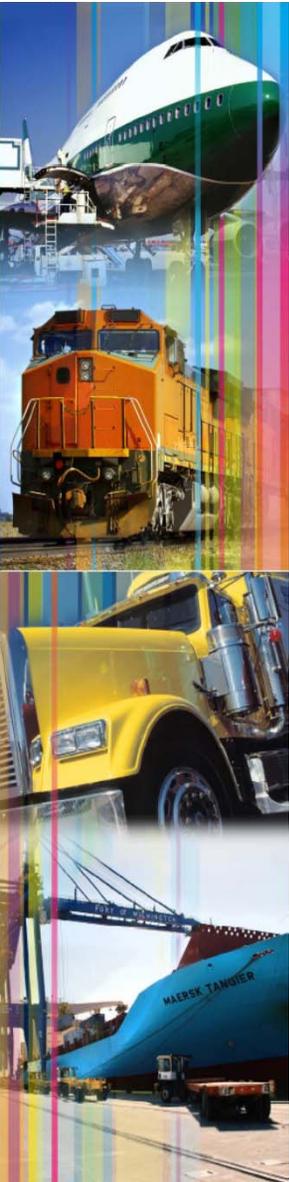
NC Specifics

- \$167 mil. NC formula freight funds, averaging \$33.4 mil. per year
- NC formula funds useable on network with 3 components:
 - » Primary highway freight system: 1,034 miles of NC interstates and intermodal connectors already designated by US DOT in 41,500 mile national system adopted in FAST
 - » Critical Rural Freight Corridors: 207 miles statewide, designated by NCDOT
 - » Critical Urban Freight Corridors: 103 miles statewide generally designated by MPOs - but total presumably adjudicated by NCDOT
- Highway freight network plus Class I rail systems, major ports and airports, and some other: CSX, NS, RDU and GSO (but *not* CLT), Wilmington, Morehead City all included



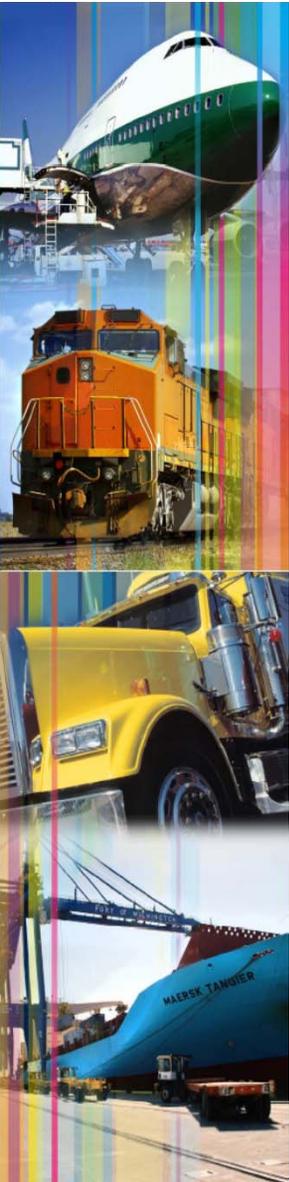
National Primary Freight Network





State Freight Plan

- State freight plans required, including 5-year investment plan with priority projects, approximating a 5-year adjustable freight TIP
 - » Identifies use of formula freight funds
 - » Project list may be updated more often than 5-year state plan cycle
- Establishment of a Freight Advisory Committee (FAC) encouraged
- Complete by December 2017



NC STATE FREIGHT PLAN WORK PLAN



Key Work Tasks

Stakeholder
Outreach

NC Freight
Network
Assessment

Supply Chain and
Logistics Profile

Strategies and
Recommendations

Final Plan and
Training





Stakeholder Outreach

- Freight Advisory Committee
- Board of Transportation
 - » Economic development and Intergovernmental relations committee
 - » State freight plan subcommittee
- Regional agencies
 - » MPOs
 - » RPOs
- Freight/Industry stakeholders



NC Primary Freight Network Definition and Assessment

- Multimodal profiles
 - » Data collection
 - » Assessment of conditions and performance
- Critical urban and rural corridors
- Freight forecasts
- Needs identification
 - » Current
 - » Future



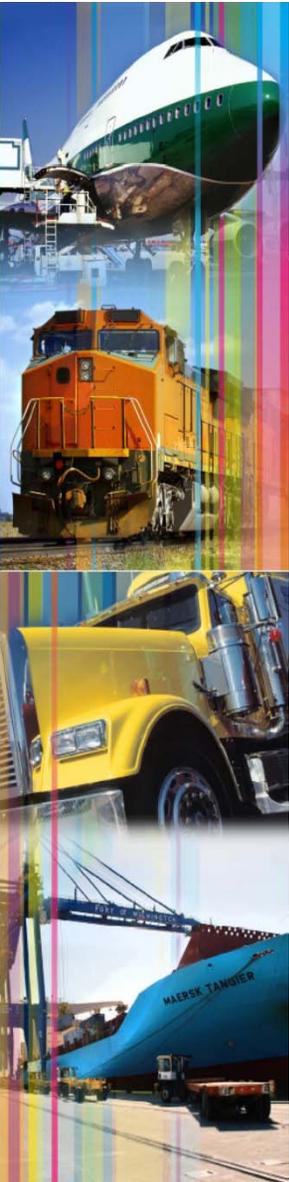
Supply Chain and Logistics Pattern Profile

- Focus on key NC industries
- Map business establishments relative to infrastructure
- Use Tranzact freight payment data
 - » Modal usage
 - » Freight costs
 - » Origins and destinations
- Link freight transportation to land development and state's economy



Strategy Development and Assessment

- Develop multimodal, multi-industry solution packages
 - » Cross-cutting
 - » Infrastructure, operations and policy
- Evaluation and prioritization
 - » STI process
 - » FASTLANE evaluation criteria
 - » Informed by supply chain optimization and economic analysis
- Performance measures
- Funding and financing strategies
- Scenario planning



Final Freight State Plan

- Sets specific multimodal transportation goals, strategies, and actions that will contribute to increased North Carolina jobs, improved economic competitiveness, and enhanced quality of life;
- Provides clear, compelling freight-specific recommendations that support the 25-year vision and addresses the criteria in the STI prioritization process;
- Offers strategies for helping elected officials, taxpayers and voters, and the general public better understand the value of freight transportation investments and their economic benefits; and
- Positions North Carolina to capitalize on FAST Act funding opportunities



Statewide Truck Parking Study

Trucking survey
and interviews

Truck operations
analysis

Truck parking
inventory

Truck parking
demand analysis

Gap analysis

Recommendations





Statewide Truck Parking Analysis

- Examine the costs and funding sources for increasing capacity of existing public truck parking facilities as well as converting existing rest areas, weigh stations and other assets to truck parking.
- Investigate other ways to provide additional off-highway public and private truck parking
- Evaluate which provisions of long-term truck parking will provide the greatest support to the state's economy and provide greatest impact on safety.
- Identify public private partnerships that may lead to increased truck parking and technology solutions
- Draft by Dec 2016, Final by Feb 2017

Schedule

Task	2016										2017					
	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Fen	Mar	Apr	May	June	July
Stakeholder Outreach	[Blue bar spanning all months]															
2.1 Interviews, Focus Groups and Surveys	[Green bar from May to Oct]															
2.2 BOT, ED&IR and FPS briefings	[Purple dots in Apr, June, Aug, Oct, Nov, Feb 2017, Apr 2017, July 2017]															
2.3 Freight Advisory Committee	[Purple dots in Apr, July, Oct, Dec, Mar 2017, June 2017]															
Needs Assessment	[Blue bar from Apr to Oct]															
4.1 Data Collection and Analysis	[Green bar from Apr to Aug]															
4.2 State Freight Profile	[Green bar from Apr to Aug]															
4.3 Frieght Policy and Insitutional Profile	[Green bar from June to Oct]															
4.4 Freight Bottlenecks and Needs Identification	[Green bar from June to Oct]															
Supply Chain and Economic Analysis	[Blue bar from Aug to Dec]															
5.1 Supply chain and logistics profile	[Green bar from Aug to Oct]															
5.2 Economic evaluation and forecasts	[Green bar from Sept to Dec]															
Recommendations and Perfomance measures	[Blue bar from Dec to May 2017]															
6.1 Alternative analysis	[Green bar from Dec to Mar 2017]															
6.2 Performance measures	[Green bar from Dec to Mar 2017]															
65.3 ROI analysis	[Green bar from Mar 2017 to May 2017]															
Final Plan	[Blue bar from Apr 2017 to July 2017]															
76.1 Draft and Final Plan	[Green bar from Apr 2017 to July 2017]															
7.2 Training material and deliveries	[Green bar from Apr 2017 to June 2017]															



Progress to Date and Next Steps

- Stakeholder outreach
 - » Interviews
 - » FAC meetings
- Data collection
- State freight and economic profile
- Next FAC – late Sept
- Needs Assessment – October
- Next ED&IR Update - November



DISCUSSION