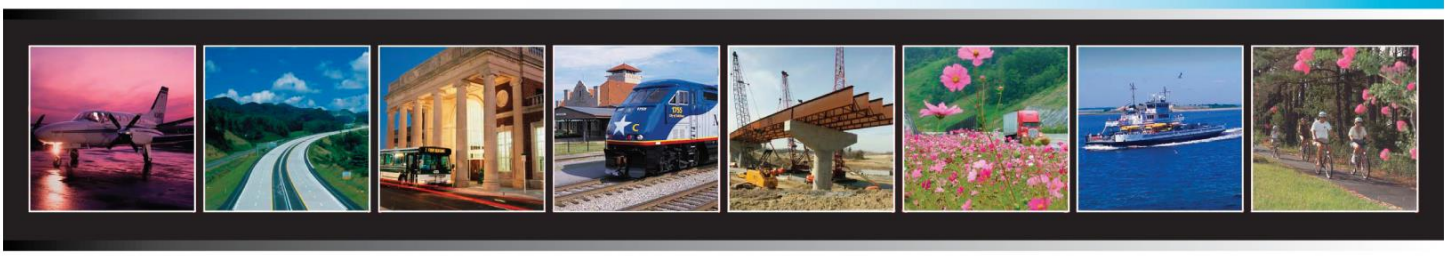
North Carolina Transportation Network Update



North Carolina Transportation Network and Strategic Transportation Corridors Framework

August 2015

Prepared for:

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

Prepared by:

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Table of Contents

List of Figures

List of Tables

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North Carolina Transportation Network and Strategic Transportation Corridors Framework

Executive Summary

The NCDOT has identified a network of key multimodal transportation corridors – called Strategic Transportation Corridors (STC) – that can support smart planning, help to set long-term investment decisions, and ensure that North Carolina's economic prosperity goals are achieved. Complementing that effort, the Department has developed the North Carolina Transportation Network (NCTN), to define more clearly and consistently the role that all elements of the state's transportation system play in providing for personal and freight mobility and land access services.

The STC is intended to ensure transportation system connectivity, provide high levels of mobility, and improve access to important state and regional activity centers throughout the state. The NCTN builds upon the NC Multimodal Investment Network (NCMIN) developed in 2004 and is envisioned to be a tool to aid long-range transportation planning throughout North Carolina. In updating these planning tools to guide and support transportation investment decision-making, NCDOT seeks to provide long-term direction to the innovative Strategic Transportation Investment funding program established in 2013 and to support *Governor McCrory's 25-Year Vision for North Carolina*.

The North Carolina Transportation Network and Strategic Transportation Corridors Framework report documents the STC and NCTN development process and identifies policies and procedures by which these two planning tools will be implemented. The report is organized to present the following information:

- NCTN structure and mobility definitions
- STC vision, goals and objectives, and performance measures
- STC identification process and application
- STC network and policy, and
- STC and NCTN applications

NC Transportation Network

NC Transportation Network is itself a framework for defining the role of various elements of the state's transportation system in providing varying levels of mobility and land access. Intended to facilitate consistency across the state as NCDOT works with its regional planning partners, the NCTN mobility definitions reflect all modes of North Carolina's transportation system (highways, aviation, public transportation, freight and passenger rail, bicycle/pedestrian facilities, ferries, and ports) and required mobility and land access levels for three strata or levels of facilities or services (statewide, regional, and sub-regional). The updated NCTN Mobility Definitions are shown in **Exhibit ES-1**.

Exhibit ES-1: North Carolina Transportation Network Mobility Definitions

Mode	Statewide Level Facilities/Services (1)	Regional Level Facilities/Services	Sub-regional Level Facilities/Services
	Highest (unimpeded) ←---------- *Mobility Levels* ----------→ (Land Access) Lowest		
Mobility Definition	*Facilities or services with primary function of supporting high-value inter-regional movement of people and goods in pursuit of statewide economic development objectives, generally with higher speed/higher capacity facilities and services.* *Statewide facilities can provide managed land access.*	*Facilities or services with primary function of serving major intra-regional movements of people and goods in support of regional or local economic activity (work, education, medical, etc.).* *Regional facilities and services can provide direct access to activity centers of regional significance such as major employment centers.*	*Facilities or services with primary function of providing land access and supporting shorter distance local travel. Sub-regional facilities comprise the largest part of the Transportation Network.*
Highways	High volume facilities that provide a unique statewide function or address statewide economic development objectives: • All Interstate highways • All primary National Highway System (NHS) routes • STRAHNET (designated defense highway) routes • *National Primary Freight Network (add upon adoption)* • Principal arterials that carry >25,000 vehicles per day (vpd)	Arterial highways or major collector roadways providing mobility along major commuter routes, and access to freight intermodal facilities: • Major Hurricane Evacuation Routes: major route from the NC Emergency Management's Coastal Evacuation Route Map • NHS Connector routes in NC • Appalachian Development Highway System routes not on NHS • All US highways not defined as statewide highway facilities • All NC highways not defined as statewide highway facilities • All National Truck Network routes not defined as statewide highway facilities • Other state-maintained roadways that carry 15,000 to 25,000 vpd	State-maintained collector or local roads providing access to adjacent land uses and serving shorter distance trips: • All Secondary Roads (SR) not defined as Statewide or Regional highway facilities
	Target facility type: freeway, toll road, expressway, or boulevard *Examples: I-95, US 70, US 64, NC24*	Target facility type: expressway or boulevard *Examples: US 15/501, SR 1010, NC 50*	Target facility type: boulevard or thoroughfare *Examples: SRs not on Regional network*

Mode	Statewide Level Facilities/Services (1)	Regional Level Facilities/Services	Sub-regional Level Facilities/Services
Aviation	Commercial airports providing international service and major cargo hubs (2): • International passenger service • 375,000+ annual enplanements • Airports qualifying for all-cargo entitlement funding from FAA	Commercial service airports with fewer than 375,000 annual enplanements (2) General Aviation airports that are classified as Red or Blue by the North Carolina Airport System Plan Recommended Airport Groupings (3)	General Aviation airports that are classified Green by the North Carolina Airport System Plan Recommended Airport Groupings (3)
	Examples: CLT, RDU, PTIA, Wilmington	*Examples: Asheville, New Bern, Burlington-Alamance Regional, Western Carolina Regional*	*Examples: Plymouth Municipal*
Public Transportation	Common carrier bus service and associated stations that serve interstate or long-distance intrastate travel	Transit systems operating combinations of intra-regional express bus, vanpool service, local service, and associated stations that serve commuters and other travelers typically between two or more counties	Transit systems operating local routes, associated stations and passenger amenities that serve commuters and other travelers primarily within a single county
	Examples: Greyhound service or terminal	*Examples: express bus services (e.g., PART Triad Express)*	*Examples: local transit systems*
Rail (Passenger and Commuter)	Any interstate or inter-regional passenger rail service and stations associated with inter-regional services(4)	Intra-regional commuter rail and light rail services and associated stations	None.
	Examples: all interstate (Amtrak) or NC inter-regional (e.g., Piedmont) service	*Examples: any intra-state or inter-county commuter rail service*	
Rail (Freight)	High volume rail lines or lines providing strategic rail service, and associated critical rail infrastructure: • STRACNET (defense) rail lines (5) • Class 1 railroad core mainlines • Lines serving coal-fired power plants or strategic and emerging markets • Lines cleared for double-stack operations • Lines with connections to state ports and Statewide inland terminals/intermodal container facilities • Statewide inland terminals/intermodal container facilities	All other rail lines and intermodal or transload facilities	None

Mode	Statewide Level Facilities/Services (1)	Regional Level Facilities/Services	Sub-regional Level Facilities/Services
	Examples: CSX National Gateway, NS Crescent Corridor, NCRR, and other lines of significance; NS and CSX Intermodal Yards (Charlotte)	*Examples: Remaining NS, CSX and short line rail corridors including the GSMR line from Andrews to Dillsboro which is a tourist railroad that can carry freight and transload facilities such as CSX Transflo facilities, Bailey Feed Mill in Selma and many others*	
Ferry	Ferry routes connecting statewide highways.	Ferry routes connecting regional highways.	Ferry routes connecting sub-regional highways and passenger-only ferries.
	Examples: Cedar Island - Ocracoke	*Examples: Cherry Branch-Minnesott Beach*	*Examples: Currituck-Knotts Island*
Bicycle and Pedestrian	Designated routes or continuous bicycle or pedestrian facilities spanning 20 or more miles (on or off-road) AND connecting more than one jurisdiction or county	Designated routes or continuous bicycle or pedestrian facilities spanning 5 or more miles (on or off-road)	Designated routes or continuous bicycle or pedestrian facilities less than 5 miles in length
	Examples: Mountains to Sea Trail all state bike routes, most regional bike routes, ECG	*Examples: Carolina Thread Trail, regional routes, major greenway systems*	*Examples: all sidewalks, bike facilities, trails, routes*
Ports and Inland Waterways	Maritime ports East Coast Marine Highway M-95 (6)	State-owned inland terminals Navigable coastal waterways providing regional access	None
	Examples: Port of Morehead City, Port of Wilmington	*Example: Charlotte Inland Terminal*	

1. The term "Facilities" is used to define any physical infrastructure, whether linear (highways, rail lines) or spot location (airport, port, intermodal terminal, etc.). "Services" refers to the operations, such as public transportation, airlines, or trucking, by which people or freight are moved over related infrastructure. In NCTN Framework, "corridor" is reserved for linear multimodal travel sheds meeting the STC vision and goals.
2. Commercial airport must be included in the current Federal Aviation Administration (FAA) National Plan of Integrated Airport Systems (NPIAS) Report.
3. General aviation airports of Red, Blue, or Green designation are based on the Division of Aviation's "Airport Groupings Model," which evaluates the role of general aviation airports in their respective communities. Groupings become the basis for airport development recommendations.
4. Includes Amtrak bus service connecting to/from existing passenger rail services.
5. Civil rail lines important to national defense including connector lines to military bases.
6. Included as part of the America's Marine Highway System defined by USDOT Maritime Administration.

Strategic Transportation Corridors Vision, Goals, and Objectives

Working with both key internal and external stakeholders, NCDOT has defined a vision and set of goals that form the basis for defining a network of strategic corridors serving the state's high-level economic development and travel mobility needs. To attain the strategic corridors vision, three goal themes have been identified: System Connectivity, Mobility, and Economic Prosperity. The network that results from the STC network identification process features those NCTN transportation system links and nodes, drawn from the Statewide and Regional NCTN elements, which are most essential in supporting the STC goals. The vision, goals, and objectives are shown in **Exhibit ES-2.**

Exhibit ES-2: Strategic Transportation Corridor Vision, Goals and Objectives

Strategic Transportation Corridors Vision: to provide North Carolina with a network of high-priority, integrated multimodal transportation corridors comprised of facilities that interconnect statewide and regional transportation-dependent activity centers, to enhance economic development in all regions of the state, promote highly reliable and efficient mobility and accessibility, and support good decision-making.

Goals	Objectives
System Connectivity *Provide essential connections to national transportation networks critical to interstate commerce and national defense.*	Provide a continuous, consistent network of reliable, higher speed interstate, defense, and major freight routes. For system connectivity, corridors should provide functional classification and facility type consistent with those attributes; corridors should have high capacity consistent with speed and reliability objectives.
Mobility *Facilitate high volume inter-regional movements of people and goods across the state.*	Serve major inter-regional travel corridors with high levels of service, moving higher volumes of passenger or freight traffic, and provide multiple transportation modes or routes for the opportunity of choice and flexibility in travel or shipping in the corridor.
Economic Prosperity (Activity Center Access) *Support efficiency of transport logistics and economic development throughout the state for economic regions and clusters of existing and emerging activity centers (1).*	Provide high-quality access to defined intrastate activity center clusters and to nearby critical activity centers in surrounding states, and ensure access to at least one strategic corridor for each multicounty region of Tier 1 Economic Development counties (2).

Notes:

1. Activity Centers are the major hubs or destinations across the state that are critical to the state's economic prosperity and whose success in part is driven by ready access from all or significant parts of the state.
2. The NC Department of Commerce annually ranks the state's 100 counties based on economic well-being and assigns each a Tier designation based on four factors: adjusted property tax base per capita; percentage population growth; median household income; and average unemployment rate. The 40 most distressed counties are designated as Tier 1.

Strategic Corridor Development

The development of the STC network was accomplished by applying specific eligibility criteria for each of the three goal areas – System Connectivity, Mobility, and Economic Prosperity. The criteria emphasize transportation network functionality characteristics that are supportive of each of the goal areas. Applying

these three sets of criteria to the transportation network yielded a set of transportation system elements that were most critical to supporting each of the goal areas. These are represented by the three maps shown in **Exhibits ES-3, ES-4, and ES-5**.

Strategic Transportation Corridors and Policy

Based on the STC identification process and its application which yielded the three maps referenced above, candidate STC segments were identified and grouped into longer corridors, resulting in 25 STC of varying length, in every region of the state, responding to regional and statewide issues and opportunities. There are a total of 3,223 centerline miles of primary highways in the STC network, including 631 centerline miles where corridors overlap, and 1,556 miles of core rail lines. The resulting STC network is illustrated in **Exhibit ES-6** and summarized in **Exhibit ES-7**. Expanded descriptions of each corridor are contained in the complete NCTN/STC Framework report.

To guide implementation of STC vision and goals, the NC Board of Transportation adopted on March 4, 2015 the North Carolina Strategic Transportation Corridor Policy, which establishes the corridors that comprise the STC network and provides direction to the Department regarding implementation of the vision. The policy, including the adopted STC network map, is shown in **Exhibit ES-8**.

NCTN and STC Applications

Application of the NCTN and the STC network to NCDOT transportation systems planning, project development, and asset management should enhance the Department's efforts to guide development of those plans and prioritize investments in transportation systems across North Carolina's multimodal networks. The STC network will be articulated in further detail by a set of defined post-STC activities:

- STC Master Plans - An STC master plan is intended to identify broad improvement strategies for an entire corridor and protect the corridor's intended function. It should guide improvements and development in a manner that defines a long-term vision and performance for the corridor.
- Sub-corridor Alternatives Studies – Upon completion of a corridor Master Plan, sub-corridor alternatives studies would be conducted. Prepared in much greater detail than STC Master Plans, sub-corridor alternatives studies examine and address issues of strategic importance to the long-term function and character of a specific segment of the overall STC multimodal transportation corridor.

(Text continued on page ES-15)

Exhibit ES-3: STC System Connectivity Elements

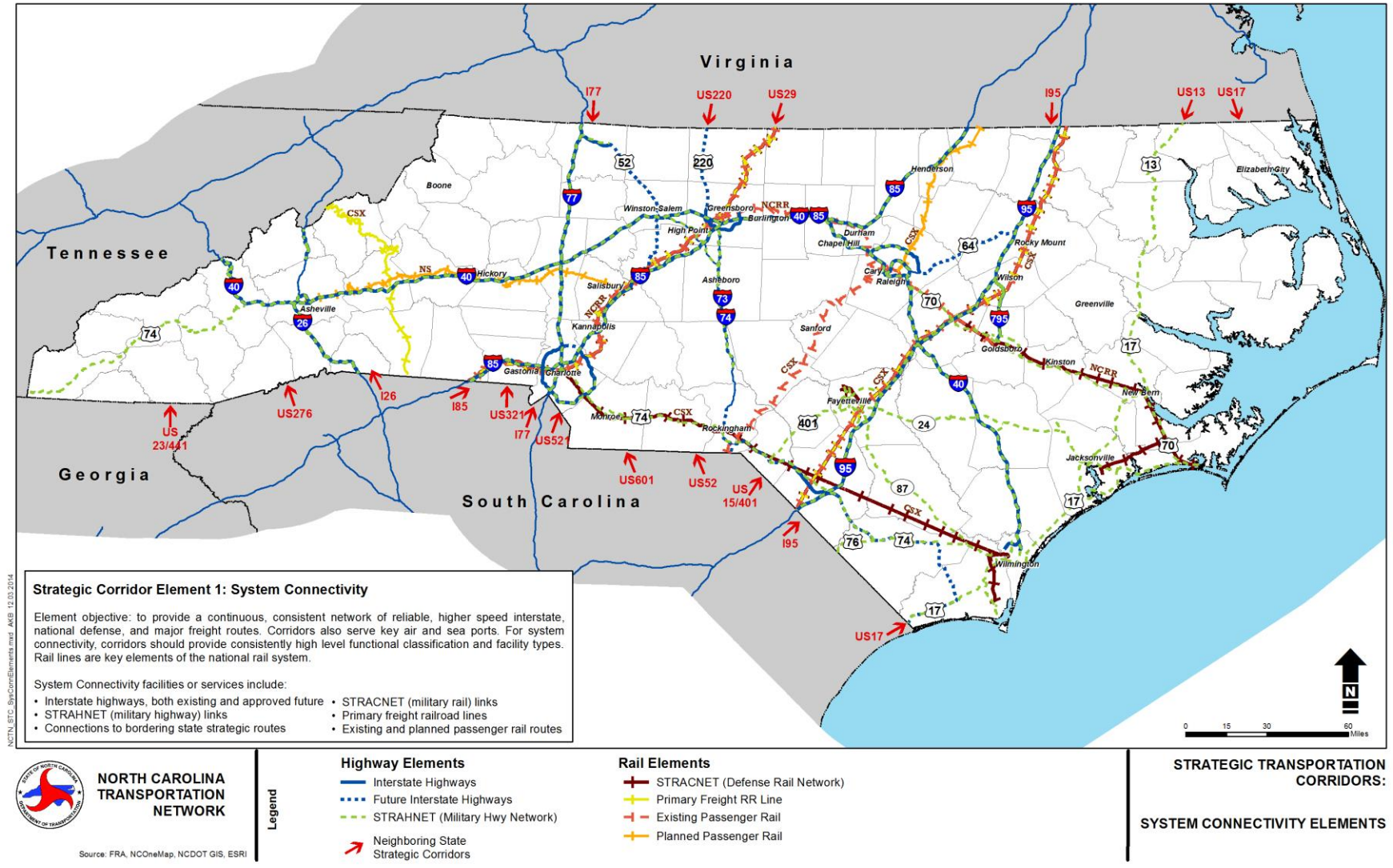


Exhibit ES-4: STC Passenger and Freight Mobility Elements

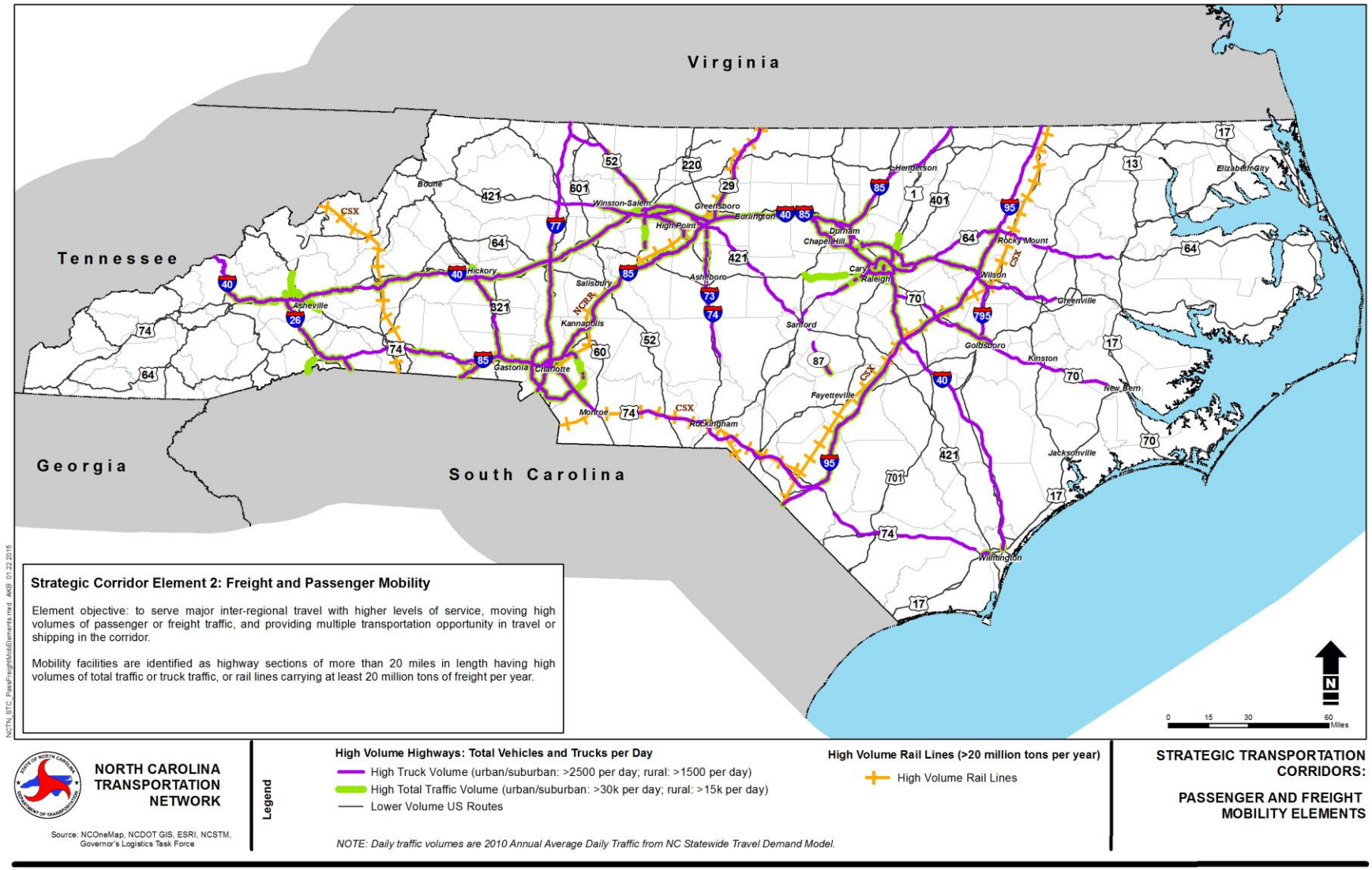


Exhibit ES-5: STC Economic Prosperity Elements

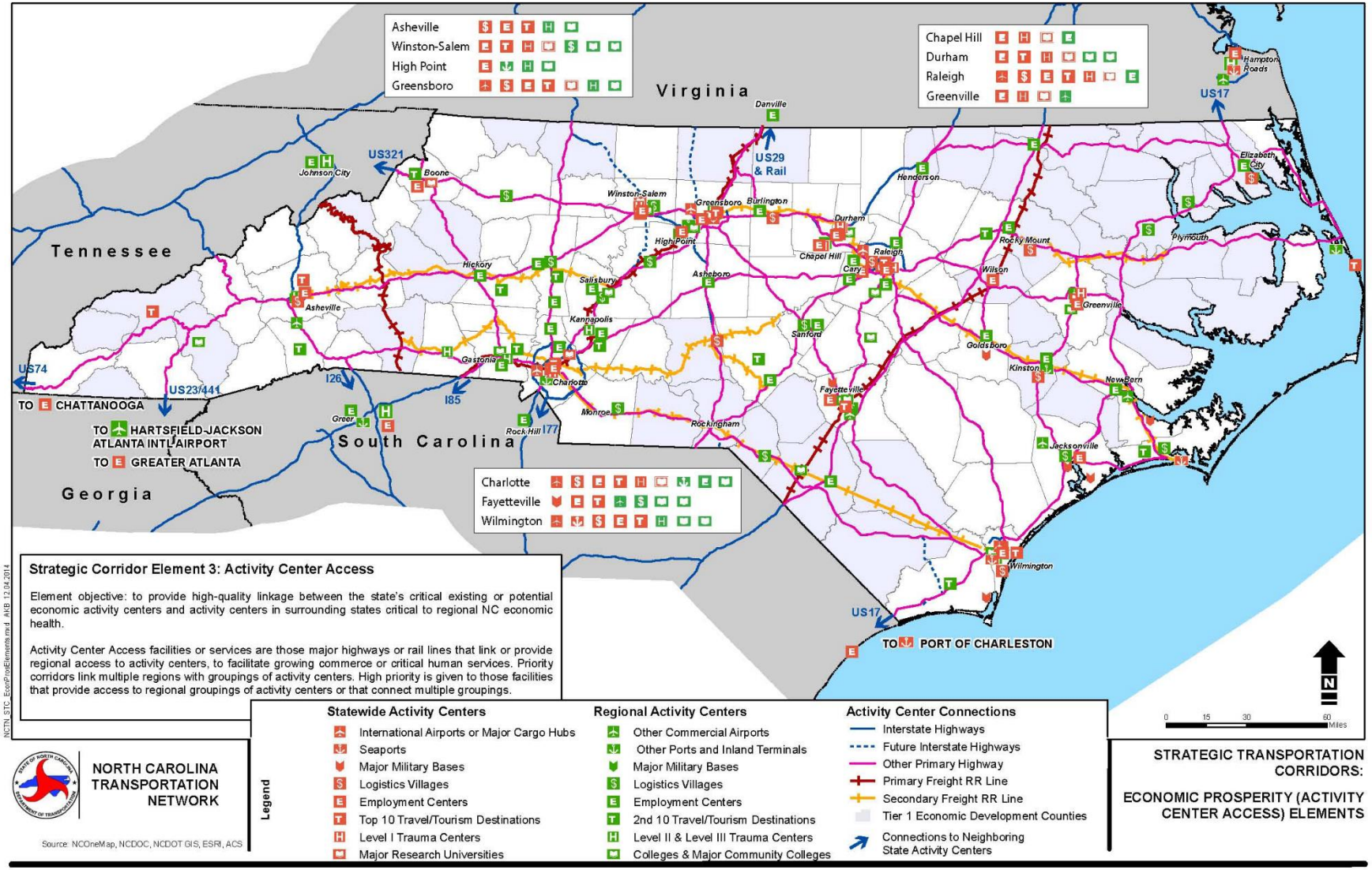


Exhibit ES-6: Strategic Transportation Corridors

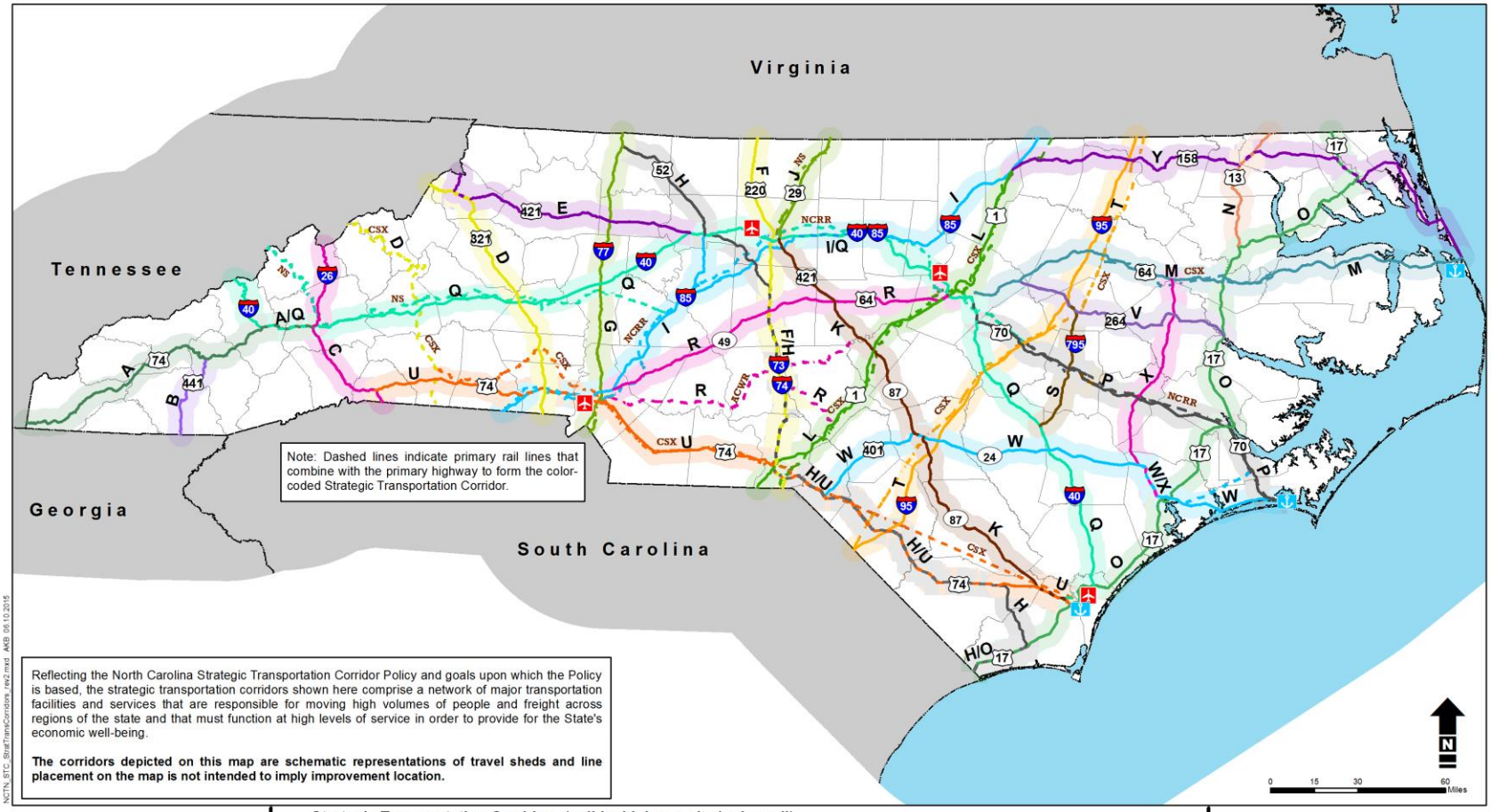


Exhibit ES-7: NC Strategic Transportation Corridors

Corridor	Name	Primary Facility Length (mi) Highway	Rail	Corridor Limits
A	US 74W	126		TN state line in Cherokee County to I-26 in Asheville
B	US 23/441	32		GA state line to US 74 in Jackson County
C	I-26/US 23 W	71		SC state line to TN State Line
D	US 321/CSX	104	116	SC state line to TN state line
E	US 421 W	94		TN state line to I-40 in Forsythe County
F	I-73/Future I-73	129		SC state line to VA state line
G	I-77	105	12	SC state line to VA state line
H	I-74/Future I-74	290		SC state line to I-77 in Surry County
I	I-85/NCRR/I-285 Spur	258	136	SC state line to VA state line through the Piedmont Crescent, with future I-285 spur to Winston-Salem
J	US 29/NS	40	42	I-40 in Guilford County to VA state line
K	US 421/NC 87	175		New Hanover County (US 117 in Wilmington with overlap with STC U) to I-40 in Guilford County
L	US 1	157	171	SC state line to I-85 near Henderson
M	Future I-495/US 64E	186	65	I-440 in Wake County to NC 12 in Dare County
N	US 13	47		US 17 in Bertie County to VA state line
O	US 17	284		SC state line to VA state line
P	US 70E/NCRR	145	113	I-440 in Wake County to Port at Morehead City
Q	I-40/NCRR/NS	4417	298	TN state line through Research Triangle to US 117 in Wilmington
R	US 64W/NC 49/ACWR	127	133	I-85 in Mecklenburg County to I-40 in Wake County
S	I-795/US 117	50		I-95 in Wilson County to I-40 in Sampson County
T	I-95/CSX	181	182	SC state line to VA state line
U	US 74W/US 74E	278	261	I-26 in Polk County through Mecklenburg County to US 117 in Wilmington
V	US 264E	84		US 64E in Wake County to US 17 in Beaufort County
W	US 401/NC 24/US 258	185	27	I-74 in Scotland County to Cumberland County to Port at Morehead City
X	US 258/NC 11/US 13	90		US 17 in Onslow County to Pitt County to US 64E in Edgecombe County
Y	US 158	192		I-85 in Vance County to US 64 in Dare County
	Total length	3854	1556	

Note: Due to 631 miles of overlap of some Strategic Transportation Corridors, total STC highway centerline mileage is 3,223 miles.

Exhibit ES-8: North Carolina STC Policy

North Carolina Strategic Transportation Corridor Policy

Preamble

The North Carolina Department of Transportation has as its stated mission "*Connecting people and places safely and efficiently, with accountability and environmental sensitivity to enhance the economy, health and well-being of North Carolina." This mission and associated system delivery goals of ensuring traveler safety, promoting efficient movement of people and goods, and preserving its infrastructure investment require that the Department conduct sound planning that advances critical transportation facilities and services that are needed to support the State's long-term economic prosperity goals. In pursuit of these goals, NCDOT has identified a network of Strategic Transportation Corridors and has adopted this Strategic Transportation Corridors Policy to guide transportation planning and project development efforts and to support realization of Governor McCrory's 25-Year Vision for North Carolina.*

The intent of this Policy is to update the Strategic Highway Corridor (SHC) policy adopted by the Board of Transportation on September 2, 2004, consistent with direction provided by the Board in 2012 by adopting the NC Statewide Transportation Plan (the 2040 Plan).

It is the stated purpose of Strategic Transportation Corridors to identify from existing facilities a network of multimodal high priority strategic transportation corridors which will form the state's core network of highly performing facilities for movement of high volumes of people and freight. The facilities and services in those corridors are considered to be of great importance on a statewide basis for long-distance movement of people and freight. The policy establishes that preservation of those facilities at a consistently high level of functionality, in terms of classification, condition, and service, will guide long-term planning at statewide, regional, and corridor levels and should be considered the state's highest priority when such corridors are being analyzed within the framework of regional or local transportation and land use plans.

The Strategic Transportation Corridors that are defined by this policy are dynamic and intended to support the highest level of transportation needs. They can and will be amended as conditions change. It is not intended that this policy will restrict transportation system improvements and investments needed to address local or smaller regional needs. Rather, Strategic Transportation Corridor identification is intended to recognize the importance of the identified corridors and the need for their protection as regional transportation and land use plans consider local land access and mobility needs.

Strategic Corridors Vision

It is the Board of Transportation's vision that North Carolina should have an identified network of high-priority, integrated multimodal transportation corridors comprised of facilities that interconnect statewide and regional transportation-dependent activity centers, to enhance economic development in all regions of the state, promote highly reliable and efficient mobility and accessibility, and support good decision-making.

Strategic Corridors Goals

In adopting this Policy, the Board establishes the following goals for North Carolina's Strategic Transportation Corridors:

1. **System Connectivity:** *Provide essential connections to national transportation networks critical to interstate commerce and national defense.*
2. **Mobility:** *Facilitate high volume inter-regional movements of people and goods across the state.*
3. **Economic Prosperity:** *Support efficiency of transport logistics and economic development throughout the state for economic regions and clusters of existing and emerging activity centers.*

Policy

It is the policy of the NCDOT to place highest priority in the planning and long-term improvement of safe, highly reliable, and efficient multimodal Strategic Transportation Corridors. These Corridors, as identified through a coordinated planning process, are intended to support the economic prosperity goals of the State of North Carolina by enhancing the multimodal mobility function of critical transportation facilities, and are incorporated into this Policy as depicted in Exhibit 1.

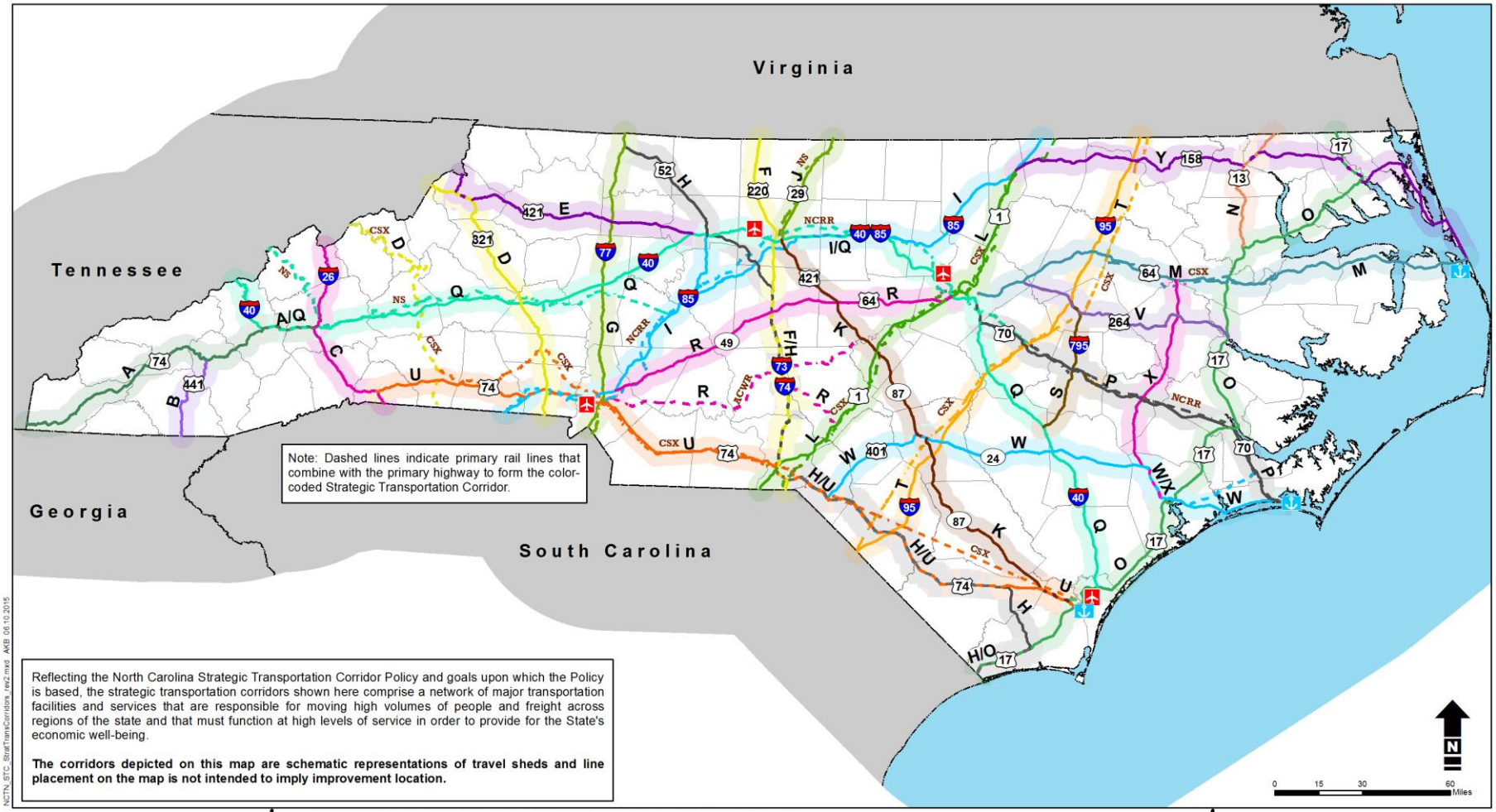
In adopting the STC Policy, the Board of Transportation specifically sets aside the SHC facility type directives established by the previous SHC policy, except as those facility type directives have been subsequently incorporated into further project development efforts, and directs NCDOT to prepare updated corridor vision plans in close collaboration with regional planning partners as noted below.

Further, it is expressly recognized at the time of adoption of this Policy that identification of Strategic Transportation Corridors does not affect the programming of projects in NCDOT's State Transportation Improvement Program, as that programming has been directed by current Strategic Transportation Investment statutes.

Reflecting the Strategic Corridors vision and goals established in this Policy, the North Carolina Department of Transportation shall:

1. As quickly as practicable, work with regional planning partners to prepare Strategic Transportation Corridor vision plans that reflect consistent, corridor-long performance standards that take into account regional and statewide characteristics and needs in terms of mobility, multimodal opportunities, operational performance, safety, and physical condition, and that establish consistent, high-level facility-types and operating standards for each Strategic Transportation Corridor.
2. Within the context of regional Comprehensive Transportation Plans, establish that for identified Strategic Transportation Corridors, preservation of inter-regional, long-distance travel needs into and through the region should take priority over direct land access and local travel patterns.
3. In managing highway elements of individual Strategic Transportation Corridors, apply the highest practicable access management provisions to promote operational efficiencies and safety, and to enhance the movement of people and freight on primary corridor facilities.
4. Preserve and support prior project development decisions that have been based on identified Strategic Highway Corridors (as those highways were established by the aforementioned Strategic Highway Corridor policy action). Such project development decisions include but are not limited to environmental studies, purpose and need determinations, screening of alternatives, travel corridor or mode definitions, or identification of environmental impacts and mitigation. It is not the intent of the Strategic Transportation Corridors policy to replace, modify, or negate any ongoing or prior project development decisions that include or reference the components of the Strategic Highway Corridor policy. Such ongoing or prior project development decisions shall remain valid and are incorporated into the Strategic Transportation Corridors Plan by reference.

Adopted by the Board of Transportation on March 4, 2015.


Virginia
Tennessee
Georgia
South Carolina
Note: Dashed lines indicate primary rail lines that combine with the primary highway to form the color-coded Strategic Transportation Corridor.
Reflecting the North Carolina Strategic Transportation Corridor Policy and goals upon which the Policy is based, the strategic transportation corridors shown here comprise a network of major transportation facilities and services that are responsible for moving high volumes of people and freight across regions of the state and that must function at high levels of service in order to provide for the State's economic well-being.
The corridors depicted on this map are schematic representations of travel sheds and line placement on the map is not intended to imply improvement location.
0 15 30 60 Miles
NORTH CAROLINA TRANSPORTATION NETWORK
MARCH 2015
Source: NCOneMap, NCDOT GIS, ESRI
Legend
Strategic Transportation Corridors (solid = highway; dashed = rail)
A (US74W)
B (US441)
C (I26/US23)
D (US321/CSX)
E (US421W)
F (I73/Future I73)
G (I77)
H (I74/Future I74)
I (I85)
J (US29N/NS)
K (US421/NC87)
L (US1)
M (I495/US64E)
N (US13)
O (US17)
P (US70E/NCRR)
Q (I40)
R (US64W/NC49)
S (I795/US117)
T (I95/CSX)
U (US74W/US74E)
V (US264E)
W (US401/NC24/US258)
X (US258/NC11/US13)
Y (US158)
NC Seaports
NC Int'l or Major Freight Airports
NORTH CAROLINA STRATEGIC TRANSPORTATION CORRIDORS NETWORK

- Comprehensive Transportation Plans (CTP) – A CTP is a multimodal transportation plan mutually adopted by the State and local area, metropolitan planning area, or county that represents the future transportation system needed to support anticipated growth and development over a 25-30 year timeframe within that area. Identification of the STC network will serve to inform the CTP process by establishing that the high-level mobility and connectivity functions of facilities within the STC should be clearly recognized in defining long-term improvement needs for the planning area. STC identification establishes the statewide or regional importance of the facilities and stresses the need for focused attention to the achieving the three goals adopted for the STC network: system connectivity, regional mobility, and economic prosperity.

Each of these plan elements will consider all relevant past planning products such as work in defining and developing the SHC Vision Plan, corridor segment alternatives studies, non-highway modal planning, and MPO/RPO transportation network planning.

Beyond the discrete STC refinement efforts captured in master plans, CTPs, and sub-corridor alternative studies, application of the NCTN and the STC network framework will serve to inform numerous NCDOT processes and program delivery activities, from project development, including environmental clearance and National Environmental Policy Act (NEPA) document preparation, to focused asset management and support of local land use planning.

Looking Forward

Implementing the NCTN and the STC supports the progressive development of the NC transportation system by integrating a multimodal statewide approach to network development. Much remains to be done in implementing these planning tools, from preparing STC Master Plans to incorporating master plan findings and recommendations into regional and local land use and transportation planning, and in executing segment-level access management and facility improvements. As implementation advances, the NCTN and the STC network will help to guide transportation investments that underpin the system connectivity, mobility, and economic prosperity so important to the quality of life of the state's citizens, businesses, and visitors.

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1. Overview

1.1 Background

In 2004, the North Carolina Board of Transportation (Board) adopted the Strategic Highway Corridors (SHC) Policy, directing the Department of Transportation to identify a network of strategic corridors that would serve as "a tool to enhance the mobility function of critical highway facilities and provide an opportunity for (the policy's signatory agencies) to proactively partner with stakeholders and the public to consider long-term vision, consistency in decision-making, land use partnerships, and overarching design and operational improvements."[1] In adopting the policy, the Board also adopted the SHC Vision Plan, identifying 55 highway corridors across the state for the purpose of advancing a set of SHC goals and objectives.

At the same time that the SHC policy was being developed, the North Carolina Department of Transportation (NCDOT) and its regional planning partners created the NC Multimodal Investment Network (NCMIN), to establish a common set of definitions by which each mode of the state's transportation system could be stratified, recognizing that each modal system serves multiple purposes of statewide, regional, or sub-regional movement. In defining the NCMIN, the SHC network was recognized as its statewide highway element.

In 2012, NCDOT completed a major update of its 2004 Statewide Transportation Plan, which had been the planning basis for SHC and NCMIN. Known as the 2040 Plan, the statewide plan update accomplished the following:

- Identified the long-term investments needed to allow the transportation system to meet defined performance standards and the state to reach its economic development and public interest goals
- Estimated revenues reasonably expected over the planning period and the funding gap between revenue and needs
- Established priorities for achieving the broad goals of mobility, safety, infrastructure preservation

In adopting the 2040 Plan, the Board directed the NCDOT staff to update the NCMIN and the SHC. The update would bring those planning tools in line with other 2040 Plan findings, recognizing that changing economic conditions, a rapidly growing population with increasing demand for transportation services, and evolving economic development goals required a sharper focus on the highest priority corridors. Those would be the corridors that were truly critical to the state's overall economic prosperity, and that offered greatest opportunity to leverage corridors' multimodal transportation assets.

1.2 Report Purpose and Organization

This report is intended to define a framework for updating of the NCMIN and SHC and to present the results of the application of that framework:

1. An updated set of definitions of multimodal facilities and services, renamed as the North Carolina Transportation Network (NCTN)

[1] Strategic Highway Corridors Policy Statement, NC Board of Transportation, September 2, 2004.

2. A revised network of multimodal transportation corridors, named the Strategic Transportation Corridors (STC), that will represent NCDOT's highest priority for long-term preservation and improvement
3. A proposed policy statement defining the role of STC and actions to be taken by NCDOT in preserving and enhancing the function of those corridors

This report provides the following information:

1. Context and purpose – recent legislative and policy initiatives affecting modal definitions and strategic corridors, the relationship of NCTN and STC to those initiatives, the intended purpose of the updated planning tools, and public and stakeholder input opportunities
2. NCTN Mobility Definitions – a structure and rationale for the revised mobility-based NCMIN definitions
3. STC vision, goals, and objectives, and performance measures – the vision for the STC network, with goals and objectives for defining the network and performance measures which can be the basis for further corridor development.
4. STC identification process and process application – the STC network development process is presented, with the resulting identification of corridors;
5. STC network, STC policy, and policy amendment process – the proposed network and policy for strategic corridors vision implementation; and
6. STC implementation – the ongoing planning and project development processes by which the NCTN and STC will be implemented and used by NCDOT.

1.3 Context and Purpose

This update of the North Carolina Transportation Network and the Strategic Transportation Corridors network has been conducted within a framework responsive to the directions established by the Board of Transportation in adopting the 2040 Plan and builds on the planning tools developed previously in creating the NCMIN and associated SHC Vision Plan. The framework is intended to identify the following principles and structure:

- Establish a unified definition of facilities and services that make up the state's transportation multimodal system
- Provide a vision and a set of driving goals that can then define a system of strategic corridors and facilities or services
- Define a network of high priority, strategic multimodal transportation corridors to serve the state's broad-ranging economic, social, and environmental goals that are based on a rational of corridor identification process

The unified definition of multiple transportation modes will reflect the mobility and land access functions of various facilities and services. It will also support local and regional Comprehensive Transportation Plans, and NCDOT project development, access management, and infrastructure design efforts.

Identification of the STC will allow NCDOT to determine how the corridors should work to achieve the state's long-range economic prosperity vision and to set long-term NCDOT infrastructure investment priorities, to link significant economic activity centers, serve as critical corridors for statewide goods and person movement, to

promote integrated multimodal development of corridor assets, and to ensure functional and physical continuity of major transportation systems. As such, the STC will become a key planning tool by which NCDOT can work with its regional planning partners to define a consistent approach to implementing corridor visions, and setting corridor-long performance expectations. The definition of the STC will incorporate elements of the NCTN Statewide and Regional network components, comprising those transportation system links and nodes which are most essential in supporting statewide system connectivity, mobility, and economic prosperity within the respective corridors.

NCTN provides a multimodal transportation structure that supports rational application of North Carolina's Strategic Transportation Investments[2] (STI) legislation, which was established by the NC General Assembly in 2013 through House Bill 817. STI redefines North Carolina transportation spending, establishing the data-driven project prioritization process now being implemented by NCDOT and supported by ongoing, strategic planning efforts. The principal long-range planning elements of NCDOT are *Governor McCrory's 25-Year Vision for North Carolina* and the Department's Statewide Transportation Plan, the 25-year transportation infrastructure plan that provides an implementing strategy for STI. The STC framework itself does not channel funding to specific corridors or projects as that is presently the function of the STI. However, the application of the STCs will improve consistency between the STI, planned transportation improvements, and state and regional growth policies and economic development initiatives.

1.4 Public Input Opportunities

The NCTN team developed a plan to detail activities to involve key stakeholders in the NCTN/STC effort. This Public Involvement Plan (PIP) included outreach program goals, identification of methods for distributing information and gathering input, and timelines. Among the goals of the PIP were generating awareness of the effort among, and obtaining input from, key government, transportation, community and business leaders at the local, regional, state and federal levels and allowing anyone access to information about NCTN/STC.

Audiences identified in the PIP included:

- NCTN Advisory Group (NCTN-AG) – Representatives of public and private sector transportation and government organizations; many members served on a similar committee guiding development of the Statewide Transportation Plan that was adopted in 2012..
- Metropolitan Planning Organizations (MPOs) and Rural Planning Organizations (RPOs) – These organizations direct transportation planning programs for their particular areas. The boards of MPOs and RPOs are comprised of local elected officials, and the technical committees of these organizations are comprised of technical staff of the member agencies.
- Regional work session participants – This category consisted of representatives of agencies and organizations across the state, separated by regions using the boundaries of North Carolina's Prosperity Zones as defined by the NC Department of Commerce. These stakeholders included interests from the economic development, environmental, cultural, business and institutional communities.

[2] Directives of the Strategic Transportation Investments legislation are being implemented by NCDOT through the State Transportation Improvement Program (STIP), with projects included in the STIP by application of the Board-approved project prioritization process.

- Tribal Governments – The Eastern Band of Cherokee Indians (EBCI) is a federally recognized tribe in North Carolina. As required by federal regulations, NCDOT sought to ensure the EBCI was aware of the NCTN effort and had opportunities to provide input on its development.
- General public – This category included all users of any transportation system within the state, including residents, visitors, business owners, students, commuters, and a host of others.

Following is a list of activities aimed at gaining public and stakeholder input that were conducted during development of the NCTN and the Strategic Transportation Corridors:

- Advisory Group – the advisory group provided input regarding development of NCTN and STC criteria and data points; three meetings of the Advisory Group were held.
- Coordination with MPOs and RPOs, through their involvement in the Advisory Group, briefings at quarterly meetings of the MPO and RPO Associations, and focused solicitation of comments on all elements of the study
- Regional meetings – following initial development of the proposed strategic corridors, a series of eight regional meetings and one statewide webinar was conducted, resulting in participation by 256 people and receipt of 127 written comments
- Tribal coordination – the study team sought input through the Federal Highway Administration from the Eastern Band of the Cherokee Indians, including invitations to attend one of the regional meetings
- General public communications – during the study, information was made available to the general public through MPO and RPO briefings and discussions; information also was accessible to the general public via the NCDOT website.
- Final Recommendations Public Input – On October 3, 2014, NCDOT released for public review and comment the draft Strategic Transportation Corridors (STC) Policy, with associated STC Network map. The comment period closed on December 2, 2014. A total of 93 individuals or organizations submitted comments.

Additional detail regarding the public involvement process can be found in Working Paper #4, prepared as part of the study documentation.

2. NC Transportation Network: Structure and Mobility Definitions

In updating the predecessor NCMIN definitions to the more consistent, data-driven, multimodal NCTN, NCDOT sought to provide a more refined and useful planning tool, with definitions for all transportation modes that reflect needed mobility and land access levels for statewide, regional, and local services or facilities. The NCTN Structure and Mobility Definitions shown in **Table 1** were subjected to evaluation by the Board of Transportation, NCDOT Executive Leadership, the Advisory Group described previously, and other NCDOT staff and external stakeholders. In particular, the NCDOT's Modal Divisions provided invaluable feedback and input in the process of updating the old NCMIN classification, and in some cases, supplied the basic definitions (e.g., Rail Division or Bicycle and Pedestrian Division). The Board of Transportation accepted the proposed modal mobility definitions.

The NC Transportation Network mobility definitions reflect required mobility and land access levels for three strata or levels of facilities or services: statewide, regional, and sub-regional. NCTN definitions are consistent across all modes of North Carolina's transportation system: highways, aviation, public transportation, freight and passenger rail, bicycle/pedestrian facilities, ferries, and ports. Modal definitions are intended to be consistent with a general stratified definition of mobility that also captures the need for land access.

Agreed-upon definitions will become the basis for creating and updating a series of NCDOT-maintained databases used in asset management, preparation of local or regional transportation plans, and advancing project development.

Table 1: North Carolina Transportation Network Mobility Definitions

Mode	Statewide Level Facilities/Services (1)	Regional Level Facilities/Services	Sub-regional Level Facilities/Services
	Highest (unimpeded) ←---------- *Mobility Levels* ----------→ (Land Access) Lowest		
Mobility Definition	*Facilities or services with primary function of supporting high-value inter-regional movement of people and goods in pursuit of statewide economic development objectives, generally with higher speed/higher capacity facilities and services.* *Statewide facilities can provide managed land access.*	*Facilities or services with primary function of serving major intra-regional movements of people and goods in support of regional or local economic activity (work, education, medical, etc.).* *Regional facilities and services can provide direct access to activity centers of regional significance such as major employment centers.*	*Facilities or services with primary function of providing land access and supporting shorter distance local travel.* *Sub-regional facilities comprise the largest part of the Transportation Network.*
Highways	High volume facilities that provide a unique statewide function or address statewide economic development objectives: • All Interstate highways • All primary National Highway System (NHS) routes • STRAHNET (designated defense highway) routes • *National Primary Freight Network (add upon adoption)* • Principal arterials that carry >25,000 vehicles per day (vpd)	Arterial highways or major collector roadways providing mobility along major commuter routes, and access to freight intermodal facilities: • Major Hurricane Evacuation Routes: major route from the NC Emergency Management's Coastal Evacuation Route Map • NHS Connector routes in NC • Appalachian Development Highway System routes not on NHS • All US highways not defined as statewide highway facilities • All NC highways not defined as statewide highway facilities • All National Truck Network routes not defined as statewide highway facilities • Other state-maintained roadways that carry 15,000 to 25,000 vpd	State-maintained collector or local roads providing access to adjacent land uses and serving shorter distance trips: • All Secondary Roads (SR) not defined as Statewide or Regional highway facilities
	Target facility type: freeway, toll road, expressway, or boulevard *Examples: I-95, US 70, US 64, NC 24*	Target facility type: expressway or boulevard *Examples: US 15/501, SR 1010, NC 50*	Target facility type: boulevard or thoroughfare *Examples: SRs not on Regional network*

Mode	Statewide Level Facilities/Services (1)	Regional Level Facilities/Services	Sub-regional Level Facilities/Services
Aviation	Commercial airports providing international service and major cargo hubs (2): • International passenger service • 375,000+ annual enplanements • Airports qualifying for all-cargo entitlement funding from FAA	Commercial service airports with fewer than 375,000 annual enplanements (2). General Aviation airports that are classified as Red or Blue by the North Carolina Airport System Plan Recommended Airport Groupings (3)	General Aviation airports that are classified Green by the North Carolina Airport System Plan Recommended Airport Groupings (3)
	Examples: CLT, RDU, PTIA, Wilmington	*Examples: Asheville, New Bern, Burlington-Alamance Regional, Western Carolina Regional*	*Examples: Plymouth Municipal*
Public Transportation	Common carrier bus service and associated stations that serve interstate or long-distance intrastate travel	Transit systems operating combinations of intra-regional express bus, vanpool service, local service, and associated stations that serve commuters and other travelers typically between two or more counties	Transit systems operating local routes, associated stations and passenger amenities that serve commuters and other travelers primarily within a single county
	Examples: Greyhound service or terminal	*Examples: express bus services (e.g., PART Triad Express)*	*Examples: local transit systems*
Rail (Passenger and Commuter)	Any interstate or inter-regional passenger rail service and stations associated with inter-regional services(3)	Intra-regional commuter rail and light rail services and associated stations	None
	Examples: all interstate (Amtrak) or NC inter-regional (e.g., Piedmont) service	*Examples: any intra-state or inter-county commuter rail service*	
Rail (Freight)	High volume rail lines or lines providing strategic rail service, and associated critical rail infrastructure: • STRACNET (defense) rail lines (4) • Class 1 railroad core mainlines • Lines serving coal-fired power plants or strategic and emerging markets • Lines cleared for double-stack operations • Lines with connections to state ports and Statewide inland terminals/intermodal container facilities • Statewide inland terminals/intermodal container facilities	All other rail lines and intermodal or transload facilities	None

Mode	Statewide Level Facilities/Services (1)	Regional Level Facilities/Services	Sub-regional Level Facilities/Services
	Examples: CSX National Gateway, NS Crescent Corridor, NCRR, and other lines of significance; NS and CSX Intermodal Yards (Charlotte)	*Examples: Remaining NS, CSX and short line rail corridors including the GSMR line from Andrews to Dillsboro which is a tourist railroad that can carry freight and transload facilities such as CSX Transflo facilities, Bailey Feed Mill in Selma and many others*	
Ferry	Ferry routes connecting statewide highways	Ferry routes connecting regional highways	Ferry routes connecting sub-regional highways and passenger-only ferries
	Examples: Cedar Island - Ocracoke	*Examples: Cherry Branch-Minnesott Beach*	*Examples: Currituck-Knotts Island*
Bicycle and Pedestrian	Designated routes or continuous bicycle or pedestrian facilities spanning 20 or more miles (on or off-road) AND connecting more than one jurisdiction or county	Designated routes or continuous bicycle or pedestrian facilities spanning 5 or more miles (on or off-road)	Designated routes or continuous bicycle or pedestrian facilities less than 5 miles in length
	Examples: Mountains to Sea Trail all state bike routes, most regional bike routes, ECG	*Examples: Carolina Thread Trail, regional routes, major greenway systems*	*Examples: all sidewalks, bike facilities, trails, routes*
Ports and Inland Waterways	Maritime ports East Coast Marine Highway M-95 (5)	State-owned inland terminals Navigable coastal waterways providing regional access	None
	Examples: Port of Morehead City, Port of Wilmington	*Example: Charlotte Inland Terminal*	

Notes:

1. The term “Facilities” is used to define any physical infrastructure, whether linear (highways, rail lines) or spot location (airport, port, intermodal terminal, etc.). “Services” refers to the operations, such as public transportation, airlines, or trucking, by which people or freight are moved over related infrastructure. In NCTN Framework, “corridor” is reserved for linear multimodal travel sheds meeting the STC vision and goals.
2. Commercial airport must be included in the current Federal Aviation Administration (FAA) National Plan of Integrated Airport Systems (NPIAS) Report.
3. General aviation airports of Red, Blue, or Green designation are based on the Division of Aviation’s “Airport Groupings Model,” which evaluates the role of GA airports in their respective communities. Groupings become the basis for airport development recommendations.
4. Includes Amtrak bus service connecting to/from existing passenger rail services.
5. Civil rail lines important to national defense including connector lines to military bases.
6. Included as part of the America’s Marine Highway System defined by USDOT Maritime Administration.

3. Strategic Transportation Corridors: Vision, Goals, Objectives, and Performance Measures

3.1 Vision, Goals and Objectives

Working with both internal and external key stakeholders, NCDOT has defined a vision and set of goals that form the basis for defining a network of strategic corridors and facilities serving the state's high-level economic development and travel mobility needs. In defining a network of Strategic Transportation Corridors, NCDOT seeks to identify critical corridors that form the backbone of the state's transportation system. These are long-distance corridors that move most of the state's intercity and interstate freight and person traffic, link critical centers of economic activity and international air and sea ports, and support interstate commerce. They must operate well if goals for a thriving economy are to be achieved. The overarching Strategic Transportation Corridors Vision is stated as follows:

> **Strategic Transportation Corridors Vision:** to provide North Carolina with a network of high-priority, integrated multimodal transportation corridors comprised of facilities that interconnect statewide and regional transportation-dependent activity centers, to enhance economic development in all regions of the state, promote highly reliable and efficient mobility and accessibility, and support good decision-making.

To attain the STC vision, three goal themes have been identified: System Connectivity, Mobility, and Economic Prosperity. The network that results from the STC network definition process will identify those NCTN transportation system links and nodes, drawn from the Statewide and Regional NCTN elements, which are most essential in supporting those STC goals. The goals, shown in **Table 2**, are supported by objectives through which the goals can be achieved.

3.2 Strategic Transportation Corridor Performance Measures

Consistent with the vision set for the STC network as defined above, it is in the public interest that the primary facilities on the STC network provide long-term, high-quality levels of service, in terms of safety, travel speed, and reliability. To understand whether the STC goals and objectives are being met, it is necessary to define expectations and measure performance. NCDOT already reports the performance of its various modal systems. This is to provide transparent information to users of the transportation system. It is also to meet increasing expectations of the federal government, which expects the states use system performance in making financial programming decisions involving use of federal funds. This is consistent with the data-driven project prioritization process now used by NCDOT in programming funds for system improvements. Generally, however, the Department's performance monitoring is without distinction between subsystems.

To understand whether the primary facilities of the STC network (e.g., the Interstate highways or principal rail lines) are achieving the higher expectations implied by the vision for the network, a framework of performance measures supporting each of the modal elements and the three STC goals and objectives has been identified. The proposed STC performance measures are presented in **Table 3**. For each measure, performance measure data sources and methods would be identified, along with a performance target for each. Performance targets may be as simple as showing no performance decline year-to-year, or more desirably showing a trend of

improvement over time. Performance targets for each STC would be defined as corridor master plans evolve, reflecting overall system objectives and also the specific, unique characteristics of those corridors.

Table 2: Strategic Transportation Corridor Goals and Objectives

Goals	Objectives
System Connectivity *Provide essential connections to national transportation networks critical to interstate commerce and national defense.*	Provide a continuous, consistent network of reliable, higher speed interstate, defense, and major freight routes. For system connectivity, corridors should provide functional classification and facility type consistent with those attributes; corridors should have high capacity consistent with speed and reliability objectives.
Mobility *Facilitate high volume inter-regional movements of people and goods across the state.*	Serve major inter-regional travel corridors with high levels of service, moving higher volumes of passenger or freight traffic, and provide multiple transportation modes or routes for the opportunity of choice and flexibility in travel or shipping in the corridor.
Economic Prosperity (Activity Center Access) *Support efficiency of transport logistics and economic development throughout the state for economic regions and clusters of existing and emerging activity centers (1).*	Provide high-quality access to defined intrastate activity center clusters and to nearby critical activity centers in surrounding states, and ensure access to at least one strategic corridor for each multicounty region of Tier 1 Economic Development counties (2).

Notes:

1. Activity Centers are the major hubs or destinations across the state that are critical to the state's economic prosperity and whose success in part is driven by ready access from all or significant parts of the state. These centers are the starting and/or ending point for the movement of people and goods. These are locations with concentrations of people, jobs, educational and health service facilities, tourist attractions, or other similar economic-based facilities or services. See Appendix B for a full listing of the activity centers that form the basis for defining the Economic Prosperity element of this criterion.
2. The NC Department of Commerce annually ranks the state's 100 counties based on economic well-being and assigns each a Tier designation based on four factors: adjusted property tax base per capita; percentage population growth; median household income; and average unemployment rate. The 40 most distressed counties are designated as Tier 1 (http://www.nccommerce.com/research-publications/incentive-reports/county-tier-designations).

It is envisioned that additional corridor-level performance measures could be defined for the other significant corridor modes, particularly rail. These measures would provide a high-level framework for assessing ongoing corridor performance and would be an input to defining corridor-specific visions as part of corridor planning efforts. This in turn could contribute to identifying other corridor-specific objectives, measures, and performance targets.

While the performance of the STC network should be monitored and reported on the same cycle as other elements of the state's transportation system, it will also be necessary to review the measures themselves on a regular basis, to ensure that they continue to reflect the goals of the STC framework itself. Most logically, the measures would be reviewed at the same time as the STC network itself is updated. This most logically would be in the same timeframe as updating of the Statewide Transportation Plan, as that document is the platform for overall review of the State's long-term funding and performance goals.

Table 3: Potential STC Performance Measures

Mode	STC Objectives and Performance Measures		
	Goal: System Connectivity **Objective:** Provide a continuous, consistent network of reliable, higher speed interstate, defense, and major freight routes. For system connectivity, corridors should provide functional classification and facility type consistent with those attributes; corridors should have high capacity consistent with speed and reliability objectives.	**Goal: Mobility** **Objective:** Serve major inter-regional travel corridors with high levels of service, moving higher volumes of passenger or freight traffic, and provide multiple transportation modes or routes for the opportunity of choice and flexibility in travel or shipping in the corridor.	**Goal: Economic Prosperity (Activity Center Access)** **Objective:** Provide high-quality access to defined intrastate activity center clusters and to nearby critical activity centers in surrounding states, and ensure proximity to at least one strategic corridor for each multicounty region of Tier 1 Economic Development counties (2).
Highway	○ Facility type continuity (functional classification, lane configuration) ○ Pavement and bridge condition rating ○ Access management standards conformance	○ Weighted corridor volume/capacity ratio ○ Fatal and non-fatal crash rates	○ Proximity to identified Activity Centers ○ Service to identified High Priority Economic Development sites ○ Number of Tier 1 Economic Development Counties served
Railroad	○ Corridor main line FRA safety rating consistency ○ Classification and intermodal facility efficiency	○ Railroad freight density ○ Number of rail passengers ○ Railroad crossing injuries and fatalities	○ Service to identified High Priority Economic Development sites ○ Service to marine and inland ports and intermodal facilities ○ Number of Tier 1 Economic Development Counties served
Bicycle/ Pedestrian	○ Miles of trail facilities or ○ Portion of corridor with parallel bike/ped facilities	○ Pedestrian/bicycle accident rate	○ State or regional level routes serving person-trip related activity centers.
Transit	○ Presence of interstate transit service	○ Number of corridor intercity transit routes ○ Ridership on passenger rail service ○ Regional service ridership	
Aviation		○ Percent of runways in good condition ○ Annual enplanements of corridor airports ○ Annual operations	○ Annual tons of air cargo
Seaport		○ Annual tons of cargo ○ Annual TEUs	

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4. Strategic Transportation Corridor Identification Process

Strategic Transportation Corridors have been identified by applying a corridor identification process that views the transportation system from a broad multimodal perspective independent of municipal and traditional boundaries, with an emphasis on connectivity, goods movement, destination, and the functionality of a facility. This expands upon the approach developed by NCDOT in creating the earlier Strategic Highway Corridors concept. The process started with a review and refinement of earlier definitions, terms, and selection criteria, and included coordination within NCDOT, and with regional, federal and state agencies. Criteria were refined to reflect the vision and goals defined above.

The selection criteria were established early in the developmental phase of this update. NCDOT used a data-driven approach and supplemented the analysis with historical information and input from other agencies and the public. This emphasis on mobility was enhanced by also considering connectivity in the system. The term "Activity Center" was introduced to define destinations, encompassing statewide, regional, and places, including some just outside of North Carolina's borders that serve the state's citizens. The original approach utilized criteria to distinguish and organize corridors and activity centers into a two-tier structure, comprising statewide and regional tiers. However, over time and with public input, each selected corridor was simply referred to as "strategic," without regard to size or scale.

4.1 Corridor Identification Criteria

The corridor identification process included the following considerations:

- Incorporation of the goals of System Connectivity, Mobility, and Economic Prosperity in a framework supported by goal and objectives, which are applied by specified criteria
- Identification of primary travel corridors across the state, to capture those facilities which support higher-volume travel markets
- Identification of primary freight movement corridors across the state, to capture those facilities which support higher-volume exchanges of goods transport
- Focused network definition based on clusters of activity centers of statewide or regional significance, including principal national or global centers and high priority economic development sites critical to North Carolina economic opportunity
- Following initial identification of strategic transportation corridors using the adopted criteria described above, completion of a comparative review of the initial set of STCs against original SHC elements
- Formulation of a composite network supporting the vision, goals and objectives for the Strategic Transportation Corridors

Corridor Identification Criteria identify groups of facilities to be considered in identification of a network of proposed STCs. By way of reference, this process yielded differences from the SHC in that not all segments identified as part of the SHC network were expected to be included in the new STC, and the STC involved the identification of other modal segments including railroad lines and various mode-specific facilities such as airports, seaports, and other important civic, transportation, and employment centers. The objectives responsive to the goals of System Connectivity, Mobility, and Economic Prosperity are articulated by criteria

that describe how achievement of objectives is to be assessed, and how strategic corridors are to be identified. The criteria that have been applied in identifying the STC are shown in **Table 4.**

Table 4: STC Identification Criteria

Goal	Criteria	Application
System Connectivity	Facility functions as part of the Interstate Highway network, a STRAHNET route, a STRACNET route, significant rail freight and passenger service alignments, accesses state seaports and/or international airports, or connects to a bordering state strategic corridor. (1)	Identify and include as STC candidates those elements of the transportation network captured by the stated criteria.
Mobility	Facility serves longer-distance and higher volumes of existing passenger or freight traffic.	Identify and include as STC candidates those elements of the transportation network captured by the stated criteria for truck and general traffic volumes of a medium or higher level over contiguous segments longer than 20 miles. Eligible segments are those meeting these values: • Urban/suburban area types: over 30,000 daily vehicles or over 2,500 daily trucks. • Rural area types: over 15,000 daily vehicles or over 1,500 daily trucks. Also, based on railroad freight density mapping for primary and secondary rail lines, include as candidate segments those with greater than 20 million tons per year.
Economic Prosperity (Activity Center Access)	Transportation network elements connect activity centers within and between Prosperity Zones and facilitate convenient access to counties identified with the Tier 1 Economic Development designation. (2). Priority corridors are those linking multiple regions with Activity Center groupings. (3)	Identify and include as candidates those elements of the transportation network captured by the stated criteria, to ensure interconnection of statewide and regional tier activity centers and Tier 1 Economic Development counties.

Notes:

1. The proposed FHWA Comprehensive Primary Freight Network was reviewed informally but was not explicitly included at this time, as it is in draft form and not adopted.
2. NC Department of Commerce, Labor and Economic Analysis Division (2014)
3. Activity Centers are the major hubs or destinations across the state considered to be critical to the state's economic prosperity and whose success in part is driven by ready access from all or significant parts of the state. See Appendix A-1 for a detailed listing of identified Activity Centers.

4.2 Corridor Criteria Application

The detailed criteria application process is provided in **Appendix A**, outlining the steps involved in identifying the proposed strategic corridors and overall STC network.

The first step in corridor identification was to apply the criteria to the various modal networks and defined activity centers to identify system elements responsive to those criteria. The second step was to develop a

composite proposed STC network from the three sets of criteria responding to the goals. The third step was to define the final individual strategic corridors which comprise the STC network.

The System Connectivity Elements map shown in **Figure 1** focuses on defined transportation networks for both highway and railroad modes . These networks are those defined at the national level and include the Interstate highway system (both existing and approved future segments), roads and rails deemed essential for national defense, and other key roads relating to border state systems and passenger rail service corridors. The map does not include secondary connectors from trunk corridors for the defense road and rail networks. Some road segments shown on Figure 1 are not included in the final STC network, given their short length and their function within the network. These generally include Interstate highway segments which are not part of longer corridors and which are short urban spurs and beltway highways with triple-digit route numbers. Though they are not recommended for inclusion on the STC, they have been noted as significant related assets in specific designated STC descriptions.

The Mobility Elements map shown in **Figure 2** focuses on those highway and railroad segments that carry higher volumes of general vehicular traffic, truck traffic, and railroad freight traffic. For highways, segments with average daily traffic over specified thresholds for total traffic and for truck traffic are shown. There are some higher volume road segments that are not included in the final STC network, given their short length and their function within the network. These generally include Interstate highway segments which are not part of longer corridors, and which are short urban spurs and beltway highways with triple-digit route numbers. Though they are not shown on the STC, they have been noted as significant related assets in specific designated STC descriptions. Figure 2 also shows high volume railroad corridors based on railroad network freight density data captured for the North Carolina State Ports Authority Strategic Plan (November 2012).

The Economic Prosperity Elements map shown in **Figure 3** captures road and railroad segments which support economic vitality across the state by ensuring the STC includes corridors that interconnect the state's eight Prosperity Zones, clusters of identified activity centers of statewide and regional significance, and those counties designated as Tier 1 counties by the NC Department of Commerce, Labor and Economic Analysis Division in 2014. In addition to reinforcing linkages between the state's diverse centers of economic activity, this network map also incorporates segments which join areas of the state with lagging economic growth as well as to provide some catalyst that will foster the opportunity for all regions of the state to share in growth and commerce.

Figure 1: STC System Connectivity Elements

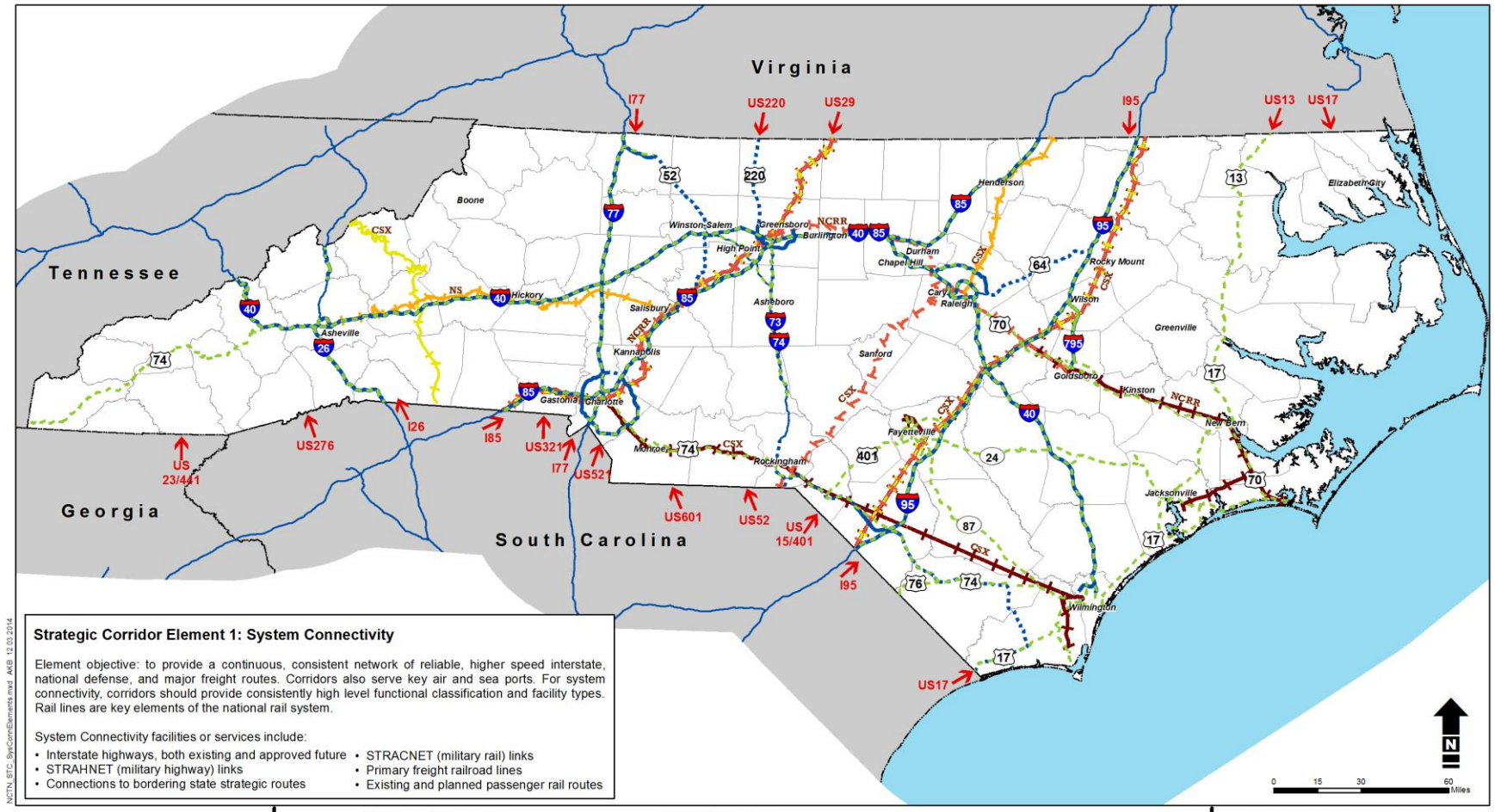


Figure 2: STC Passenger and Freight Mobility Elements

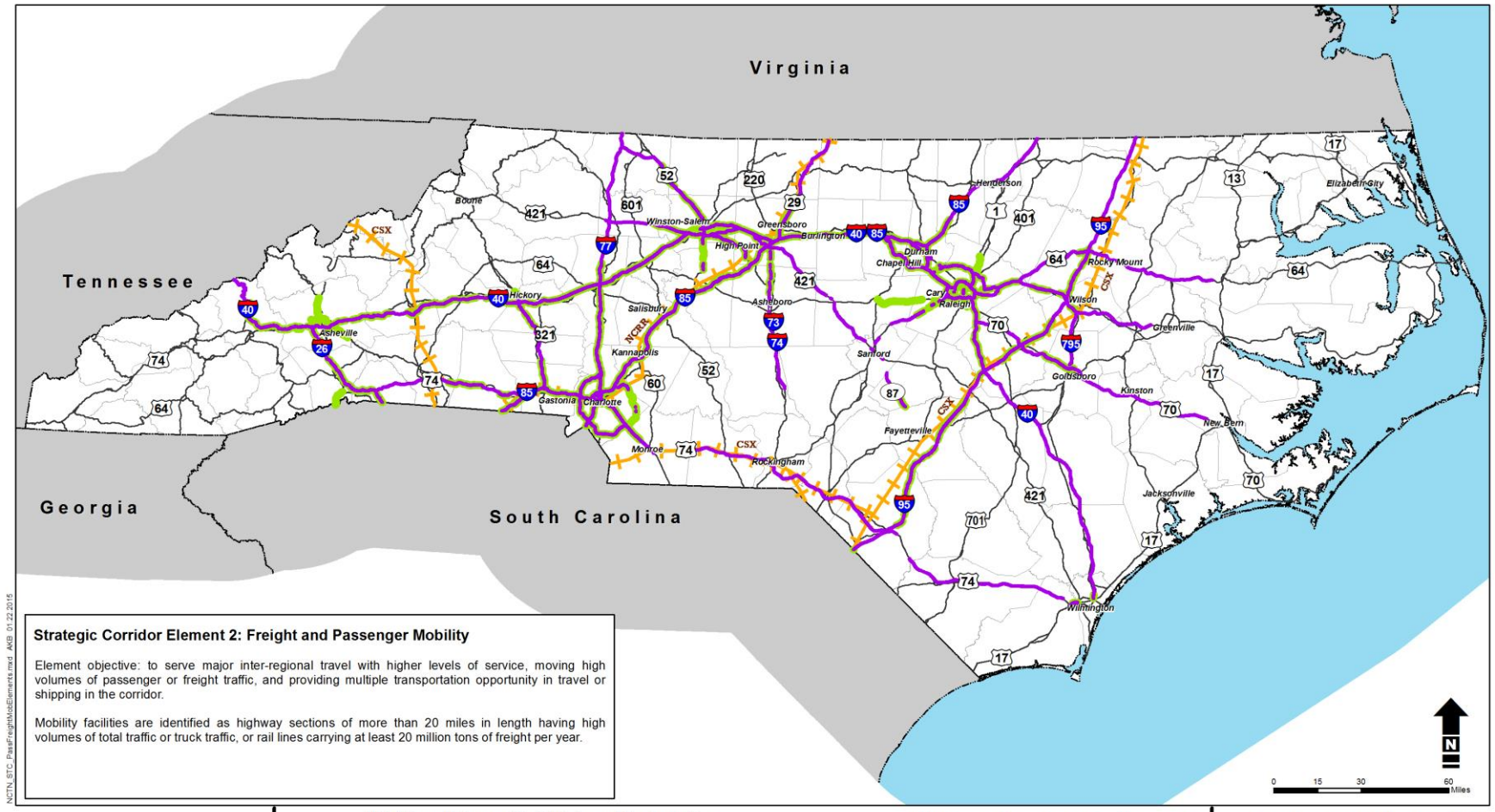
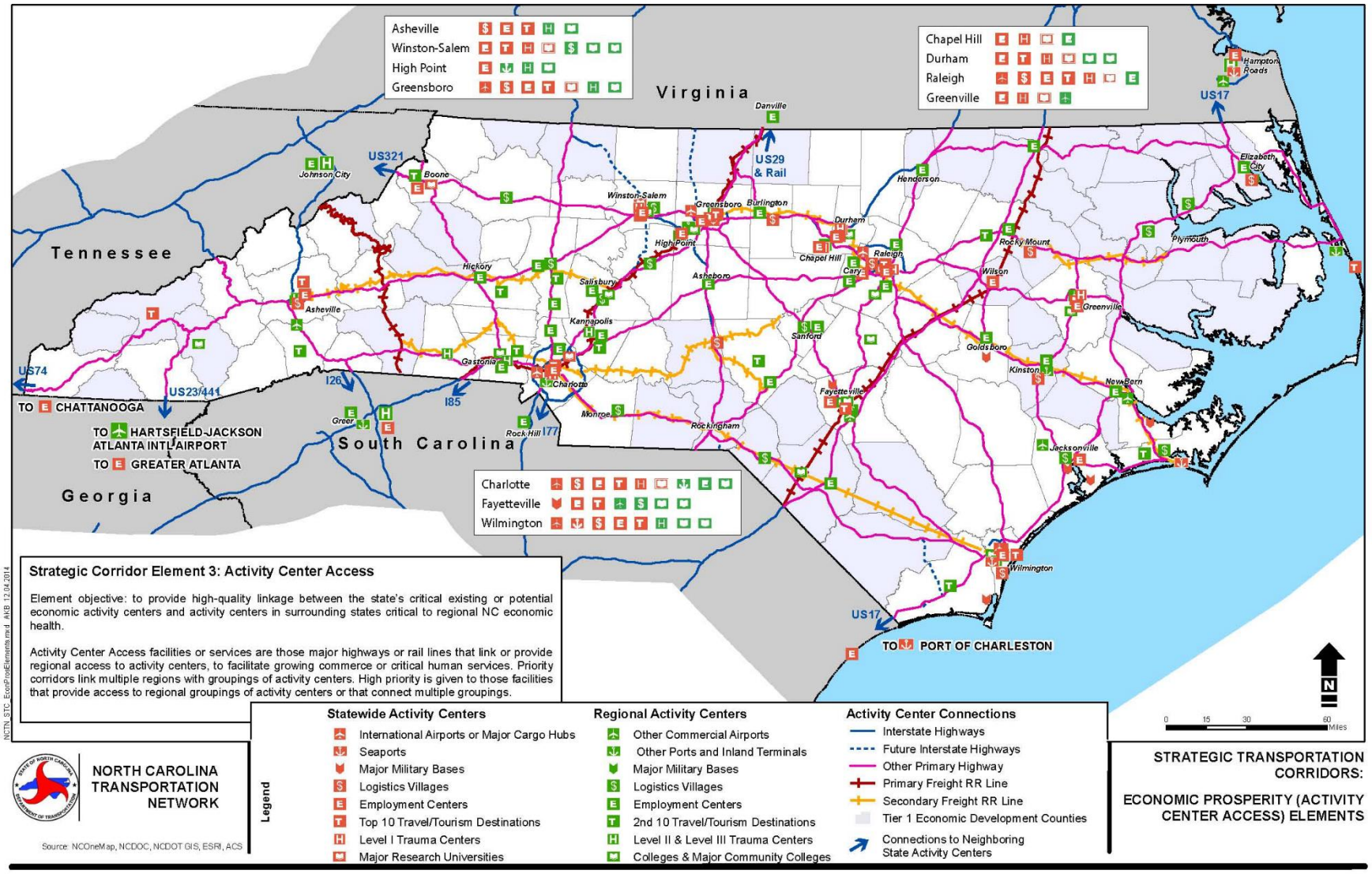


Figure 3: STC Economic Prosperity Elements



5. Strategic Transportation Corridors and Policy Foundation

This chapter presents the recommended Strategic Transportation Corridor network resulting from application of the STC criteria described in previous chapter and the policy considered by the NC Board of Transportation to establish the role of the STC in advancing the state's transportation services.

5.1 Recommended STC Network

Based on the STC identification process and its application described in the two preceding sections, candidate STC segments were identified and grouped into longer corridors. This resulted in a total of 25 STC of varying length, situated across the state and responding to regional and statewide issues and opportunities. There are a total of 3,223 centerline miles of primary highways in the STC network, including 631 centerline miles where corridors overlap, and 1,556 miles of core rail lines. The resulting recommended STC network is illustrated in **Figure 4** and summarized in **Table 5**. Each corridor is characterized by these elements:

- It is aligned along one or more trunk highways which define the spine of the corridor. Within major metropolitan areas, freeway system elements that are part of a continuous strategic corridor (e.g., I-440 in Raleigh provides routing for US 1 and US 64 as they cross the urban area) are considered part of that spine. However, the entire freeway system will not be included simply by definition.
- Each corridor is generally considered to include an influence area of 20 miles on either side of the corridor spine (some exceptions will be invoked; for example, a rail corridor that connects to the corridor at two or more points but may not follow the general STC trunk highway alignment). Rail corridors do not drive the identification of individual strategic corridors but will be associated with applicable corridors to promote multimodal freight planning and development opportunities.
- Corridor limits are identified so as to provide logical corridor termini and recognize need for consistency in the cases where corridor overlap occurs. Generally, the following corridor limits hierarchy has been used:
    - Cross-state routes, such as I-95, run from state border to state border
    - Corridors intersecting with cross-state routes have their termini at the point of junction with the cross-state route; e.g., I-74 ends at its junction with I-77, rather than continuing to the Virginia border
    - Corridors ending within an urban area end at their junction with another STC or urban principal arterial roadway; e.g., Corridors K and U terminate at US 117, which is the primary access roadway to the Port at Morehead City
- Multimodal facilities are integral elements of each STC and can include these elements:
    - Nearby parallel roadways, STRAHNET connectors, intersecting Interstate beltway and spur segments, and FHWA Comprehensive Primary Freight Network stubs (once finalized and approved)
    - Generally parallel rail facilities, intersecting activity center rail connections, and STRACNET connectors
    - Long distance trail and bicycle facilities
    - Significant transit service corridors, transit facilities, and intermodal centers

- Transportation facilities defined as statewide and regional activity centers, including international and other commercial airports, seaports, and inland port terminals

These supporting elements will be further defined during subsequent corridor master planning or regional systems planning (i.e., CTP development).

5.2 STC Profiles

As is discussed further in Section 6.1, a key element in the advancement of the STC framework is the development of corridor master plans, with identification of a high-level corridor mobility vision and associated corridor improvement action strategies. Identifying STCs and developing high level strategies for improvements at the corridor level allows NCDOT to focus on what is most critical to supporting the state's economy and to advance both the STC framework and the NCTN as powerful planning and project development tools. Applying a corridor approach to NCDOT's long-range transportation planning processes provides a method to integrate STC and NCTN and all modes of transportation with the specific and unique needs, the socio-economic conditions, and goals of each of the state's economic regions and travel sheds.

To provide a comparative summary of the final STC network elements, and to set the stage for further planning of individual corridors, descriptions for each corridor are provided in Appendix C. For each strategic corridor, a Corridor Profile has been prepared that includes sections presenting:

- General description of the corridor – providing information such as corridor end points, counties served, broad travel sheds and major corridor functions, and intersecting and overlapping corridors.
- Primary facilities or transportation services along the corridor – listing principal transportation facilities, either linear (highway or rail line) or locational (e.g., statewide or regional airports or seaports as identified in the Activity Center Stratification contained in Appendix B) or services (e.g., regional transit systems or rail passenger service); other significant parallel highways within the corridor are also listed (e.g., US 70 parallel to I-40/85 in Corridors I and Q).
- Identification criteria elements – listing Connectivity, Passenger and Freight Mobility, and Primary Activity Center features of the corridor that underlie its identification as an STC; as noted previously, identified activity centers that are the basis for this measure are listed in Appendix B.
- Key corridor functions and expectations – describing transportation purpose and expectations within the corridor, in terms of each of the three identification criteria, that have triggered STC designation; in addition, a statement of corridor expectation is provided, to serve as a point of initiation for subsequent corridor problem statement designation.
- Potential corridor improvement strategies – offering a preliminary listing of the types of corridor improvements that could be considered in development of subsequent strategic corridor master plans; until corridor master plans are developed, the identified potential improvements are general, but consideration has been given to the "expectation" statement described above in offering the listing.

Figure 4: Strategic Transportation Corridors

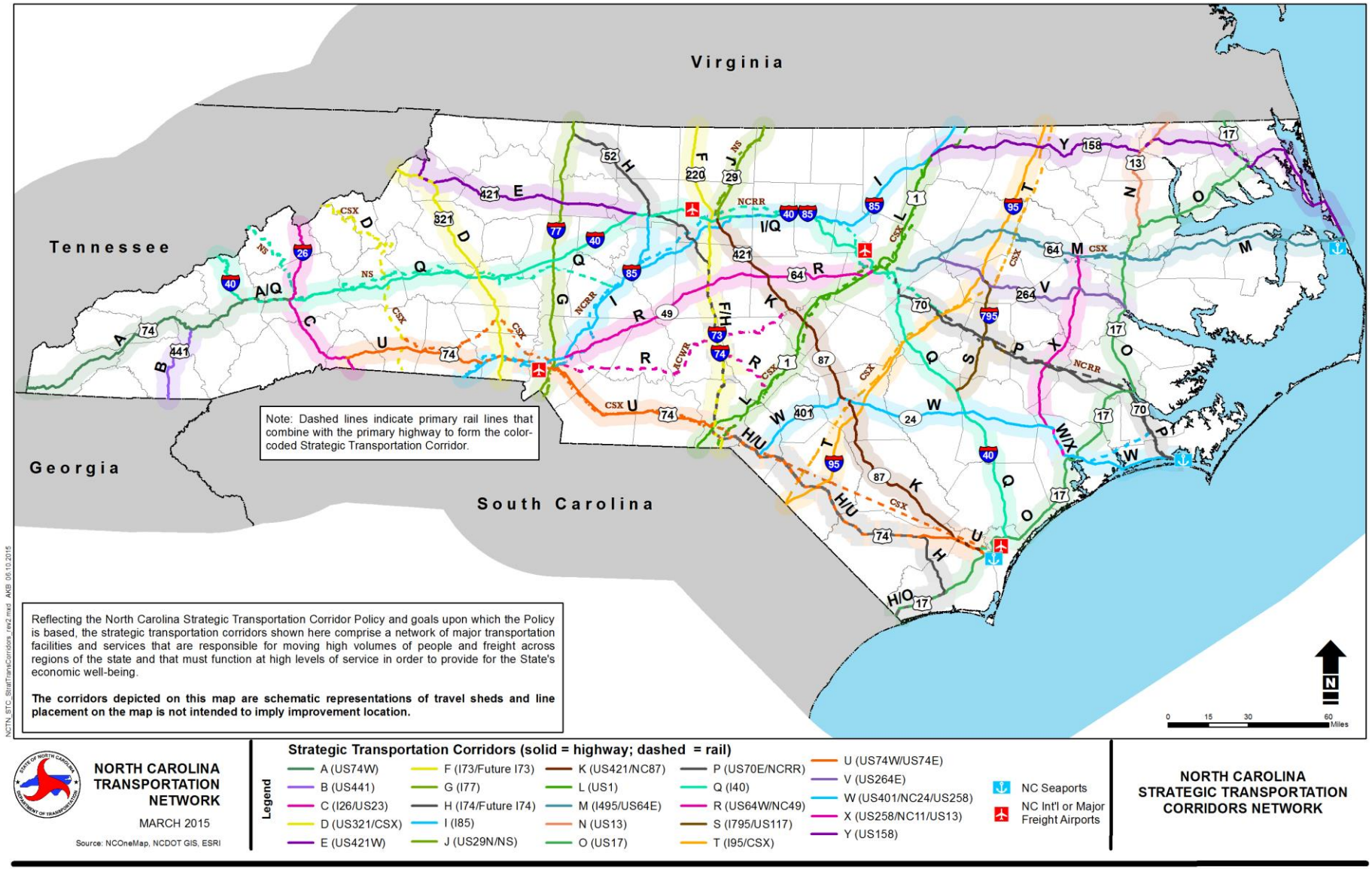


Table 5: NC Strategic Transportation Corridors

Corridor	Name	Primary Facility Length (mi) Highway	Rail	Corridor Limits
A	US 74W	126		TN state line in Cherokee County to I-26 in Asheville
B	US 23/441	32		GA state line to US 74 in Jackson County
C	I-26/US 23 W	71		SC state line to TN State Line
D	US 321/CSX	104	116	SC state line to TN state line
E	US 421 W	94		TN state line to I-40 in Forsythe County
F	I-73/Future I-73	129		SC state line to VA state line
G	I-77	105	12	SC state line to VA state line
H	I-74/Future I-74	290		SC state line to I-77 in Surry County
I	I-85/NCRR/I-285 Spur	258	136	SC state line to VA state line through the Piedmont Crescent, with future I-285 spur to Winston-Salem
J	US 29/NS	40	42	I-40 in Guilford County to VA state line
K	US 421/NC 87	175		New Hanover County (US 117 in Wilmington with overlap with STC U) to I-40 in Guilford County
L	US 1	157	171	SC state line to I-85 near Henderson
M	Future I-495/US 64E	186	65	I-440 in Wake County to NC 12 in Dare County
N	US 13	47		US 17 in Bertie County to VA state line
O	US 17	284		SC state line to VA state line
P	US 70E/NCRR	145	113	I-440 in Wake County to Port at Morehead City
Q	I-40/NCRR/NS	4417	298	TN state line through Research Triangle to US 117 in Wilmington
R	US 64W/NC 49/ACWR	127	133	I-85 in Mecklenburg County to I-40 in Wake County
S	I-795/US 117	50		I-95 in Wilson County to I-40 in Sampson County
T	I-95/CSX	181	182	SC state line to VA state line
U	US 74W/US 74E	278	261	I-26 in Polk County through Mecklenburg County to US 117 in Wilmington
V	US 264E	84		US 64E in Wake County to US 17 in Beaufort County
W	US 401/NC 24/US 258	185	27	I-74 in Scotland County to Cumberland County to Port at Morehead City
X	US 258/NC 11/US 13	90		US 17 in Onslow County to Pitt County to US 64E in Edgecombe County
Y	US 158	192		I-85 in Vance County to US 64 in Dare County
	Total length	3854	1556	

Note: Due to 631 miles of overlap of some Strategic Transportation Corridors, total STC highway centerline mileage is 3,223 miles.

5.3 STC Policy

To guide implementation of STC vision and goals as a component of NCDOT long range system planning and strategic corridor preservation, the NC Board of Transportation adopted the North Carolina Strategic Transportation Corridor Policy in March 2015. By adopting the STC Policy, including incorporation of the STC vision and goals, the Board established the corridors that comprise the STC network and provided direction to the Department regarding implementation of the vision. The adopted policy, including the Strategic Transportation Corridors Network map, is shown in **Figure 5**.

5.4 STC Amendment Process

The STC initiative to update the existing Strategic Highway Corridors policy represents an effort to identify and enhance a core network of the state's transportation system, to protect and maximize system connectivity, person and freight mobility, and support of economic prosperity. The initiative offers NCDOT and its stakeholders an opportunity to consider a long-term vision when making land use decisions and design and operational decisions on these high priority transportation corridors and their facilities.

The STC network as defined in this document is a "snapshot in time" as the state's transportation network and the demands placed upon it are constantly changing. Thus, the STC will need to be reviewed, revised, and updated periodically. This need will be addressed in two ways:

- Regular review and update of the STC Policy and STC Network as part of Statewide Transportation Plan updates (see 5.4.1)
- Amend based on petitions by NCDOT transportation planning partners (see 5.4.2)

Both are described below.

5.4.1 Regular Update of the STC Policy and Network

The STC policy and network will be regularly reviewed and updated as needed by NCDOT's Transportation Planning Branch at the time of updating of NCDOT's Statewide Transportation Plan. This process will capture changes in the transportation characteristics used to define STC segments and corridors, which may include but not be limited to any of the following:

- New intercity/cross-state Interstate routes approved by Congress, which are not already designated STC
- Additions to federally defined road and rail networks
- Significant increased roadway volumes due to changes in land uses or shifts in traffic on nearby roads
- Newly identified statewide or regional activity centers
- Changes in strategic corridors designation in bordering states

Each update of the STC network will include a *complete* list of all changes from the previous version.

Figure 5: North Carolina STC Policy

North Carolina Strategic Transportation Corridors Policy

Preamble

The North Carolina Department of Transportation has as its stated mission "*Connecting people and places safely and efficiently, with accountability and environmental sensitivity to enhance the economy, health and well-being of North Carolina." This mission and associated system delivery goals of ensuring traveler safety, promoting efficient movement of people and goods, and preserving its infrastructure investment require that the Department conduct sound planning that advances critical transportation facilities and services that are needed to support the State's long-term economic prosperity goals. In pursuit of these goals, NCDOT has identified a network of Strategic Transportation Corridors and has adopted this Strategic Transportation Corridors Policy to guide transportation planning and project development efforts and to support realization of Governor McCrory's 25-Year Vision for North Carolina.*

The intent of this Policy is to update the Strategic Highway Corridor (SHC) policy adopted by the Board of Transportation on September 2, 2004, consistent with direction provided by the Board in 2012 by adopting the NC Statewide Transportation Plan (the 2040 Plan).

It is the stated purpose of Strategic Transportation Corridors to identify from existing facilities a network of multimodal high priority strategic transportation corridors which will form the state's core network of highly performing facilities for movement of high volumes of people and freight. The facilities and services in those corridors are considered to be of great importance on a statewide basis for long-distance movement of people and freight. The policy establishes that preservation of those facilities at a consistently high level of functionality, in terms of classification, condition, and service, will guide long-term planning at statewide, regional, and corridor levels and should be considered the state's highest priority when such corridors are being analyzed within the framework of regional or local transportation and land use plans.

The Strategic Transportation Corridors that are defined by this policy are dynamic and intended to support the highest level of transportation needs. They can and will be amended as conditions change. It is not intended that this policy will restrict transportation system improvements and investments needed to address local or smaller regional needs. Rather, Strategic Transportation Corridor identification is intended to recognize the importance of the identified corridors and the need for their protection as regional transportation and land use plans consider local land access and mobility needs.

Strategic Corridors Vision

It is the Board of Transportation's vision that North Carolina should have an identified network of high-priority, integrated multimodal transportation corridors comprised of facilities that interconnect statewide and regional transportation-dependent activity centers, to enhance economic development in all regions of the state, promote highly reliable and efficient mobility and accessibility, and support good decision-making.

Strategic Corridors Goals

In adopting this Policy, the Board establishes the following goals for North Carolina's Strategic Transportation Corridors:

4. **System Connectivity:** *Provide essential connections to national transportation networks critical to interstate commerce and national defense.*
5. **Mobility:** *Facilitate high volume inter-regional movements of people and goods across the state.*
6. **Economic Prosperity:** *Support efficiency of transport logistics and economic development throughout the state for economic regions and clusters of existing and emerging activity centers.*

Policy

It is the policy of the NCDOT to place highest priority in the planning and long-term improvement of safe, highly reliable, and efficient multimodal Strategic Transportation Corridors. These Corridors, as identified through a coordinated planning process, are intended to support the economic prosperity goals of the State of North Carolina by enhancing the multimodal mobility function of critical transportation facilities, and are incorporated into this Policy as depicted in Exhibit 1.

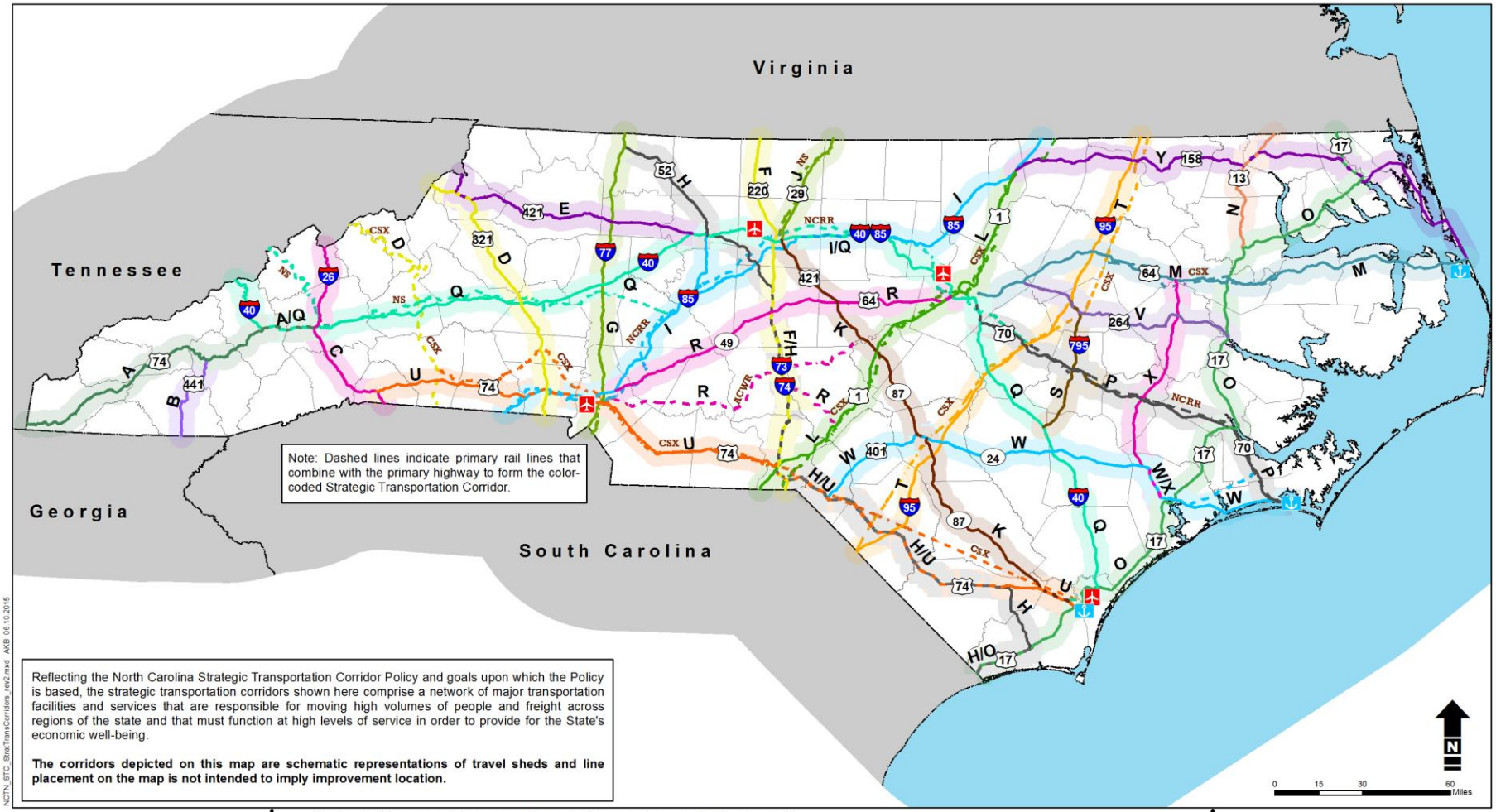
In adopting the STC Policy, the Board of Transportation specifically sets aside the SHC facility type directives established by the previous SHC policy, except as those facility type directives have been subsequently incorporated into further project development efforts, and directs NCDOT to prepare updated corridor vision plans in close collaboration with regional planning partners as noted below.

Further, it is expressly recognized at the time of adoption of this Policy that identification of Strategic Transportation Corridors does not affect the programming of projects in NCDOT's State Transportation Improvement Program, as that programming has been directed by current Strategic Transportation Investment statutes.

Reflecting the Strategic Corridors vision and goals established in this Policy, the North Carolina Department of Transportation shall:

5. As quickly as practicable, work with regional planning partners to prepare Strategic Transportation Corridor vision plans that reflect consistent, corridor-long performance standards that take into account regional and statewide characteristics and needs in terms of mobility, multimodal opportunities, operational performance, safety, and physical condition, and that establish consistent, high-level facility-types and operating standards for each Strategic Transportation Corridor.
6. Within the context of regional Comprehensive Transportation Plans, establish that for identified Strategic Transportation Corridors, preservation of inter-regional, long-distance travel needs into and through the region should take priority over direct land access and local travel patterns.
7. In managing highway elements of individual Strategic Transportation Corridors, apply the highest practicable access management provisions to promote operational efficiencies and safety, and to enhance the movement of people and freight on primary corridor facilities.
8. Preserve and support prior project development decisions that have been based on identified Strategic Highway Corridors (as those highways were established by the aforementioned Strategic Highway Corridor policy action). Such project development decisions include but are not limited to environmental studies, purpose and need determinations, screening of alternatives, travel corridor or mode definitions, or identification of environmental impacts and mitigation. It is not the intent of the Strategic Transportation Corridors policy to replace, modify, or negate any ongoing or prior project development decisions that include or reference the components of the Strategic Highway Corridor policy. Such ongoing or prior project development decisions shall remain valid and are incorporated into the Strategic Transportation Corridors Plan by reference.

Adopted by the Board of Transportation on March 4, 2015.


Virginia
Tennessee
Georgia
South Carolina
Note: Dashed lines indicate primary rail lines that combine with the primary highway to form the color-coded Strategic Transportation Corridor.
Reflecting the North Carolina Strategic Transportation Corridor Policy and goals upon which the Policy is based, the strategic transportation corridors shown here comprise a network of major transportation facilities and services that are responsible for moving high volumes of people and freight across regions of the state and that must function at high levels of service in order to provide for the State's economic well-being.
The corridors depicted on this map are schematic representations of travel sheds and line placement on the map is not intended to imply improvement location.
0 15 30 60 Miles
NORTH CAROLINA TRANSPORTATION NETWORK
MARCH 2015
Source: NCOneMap, NCDOT GIS, ESRI
Legend
Strategic Transportation Corridors (solid = highway; dashed = rail)
A (US74W)
B (US441)
C (I26/US23)
D (US321/CSX)
E (US421W)
F (I73/Future I73)
G (I77)
H (I74/Future I74)
I (I85)
J (US29N/NS)
K (US421/NC87)
L (US1)
M (I495/US64E)
N (US13)
O (US17)
P (US70E/NCRR)
Q (I40)
R (US64W/NC49)
S (I795/US117)
T (I95/CSX)
U (US74W/US74E)
V (US264E)
W (US401/NC24/US258)
X (US258/NC11/US13)
Y (US158)
NC Seaports
NC Int'l or Major Freight Airports
NORTH CAROLINA STRATEGIC TRANSPORTATION CORRIDORS NETWORK

5.4.2 Revisions of the STC Network by Petition

There may be petitions for modifications to the STC from time to time by NCDOT's transportation planning partners. Such revision requests may occur either before or following development of the STC master plans described in Chapter 6. NCDOT will consider requests to revise the STC network submitted only by a Metropolitan Planning Organization (MPO), a Rural Planning Organization (RPO), the facility owner/operator, or an internal NCDOT business unit.

Revision requests may fall into one of the following categories:

- Addition of a new Strategic Transportation Corridor
- Modification of an existing corridor, or
- Partial or full deletion of an existing corridor

STC Network Definition: Addition of a New Corridor

An addition is defined as a new corridor that is currently not designated as a Strategic Transportation Corridor. Requests for new a Corridor designation must include:

- Primary facility name/number(s)
- Corridor termini
- Corridor length (miles, of the primary facility)
- Traffic volumes (of the primary facility for most recent year available)
- Description of existing facility (e.g., functional classification, cross-section, access control, railroad classification)
- Other modal components that are present and part of the corridor transportation assets
- Justification for addition of corridor (to include description of how the Corridor satisfies the System Connectivity, Mobility, and/or Economic Prosperity goal criteria).

The information listed above should be in a manner consistent with the presentation used in the STC corridor profiles presented in this report. The proposed corridor must satisfy the eligibility criteria for Systems Connectivity, Mobility and/or Economic Prosperity to be added to the STC network. In addition, the Corridor should not closely parallel existing/nearby designated Corridors, to avoid corridor redundancy.

STC Network Definition: Modification of an Existing Corridor

The modification of an existing Corridor is defined as a change in the routing of the Corridor. The modification to the Corridor can involve a segment or the entire length. For example, such a change may include a new route providing access to a state port, which replaces an existing route. A request to modify the routing of a corridor must include:

- Corridor number
- Primary facility name/number(s)
- Corridor termini
- Net change in length (miles, of the primary facility)
- Facility change requested, and justification

STC Network Definition: Partial or Full Deletion of an Existing Corridor

A deletion is defined as the removal of a Corridor from the STC network. A request to remove a designated Corridor must include:

- Corridor number
- Primary facility name/number(s)
- Corridor termini
- Justification for removal
- How the STC network requirements would be served in lieu of the Corridor

5.4.3 Revision Request Procedures

An MPO, RPO, facility owner/operator or internal NCDOT business unit ("the requestor") seeking a STC network revision should obtain the STC Revision Request Form (Form). The Form is available on the STC website (https://connect.ncdot.gov/projects/planning/Pages/NCTransportationNetwork.aspx), or by contacting the engineer responsible for coordinating the STC initiative (Statewide Plan Engineer, residing in the Transportation Planning Branch (see Section 5.4.4)). The requestor should complete the Form and submit it as indicated, along with any resolutions supporting the requested revision to the STC Engineer.

Requestors must understand the importance of designated corridor improvements defined through a Corridor Master Plan (Plan). Once a Plan is completed and corridor improvement plans are designated, NCDOT will closely monitor access to the highway elements of the corridor and may limit future driveway connections and traffic signals in order to maintain and/or enhance mobility along the affected facility(ies) in accordance with Plan determinations.

Upon receipt of the Form, the Statewide Plan Engineer will document the revision request and acknowledge its receipt in writing to the requestor. This letter will state that the request will be given full consideration, including review at a future NCDOT Strategic Management Committee (SMC) meeting and recommendation for action (either approval or denial) by the Secretary of Transportation or his designee (Secretary). Prior to the SMC meeting at which the request will be discussed, the Statewide Plan Engineer will thoroughly review the request with other NCDOT staff (including Division Engineers) and provide a staff-level recommendation.

For planned, new, or existing facility designation changes, if the initial technical review clearly shows that the STC network, corridor, or facility change under consideration does or does not meet the adopted criteria and thresholds, then the SMC may make a recommendation of approval or rejection to the Secretary, who may make a final decision on the proposed status change, with appropriate notification to the relevant partners and of the Board of Transportation's Economic Development and Intergovernmental Relations Committee (EDIR).

If the initial technical review by the Statewide Plan Engineer finds that further clarification is needed on whether or not the facility under consideration meets adopted criteria and thresholds or requires further consideration due to potential statewide implications, or the change request is for a planned facility or an exception, then the proposed change request, including the results of the technical review, must be reviewed by the following:

- Facility owner/operator (if not the originator of the request)
- Affected NCDOT Division(s)
- Affected MPO(s) and/or RPO(s), in conjunction with local jurisdiction(s)

Best efforts will be made to obtain comments through notice of the proposed action on the STC website. The Statewide Plan Engineer will be responsible for coordination with the modal and agency partners and the general notice of the proposed change. Feedback information can be exchanged via letter, e-mail, or fax.

Once the Statewide Plan Engineer's detailed review is complete, the Engineer will advise the requester, the elected official(s) with jurisdiction over the facility, and others as appropriate of the review findings. This communication will cover the following, as appropriate:

- Findings of the review and, if applicable, the model partner and agency feedback, to ensure an understanding of the pending decision
- Special circumstances that need to be understood if the designation change is to be approved
- Why the designation change is found to be not eligible or approved, and what would need to occur to make the designation change eligible, if that is possible
- Alternatives if the designation change is not eligible

The requestor will be advised that a response to the Engineer's communication must be received within 30 days or the recommendations as stated in the letter will be forwarded for SMC consideration. Once satisfied that the detailed review is sufficient, and that decision has been communicated to the involved stakeholders, the Statewide Plan Engineer will submit the request and the Engineer's recommendations the SMC for consideration.

The SMC will then make a final recommendation to the Secretary as to whether to approve or deny the request, based on the change request documentation, technical staff review, and partner/stakeholder feedback. The Secretary's decision will be transmitted to the requestor by the Engineer, and the Engineer will advise the EDIR Committee of the action. If the Secretary approves the request, the change will then be reflected in the next revision of the STC network.

5.4.4 STC Administration

The Statewide Plan Engineer will maintain a complete list of all requests and will respond to the requestor as to whether the request has been approved or denied. All questions or comments about the STC network revision process should be directed to the Statewide Plan Engineer, listed below:

Kerry Morrow.
NCDOT-Transportation Planning Branch
1554 Mail Service Center
Raleigh, NC 27699-1554
(919) 707-0924
kmorrow@ncdot.gov

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6. Application of NCTN and the STC Network Framework

The North Carolina Transportation Network and Strategic Transportation Corridors network developed in this report relate to the long-range transportation planning across the state in several ways:

- The NCTN identifies the most significant multimodal transportation assets of the state, arrayed into three levels: Statewide, Regional, and Local.
- The STC network as a subset of the NCTN statewide level highways and rail lines is comprised of corridors of greatest importance in supporting statewide connectivity, mobility, and economic prosperity.

Reflecting these aspects, the STC network will be articulated in further detail by a set of defined activities:

- STC master plans
- Local long-range Comprehensive Transportation Plans (CTP), and
- Sub-corridor alternatives study activities

Each of these plan elements will consider all relevant past planning products such as work in defining and developing the SHC Vision Plan, corridor segment alternatives studies, non-highway modal planning, and MPO/RPO transportation network planning.

Beyond the discrete STC refinement efforts captured in master plans, CTPs, and sub-corridor alternative studies, application of the NCTN and the STC network framework will serve to inform numerous NCDOT processes and program delivery activities, from corridor preservation and project development, including environmental clearance and National Environmental Policy Act (NEPA) document preparation, to focused asset management, and support of local land use planning.

- Corridor preservation
- Access management and traffic operations
- Land use planning

The following sections discuss these planning activities and related NCDOT program delivery processes.

6.1 STC Master Plans

For each Strategic Transportation Corridor, an STC master plan would be prepared. The purpose of the master plan is to identify a mobility vision and broad improvement strategies for an entire corridor, guide improvements and development in a manner that defines a long-term vision and performance level for the corridor, and help protect the corridor's key functions as defined in the corridor profiles. STC master plans will examine issues of strategic importance to the long-term function and character of a multimodal transportation corridor. Upon completion of a corridor master plan, sub-corridor alternatives studies would be conducted, to examine sections of the STC in greater detail.

Typically the master plans focus on areas such as corridor analysis, alternatives development and selection, visioning, implementation, and partnering agreements. The purpose of a study is to develop a plan that addresses current and future (short-term and/or long-term) transportation needs for a particular corridor.

Such plans are developed and oriented in a collaborative manner in order to best achieve overall stakeholder agreement on the future of a corridor.

The master plans will be developed in a manner to aid in achieving the long-term or ultimate vision for the Corridor. Each Strategic Transportation Corridor is unique in regards to its function, purpose, and manner in which it fits into the framework of the national, statewide, and regional transportation system. In developing a master plan, there is no "one size fits all" solution: each plan should be scoped in a way that incorporates the uniqueness of the individual corridor; however, all master plans should contain the following elements:

- Coordination with partnering agencies and other key stakeholders
- Public outreach and involvement
- Analysis of existing corridor conditions, issues, and opportunities
- Problem statement defining corridor functions and the need for corridor improvements
- Multimodal alternatives development and evaluation
- Implementation or action plan

Technical elements that could be considered for during development of the master plan and implementation elements could include:

- Access management or operations analysis (primarily for existing sections)
- Functional or conceptual design for improvements (primarily for existing sections)
- Land use analysis
- Systems-level environmental analysis that could inform the NEPA process, including indirect and cumulative impacts analysis (ICI)
- Economic impact analysis

Outcomes from master plans may be incorporated into or used as supporting information for project-level environmental documents, potentially streamlining the decision-making process. Depending on the level of analysis performed in a master plan, information provided may assist in reducing the number of alternatives evaluated during the project-level environmental analysis. This may in turn reduce duplication of analysis efforts.

6.1.1 Master Plan Process

Master plans should be prepared by NCDOT and its planning partners in a consistent manner across the state. An outline showing the essential elements for development of an STC master plan is provided below:

1. Master plan organization
    a. Assemble technical team
    b. Identify stakeholders and stakeholder groups
    c. Establish steering committee
    d. Organize public participation program
2. Corridor conditions assessment
    a. Confirm study area limits
    b. Summarize and assess land use and transportation plans affecting the STC (e.g., NCDOT modal units, MPO, RPO, county, city), including programmed corridor improvements

c. Use NCDOT planning tools (e.g., statewide travel demand model; asset databases) to detail measures that led to STC identification (system connectivity, mobility, economic development)
d. Identify high-level issues and needs (e.g., capacity, safety, continuity)
e. Prepare corridor-level problem statement defining corridor functions and need for corridor improvements
f. Define tentative corridor vision, goals and objectives
g. Conduct initial round of public and stakeholder involvement

3. Corridor strategies assessment
    a. Prepare systematic consideration of strategies and tools
    b. Identify multimodal options for corridor improvement
    c. Evaluate options in relation to goals and objectives
    d. Conduct second round of public and stakeholder involvement
4. Coordination and review of improvement concepts and recommendations
    a. Public and stakeholder workshops
    b. MPO and RPO coordination
    c. Refinement of final recommendations
5. Documentation of master plan implementation strategies
    a. Sub-corridor alternatives assessment recommendations
    b. Coordination with local transportation and land use planning
    c. Access management strategies
    d. Implementation plan
    e. Corridor performance monitoring

6.1.2 Potential Master Plan Implementation Strategies and Tools

Since the STC network is multimodal in its scope, potential improvement strategies that are considered as part of the overall corridor vision must be multimodal in their coverage, as applicable to the existing resources and future needs of each. These strategies can be pursued in each corridor as appropriate, pending further corridor analyses. The list of potential corridor action strategies, not necessarily all-inclusive, include:

Highway Elements:

- Facility type designations and limits
- Maintenance, modernization, and rehabilitation: improve deficient bridge, pavement, and roadway geometrics to current design standards
- Access management improvement priorities
- ITS applications as appropriate to improve the overall transportation operations
- Develop and apply consistent roadway classification and cross-sections, as applicable

Freight Elements:

- Improved geometric design for heavier truck movements
- Policies that promote use of rail for freight movements
- "First/last mile" access needs of major freight facilities
- Opportunities for rail system enhancement

Transit Elements:

- Feeder bus services
- Expanded mobility in rural areas by demand responsive services and/or other services for the elderly, disabled and tourists
- Coordination of transportation services and funding between local human service agencies and local transit agencies
- Improved intercity bus service

Bicycle/Pedestrian Elements:

- Added or enhanced long-distance bicycle trails

Multimodal Elements:

- Enhanced Transportation Demand Management (TDM) and Transportation Systems Management (TSM) improvements and strategies
- Integrated multi-modal transportation systems throughout this corridor including but not limited to carpool lot facilities, park-and-ride lot/transit services, and supporting bicycle and pedestrian facilities

6.2 Sub-Corridor Alternatives Studies

Once a master plan has been prepared for a strategic corridor, establishing a vision and broad improvement strategies for the entire corridor, the level of detail can be refined through one or more sub-corridor alternatives studies. Prepared in greater detail than for STC master plans, sub-corridor alternatives studies examine issues of strategic importance to the long-term function and character of specific segments of the overall STC multimodal transportation corridor

Typically these studies focus on areas such as corridor analysis, alternatives development and selection, visioning, implementation, and partnering agreements. The purpose of a study is to develop a plan that addresses current and future (short-term and/or long-term) transportation needs for a particular corridor. Such plans are developed and oriented in a collaborative manner in order to best achieve overall stakeholder agreement on the future of a corridor. They are also conducted in such manner that allows study decisions, such as purpose and need, and alternatives screening, to be carried into formal NEPA and project development phases of corridor improvement.

The studies will be developed in a manner to aid in achieving the long-term or ultimate vision for the overall STC as evolved in preparation of the corridor master plan. Each sub-corridor segment is unique with regard to its function, purpose, and manner in which it fits into the framework of the national, statewide, and regional transportation system. In developing a corridor study, there is no “one size fits all” solution. Each study should be scoped in a way that incorporates the uniqueness of the individual corridor; however, all studies should contain the following elements, which are discussed further in 6.2.1:

- Coordination with partnering agencies and other key stakeholders
- Public outreach and involvement
- Analysis of the existing corridor
- Refined problem statement defining corridor purpose and need for improvements

- Multimodal alternatives development and screening
- Implementation or action plan

Additional elements should be considered for achieving specific goals of a corridor study:

- Access management or operations analysis (primarily for existing sections)
- Functional or conceptual design for improvements (primarily for existing sections)
- Land use analysis
- Systems-level environmental analysis
- Indirect and cumulative impacts analysis (ICI)
- Economic impact analysis

Outcomes from corridor studies may be incorporated into or used as supporting information for project-level environmental documents, potentially streamlining the decision-making process. Depending on the level of analysis performed in a corridor study, information provided may assist in reducing the number of alternatives evaluated during the project-level environmental analysis. This may in turn reduce duplication of analysis efforts. The following describes the essential and optional elements included in a corridor study.

6.2.1 Essential Sub-corridor Study Elements

6.2.1.1 Coordination with Partnering Agencies and other Key Stakeholders

Purpose: To develop an acceptable solution to the identified transportation problem. Coordination and collaboration with partnering agencies and jurisdictions is critical to the success of a corridor study and any subsequent projects. The level of involvement of each partner is determined by the goals and other elements in the corridor study. All stakeholders should be involved from the beginning or inception of the study. Partnering agencies and stakeholders may include, but are not limited to:

- Federal Highway Administration (FHWA)
- Metropolitan Planning Organization(s) (MPOs)
- Rural Planning Organization(s) (RPOs)
- North Carolina Department of Commerce (NCDOC)
- North Carolina Department of Environmental and Natural Resources (NCDENR)
- North Carolina Division of Marine Fisheries (DMF)
- North Carolina Division of Coastal Management (DCM)
- North Carolina Division of Water Quality (DWQ)
- North Carolina State Historic Preservation Office (SHPO)
- North Carolina State Ports Authority (NCSPA)
- North Carolina Wildlife Resources Commission (NCWRC)
- United States Army Corps of Engineers (USACE)
- United States Environmental Protection Agency (USEPA)
- United States Fish and Wildlife Service (USFWS)
- National Marine Fisheries Service (NOAA)
- Local jurisdictions
- Other key stakeholders

Outcome: Inclusive stakeholder engagement program that allows study decisions to be thoroughly vetted by agencies that will be subsequently involved in NEPA-driven project development phases.

6.2.1.2 Public Outreach and Involvement

Purpose: To seek input and comments from the general public regarding all aspects of the corridor study, including the different elements under study and the manner in which it is being conducted. The level of public outreach depends on elements integrated in the study. Public input can be garnered in several ways:

- Informational meetings/presentations (small or large group)
- Workshops or charrettes
- Hearings
- Stakeholder interviews
- Media outreach
- Website publication

Procedures employed in the sub-corridor study public involvement process should be consistent with NCDOT's adopted Unified Public Engagement Program, as developed and maintained by the Transportation Planning Branch.

Outcome: A general consensus and community buy-in on a solution for the identified transportation problem will be pursued.

6.2.1.3 Analysis of Existing Corridor

Purpose: To compile information on the current state of the facility/corridor. Items discussed include:

- Existing facility type(s)/cross-section(s)
- Current travel demand along the facility. This includes the traffic volumes of passenger vehicles and Trucks, and depending on the level of analysis, bikes and/or pedestrians
- Degree and type of freight movement (if applicable)
- Level of service (LOS) and capacity analysis along the existing corridor
- Safety/crash analysis
- Manner by which the facility fits within and connects to the rest of the transportation system

Other existing non-highway modes of transportation (such as a nearby rail facility)

Outcome: A Transportation Profile, which presents specific information on the existing state of the corridor under study along with a broad overview of the connecting and surrounding multimodal transportation system. This documentation can be freestanding or be embedded in the corridor study report and will serve to inform refinement of the sub-corridor problem statement.

6.2.1.4 Refined Problem Statement Defining Corridor Purpose and Need for Improvements

Purpose: To refine the problem statement initially developed during corridor master plan. Items discussed should include:

- Specific goals of the study

- Basis for selection of the facility as a Strategic Transportation Corridor
- Need for improvements along the facility as they relate to the corridor's function as an STC
- Future travel demand along the corridor (autos, trucks, and/or freight movement, and depending on the level of analysis, bikes and/or pedestrians)
- Level of service (LOS) and capacity analysis of the future travel demand
- Sub-corridor safety conditions

Items discussed in relation to the corridor problem statement should be a statement of a transportation problem, not a specific solution. However, the purpose and need for the improvements should be specific enough to generate alternatives that may potentially yield real solutions to the problem. Discussion of the purpose and need serves as a preface and supporting documentation for recommended future improvements that enter the NEPA process. This information can help shape corridor-level recommendations for future improvements and influence individual projects' Purpose and Need Statements.

Outcome: A description of the purpose and need for improvements along the corridor, specific to the goals and intent of the corridor study. This documentation, referred to as a Problem Statement, can be freestanding or be embedded in the corridor study report. The intent is that the problem statement informs development of formal Purpose and Need statements as corridors enter the NEPA process.

6.2.1.5 Multimodal Alternatives Development and Screening

Purpose: To develop and analyze multimodal alternatives that meet the STC vision and corridor needs as identified in the sub-corridor problem statement. This task should be performed in coordination and collaboration with the key stakeholders and the general public. Depending on the purpose and need and the intent of the study, the level of effort will vary. For example, if the primary focus of the study is determining the appropriate access management techniques that should be implemented along a corridor, alternatives may be developed solely for accomplishing this goal. Likewise, if the corridor study is part of a Tiered Environmental Impact Statement (Tiered EIS), alternatives developed might be approximately 100 miles long and 2000 feet wide. Alternatives should include a No-Build alternative along with multiple Build alternatives. It is expected that alternatives will be multimodal in nature, to allow consideration of non-highway solutions to corridor mobility issues.

An analysis of each of the alternatives developed will occur to determine the best solution(s) that meet(s) the purpose and need and goals of the study. The analysis may include items such as:

- Mobility benefits
- Economic benefits
- Environmental impacts
- Indirect and cumulative impacts
- Cost effectiveness benefits
- Effects on other multimodal components of the transportation system
- Travel forecast (if applicable)

Outcome: Documentation of the alternatives developed, analyzed, and recommended for further consideration.

6.2.1.6 Implementation Plan/Action Plan

Purpose: To develop a plan to implement the recommended improvements. This may include such items as:

- Incorporating study outcomes into transportation plans, programs, and other planning documents/ plans (such as local comprehensive transportation or land use plans)
- Prioritization or staging of improvements
- Funding mechanisms
- Federal, state, and local agreements
- Monitoring factors which may affect implementation (such as travel demand and/or safety concerns)

Outcome: An implementation/action plan.

6.2.2 Optional Elements

Depending on the context of the Sub-Corridor Alternatives Analysis, the following optional elements could be considered as part of the study work plan.

6.2.2.1 Functional/Conceptual Design

Purpose: To develop potential design(s) of proposed improvements to assist NCDOT and local officials in the decision-making process along the corridor, primarily in regards to future access and future right-of-way needs. Functional/Conceptual Design is the basic design of any proposed improvements, primarily along existing sections of corridor. Designs may include:

- Short term improvements (such as recommended access management strategies)
- Long-term improvements (including interchanges)
- Additional right-of-way requirements

All conceptual designs should meet NCDOT Roadway Design Standards.

Outcome: Functional designs of proposed improvements.

6.2.2.2 Land Use Analysis

Purpose: To examine existing and future land use along the corridor, specifically the relationship between transportation goals and development objectives for the area. Specific recommendations or guidelines may be developed to ensure compatibility between the intended function of the transportation facility and the existing and future land use of adjacent parcels. This includes the relationship of land uses around interchanges.

Outcome: Documentation of the existing and future land use and/or guidelines for future development.

6.2.2.3 Systems-level Environmental Analysis

Purpose: To identify major natural and human environmental features in the corridor, along with the potential impacts of any proposed improvements. The primary tool for this analysis is a Geographic Information System (GIS) and available data which is obtained using NCDOT's GIS Data Layers spreadsheet tool.

Outcome: Documentation and/or mapping of major environmental features and potential impacts.

6.2.2.4 Indirect and Cumulative Impacts Analysis

Purpose: To examine the effects which are caused by proposed improvements or actions that are later in time or farther removed in distance from the project, but are still reasonably foreseeable. These effects can be impacts on the environment, which results from the incremental impact of the improvement or action when added to other past, present, and reasonably foreseeable future actions.

Outcome: Documentation of potential indirect and cumulative impacts (ICI).

6.2.2.5 Economic Impact Analysis

Purpose: To examine the potential benefits and impacts proposed improvements may have on the local and regional economies that are influenced by the corridor. This type of analysis provides federal, state, and local officials necessary information to make decisions on the viability and implementation of such improvements. Areas investigated in this type of analysis include:

- Construction spending
- Travel cost savings
- Market attractiveness
- Quality of life

Outcome: Documentation of the Economic Impact Analysis.

The level of analysis on each of the elements discussed depends on the overall goals and intent of the corridor study. For example, if the focus of the study is to develop an Access Management Plan, then the study will include an Access Management/Operations analysis component and potentially the functional design and land use analysis elements. The purpose and need of the study would be significantly different than a Tiered EIS, primarily focusing on short-term measures instead of long-term solutions, while coordination with partnering agencies may entail heavier involvement with local jurisdictions, MPOs, and RPOs, and lighter involvement with other partnering agencies. Similarly a Tiered EIS will focus on the overall problem in the transportation corridor, heavily involve all partnering agencies, and would most likely include a significant level of effort on the majority of elements included in the study, such as an ICI analysis, systems-level environmental analysis, public involvement/outreach, and alternatives development analysis.

6.2.3 Study Cost and Funding

The cost of a corridor study depends on the goals and intent of the study, the length of the corridor being studied, and the number, type, and level of effort of elements included. Studies can range from tens of thousands of dollars to several million dollars, while taking a few months to several years to complete. Funding for corridor studies can come from a variety of sources. NCDOT may contribute a portion of funding for a corridor study, but other sources of funding include local municipalities and counties, MPOs, RPOs, and FHWA. The level and participation of funding from non-NCDOT sources depends on the local interest/desire for a study, along with the type of elements included. Specifically, including a detailed land use analysis may entail a higher portion of funds from the local area. Additionally, developing a cost-sharing agreement for a corridor study will help ensure adequate participation from all parties, as each will have a vested financial stake in the outcome.

6.3 Comprehensive Transportation Plans

A comprehensive transportation plan (CTP) is a multimodal transportation plan mutually adopted by the State and local area, metropolitan planning area, or county that represents the future transportation system needed to support anticipated growth and development over a 25-30 year timeframe within that area. A CTP is comprised of five vision maps: highway, public transportation and rail, bicycle, and pedestrian. A cover map provides pertinent information regarding the plan adoption and subsequent updates and revisions. The development of the recommendations for a CTP is documented in a corresponding report.

Identification of the STC network will serve to inform the CTP process by establishing that the high-level mobility and connectivity functions of facilities within the STC should be clearly recognized in defining long-term improvement needs for the planning area. STC identification establishes the statewide or regional importance of the facilities and the need for maintaining high capacity and travel speed.

Engineers and planners developing CTPs should cross-reference the STC network in order to ensure plan consistency. This practice should help provide consistent recommendations on corridors between and through planning areas. Incorporating the statewide and regional mobility goals and the desired vision of STC concept as defined in an STC master plan should be done in a manner that fits with the character and vision for the community or county. If this cannot be achieved through the use of existing facilities, an alternative solution should be sought.

6.4 Additional STC and NCTN Applications

As noted in the introduction to this section, beyond the discrete STC refinement efforts captured in master plans, CTPs, and sub-corridor alternative studies, application of the NCTN and the STC network framework with defined corridor vision and preliminary screening of multimodal alternatives will serve to inform numerous NCDOT processes and program delivery activities. These range from project development, including environmental clearance and NEPA document preparation, to focused asset management and support of local land use planning. Discussion of the STC and NCTN considerations that should be included in these activities is provided below.

6.4.1 Corridor Preservation

Managing development along Strategic Transportation Corridors is essential for achieving the long-term vision for each facility. Whether corridor protection occurs through acquisition in accordance with NEPA requirements or through methods that are not restricted by NEPA, it is key to avoiding the environmental and capital costs of delaying any control over the planned corridor until NEPA approvals are completed. NCDOT will work with its partners to develop and refine various tools, techniques, and strategies for protecting the trunk highway elements of Strategic Transportation Corridors.

When a federally-funded new or expanded roadway is planned, an approval process conducted according to NEPA determines whether the transportation corridor is acceptable, given its environmental impacts. This process aims to minimize negative impacts on the environment made by the final alignment of a corridor.

Under the current system, acquisition of the land needed for the right-of-way of the transportation facility is intended to begin once the alignment is approved according to NEPA. In fact, FHWA restricts right-of-way

acquisitions before the NEPA process is completed, with the intent of avoiding prejudicing the environmental approval process. However, NEPA approval of a corridor can take many years; if land within the planned right-of-way is not set aside during this time period, development may occur within the corridor, which may prompt the need for a new location to be considered. In some cases this new location will negatively impact environmentally sensitive areas, or nearby neighborhoods. Relocation also requires that plans be redrawn and project development be postponed, increasing the cost of the project. Alternatively, if the corridor is not relocated, development that occurs within it will require transportation agencies to pay much higher prices for land that has been improved while the NEPA process has been underway. Thus, the very process that is meant to ensure that corridor alignments are appropriate may allow private development to occur within the preferred alignment, directing transportation improvements onto sensitive sites or costing NCDOT far more than is necessary.

To avoid development of properties within planned rights-of-way, state, regional, and local entities must find ways to protect key sections of trunk highways that are part of a Strategic Transportation Corridor until improvements are implemented without superseding the requirements of either NEPA or FHWA. This can include finding ways to protect the corridor without acquiring the properties, such as exercising police power or reaching agreements with property owners. Alternatively, NCDOT or its partners can find ways to acquire key properties within the parameters of NEPA, such as following completion of the first tier of a Tiered EIS.

While corridor protection is not appropriate or necessary in all cases, it is crucial along corridors likely to experience significant development pressure in the near future. Efforts at corridor protection would include various measures to obtain control of or protect the right-of-way for planned improvements and to preserve the mobility, safety, and capacity of existing roadways through the use of access management techniques. Additionally, NCDOT will investigate statewide initiatives to purchase control of access and acquire advanced rights-of-way along these corridors.

6.4.2 Access Management and Traffic Operations

This discussion pertains to the trunk highway components of an STC. The level of mobility along a corridor depends on the amount of access to the facility. Generally speaking, the greater the number of access points, the lower the level of mobility, safety, and capacity. Therefore, facilities with a limited number of access or entry and exit points, such as Freeways and Expressways, typically have the ability to move vehicles in a safer, more efficient manner, at the intended speed. Critical to the success of attaining the vision for the corridors is the ability to limit access or impediments to these corridors such as driveways and traffic signals. Both items create conflicts that compromise the level of mobility and safety along corridors.

6.4.2.1 Access Management/Operations Analysis

Purpose: To develop a plan that examines relatively low-cost/small-scale improvements that can be implemented to improve mobility, capacity, and safety along the corridor while balancing the needs of access to parcels along a facility. Typically, this element would be used, although not limited to, existing sections of a corridor with at least four travel lanes. Typical elements examined are:

- Level of access control
- Medians/median openings

- Driveways and access to property
- Traffic signals
- Interchanges (if applicable)
- Speed limits
- Intersections and turn lanes

Recommendations may include:

- Increasing the level of access control
- Consolidating/sharing and/or relocating driveways
- Removing/modifying median openings (such as installing directional median openings)
- Constructing acceleration, deceleration, and/or turning lanes
- Constructing median U-turn intersections (such as a superstreet)

Outcome: Documentation and maps showing the recommended improvements (Access Management Plan).

6.4.2.2 Driveway Permits

NCDOT recognizes landowners have certain rights of access consistent with their needs. North Carolina is considered an abutter's rights state, which allows for each individual landowner to have access to a public roadway. Applicants requesting a connection to the State Highway System must do so according to the rules and regulations of the *Policy on Street and Driveway Access to North Carolina Highways*[3], also referred to as the Driveway Manual. However, requests for access to trunk highways that are part of a Strategic Transportation Corridor will be given careful attention and reviewed thoroughly to ensure the mobility, carrying capacity, and safety of the Corridor are not compromised by any proposed or modified driveway. Every effort will be made to provide alternate access to a public facility not designated as a Strategic Transportation Corridor, if one is available. Additionally, every effort will be made to combine and consolidate access points and provide connectivity through shared property access. Approval of a permit on a Strategic Transportation Corridor will be noted with the following statement (or one similar):

> "The North Carolina Board of Transportation has identified [Name of Facility] as a Strategic Transportation Corridor. In order to protect the safety, mobility and traffic carrying capacity of this Strategic Transportation Corridor, the approved access along [Name of Facility] may be closed or relocated if an alternative access is developed in the future or if any safety concerns or other traffic impacts arise."

Changes are expected to be made to the Driveway Manual to reflect the importance of the Strategic Transportation Corridors. These include strengthening the rules and regulations governing access to the Corridors and providing additional guidance on the sharing and consolidation of driveways to these facilities.

[3] North Carolina Department of Transportation, *Policy on Street and Driveway Access to North Carolina Highways*, July 2003.

6.4.2.3 Traffic Signals

Equally important to maintaining or increasing the level of mobility along a facility is limiting the installation of traffic signals along corridors. While the purpose of a traffic signal is to control the movement and right-of-way of traffic, while protecting the safety of motorists and pedestrians, they also impede motorists using the facility, particularly those on the major facility traveling through the intersection. NCDOT will thoroughly examine each request for a traffic signal along a Strategic Transportation Corridor, whether the proposed signal is located at a public roadway or an entrance to a private development. This is to ensure that the mobility, carrying capacity, and safety of the corridor are not compromised by the proposed traffic signal. First and foremost, alternative solutions to a proposed signal will be pursued, including constructing an interchange and/or limiting access on the connecting street to right-in/right-out only, depending on the anticipated traffic volumes. If it is determined that a traffic signal is required (due to safety or financial reasons), even on a temporary basis, every effort will be made to limit the number of phases at the signal. Additionally the intersection may be designed to incorporate the median U-turn or superstreet concept.

It is anticipated that NCDOT will develop guidance to assist engineers reviewing requests for traffic signal installation along Strategic Transportation Corridors. This may include the development of guidance on alternative intersection designs not only for engineers reviewing requests, but also for engineers designing improvements along the Corridors.

6.4.3 Land Use Planning

Consistent and compatible land use decisions are needed to support the goals of the NCTN and STC frameworks. Striking a balance between competing land uses and transportation objectives is a necessary task to ensure that mobility is maintained along these key facilities. Controlling development, which involves adopting and implementing land use policies, is largely the responsibility of local governments. With North Carolina investing millions of dollars in major transportation improvements every year, it is not surprising that the state has an interest in protecting its investments through land use policy as well. For example, NCDOT does not want to make major improvements along a corridor, only to see the level of mobility, safety, and capacity decrease years later due to construction of multiple strip developments. However, the specific activities that can be undertaken at the state level to ensure such protection are limited. Thus, methods will be explored for cohesively integrating land use and transportation goals along a given corridor.

One such product has already been prepared as part of the US 64-NC 49 Corridor Study entitled*, Land Use Policy Guidelines for Mobility Protection.* This report summarizes a broad range of land use policies that can guide the decision-makers in protecting the mobility of roadways, particularly Strategic Transportation Corridors, and identify the ways in which those policies can be translated into action at all levels of government. Additional mechanisms will be developed to assist NCDOT and local officials in making consistent and compatible land use decisions along the corridors. One such tool is developing state and local agreements and partnerships upon completion of a master plan or corridor study, which would indicate intent to follow the study outcomes and recommendations. The Memorandum of Understanding adopted following completion of the NC 73 Transportation/Land Use Study, is one example of this mechanism. Additionally, indirect and cumulative impacts of proposed major improvements along a corridor may be examined.

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Appendix A: Corridor Identification Process

Following are specific procedures used to identify goal-responsive STC elements and apply those elements in establishing the network of corridors.

A. Identify Candidate STC Corridor Segments for each STC goal:

1. Assess System Connectivity criteria:

    a. Prepare a composite map of major highways and rail lines meeting the criterion:

        1. Significant highway facilities, including:

            - Interstate highways (urban and rural; both existing and corridors with adopted future Interstate highway designation),
            - STRAHNET links (including Interstate (existing) and non-Interstate links, and excluding STRAHNET connectors), and
            - Strategic highway routes as defined by bordering states.

        2. Significant rail passenger and freight routes, including:

            - STRACNET links (STRACNET connectors would be excluded, but there are not defined connectors in NC),
            - Existing passenger rail routes, and including the planned future High Speed Rail,
            - Core Class 1 railroad routes, and
            - Mainline facilities providing primary access to state seaports or international or major freight airports

    b. Review map overlay to identify candidate STC corridor segments that address corridor System Connectivity elements, considering additional network components where appropriate and documented.

2. Assess Mobility Criteria:

    a. Prepare a composite map of highway facility segments that are contiguous and longer than 20 miles, with high or medium volume existing general traffic or truck traffic (using Average Annual Daily Traffic – AADT), and excluding collectors and minor arterials, as follows :

        - Urban/suburban area types: over 30,000 daily vehicles or over 2,500 daily trucks.
        - Rural area types: over 15,000 daily vehicles or over 1,500 daily trucks.

    b. Identify rail lines carrying over 20 million tons per year

    c. Review map overlays to identify candidate STC corridor segments that address corridor mobility elements.

3. Assess Economic Prosperity Criteria:

    a. Prepare a composite map of:

        1. Statewide and regionally-significant Activity Centers,
        2. Prosperity Zones, and

3. Tier 1 Economic Development designation by the NC Department of Commerce, Labor and Economic Analysis Division (2014).

b. Identify major highways and rail lines that address interconnection of Prosperity Zones, their activity centers, and Tier 1 Economic Development counties in terms of corridor segments that interconnect Prosperity Zone activity center clusters, link key activity centers within Prosperity Zones, provide access to Tier 1 Economic Development counties, and connect such targets to each other. Identify necessary interconnections on the basis of the following considerations:

1. Direct links between clusters of activity centers (clusters considered to be 3 or more proximate activity centers) in adjacent Prosperity Zones, using reasonable routes with the highest possible functional classification.
2. Direct links between clusters of activity centers within Prosperity Zones, using reasonable routes with the highest possible functional classification.
3. In some cases, a direct link between clusters of activity centers and more isolated activity centers – a single or pair of activity centers.
4. Review of identified links with respect to links with counties possessing the Tier 1 Economic Development designation. Where other identified links, consider additions to link to nearby activity clusters or as an alternative an Interstate highway segment. Not all Tier 1 counties need a direct linkage depending on other identified links and distance to the nearest link identified.
5. With the preceding candidate links identified, review mapping for redundancy and extent of coverage, and make adjustments.

c. Prepare a map of secondary rail segments which provide access to freight traffic generators.

d. Prepare a map of candidate STC corridor segments based on the Prosperity criteria.

B. Identify composite candidate Strategic Transportation Corridors:

1. Prepare a composite map of the three maps representing candidate network segments based on System Connectivity, Mobility, and Economic Prosperity elements, and review this composite map coverage for duplications, anomalies, and omissions. Exclude highway segments which are:

a. Under System Connectivity, on the Interstate Highway System, but are relatively short spurs and beltways which do not support longer distance statewide travel movements. These segments are generally in the larger urban areas.

b. Under System Connectivity, on the Interstate Highway System or are access-controlled freeways with US or NC numbered designations, and which parallel at a short distance other longer distance Interstate highways. These segments are generally in the larger urban areas.

c. Under Mobility, those shorter highway segments which are on the Interstate Highway System, but are relatively short spurs and beltways which do not support longer distance statewide travel movements. These segments are generally in the larger urban areas.

While these segments will not be shown on the STC network map, they will be recognized in the descriptions for the designated corridors as significant supporting facilities that should be considered in STC planning.

2. Develop final map of proposed STC corridor segments, following the rule that a highway segment that appears on one or more corridor criteria maps will be included into the STC network.
3. Define end-to-end proposed STC corridors:
    a. Review the composite map and identify end-to-end corridors, based on core highway route numbers, and logical begin/end points.
    b. Prepare a map summarizing the resulting set of recommended STC corridors.

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Appendix B-1: Activity Center Stratification

Activity Centers are the major hubs or destinations across the state that are critical to the state's economic prosperity and whose success in part is driven by ready access from all or significant parts of the state. These centers are the starting and/or ending point for the movement of people and goods. For the purposes identifying Strategic Transportation Corridors, they are defined as the following:

- High Priority Economic Development Sites (Logistics Villages) – high potential development sites evaluated during preparation of Governor's Logistics Task Force *Seven Portals Study,* reflecting determination of site preparedness (or readiness for development) and for overall economic sector contribution.
- Major Military Bases – major military installations in the state, which house various units of the United States Military
- Major Airports – major commercial airports in the state, which facilitate the movement of people and goods throughout North Carolina and the United States
- Seaports and Inland Terminals – marine ports and associated inland intermodal terminals that play a crucial role in the state's economy as they help foster the movement of goods across North Carolina and the southeastern United States and promote the state's seafood industry.
- Major Universities and Colleges – primary public and private universities, colleges, and larger community colleges
- Trauma Centers – specialized hospital facility distinguished by the immediate availability of specialized surgeons, physician specialists, anesthesiologists, nurses, and resuscitation and life support equipment on a 24 hour basis to care for severely injured patients or those at risk for severe injury
- Major Tourist Destinations – counties having the highest travel and tourism spending, as reported by the NC Division of Tourism, Film, and Sports Development
- State-critical external centers – primary ports, employment centers, and trauma centers in close proximity to NC borders that are relied upon for employment, health services, or access to national and international markets by major portions of the state.

Activity Center Stratification

To assist in the identification and prioritization of strategic transportation corridors, activity centers have been categorized as being of either statewide or regional significance.

Activity Center Stratification North Carolina Strategic Transportation Corridors		
Activity Center Categories	**Statewide**	**Regional**
Primary Employment Centers (1)	**High-density employment centers** Census tracts of more than 3,000 employees/sq. mile	**Medium-density employment centers** Census tracts of 1,500 - 3,000 employees/sq. mile
High Priority Economic Development Sites	**Logistics Villages (2) with highest preparedness and economic sector participation** • Elizabeth City/Coast Guard Air Sta. • Rocky Mount/Kingsboro-Rose Megasite • Global TransPark • Wilmington International Airport • Port of Wilmington • Research Triangle Park • Burlington-Alamance Airport • Aerotropolis Village (Piedmont Triad International Airport) • Heart of NC Megasite (Moore/Montgomery Counties) • Charlotte-Douglas airport area • Asheville Village	**Logistics Villages with high preparedness and economic sector participation** • Edenton NE Airport • Martin Co Airport • Jacksonville Ellis Airport • Morehead City Port • Fayetteville Airport • Laurinburg-Maxton Airport • Sanford-Lee Co Airport • US 29 Industrial Site (Davidson Co.) • Smith-Reynolds Airport • Monroe/Legacy Park • Salisbury/Summit Corp Center • Statesville Airport • Wilkesboro/Wilkes County Village
Major Military Bases	**Bases having or supporting major troop or equipment deployments** • Fort Bragg Army Base • Seymour Johnson Air Force Base • Sunny Point Army Military Ocean Terminal • New River Marine Corps Air Station • Camp Lejeune Marine Base • Cherry Point Marine Corps Air Station	**Other regionally significant military facilities** • Coast Guard Air Station (Elizabeth City)

Activity Center Stratification North Carolina Strategic Transportation Corridors		
Activity Center Categories	**Statewide**	**Regional**
Major Airports	**International airports or major cargo hubs** • Charlotte/Douglas International Airport • Raleigh-Durham International Airport • Piedmont Triad International Airport • Wilmington International Airport	**Other commercial airports** • Asheville Regional Airport • Fayetteville Regional Airport • Pitt-Greenville Airport • Albert J. Ellis Airport (Jacksonville) • Coastal Carolina Regional Airport (New Bern)
Seaports and Inland Terminals	**International Seaports** • Port of Wilmington • Port of Morehead City	**Other Ports and Port Authority Inland Terminals** • Wanchese Seafood Industrial Park • Global TransPark • Charlotte Inland Terminal • Piedmont Triad Inland Terminal
Trauma Centers	**Level I Trauma Centers** • Carolinas Medical Center (Charlotte) • Duke University Medical Center (Durham) • UNC Hospital (Chapel Hill) • University Health Systems of Eastern Carolina (Greenville) • Wake Forest University Baptist Medical Center (Winston-Salem) • Wake Med Health & Hospitals (Raleigh)	**Level II & III Trauma Centers** • Mission Hospitals (Asheville) • Moses Cone Health System (Greensboro) • New Hanover Regional Medical Center (Wilmington) • CaroMont Regional Medical Center (Gastonia) • Cleveland Regional Medical Center (Shelby) • High Point Regional Hospital (High Point) • Northeast Medical Center (Concord)

Activity Center Stratification North Carolina Strategic Transportation Corridors				
Activity Center Categories	**Statewide**		**Regional**	
Major Universities and Colleges	**Major research universities or > 15,000 on-campus enrollment):** • North Carolina State University • UNC -Chapel Hill • East Carolina University • UNC - Charlotte • Duke University • Wake Forest University • Appalachian State University • UNC - Greensboro		**Regional colleges (5,000-15,000 on-campus enrollment) and Community colleges (> 5,000 main-campus enrollment):** • UNC - Wilmington • North Carolina Agriculture and Technical State University • Central Piedmont Community College • Wake Technical Community College • Fayetteville Technical Community College • Guilford Technical Community College • Western Carolina University • North Carolina Central University • Cape Fear Community College • Forsyth Technical Community College • Campbell University • Asheville Buncombe Technical Community College • Pitt Community College • Fayetteville State University • UNC – Pembroke • Winston-Salem State University • Durham Technical Community College • Rowan-Cabarrus Community College - North Campus • Gaston College	
Major Tourist Destinations	**Top 10 Travel/Tourism counties by total tourism expenditures** • Mecklenburg • Wake • Guilford • Dare • Buncombe	• Forsyth • Durham • Cumberland • New Hanover • Swain (3)	**2nd 10 Travel/Tourism counties by total tourism expenditures** • Brunswick • Moore • Cabarrus • Carteret • Nash	• Catawba • Henderson • Gaston • Watauga • Iredell

Activity Center Stratification
North Carolina Strategic Transportation Corridors

Activity Center Categories	Statewide	Regional
State-critical external centers (4)	**Close-proximity deepwater seaports** • Norfolk • Charleston **Major employment centers within 50 miles of state border** • The Hampton Roads region, VA • Myrtle Beach, SC • Spartanburg, SC • Greater Atlanta Region, GA • Chattanooga, TN	**Regional employment centers within 25 miles of state border** • Danville, VA • Rock Hill, SC • Johnson City, TN **Level 1 Trauma centers within 50 miles of state border if similar facility is not located closer in NC** • Sentara Norfolk General Hospital (Norfolk, VA) • Johnson City, TN Medical Center • Spartanburg, SC Regional Health System **Close-proximity international airports:** • Norfolk International Airport, VA • Hartsfield–Jackson Atlanta International Airport, GA **Close-proximity Inland Ports** • SC inland port in Greer, SC

Notes:

1. Graphic representation: depict major (statewide) centers as being at approximate employment centroid of each municipality containing them (i.e., Raleigh or Charlotte one each). And within metro areas, show smaller municipalities containing regional centers, even if adjacent to statewide centers (e.g., Garner or Apex).
2. Logistics Villages are high potential development sites evaluated during preparation of Governor's Logistics Task Force *Seven Portals Study,* reflecting determination of site preparedness (or readiness for development) and for overall economic sector contribution; see App B-2.
3. Swain County is moved to a statewide category from regional, because even with lower county tourism spending reported by the NC Division of Travel and Tourism, it is understood that the data do not reflect spending in Great Smokey Mountains National Park and numerous attractions that are part of the Cherokee Indian reservation.
4. External activity centers are centers deemed as vital to State-critical import/export, employment activity, or critical medical services.

Appendix B-2: Logistics Villages Preparedness and Economic Sector Participation Ratings

NC Transportation Network Activity Center Stratification High Priority Economic Development Sites (1)							
Prosperity Zone	**County**	**Seven Portals "Name"**	**NCTN "Name" (2)**	**Preparedness**	**Economic Sector Participation**	**Statewide (>80 and 4+ or 70-80 and 5) (3)**	**Regional (>80 and 2 or 70-80 and 3+) (3)**
Northeast Region	***Hertford***	***Ahoskie***	*Ahoskie/Tri-County Airport*	*68.0*	*3*	-	-
	Chowan	***Edenton***	*Edenton/NE Regional Airport*	*71.0*	*3*		*X*
	Pasquotank	***ElizCity***	*Elizabeth City/Coast Guard Air Station*	*71.0*	*5*	*X*	
	Martin	***Wmstn***	*Williamston/Martin Co. Airport*	*71.0*	*3*		*X*
Southeast Region	**Lenoir**	**Kinston**	Kinston/Global TransPark	83.2	4	X	
	Onslow	**JksVle**	Jacksonville/Ellis Airport	72.8	4		X
	Carteret	**M-City**	Morehead City/Port of Morehead City	70.2	3		X
	New Hanover	**Wilm**	Wilmington International Airport	81.6	4	X	
	New Hanover	**VirtPark**	Wilmington/Port of Wilmington	81.6	5	X	
	Brunswick/ Columbus	**Brun/Col**	Brunswick-Columbus/International Logistics Village	77.6	2	-	-
North Central Region	**Edgecombe**	**Edge. Cty**	Rocky Mount/Kingboro-Rose Megasite	87.2	4	X	
	Edgecombe	**RkyMnt**	(defer to "Edge.Cty" above)	83.2	4	-	-
	Granville	**ΔN- Gville**	Triangle North/Granville Co.	79.0	2	-	-
	Wake	**Ral/RTP**	Research Triangle Park/RDU	89.2	3	X	
	Lee	**Sanford**	Sanford-Lee Co Executive Airport	78.2	3		X
	Johnson	**Smthfld**	Smithfield-Johnston Co. Airport	78.4	2	-	-
	Warren	**ΔN - Warren**	Triangle North/Warren Co.	76.4	1	-	-
Sandhills (South	**Cumberland**	**Faytvle**	Fayetteville/Fayetteville Regional Airport	80.2	3		X

Central) Region	**Montgomery/ Moore**	**Mont/ Moore**	Moore-Montgomery Cos/Heart of NC Megasite	81.6	4	X	
	Scotland	**Maxton**	Laurinburg-Maxton Airport	76.4	4		X
Piedmont-Triad (Central) Region	**Alamance**	**Burlngtn**	Alamance Co/Burlington-Alamance Regional Airport	83.2	3	X	
	Guilford	**Aerotrop**	Aerotropolis Village/PTIA	88.2	3	X	
	Davidson	**Davidson Cty**	Davidson Co/I-85 - US 29 Industrial Park	82.8	2		X
	Forsyth	**Winston-Salem**	Winston-Salem/Smith-Reynolds Airport	80.8	3		X
Southwest Region	**Mecklenburg**	**Charlotte**	Charlotte/Charlotte-Douglas area	95.0	3	X	
	Union	**Monroe**	Monroe/Legacy Park	71.4	4		X
	Rowan	**Salisbury**	Salisbury/Summit Corporate Center	70.2	3		X
	Iredell	**Statesville**	Statesville/Statesville Regional Airport	73.0	4		X
Northwest Region	**Wilkes**	**Wilkesboro**	Wilkesboro/Wilkes County Village	62.2	0	-	-
Western Region	**Cherokee**	**And/ Murphy**	Andrews-Murphy/Valley River Valley	61.2	2	-	-
	Buncombe	**Asheville**	Asheville Village	76.0	2	X (4)	
	Rutherford	**Rutherford-ton**	Rutherfordton/Isothermal Belt Village	72.0	1	-	-

Notes:

(1) This worksheet draws from an unpublished site evaluation spreadsheet developed for consideration by the Governor's Logistics Task Force by the Seven Portals study team and reflects composite scores for site preparedness (or readiness for development) and for overall economic sector contribution.

(2) NCTN "descriptor" based on review of Seven Portals Study report; intent is to provide a more "site specific" Village name.

(3) Stratification to statewide or regional designation based on combination of Preparedness and Economic Sector Participation, as evaluated by IRTE for Seven Portals Study; if no Village in a single region meets designated statewide criteria, then highest scoring Village is designated as statewide.
(4) By rule, want to include at least one site in each region identified as "statewide", even if no site meets stated criteria.

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Appendix C: Strategic Transportation Corridor Profiles

Corridor A:
US 74W – Tennessee state line to I-26 in Asheville

General Description

The 126 mile Corridor A serves southwestern North Carolina, including Buncombe, Haywood, Jackson, Swain, Macon, Graham, and Cherokee counties from southeast Tennessee to Asheville, and is the principal corridor for access to the tourism and agricultural centers of western North Carolina. This corridor overlaps with Corridor Q for 19 miles along I-40 west of Asheville to I-26. In connecting to Corridor C (I-26) in Asheville, the corridor provides linkage for western North Carolina to the southeast US region to the south and central Appalachia and the Ohio Valley to the north.

Primary Facilities or Services

Primary Highway(s): US 74, I-40
Other parallel statewide level highways: US 23, US 64
Primary rail line: None
Passenger rail service: None
Statewide or regional level airports: None

Statewide or regional level ports: None
Regional Transit: None
State level ferries: None
State level bike/pedestrian routes: Mountains to Sea-Bike Route 2

Identification Criteria Elements

Connectivity	Passenger and Freight Mobility	Primary Activity Centers
Interstate Highways: I-40 **STRAHNET:** I-40; US 74	• I-40/US 74 to I-26 carries high passenger traffic volumes for the entire length of the joint corridor. • I-40/US 74 to I-26 carries high truck traffic for the entire length of the joint corridor.	**Statewide:** • Asheville Village (logistics village) • Swain County tourist center (Cherokee Reservation and Great Smoky Mountains National Park) • Buncombe County/Asheville tourist center • Chattanooga (external center) **Regional:** • Western Carolina University • Mission Hospitals (Asheville)

Key Functions and Expectations
(Functions of corridor in context of STC goals and criteria)

- **Connectivity:** US 74 is a part of the STRAHNET system and provides a major connection from Tennessee through western North Carolina to I-40 and I-26.
- **Mobility:** This corridor connects southeast Tennessee with I-40 and I-26 providing passenger and freight mobility through traffic access across southwestern North Carolina.
- **Economic Prosperity:** Corridor A provides access through western North Carolina to Swain County, one of the top tourism counties in North Carolina. In addition, it provides access to WNC's major medical center, employment centers, national parks, and colleges.
- **Expectation:** Through improved access management, increased reliability for both passenger and freight movements, and safer corridors, Corridor A will improve regional access to promote tourism and regional agricultural markets.

Potential Improvement Strategies
(Potential improvements to support better service of identified key functions and expectations)

- Safety improvements on rural, uncontrolled access sections to address high crash sections or hot spots
- Geometric improvements to address sight distance or stopping problems
- Capacity improvements to widen two lane sections, to improve reliability and address isolated congestion due to steep grades

Corridor B:
US 23/441 – Georgia state line to US 74 in Jackson County

General Description

The 32 mile Corridor B serves southwestern North Carolina, including Macon and Jackson counties, and extends from the Georgia state line to US 74. Corridor B provides connectivity to Georgia's strategic corridor US 23/441, providing access to the Atlanta Metro Region and connection to Corridor A in Dillsboro, thus serving as the primary corridor for access between the Atlanta metro area and all of western North Carolina.

Primary Facilities or Services

Primary Highway(s): US 441/US 23
Other parallel statewide level highways: None
Primary rail line: None
Passenger rail service: None
Statewide or regional level airports: None

Statewide or regional level ports: None
Regional Transit: None
State level ferries: None
State level bike/pedestrian routes: None

Identification Criteria Elements

Connectivity	Passenger and Freight Mobility	Primary Activity Centers
Interstate connections: to Georgia's strategic corridor US 23/ 441	This corridor does not meet the total passenger or freight volume criteria for strategic corridors.	**Statewide:** • Atlanta Metro Region(external employment center) • Hartsfield–Jackson Atlanta International Airport • Great Smoky Mountains National Park **Regional:** • Western Carolina University

Key Functions and Expectations
(Functions of corridor in context of STC goals and criteria)

- **Connectivity**: US 441 provides connection to STRAHNET highway US 74 and Georgia strategic corridor US 23/441.
- **Economic Prosperity:** Corridor B provides access to multiple national parks as well as Western Carolina University, and is the primary access route from western North Carolina to the Atlanta Metro Region employment center and Hartsfield–Jackson Atlanta International Airport.
- **Expectation:** As western North Carolina continues to develop as an economic and tourism area, Corridor B must provide improved access and mobility reliability to the Atlanta region to allow access to jobs and to international markets and travel opportunities.

Potential Improvement Strategies
(Potential improvements to support better service of identified key functions and expectations)

- Safety improvements on rural, uncontrolled access sections to address high crash sections or hot spots
- Capacity improvements to widen two lane sections or provide passing lanes, to improve reliability and address isolated congestion due to steep grades
- Geometric improvements to address sight distance or stopping problems

Corridor C:
I-26 – South Carolina state line to Tennessee state line

General Description

The 71 mile Corridor C serves western North Carolina (including Polk, Henderson, Buncombe, and Madison counties) between South Carolina and Tennessee. I-26 is a route of national significance for the southern Atlantic coastal region, and serves as a connection between the port of Charleston, South Carolina, and the Appalachian region. I-26 in the principal north-south corridor through western North Carolina, and its connections to Corridor Q (I-40) and I-240 in Asheville and to Corridor A allows high level access and mobility to western North Carolina and eastern Tennessee. I-26 is a major route to national tourism destinations including Asheville and Biltmore Estate and to the Great Smoky Mountains National Park. South of the connection with I-40, I-26 carries high volumes of passenger and truck traffic to and from South Carolina.

Primary Facilities or Services

Primary Highway(s): I-26, US 74
Other parallel statewide level highways: US 23, US 25, US 19
Primary rail line: NS secondary mainline from Asheville to east Tennessee
Passenger rail service: None
Statewide or regional level airports: Asheville Regional

Statewide or regional level ports: None
Regional Transit: Asheville Regional Transit (ART)
State level ferries: None
State level bike/pedestrian routes: None

Identification Criteria Elements

Connectivity	Passenger and Freight Mobility	Primary Activity Centers
Interstate Highways: I-26 **STRAHNET:** I-26 **Interstate connections:** to South Carolina's designated I-26 strategic corridor	• I-26 carries high passenger volumes between I-40 and the South Carolina state line. • I-26 carries high truck traffic between I-40 and South Carolina.	**Statewide:** • Asheville Village logistics village • Asheville employment center **Regional:** • Mission Hospitals • Asheville-Buncombe Community College • Asheville Regional Airport

Key Functions and Expectations
(Functions of corridor in context of STC goals and criteria)

- **Connectivity:** Corridor C provides interstate connections to both South Carolina and Tennessee, and is on the STRAHNET highway network. The Norfolk Southern rail line from Asheville to Tennessee provides connection to the Ohio Valley.
- **Mobility:** Corridor C and I-26 is the most heavily traveled corridor in the rapidly growing Buncombe/Henderson County corridor, with increasing congestion and reliability issues due to traffic growth.
- **Economic Prosperity:** Corridor C provides access from the south to multiple Asheville area economic activity centers and critical external access to South Carolina ports and employment opportunities and to upper Midwest markets.
- **Expectation:** As the primary north-south corridor for western North Carolina, as well as the principal link to South Carolina and Tennessee markets, it is critical that Corridor C provide reliable intrastate mobility, including movement through the central Asheville area that now is indirect and increasingly unreliable. Increasing rapid growth of Asheville region is likely to require continuing effort to increase capacity in order to address safety, reliability, and travel speed needs.

Potential Improvement Strategies
(Potential improvements to support better service of identified key functions and expectations)

- Increase capacity to alleviate congestion between Asheville and the South Carolina state line
- Upgrade transition through core of Asheville to improve reliability and corridor consistency

Corridor D:
US 321/CSX – South Carolina state line to Tennessee state line

General Description

The 94 mile Corridor D provides access to the northwest North Carolina mountains around Boone from upper South Carolina, serving Gaston, Lincoln, Catawba, Caldwell, and Watauga counties, as part of a longer corridor providing access from external activity centers such as Columbia, South Carolina, Savannah, Georgia, and Johnson City, Tennessee. Corridor D carries high passenger and truck traffic between Corridor Q (I-40) in Hickory and Corridor I (I-85) in Gastonia. Corridor D also includes the CSX railroad that traverses the northern North Carolina mountains to the coal fields of the Appalachians. To the northwest the corridor overlaps Corridor E for 7 miles.

Primary Facilities or Services

Primary Highway(s): US 321
Other parallel statewide level highways: US 421 west of Boone
Primary rail line: CSX
Passenger rail service: None
Statewide or regional level airports: None

Statewide or regional level ports: None
Transit: Gastonia Transit, Greenway Public Transportation
State level ferries: None
State level bike/pedestrian routes: None

Identification Criteria Elements

Connectivity	Passenger and Freight Mobility	Primary Activity Centers
Freight rail: CSX rail line from Tennessee to South Carolina.	• US 321 carries high passenger volumes between I-40 in Hickory and I-85 in Gastonia. • US 321 carries high truck traffic from I-40 in Hickory to I-85 in Gastonia. • CSX railroad is a high volume freight railroad through North Carolina carrying coal from Appalachian mines to South Carolina and the Southeast.	**Statewide:** • Appalachian State University **Regional:** • Johnson City, Tennessee employment center • Watauga County tourism center • Gaston County tourism center • Gaston College (Dallas) • CaroMont Regional Medical Center (Gastonia)

Key Functions and Expectations
(Functions of corridor in context of STC goals and criteria)

- **Connectivity:** Corridor D provides a connection to South Carolina strategic US 321 corridor and is the primary connection from the northern mountains into Tennessee. The CSX rail corridor is a primary coal route from Appalachian mines to North Carolina and South Carolina power plants.
- **Mobility:** The CSX rail line is a primary coal route for delivery of Appalachian coal to North Carolina electric generation plants; it also serves as a key, medium volume connector between the major east-west Corridors I (I-85) and Q (I-40).
- **Economic Prosperity:** Corridor D serves three of the state's top tourism counties (Gaston, Catawba, and Watauga) and is a key access route to the primary academic center at Appalachian State University.
- **Expectation:** As the most direct route between the Charlotte/Gastonia region and the tourism-rich northern mountains Corridor D should provide safe, reliable travel for both passenger and freight movement, with reduced delays through intermediate communities along the corridor.

Potential Improvement Strategies
(Potential improvements to support better service of identified key functions and expectations)

- Safety improvements on rural, uncontrolled access sections to address high crash sections or hot spots
- Increase capacity at key bottlenecks (e.g., at I-85 connection in Gaston County)
- Improve consistency of travel speeds through Hickory through access management strategies
- Apply access management strategies and spot widening or climbing lanes in mountains approaching Boone

Corridor E:
US 421W – Tennessee state line to I-40 in Forsyth County

General Description

The 94 mile Corridor E is the primary corridor linking the state's Piedmont Crescent to the northwest mountains, serving Watauga, Wilkes, Yadkin and Forsyth counties, and provides connection to northeast Tennessee (Bristol) and the I-81 corridor, passing through the Cherokee National Forest. Within North Carolina, US 421 provides access to the Yadkin Valley wine region, mountain Christmas tree farms, Appalachian State University, and major recreation/tourist ski areas. US 421 carries high freight and passenger traffic from the I-40 connection in Forsyth County to Yadkin County. The high truck traffic continues to I-77 while the passenger traffic drops just after the Yadkin County line.

Primary Facilities or Services

Primary Highway(s): US 421
Other parallel statewide level highways: US 321
Primary rail line: None
Passenger rail service: None
Statewide or regional level airports: None

Statewide or regional level ports: None
Regional Transit: AppalCART
State level ferries: None
State level bike/pedestrian routes: None

Identification Criteria Elements

Connectivity	Passenger and Freight Mobility	Primary Activity Centers
Interstate connections: to Tennessee and to I-77 in North Carolina	• US 421 carries high volumes of passenger traffic from I-40 in Forsyth County to Yadkin County. • US 421 carries high truck volumes from I-40 in Forsyth County to I-77 in Yadkin County.	**Statewide:** • Appalachian State University • Wake Forest University Baptist Medical Center **Regional:** • Wilkesboro/Wilkes County (logistics) Village • Watauga County tourism center • Johnson City, Tennessee medical center • Johnson City regional employment center

Key Functions and Expectations
(Functions of corridor in context of STC goals and criteria)

- **Connectivity:** US 421 provides primary connection from central Piedmont region to Appalachian State University, Wilkes County Village, and several of the state's top travel/tourism counties. It also provides access to several east Tennessee regional activity centers in Johnson City.
- **Mobility:** US 421 carries high volumes of truck traffic between I-77 and I-40 and high passenger volumes from Yadkin County to Forsyth County.
- **Economic Prosperity:** Corridor E is the principal travel corridor between the populous Piedmont region and the tourism-rich northern mountains, and is the primary access route to the academic center at Appalachian State University.
- **Expectation:** With the economic resurgence of the Yadkin River Valley as a wine-producing region of national significance, the growth of agriculture and continuing importance of tourism in the northern mountains, and the importance of the Boone area as a tourism and education center, Corridor E must provide a reliable, safe corridor to support those activities.

Potential Improvement Strategies
(Potential improvements to support better service of identified key functions and expectations)

- Safety improvements on rural, uncontrolled access sections to address high crash sections or hot spots
- Improve corridor reliability by addressing congestion issues developing in the northwest Winston-Salem region.
- Upgrade connection to Tennessee, along either US 421 (Corridor E) or US 321 (Corridor D) alignments

Corridor F:
I-73/Future I-73 – South Carolina state line to Virginia state line

General Description

The 129 mile Corridor F serves the central Piedmont region of the state from the South Carolina state line near Rockingham to the Virginia state line in Rockingham County, serving Richmond, Montgomery, Randolph, Guilford, and Rockingham counties. For approximately 18 miles from east of Rockingham on US 74 to US 220 in Rockingham and from there to the US 311 Bypass in Randleman, Corridor F overlaps with Corridor H (I-74). The US 74 section of Corridor F is also part of Corridor U (US 74). US 220 north of Rockingham and north of Greensboro is being upgraded to Interstate standards as future I-73. The corridor serves as a major freight route from Montgomery County near the Heart of North Carolina MegaPark (one of the state's identified "mega-site" industrial locations) to the city of Greensboro.

Primary Facilities or Services

Primary Highway(s): I-73, I-74, US 220
Other parallel statewide level highways: None
Primary rail line: None
Passenger rail service: None
Statewide or regional level airports: Piedmont Triad International

Statewide or regional level ports: None
Regional Transit: Greensboro Transit Authority, Piedmont Area Regional Transit
State level ferries: None
State level bike/pedestrian routes: None

Identification Criteria Elements

Connectivity	Passenger and Freight Mobility	Primary Activity Centers
Interstate Highways: I-73 (existing and future), I-74 **STRAHNET:** I-73, I-74 **Interstate connections:** to Virginia's US 220 Corridor of Statewide Significance	• I-73 carries high truck volumes from I-40 in Guildford County to the Heart of NC Megasite in Moore/Montgomery counties • I-73 carries high passenger traffic volumes from I-40 in Guilford County to Asheboro	**Statewide:** • Aerotropolis (logistics) Village • Heart of NC Megasite logistics village • Piedmont Triad International Airport • UNC-Greensboro **Regional:** • Moses Cone Hospital • Moore County tourism center • Danville, Virginia employment center

Key Functions and Expectations
(Functions of corridor in context of STC goals and criteria)

- **Connectivity:** Corridor F provides linkage to Virginia's strategic US 220 corridor and to northern Virginia and West Virginia, and a more direct connection to I-95 in South Carolina and to the upper South Carolina coast.
- **Mobility:** I-73 carries high volumes of truck traffic from Moore/Montgomery counties to the I-40 connection in Greensboro.
- **Economic Prosperity**: Corridor F expands opportunities for the less-developed central Piedmont region by enhanced access to Piedmont Triad International Airport, the Aerotropolis Village, the Heart of NC Megasite, and many Greensboro area activity centers.
- **Expectation:** As the primary north-south corridor through central North Carolina, as well as the principal link to southern Virginia employment opportunities and for development of designated major economic development sites, it is critical that Corridor F provide reliable intrastate and interstate mobility, by completing needed facility upgrades to interstate highway standards.

Potential Improvement Strategies
(Potential improvements to support better service of identified key functions and expectations)

- Upgrade remaining rural US 220 sections to Interstate highway standards
- Increase capacity and reliability through the Greensboro area by completion of Western Loop
- Coordinate with adjoining states to ensure consistency and accelerate development

Corridor G:
I-77 – South Carolina state line to Virginia state line

General Description

The 105 mile Corridor G serves the western Piedmont region and northeast mountains between the South Carolina and Virginia state lines, serving Mecklenburg, Iredell, Yadkin, and Surry counties. At the Virginia line, Corridor G links with Virginia's strategic Western Mountain Corridor and forms a key part of the longer eastern seaboard corridor from Columbia, South Carolina to Cleveland, Ohio. The route carries high freight volumes along its entire length across the state, and is also a critical commuter corridor from South Carolina and from north Mecklenburg County in the rapidly growing Charlotte region.

Primary Facilities or Services

Primary Highway(s): I-77
Other parallel statewide level highways: US 21, US 601
Primary rail line: None
Passenger rail service: None
Statewide or regional level airports: Charlotte/ Douglas International

Statewide or regional level ports: None
Regional Transit: Charlotte Area Transit System
State level ferries: None
State level bike/pedestrian routes: None

Identification Criteria Elements

Connectivity	Passenger and Freight Mobility	Primary Activity Centers
Interstate Highways: I-77 **STRAHNET:** I-77 **Interstate connections:** to South Carolina's I-77 corridor and Virginia's I-77 Western Mountain Corridor of Statewide Significance	• I-77 carries high truck volumes across the state from South Carolina to Virginia • I-77 carries high volumes of passenger traffic between the South Carolina state line and I-40 in Statesville	**Statewide:** • Charlotte regional employment centers • Charlotte/Douglas International Airport and logistics village • Carolinas Medical Center • Mecklenburg County tourism center **Regional:** • Charlotte Inland Terminal • Statesville airport logistics village • Central Piedmont Community College • Iredell County tourism center

Key Functions and Expectations
(Functions of corridor in context of STC goals and criteria)

- **Connectivity:** Corridor G serves as part of the major freight and general travel corridor from the southeast coastal region of the US to the upper Midwest. The corridor is also a part of the STRAHNET system and provides interstate connections to South Carolina and Virginia strategic corridors.
- **Mobility:** I-77 carries high volumes of truck traffic from South Carolina to Tennessee and high passenger volumes from South Carolina to Statesville.
- **Economic Prosperity:** As the principal north-south travel shed in the western Piedmont region, Corridor G provides critical access to the Charlotte region's many, diverse activity centers and the rapidly growing corridor north to Statesville.
- **Expectation:** As growth in the Charlotte region continues, the primary expectation for Corridor G is that needed investments will be made to provide safe, reliable long-distance travel through that region, while also addressing the Charlotte region's growing metropolitan congestion issues and maintaining needed upgrades to aging rural area infrastructure elements.

Potential Improvement Strategies
(Potential improvements to support better service of identified key functions and expectations)

- Increase capacity/widen through the Charlotte - Mecklenburg area and into Iredell County through focused and varied improvement strategies.
- Connection improvements to I-85 in Charlotte
- Reduce identified regional freight mobility bottlenecks

Corridor H:
I-74/Future I-74 – South Carolina state line to I-77 in Surry County

General Description

The 290 mile Corridor H is the current and future I-74 corridor traversing North Carolina from the southeast coastal region, through the central Piedmont region of the state, and into the northern mountains, from South Carolina to the corridor's connection to Corridor G (I-77) in Surry County. The corridor serves Brunswick, Columbus, Robeson, Scotland, Richmond, Montgomery, Randolph, Forsythe, and Surry counties and serves as a major freight corridor along its entire length. Completion of both Corridors H and F (future I-73) are critical to successful marketing of the Heart of NC Megasite and Aerotropolis Village economic development sites in Moore/Montgomery Counties and the Piedmont Triad, respectively. Plans for improvement include continuing to upgrade the US 74 and US 52 portions of the corridor to interstate highway standards.

Primary Facilities or Services

Primary Highway(s): US 17, US 74, I-74, US 220, I-73/74,US 52
Other parallel statewide level highways: None
Primary rail line: CSX Wilmington to Charlotte line (also element of Corridor U)
Passenger rail service: None

Statewide or regional level airports: Piedmont Triad International
Statewide level ports: None
Regional Transit: Piedmont Area Regional Transit, Winston-Salem Transit, High Point Transit
State level ferries: None
State level bike/pedestrian routes: None

Identification Criteria Elements

Connectivity	Passenger and Freight Mobility	Primary Activity Centers
Interstate Highways: I-74, I-73 **STRAHNET:** I-74, I-73, I-77, US 74, US 17 **STRACNET:** CSX (portion of Charlotte to Wilmington rail line) **Interstate connections:** connects with South Carolina's US 17 strategic corridor, to Myrtle Beach	• Corridor carries high truck volumes from Columbus County to Richmond County, from the Heart of NC Megasite in Moore/ Montgomery counties to Winston Salem, and from Winston-Salem to I-77 in Surry County. • Corridor H carries high passenger volumes from I-77 in Surry County to Asheboro	**Statewide:** • Heart of NC Megasite and Aerotropolis Village economic development sites • Piedmont Triad International Airport • Wake Forest University and Baptist Medical Center • Myrtle Beach employment center **Regional:** • High Point University • Winston-Salem State University • Smith-Reynolds Airport logistics village • High Point Regional Hospital

Key Functions and Expectations
(Functions of corridor in context of STC goals and criteria)

- **Connectivity:** As part of the expanding Interstate highway system, Corridor H is made up of multiple interstate system highways and is a major part of the STRAHNET system. The corridor provides a key link from central North Carolina to the Myrtle Beach area.
- **Mobility:** Corridor H provides a major freight connection from US 17 coming from Myrtle Beach to I-77 crossing into Virginia through the rapidly growing North Carolina Piedmont region.
- **Economic Prosperity:** Corridor H provides access to many statewide prosperity/activity centers including two international airports, the Heart of NC Megasite, and multiple activity centers in the Piedmont Triad region.
- **Expectation:** To complete the diagonal Interstate highway corridor vision from the Myrtle Beach region of South Carolina to the I-77 corridor linking to southwest Virginia, it is expected that remaining non-Interstate sections of Corridor H will be upgraded and a suitable, acceptable alignment from US 74 in Columbus and/or Brunswick County to Myrtle Beach will be identified.

Potential Improvement Strategies
(Potential improvements to support better service of identified key functions and expectations)

- Upgrade US 52 portions to full interstate status as part of I-74
- Increase capacity on I-74 between Asheboro and Winston-Salem
- Establish consistent route continuity for improved freight operations

Corridor I:
I-85/NCRR – South Carolina state line to Virginia state line through Piedmont Crescent (with future I-285 spur to Winston-Salem)

General Description

The 258 mile Corridor I is part of one of the principal travel corridors of the southeast US, running from Montgomery, Alabama to Petersburg, Virginia; as such, it is one of the Southeast's most important freight corridors. It serves as the transportation spine of the state's Piedmont Crescent, the generally-recognized economic engine. Corridor I includes 23 miles of US 52 from Lexington to Winston-Salem, planned for conversion to I-285. The entire length of the corridor carries high freight volumes as I-85 passes through the state's major metropolitan areas of Charlotte, Greensboro, and Durham. Passenger traffic is heavy throughout the corridor except for a short length from Granville County to the Virginia state line. From Charlotte to Durham, Corridor I includes the North Carolina Railroad, providing rail freight mainline service from Charlotte to Greensboro and passenger service from Charlotte to Durham and Raleigh.

Primary Facilities or Services

Primary Highway(s): I-85, I-40
Other parallel statewide level highways: US 74, US 70, US 1
Primary rail line: Norfolk Southern Crescent Corridor, NCRR
Passenger rail service: Amtrak Carolinian, Piedmont (on NCRR), Amtrak Crescent
State level ferries: None
State level bike/pedestrian routes: None
Statewide or regional level airports: Charlotte/Douglas International, Piedmont Triad International
Statewide or regional level ports: Piedmont Triad Inland Terminal
Regional Transit: Charlotte Area Transit System, Piedmont Area Regional Transit, Greensboro Transit Authority, Durham Area Transit Authority

Identification Criteria Elements

Connectivity

Interstate Highways: I-85, I-40, I-73

STRAHNET: I-85, I-40

STRACNET: NS Crescent Corridor, South Carolina state line to Greensboro; and NCRR, Greensboro to Durham

Interstate connections: Links to South Carolina's I-85 strategic corridor.

Passenger and Freight Mobility

- I-85 carries high truck volumes the entire length of the corridor.
- I-85 carries high passenger volumes from the South Carolina state line to Granville County.
- NCRR carries high freight volumes from South Carolina to Virginia.

Primary Activity Centers

Statewide:
- UNC Charlotte
- Charlotte/Douglas International Airport
- Greensboro regional employment centers
- Duke University

Regional:
- Caromont Regional Medical Center
- Carolinas Medical Center
- Gaston College
- NC A&T

Key Functions and Expectations
(Functions of corridor in context of STC goals and criteria)

- **Connectivity:** Corridor I is part of an interstate highway connecting the southeast US from Alabama to Virginia. I-85 connects many major metropolitan areas across the Piedmont Crescent. The corridor is also a part of the STRAHNET and STRACNET systems.
- **Mobility:** Corridor I provides a major freight connection across the Piedmont Crescent of North Carolina both along I-85 and NCRR. The railroad also carries passenger traffic from Gastonia to Durham.
- **Economic Prosperity:** Corridor I provides connection to multiple important metropolitan areas including Greensboro, Charlotte, and Durham.
- **Expectation:** Corridor I, with the NS railroad and I-85, will continue to be a major route for shipping freight and a vital part of the military highway and rail networks, and is a critical element of the Charlotte, Piedmont Triad, and Research Triangle regional networks. As such, it is critical that the corridor provide the highest possible levels of highway and rail service.

Potential Improvement Strategies
(Potential improvements to support better service of identified key functions and expectations)

- Increase capacity from Charlotte to Kannapolis
- Improvements to connections with other major interstates and highways such as I-77, I-40, US 70, and NC 147

Corridor J:
US 29/NS – I-40 in Guilford County to Virginia state line

General Description

The 40 mile Corridor J serves as an important regional connector for highway traffic from its connection with Corridors I (I-85) and Q (I-40) in Greensboro to Danville, Virginia, serving Guilford, Rockingham, and Caswell counties. It also contains a portion of Norfolk Southern's Crescent Corridor, one of the principal eastern US rail corridors. This corridor carries high freight volumes by truck and train from Greensboro into Virginia and is a primary corridor linking the manufacturing centers of the central Piedmont to markets and employment centers in central Virginia and the Northeast US. US 29 in Virginia is one of that state's identified strategic corridors, the Seminole Corridor.

Primary Facilities or Services

Primary Highway(s): US 29
Other parallel statewide level highways: None
Primary rail line: Norfolk Southern Crescent Corridor (also an element of Corridor I south of Greensboro)
Passenger rail service: Amtrak Crescent

Statewide or regional level airports: None
Statewide level ports: None
Regional Transit: Piedmont Area Regional Transit, Greensboro Transit Authority
State level ferries: None
State level bike/pedestrian routes: None

Identification Criteria Elements

Connectivity	Passenger and Freight Mobility	Primary Activity Centers
STRACNET: NS Crescent Corridor **Interstate connections:** Connection to Virginia's Seminole Corridor of Strategic Significance	• US 29 carries high truck volumes from Greensboro to the Virginia state line. • US 29 carries high passenger volumes from Greensboro to Rockingham County. • NS railroad carries high freight volumes from the connection to NCRR to Virginia.	**Statewide:** • Guilford County tourism center • Greensboro employment center **Regional:** • Moses Cone Hospital • NC A&T • Danville, Virginia employment center

Key Functions and Expectations
(Functions of corridor in context of STC goals and criteria)

- **Connectivity:** Corridor J connects Greensboro and Guilford County to Virginia's US 29 strategic corridor. The NS rail line in this corridor is part of that railroad's multistate Crescent Corridor and of the STRACNET military rail network.
- **Mobility:** US 29 and NS railroad carry heavy freight volumes from Greensboro to the Virginia state line.
- **Economic Prosperity:** Corridor J is a part of the Norfolk Southern mainline through North Carolina and connects Greensboro to Danville, Virginia.
- **Expectation:** Corridor J, while shorter than most, serves as a critical rail link and an important highway link for NE North Carolina counties to job opportunities in south-central Virginia. Highway improvements should focus on safety and reliability to enhance regional economic potential.

Potential Improvement Strategies
(Potential improvements to support better service of identified key functions and expectations)

- Safety improvements on rural, uncontrolled access sections to address high crash sections or hot spots
- Increase highway capacity between Reidsville and Greensboro to preserve needed reliability
- Increase freight rail capacity
- Add passenger rail frequency
- Access management

Corridor K:
US 421/NC 87 – New Hanover County (US 117) to Guilford County (I-40)

General Description

The 175 mile Corridor K is an important regional connector serving the Piedmont and Coastal Plains regions from I-40 in Guilford County through Sanford in Lee County to US 117 in Wilmington and New Hanover County, linking the manufacturing centers of the Piedmont Triad region to export opportunities at the port in Wilmington. The corridor serves New Hanover, Brunswick, Bladen, Cumberland, Harnett, Lee, Chatham, and Guilford Counties and provides a crucial link between the Fort Bragg Army Base and the port at Wilmington and the Sunny Point Military Ocean Terminal. As Corridor K approaches the Wilmington area, it overlaps for 13 miles with Corridor U.

Primary Facilities or Services

Primary Highway(s): US 421, NC 87
Other parallel statewide level highways: US 74
Primary rail line: None
Passenger rail service: None

Statewide or regional level airports: Fayetteville Regional
Statewide level ports: Wilmington
Regional Transit: Fayetteville Area Transit System
State level ferries: None
State level bike/pedestrian routes: None

Identification Criteria Elements

Connectivity	Passenger and Freight Mobility	Primary Activity Centers
STRAHNET: NC 87 **Interstate connections:** None	• US 421 carries high truck volumes from Harnett County to Guilford County.	**Statewide:** • Fort Bragg Army Base • Port of Wilmington • Sunny Point Army Military Ocean Terminal **Regional:** • Fayetteville Regional Airport logistics village • Fayetteville Technical Community College • Sanford-Lee County Airport (logistics village) • Campbell University

Key Functions and Expectations
(Functions of corridor in context of STC goals and criteria)

- **Connectivity:** Corridor K provides an important route for freight movement between Wilmington port and central North Carolina manufacturing and distribution; NC 87 from Fayetteville to Brunswick County is a part of the STRAHNET system.
- **Mobility:** US 421 serves as a principal truck route from the central Piedmont region to the Port at Morehead City, with highest truck volumes between Greensboro and Sanford.
- **Expectation:** As an important military corridor and freight access corridor to the Wilmington port, Corridor K must serve as a safe, reliable corridor. Measures to ensure safety and reliability should outweigh speed in considering future improvements.

Potential Improvement Strategies
(Potential improvements to support better service of identified key functions and expectations)

- Safety improvements on rural, uncontrolled access sections to address high crash sections or hot spots
- Capacity improvements from Sanford to Guilford County
- Access management

Corridor L:
US 1 – South Carolina state line to I-85 near Henderson

General Description

The 157 mile Corridor L is a principal regional connector traversing central North Carolina from South Carolina to the junction of US 1 with I-85 near Henderson. Serving Richmond, Moore, Lee, Chatham, Wake, Franklin, and Vance counties, it is mostly used for regional connectivity and tourism, as its role for interstate travel, freight movement, and commerce has been supplanted by the generally parallel I-95 and CSX A-Line through the entire state. US 1 parallels CSX railroad which serves as the route for Amtrak's Silver Star from Raleigh to Columbia, South Carolina and on to Florida. From Raleigh north to Henderson, the CSX rail line in Corridor L is the preferred alignment for future passenger rail planned from Raleigh to Richmond, Virginia and Washington, DC.

Primary Facilities or Services

Primary Highway(s): US 1, I-440
Other parallel statewide level highways: US 501, US 401
Primary rail line: none
Passenger rail service: Amtrak Silver Star (CSX)
Statewide or regional level airports: None
Statewide or regional level ports: None
Regional Transit: Triangle Transit, Capital Area Transit (Raleigh)
State level ferries: None
State level bike/pedestrian routes: None

Identification Criteria Elements

Connectivity	Passenger and Freight Mobility	Primary Activity Centers
Interstate rail passenger service: Corridor L provides existing Amtrak service and is favored route for new higher speed passenger connection to Amtrak's Northeast Corridor, through Richmond.	• US 1 carries high truck volumes from Lee County to Wake County. • US 1 carries high passenger volumes across Wake County.	**Statewide:** • NC State University • Wake Med Health and Hospitals **Regional:** • Wake Technical Community College • Sanford Lee County Airport logistics village • Moore County tourism center

Key Functions and Expectations
(Functions of corridor in context of STC goals and criteria)

- **Connectivity:** Corridor L serves as a vital regional connector through North Carolina from the South Carolina to Virginia state border. The corridor will be critical to establishing high-speed, frequent rail passenger service from rapidly growing North Carolina Piedmont region to Richmond, Washington, DC, and northeastern US. From Raleigh, US 1 is the primary route for travel north to Virginia and the mid- Atlantic coast region.
- **Mobility:** With parallel I-95 carrying the bulk of long-distance traffic through this broad travel shed, Corridor L will continue to be more of a regional route, plus a principal commuter corridor in the Raleigh region.
- **Economic Prosperity:** Corridor L serves as a regional connector to major employment centers including Fort Bragg Army Base, NC State University, and the capital city of Raleigh.
- **Expectation:** Corridor L emphasis should focus primarily on safety and reliability, with assurance of adequate capacity within the Raleigh region to support its role as a major commuter corridor.

Potential Improvement Strategies
(Potential improvements to support better service of identified key functions and expectations)

- Safety improvements on rural, uncontrolled access sections to address high crash sections or hot spots
- Upgrade rural sections to a divided facility
- Access management and other spot improvement or consistency improvements to ensure improved reliability and safety.
- Rail improvements to establish direct, higher speed passenger service to Richmond, with associated roadway improvements.

Corridor M:
Future I-495/US 64E – I-440 in Wake County to NC 12 in Dare County

General Description

The 186 mile Corridor M serves as the primary travel corridor from the state capital and Research Triangle area to the state's Outer Banks, traversing Wake, Nash, Edgecombe, Martin, Washington, Tyrell, and Dare counties. From Raleigh east to I-95, US 64 has been designated as future I-495, establishing a direct Interstate highway connection from Raleigh to the I-95 corridor and markets of the heavily populated Northeast US. The corridor carries high traffic volumes from Wake County to Rocky Mount with high truck traffic continuing to the connection with US 17 in Martin County. Rocky Mount to Plymouth US 64 parallels a secondary CSX railroad carrying relatively lower volumes of freight.

Primary Facilities or Services

Primary Highway(s): US 64, future I-495
Other parallel statewide level highways: US 264
Primary rail line: None (Secondary rail freight line from Rocky Mount to Plymouth)
Passenger rail service: None
Statewide or regional level airports: None
Statewide or regional level ports: Wanchese Seaport Industrial Park
Regional Transit: Capital Area Transit
State level ferries: None
State level bike/pedestrian routes: None

Identification Criteria Elements

Connectivity	Passenger and Freight Mobility	Primary Activity Centers
Interstate Highways: US 64 from Wake County to I-95 in Nash County is a future Interstate Highway. **Interstate connections:** None	• US 64 carries high truck volumes from Wake County to Martin County. • US 64 carries high passenger volumes from I-440 to Knightdale and around the connection to I-95 in Nash County. • CSX secondary freight rail line provides needed access to manufacturing and natural resource markets in Eastern North Carolina	**Statewide:** • Dare County/Outer Banks tourism center • Rocky Mount/Kingsboro-Rose Megasite logistics village **Regional:** • Martin County Airport logistics village • Wanchese Seafood Industrial Park

Key Functions and Expectations
(Functions of corridor in context of STC goals and criteria)

- **Connectivity:** Conversion of US 64 from Raleigh to I-95 is critical to continued Research Triangle regional growth, to offset continuing mobility issues in the US 1 corridor.
- **Mobility:** US 64 is a critical commuter route for the Raleigh urban area, a valuable connector as future I-495 to the I-95 eastern seaboard route, and major truck route for eastern North Carolina.
- **Economic Prosperity:** US 64 is the principle route linking the northeast North Carolina fishing and tourist areas to the population centers of the Piedmont region.
- **Expectation:** As a vital link from the Research Triangle region to I-95 and to US 17, for access to international markets through the Virginia ports, Corridor M highways should provide high speed, high capacity service to US 17. East of US 17, consistency of reliable travel to the high-volume tourist area of the NC Outer Banks is extremely important to the state and regional economy.

Potential Improvement Strategies
(Potential improvements to support better service of identified key functions and expectations)

- Safety improvements on rural, uncontrolled access sections to address high crash sections or hot spots
- Upgrade US 64 to ensure consistent, high speed travel for freight and tourists.
- Access management as short-term strategy prior to further capacity improvements

Corridor N:
US 13 – US 17 in Bertie County to Virginia state line

General Description

The 47 mile Corridor N, serving Bertie, Hertford, and Gates counties acts as a regional connector for the coastal region of North Carolina from its junction with US 17 in Bertie County to Suffolk, Virginia. This has been identified as a Strategic Transportation Corridor primarily due to the designation of US 13 as a military strategic highway through STRAHNET and its connection in Virginia to that state's Eastern Shore strategic corridor.

Primary Facilities or Services

Primary Highway(s): US 13
Other parallel statewide level highways: None
Primary rail line: None
Passenger rail service: None
Statewide or regional level airports: Pitt-Greenville

Statewide or regional level ports: None
Regional Transit: None
State level ferries: None
State level bike/pedestrian routes: None

Identification Criteria Elements

Connectivity	Passenger and Freight Mobility	Primary Activity Centers
STRAHNET: US 13 **Interstate connections:** Connection to Virginia's US 13 Eastern Shore strategic corridor.	This corridor does not meet the total or freight or passenger volume criteria for strategic corridors.	**Statewide:** With Corridor X, provides needed access to principle eastern North Carolina activity centers in Greenville for northeast North Carolina and to the Hampton Roads, Virginia ports, employment, and medical centers. **Regional:** None

Key Functions and Expectations
(Functions of corridor in context of STC goals and criteria)

- **Connectivity:** US 13 is part of the STRAHNET military highway system and connects North Carolina to the Virginia state line.
- **Expectation:** The focus of Corridor N improvements should be on preservation of the corridor's designation as an element of the STRAHNET network; accordingly, investment should be on improvements that address any safety and spot reliability issues, rather than extensive capacity enhancements.

Potential Improvement Strategies
(Potential improvements to support better service of identified key functions and expectations)

- Safety improvements on rural, uncontrolled access sections to address high crash sections or hot spots
- Access management

Corridor O:
US 17 – South Carolina state line to Virginia state line

General Description

The 284 mile Corridor O is the primary north-south transportation corridor of North Carolina's Coastal Plains region, traversing Brunswick, New Hanover, Pender, Onslow, Jones, Craven, Beaufort, Washington, Perquimans, Pasquotank, Camden, and Currituck counties. The corridor connects North Carolina to major economic development sites outside of the state including employment centers in Virginia's Tidewater region and Myrtle Beach, South Carolina, deep sea ports in Charleston and Hampton Roads, and to the Norfolk International Airport. US 17 is part of the STRAHNET system connecting multiple major military bases including Camp Lejeune Marine Base, the Coast Guard Air Station in Elizabeth City, and the Sunny Point Military Ocean Terminal. Within North Carolina, US 17 serves the coastal counties as a regional connector to multiple regional airports and top tourism destinations. In Virginia, Corridor O links to that state's Northern Neck Corridor of Strategic Significance.

Primary Facilities or Services

Primary Highway(s): US 17
Other parallel statewide level highways: US 13, US 421
Primary rail line: None
Passenger rail service: None
Statewide or regional level airports: Wilmington International, Coastal Carolina Regional (New Bern), Albert Ellis

Statewide or regional level ports: Port of Wilmington
Regional Transit: Wave Transit
State level ferries: None
State level bike/pedestrian routes: None

Identification Criteria Elements

Connectivity	Passenger and Freight Mobility	Primary Activity Centers
STRAHNET: US 17 **Interstate connections:** Connection to Virginia's Northern Neck Corridor of Statewide Significance	This corridor does not meet the total or freight or passenger volume criteria for strategic corridors.	**Statewide:** • Port of Wilmington • Camp Lejeune Marine Base • Hampton Roads port and employment centers • Multiple major employment centers and major tourism areas **Regional:** • Elizabeth City Coast Guard Air Station • Albert Ellis Airport logistics village • Coastal Carolina Regional Airport

Key Functions and Expectations
(Functions of corridor in context of STC goals and criteria)

- **Connectivity:** US 17 is a part of the STRAHNET network connecting multiple major military bases. The corridor also connects North Carolina to the South Carolina and Virginia state borders, providing the only continuous north-south route east of I-95. It provides primary access to international air service from Norfolk airports.
- **Economic Prosperity:** US 17 connects northeast North Carolina markets to the ports in Norfolk and workers to major employment opportunities in southeast Virginia. It serves as major route from eastern North Carolina agricultural activities to international markets through North Carolina, Virginia, and South Carolina ports and provides primary access to critical military installations in the region, for both employment and mission-critical military activities.
- **Expectation:** As a critical transportation corridor for the economically sensitive eastern North Carolina region, Corridor O should continue to be improved to ensure safe, reliable, high speed access to Virginia ports and reliable levels of service throughout the southern portion of the corridor.

Potential Improvement Strategies
(Potential improvements to support better service of identified key functions and expectations)

- Safety improvements on rural, uncontrolled access sections to address high crash sections or hot spots
- Continued upgrade of US 17 to freeway standards
- Access management

Corridor P:
US 70E/NCRR – I-440 in Wake County to Port of Morehead City

General Description

The 145 mile Corridor P serves Wake, Johnston, Wayne, Lenoir, Jones, Craven, and Carteret counties as a regional link across the Coastal Plains, linking the state capital and Research Triangle region and the central North Carolina coast, including the state port in Morehead City. The NCRR mainline follows along US 70 from the Port of Morehead City to the connection to Raleigh, connecting to CSX in Johnston County. US 70 carries high volumes of truck traffic from Wake County to Craven County with high passenger volumes through Johnston County. US 70 is also a major tourist route for those headed to the historic City of Beaufort, Cape Lookout Lighthouse on the Outer Banks, and the central North Carolina beach communities.

Primary Facilities or Services

Primary Highway(s): US 70
Other parallel statewide level highways: I-40
Primary rail line: NCRR
Passenger rail service: None
Statewide or regional level airports: Coastal Carolina Regional (New Bern)

Statewide or regional level ports: Port of Morehead City, Global TransPark
Regional Transit: Capital Area Transit
State level ferries: None; Cedar Island ferry to Ocracoke is further east on US 70
State level bike/pedestrian routes: None

Identification Criteria Elements

Connectivity	Passenger and Freight Mobility	Primary Activity Centers
STRAHNET: US 70 **STRACNET:** NCRR **Primary rail line:** NCRR from Raleigh to Morehead City port **Interstate connections:** None	• US 70 carries high truck volumes from Wake County to Craven County. • US 70 carries high passenger traffic volumes through Johnston County.	**Statewide:** • Port of Morehead City • Seymour Johnson Air Force Base • Global TransPark • Cherry Point Naval Air Station **Regional:** • Coastal Carolina Regional Airport

Key Functions and Expectations
(Functions of corridor in context of STC goals and criteria)

- **Connectivity:** Corridor P contains two major military corridors including US 70 as a part of the STRAHNET system and NCRR as a part of the STRACNET system.
- **Mobility:** Corridor P is the principal freight route from the Morehead City port to the state's Piedmont region, served by both highway and rail, and is a vital trucking route for intermediate cities along the corridor.
- **Economic Prosperity:** US 70 is critical to eastern North Carolina prosperity, linking major economic activity centers of the Research Triangle region to principal eastern North Carolina activity centers in Kinston, Goldsboro, New Bern, and the Port at Morehead City.
- **Expectation:** Safe, reliable freight service and tourism traffic will depend highly on provision of reliable, uninterrupted highway and rail service along the entire length of Corridor P. In addition, the critical mission of NCRR in providing rail service to the Morehead City port calls for continued efforts to upgrade that rail line.

Potential Improvement Strategies
(Potential improvements to support better service of identified key functions and expectations)

- Safety improvements on rural, uncontrolled access sections to address high crash sections or hot spots
- Upgrade US 70 to freeway standards
- Establish consistent route continuity for improved freight operations
- Access management

Corridor Q:
I-40/NCRR/NS – Tennessee state line to US 117 in Wilmington

General Description

The 417 mile Corridor Q is the longest STC, traversing 17 counties from the Tennessee state line in Haywood County to New Hanover County, linking each of the state's three geographic regions and serving a high percentage of the state's population, three of the state's four international airports, major universities, major tourist areas of the NC mountains and southern coast, and the state capital. The primary facility, I-40, is part of a major interstate route across the country from California to North Carolina, serving as a major transcontinental travel and shipping route. Corridor Q includes Norfolk Southern Railroad from Salisbury through Asheville to Tennessee and the NCRR from Salisbury through Greensboro to Raleigh.

Primary Facilities or Services

Primary Highway(s): I-40, I-85
Other parallel statewide level highways: US 70, US 64, US 421, US 117
Primary rail line: Norfolk Southern and NCRR
Passenger rail service: Amtrak (on NCRR) between Greensboro and Raleigh
Statewide or regional level airports: Piedmont Triad International, Raleigh-Durham International, Wilmington International
Statewide or regional level ports: Port of Wilmington
Regional Transit: ART, W-STA, PART, GTA, CAT, Wave Transit
State level ferries: None
State level bike/pedestrian routes: None

Identification Criteria Elements

Connectivity	Passenger and Freight Mobility	Primary Activity Centers
Interstate: I-40 **STRAHNET:** I-40 **STRACNET:** NCRR, Greensboro to Raleigh **Freight Rail:** NCRR; secondary NS line from Salisbury through Asheville to Tennessee **Passenger Rail:** Existing Amtrak service; planned passenger route along Norfolk Southern Railroad from Asheville to Salisbury. **Interstate connections:** to I-40 in eastern Tennessee	• I-40 carries high passenger traffic volumes from Buncombe County to Johnston County. • I-40 carries high truck volumes from the Tennessee state line to the Port of Wilmington.	**Statewide:** • Raleigh-Durham International Airport • Piedmont Triad International Airport • Wilmington International Airport • Research Triangle Park • NC State University • Port of Wilmington • Wake Forest University Baptist Medical Center **Regional:** • Burlington Alamance Airport logistics village • Wake Technical Community College • Asheville-Buncombe Community College

Key Functions and Expectations
(Functions of corridor in context of STC goals and criteria)

- **Mobility:** Corridor Q is the state's most important cross-state corridor, linking all three regions and more activity centers than any other. Together with Corridor I (I-85), it is a major truck route across North Carolina and the US. It carries high truck and passenger volumes through the core of the state.
- **Economic Prosperity:** The corridor connects multiple major metropolitan areas with numerous economic prosperity and employment centers.
- **Expectation:** High-speed, safe, highly reliable service within Corridor Q is needed to continue to grow in North Carolina and the rest of the country as the prosperity centers it connects continue to grow.

Potential Improvement Strategies
(Potential improvements to support better service of identified key functions and expectations)

- Addition of HOT lanes from RDU to the City of Raleigh
- Widening through Wake, Durham, and Guilford counties

Corridor R:
US64W/NC 49/ACWR – I-85 in Mecklenburg County to I-40 in Wake County

General Description

The 127 mile Corridor R serves as a regional connector serving the heart of the Piedmont from Mecklenburg County to Wake County, traversing Mecklenburg, Cabarrus, Stanley, Davidson, Randolph, Chatham, and Wake counties. The corridor also includes the ACWR, a secondary freight railroad connecting Mecklenburg County to Sanford and Lee County. The shortest route between the state's two dominant metropolitan regions of Charlotte and the Research Triangle, Corridor R is a significant reliever route for I-85.

Primary Facilities or Services

Primary Highway(s): US 64 and NC 49
Other parallel statewide level highways: I-85, NC 24, US 1
Primary rail line: Secondary rail freight line (AWRR) from Charlotte to Sanford
Passenger rail service: None
Statewide or regional level airports: None

Statewide or regional level ports: None
Regional Transit: CATS, CAT
State level ferries: None
State level bike/pedestrian routes: None

Identification Criteria Elements

Connectivity	Passenger and Freight Mobility	Primary Activity Centers
This corridor does not meet the connectivity requirements for strategic corridors.	• US 64 carries high passenger volumes from Wake County into Chatham County.	**Statewide:** • UNC – Charlotte • NC Zoological Park • **Regional:** • None

Key Functions and Expectations
(Functions of corridor in context of STC goals and criteria)

- **Mobility:** Several sections of Corridor R carry higher volumes of passenger traffic to major employment centers across county lines.
- **Economic Prosperity:** Corridor R connects rural areas to major employment centers and provides an important alternative corridor to the congested I-85 corridor.
- **Expectation:** As an important regional corridor linking the Charlotte and Raleigh regions, Corridor R improvements should focus on safety and reliability of both highway and rail elements, with spot capacity enhancements as needed to ensure safety and reliability.

Potential Improvement Strategies
(Potential improvements to support better service of identified key functions and expectations)

- Safety improvements on rural, uncontrolled access sections to address high crash sections or hot spots
- Possible bypasses around small towns along US 64 to improve travel speed and reduce delay and local congestion
- Upgrade US 64 and NC 49 to four lane divided sections
- Access management

Corridor S:
I-795/US 117 – I-95 in Wilson County to I-40 in Sampson County

General Description

The 50 mile Corridor S is a regional connector serving Sampson, Duplin, Wayne, and Wilson Counties. The corridor is primarily used to transfer freight from Goldsboro to I-95 in Wilson County, serving as a short reliever to I-95, but is also an important part of the STRAHNET system as it connects Seymour-Johnson Air Force Base to I-95.

Primary Facilities or Services

Primary Highway(s): I-795, US 117
Other parallel statewide level highways: US 13
Primary rail line: None
Passenger rail service: None
Statewide or regional level airports: None

Statewide or regional level ports: None
Regional Transit: None
State level ferries: None
State level bike/pedestrian routes: None

Identification Criteria Elements

Connectivity	Passenger and Freight Mobility	Primary Activity Centers
Interstate: I-795 **STRAHNET:** I-795 **Interstate connections:** None	• I-795 carries high truck volumes from Goldsboro to I-95 in Wilson County.	**Statewide:** • Seymour Johnson Air Force Base **Regional:** • None

Key Functions and Expectations
(Functions of corridor in context of STC goals and criteria)

- **Connectivity:** I-795 is an interstate highway that is part of the STRAHNET system to connect Seymour Johnson Air Force Base to I-95.
- **Mobility:** I-795 carries high truck volumes from Goldsboro to the I-95 connection in Wilson County.
- **Expectation:** Corridor S, as a priority military route for Seymour Johnson AFB, should afford safe, reliable travel along US 117 consistent with service provided by I-795, with emphasis on needed safety improvements.

Potential Improvement Strategies
Potential improvements to support better service of identified key functions and expectations)

- Access management along US 117
- Upgrade intersections at US 13 and NC 55
- Safety improvements on rural, uncontrolled access sections to address high crash sections or hot spots

Corridor T:
I-95/CSX– South Carolina state line to Virginia state line

General Description

The 181 mile Corridor T in North Carolina is a part of the primary east coast shipping and travel route from Miami, FL to New Brunswick in Canada. Within the corridor, I-95 parallels the CSX mainline which carries passenger rail and high freight volumes along the East Coast. In North Carolina, I-95 connects important regional employment centers across the Coastal Plains region such as Fayetteville, Wilson, Rocky Mount, and Roanoke Rapids. The corridor is a popular tourism route providing out of state connections to major US tourism destinations including Washington, DC, Richmond, Virginia, Savannah, Georgia, and Florida's east coast.

Primary Facilities or Services

Primary Highway(s): I-95
Other parallel statewide level highways: US 1
Primary rail line: CSX A Line mainline
Passenger rail service: Amtrak Silver Meteor and Palmetto
Statewide or regional level airports: Fayetteville Regional
Statewide or regional level ports: None
Regional Transit: FAST
State level ferries: None
State level bike/pedestrian routes: None

Identification Criteria Elements

Connectivity	Passenger and Freight Mobility	Primary Activity Centers
Interstate: I-95 **STRAHNET:** I-95 **STRACNET:** CSX A-Line, South Carolina to Virginia state lines **Interstate connections:** to Virginia's I-95 Corridor of Strategic Significance and South Carolina's strategic I-95 corridor	• I-95 carries high truck volumes from the South Carolina state line to the Virginia state line. • I-95 carries high passenger volumes intermittently from the South Carolina state line to the Virginia state line.	**Statewide:** • Ft. Bragg Army Base • Seymour Johnson Air Force Base • Fayetteville Regional Airport **Regional:** • Lumberton Municipal Airport logistics village • Multiple employment centers • Fayetteville State University

Key Functions and Expectations
(Functions of corridor in context of STC goals and criteria)

- **Connectivity:** Both the highway and rail elements of Corridor T are vital to national economic interests, serving highway and rail freight movement and important rail passenger services. It is a part of the STRAHNET system along the majority of the east coast. The corridor also connects multiple major US cities across the country.
- **Mobility:** Corridor I is a major shipping and travel route for many ports and companies along the east coast. The CSX mainline is one of that company's most heavily used corridors.
- **Expectation:** Corridor T must be maintained at the highest possible levels of service to provide continued high quality interstate commerce for both highway and rail elements; aging highway infrastructure is a threat to both safety and reliability, with remedy threatened by ongoing funding challenges. Perhaps more than any other NC STC, Corridor T performance will impact economic performance of the entire SE region of the US.

Potential Improvement Strategies
(Potential improvements to support better service of identified key functions and expectations)

- Widening to address recurring congestion, particularly during holiday travel seasons
- Pavement replacement
- Structures rehabilitation and replacement of deficient structures

Corridor U:
US 74W/US 74E/I-74 – I-26 in Polk County to US 117 at Wilmington

General Description

The 278 mile Corridor U serves southwest North Carolina from I-26 in Polk County to US 117 in Wilmington, the primary access to the Port at Wilmington, traversing the state's southern tier counties and the Charlotte metropolitan area. US 74 carries high truck volumes for the entire length of the corridor and high passenger volumes from Shelby to Monroe. Corridor U overlaps Corridor H (Future I-74) for 91 miles from Rockingham to Columbus County. The corridor includes the CSX rail line from the state port at Wilmington through Charlotte to its junction with Corridor D in Rutherford County. The corridor is used as both a regional and statewide connection to major employment centers, airports, and health centers.

Primary Facilities or Services

Primary Highway(s): US 74, I-85, I-74
Other parallel statewide level highways: I-85, I-485
Primary rail line: CSX (also an element of Corridor H)
Passenger rail service: None
Statewide or regional level airports: Charlotte Douglas International, Wilmington International
Statewide or regional level ports: Port of Wilmington, Charlotte Inland Terminal
Regional Transit: None
State level ferries: None
State level bike/pedestrian routes: None

Identification Criteria Elements

Connectivity	Passenger and Freight Mobility	Primary Activity Centers
Interstate: Portion of I-85, Future I-74 **STRAHNET:** US 74 **STRACNET:** CSX (Charlotte to Wilmington) **Interstate connections:** None	• US 74 carries high truck volumes along the entire length of the corridor. • US 74 carries high passenger volumes from Shelby to Monroe. • The CSX mainline carries high freight volumes from Monroe to Lumberton.	**Statewide:** • Charlotte Douglas International Airport • Wilmington International Airport • Port of Wilmington • Charlotte region employment centers • UNC-Charlotte **Regional:** • UNC-Pembroke • UNC-Wilmington • New Hanover Regional Medical Center • Charlotte Inland Terminal

Key Functions and Expectations
(Functions of corridor in context of STC goals and criteria)

- **Connectivity:** Corridor U is a part of the STRAHNET and STRACNET military networks and is becoming part of the interstate system from Richmond County to Columbus County.
- **Mobility:** US 74 is a major route for truck and rail transport across the state's southern tier. The CSX line from Hamlet to Charlotte and on to Tennessee is a critical element of the national rail network, with clearance for double-stack freight operations.
- **Economic Prosperity:** US 74 connects multiple statewide economic resources including two international airports, Carolinas Medical Center, and the Port of Wilmington.
- **Expectation:** Corridor U is expected to remain the principal east-west corridor through NC's southern tier of counties. The principal mobility expectations are safe, reliable transition through the greater Charlotte region and consistent, high speed travel from the Port at Wilmington to the Charlotte metro region, in support of high level economic activities.

Potential Improvement Strategies
(Potential improvements to support better service of identified key functions and expectations)

- Complete high-capacity, high-speed improvements for improved route continuity
- Increase reliability and capacity from Shelby to Monroe
- Safety improvements on rural, uncontrolled access sections to address high crash sections or hot spots
- Establish consistent route continuity for improved freight operations

Corridor V:
US 264E – US 64E in Wake County to US 17 in Beaufort County

General Description

The 84 mile Corridor V serves eastern North Carolina as a regional connector from US 64 in Wake County to US 17 in Beaufort County, traversing Wake, Nash, Wilson, Pitt, and Washington counties. The corridor provides rural connectivity between statewide employment centers in Wilson and Pitt counties and is the primary highway connection to East Carolina University.

Primary Facilities or Services

Primary Highway(s): US 264, I-795
Other parallel statewide level highways: US 64
Primary rail line: None
Passenger rail service: None
Statewide or regional level airports: Pitt-Greenville

Statewide or regional level ports: None
Regional Transit: None
State level ferries: None
State level bike/pedestrian routes: None

Identification Criteria Elements

Connectivity	Passenger and Freight Mobility	Primary Activity Centers
This corridor does not meet the connectivity criteria for strategic corridors.	• US 264 carries high truck volumes from Wake County to Pitt County.	**Statewide:** • East Carolina University • University Health Systems of Eastern Carolina **Regional:** • Pitt-Greenville Airport • Pitt Community College

Key Functions and Expectations
(Functions of corridor in context of STC goals and criteria)

- **Economic Development:** Corridor V provides rural connectivity to major employment centers in eastern North Carolina.
- **Expectation:** Corridor V will continue to grow as an intermediate shipping route from Wake County to the coastal area in Beaufort County. The expectation is that improvement investments will focus on safety and spot reliability and congestion issues rather than extensive corridor upgrades.

Potential Improvement Strategies
(Potential improvements to support better service of identified key functions and expectations)

- Safety improvements on rural, uncontrolled access sections to address high crash sections or hot spots
- Connection improvements to bypass Greenville
- Localized congestion improvements from Greenville to Washington
- Access management

Corridor W:
US 401/NC 24/US 258 – I-74 in Scotland County to Port at Morehead City

General Description

The 185 mile Corridor W is a regional connector serving the southeastern Coastal Plains of North Carolina and is a direction connection between Fort Bragg Army Base and Camp Lejeune. US 401 from I-74 in Scotland County to Fayetteville provides regional connectivity to employment centers. From Ft. Bragg to Camp Lejeune, NC 24 is an important STAHNET link connecting critical military bases. From Camp Lejeune to Morehead City, NC 24 is a major tourism route serving the central North Carolina coastal communities and military link to the Morehead City port.

Primary Facilities or Services

Primary Highway(s): US 401, US 258
Other parallel statewide level highways: US 74, NC 24
Primary rail line: None
Passenger rail service: None
Statewide or regional level airports: Fayetteville Regional, Albert J. Ellis (Jacksonville)

Statewide or regional level ports: Port of Morehead City
Regional Transit: FAST
State level ferries: None
State level bike/pedestrian routes: None

Identification Criteria Elements

Connectivity	Passenger and Freight Mobility	Primary Activity Centers
STRAHNET: NC 24 **Interstate connections:** None	This corridor does not meet the total passenger or freight volume criteria for strategic corridors.	**Statewide:** • Fort Bragg Army Base • Camp Lejeune Marine Base • New River Marine Corps Air Station • Port of Morehead City **Regional:** • Laurinburg-Maxton Airport logistics village • Albert J. Ellis Airport logistics village

Key Functions and Expectations
(Functions of corridor in context of STC goals and criteria)

- **Connectivity:** Linking Fort Bragg to the Port of Morehead City though Jacksonville and Camp Lejeune, Corridor W is a critical element of the STRAHNET system. The rail line from Camp Lejeune to the port is part of the STRACNET system.
- **Economic Development:** Corridor W provides regional connectivity to employment centers, military bases, tourist attractions and the Port of Morehead City.
- **Expectation:** Corridor W will remain a vital link in the STRAHNET and STRACNET systems as it connects multiple major military facilities in the eastern part of the state. As such, investment and improvement focus should be on safety and reliability improvements.

Potential Improvement Strategies
(Potential improvements to support better service of identified key functions and expectations)

- Safety upgrades on rural, uncontrolled access sections to address high crash sections or hot spots
- Bypasses of Raeford
- Access management

Corridor X:
US 258/NC 11/US 13 – US 17 in Onslow County to US 64E in Edgecombe County

General Description

The 90 mile Corridor X serves Onslow, Jones, Lenoir, and Pitt counties in eastern North Carolina. The corridor provides rural connection to economic development centers in Jacksonville, Kinston, and Greenville, including Camp Lejeune, Global TransPark, and East Carolina University.

Primary Facilities or Services

Primary Highway(s): US 258, NC 11, US 13
Other parallel statewide level highways: NC 24, US 17, I-795
Primary rail line: None
Passenger rail service: None
Statewide or regional level airports: Albert J. Ellis (Jacksonville)
Statewide or regional level ports: Global TransPark
Regional Transit: None
State level ferries: None
State level bike/pedestrian routes: None

Identification Criteria Elements

Connectivity	Passenger and Freight Mobility	Primary Activity Centers
This corridor does not meet the connectivity criteria for strategic corridors.	This corridor does not meet the total passenger or freight volume criteria for strategic corridors.	**Statewide:** • Camp Lejeune Marine Base • Global TransPark • East Carolina University • University Health Systems of Eastern Carolina **Regional:** • Albert J. Ellis Airport and logistics village

Key Functions and Expectations
(Functions of corridor in context of STC goals and criteria)

- **Economic Development:** Corridor X provides east-central North Carolina regional connection to employment centers, regional airports, and a major university.
- **Expectation:** As an important regional corridor in central eastern North Carolina, Corridor X is vital to providing safe, reliable access to multiple Greenville activity centers. Corridor improvement investments should focus on ensuring safe, reliable travel within the region.

Potential Improvement Strategies
(Potential improvements to support better service of identified key functions and expectations)

- Safety upgrades on rural, uncontrolled access sections to address any identified high crash sections or hot spots
- Spot capacity or operational improvements to improve reliability
- Access management

Corridor Y:
US 158 – I-85 in Vance County to US 64 in Dare County

General Description

The 192 mile Corridor Y serves Vance, Warren, Halifax, North Hampton, Hertford, Gates, Pasquotank, and Dare counties across northeastern North Carolina. US 158 provides rural access to employment centers in Henderson, Roanoke Rapids, and Murfreesboro and is considered to be a critical element of these Tier 1 economically depressed counties to advance economic development and jobs creation efforts. At its eastern end, Corridor Y serves as the principal access route to the Outer Banks from southeast Virginia.

Primary Facilities or Services

Primary Highway(s): US 158
Other parallel statewide level highways: US 64 (Corridor M)
Primary rail line: None
Passenger rail service: None
Statewide or regional level airports: None
Statewide or regional level ports: Wanchese Seafood Industrial Park
Regional Transit: None
State level ferries: None
State level bike/pedestrian routes: None

Identification Criteria Elements

Connectivity	Passenger and Freight Mobility	Primary Activity Centers
This corridor does not meet the connectivity criteria for strategic corridors.	This corridor does not meet the total passenger or freight volume criteria for strategic corridors.	**Statewide:** • Triangle North/Warren County development site • Dare County beaches **Regional:** • Halifax Regional Medical Center • Chowan University • Wanchese Seafood Industrial Park

Key Functions and Expectations
(Functions of corridor in context of STC goals and criteria)

- **Economic Development:** Corridor Y provides regional connection to employment centers in the northeast counties of North Carolina and is the primary access route from SE Virginia to the northeast North Carolina coastal communities and is critical to providing jobs in these Tier 1 economically depressed counties, to advance economic development and jobs creation efforts.
- **Expectation:** The importance of Corridor Y is primarily in its support of economic development initiatives; as such, corridor improvement investments should focus on improvements to safety and reliability rather than major capacity enhancements.

Potential Improvement Strategies
(Potential improvements to support better service of identified key functions and expectations)

- Safety improvements on rural, uncontrolled access sections to address high crash sections or hot spots
- Spot capacity or operational improvements to improve reliability
- Access management

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