



# 2016 Scotland County Comprehensive Transportation Plan



## 2016 Scotland County Comprehensive Transportation Plan

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In Cooperation with:	Scotland County City of Laurinburg Town of East Laurinburg Town of Gibson
	Town of Wagram Town of Maxton Lumber River Rural Planning Organization

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### **Executive Summary**

In December of 2013, the Transportation Planning Branch of the North Carolina Department of Transportation (NCDOT) and Scotland County initiated a study to cooperatively develop the Scotland County Comprehensive Transportation Plan (CTP), which includes Laurinburg, Maxton, Wagram and Gibson. This is a long range multi-modal transportation plan that covers transportation needs through 2040. Modes of transportation evaluated as part of this plan include: highway, public transportation and rail, bicycle, and pedestrian. This plan does not cover routine maintenance or minor operations issues. Refer to Appendix A for contact information on these types of issues.

Findings of this CTP study were based on an analysis of the transportation system, environmental screening and public input, which are detailed in Chapter 1. Figure 1 shows the CTP maps, which were mutually adopted by NCDOT on December 1, 2016. Descriptive information and definitions for designations depicted on the CTP maps can be found in Appendix B. Implementation of the plan is the responsibility of Scotland County, its municipalities and NCDOT. Refer to Chapter 2 for information on the implementation process.

This report documents the recommendations for improvements that are included in the Scotland County CTP. The major recommendations for improvements are listed below. More detailed information about these and other recommendations can be found in Chapter 2.

#### <u>HIGHWAY</u>

- **US 15/401:** Widen to a four lane divided boulevard from South Carolina to Hoke County
- US 15 Business: Modify Atkinson Street (SR 1107) and Armory Street (SR 1640)/Biggs Street (SR 1642), which run parallel to US 15-401 Business (Main Street), to form a one-way pair from the Atkinson Street (SR 1107)/ US 15-401 Business (Main Street) intersection to US 74 Business (Church Street).
- **US 74/Future I-74:** Upgrade to interstate standards from Richmond County to Robeson County.
- **US 74 Business:** Widen to a three lane major thoroughfare with a continuous center turn lane from US 15 (McColl Road) to Caledonia Road (SR 1438).
- Lauchwood Drive (SR 1674): Widen to a four lane divided boulevard from US 15-401 (McColl Road) to US 501 Business (Johns Road).
- X-Way Road/West Boulevard (SR 1108): Widen to three lanes with a continuous center turn lane from Turnpike Road (SR 1105) to US 15 (McColl Road). Includes

installing pedestrian bridge and/or widening the existing bridge over US 74 to improve safety.

#### PUBLIC TRANSPORTATION AND RAIL

A public transportation and rail assessment was completed during the development of the CTP. There are no proposed fixed route bus services or rail improvements proposed in this CTP.

#### BICYCLE

The 2015 Laurinburg Comprehensive Pedestrian Plan was used to identify multi-use paths within Laurinburg area. These facilities were incorporated into the CTP. For more detailed information refer to Chapter 2 of this report.

#### PEDESTRIAN

The 2015 Laurinburg Comprehensive Pedestrian Plan was used to identify multi-use paths and pedestrian facilities within the Laurinburg area. These facilities were incorporated into the CTP. Additional pedestrian improvements throughout the county were identified during the development of the CTP. For more detailed information refer to Chapter 2 of this report.



Sheet 1 Adoption Sheet

Sheet 2 Highway Map

Sheet 3 Public Transportation and Rail Map

Sheet 4 Bicycle Map

Sheet 5 Pedestrian Map









# **Scotland County**

North Carolina

### Comprehensive Transportation Plan

Plan date: August 31, 2016



#### Freeways

Existing
Needs Improvement
Recommended

Expressways

Existing

Recommended

**Boulevards** 

Existing

Needs Improvement

Recommended

#### Other Major Thoroughfares

- Existing
- Needs Improvement
- Recommended

Minor Thoroughfares

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- Existing
- ---- Needs Improvement
- ----- Recommended
- Existing Interchange
  - Proposed Interchange
- O Interchange Needs Improvement
  - Existing Grade Separation
  - Proposed Grade Separation



Base map date: January 3, 2014

Refer to CTP document for more details

### **Highway Map**



# **Scotland County**

### Comprehensive Transportation Plan

Plan date: August 31, 2016

















### **1. Analysis of the Existing and Future Transportation System**

A Comprehensive Transportation Plan (CTP) is developed to ensure that the transportation system will meet the needs of the region for the planning period. The CTP serves as an official guide to providing a well-coordinated, efficient, and economical transportation system for the future of the region. This document should be utilized by the local officials to ensure that planned transportation facilities reflect the needs of the public, while minimizing the disruption to local residents, businesses and environmental resources.

In order to develop a CTP, the following are considered:

- Analysis of the transportation system, including any local and statewide initiatives;
- Impacts to the natural and human environment, including natural resources, historic resources, homes, and businesses;
- Public input, including community vision and goals and objectives.

### 1.1 Analysis Methodology and Data Requirements

Reliable forecasts of future travel patterns must be estimated in order to analyze the ability of the transportation system to meet future travel demand. These forecasts depend on careful analysis of the character and intensity of existing and future land use and travel patterns.

An analysis of the transportation system looks at both current and future travel patterns and identifies existing and anticipated deficiencies. This is usually accomplished through a capacity deficiency analysis, a traffic crash analysis, and a system deficiency analysis. This information, along with population growth, economic development potential, and land use trends, is used to determine the potential impacts on the future transportation system.

#### Roadway System Analysis

An important stage in the development of a CTP is the analysis of the existing transportation system and its ability to serve the area's travel demand. Emphasis is placed not only on detecting the existing deficiencies, but also on understanding the causes of these deficiencies. Roadway deficiencies may result from inadequacies in pavement widths, intersection geometry, or intersection controls. System deficiencies may result from missing travel links, bypass routes, loop facilities, or radial routes; or improvements needed to meet statewide initiatives.

One of those statewide initiatives is the Strategic Transportation Corridors (STC)<sup>1</sup> adopted by the Board of Transportation on March 4, 2015. The STC identify a network of critical multimodal transportation corridors considered the backbone of the state's transportation system. These 25 corridors move most of our freight and people, link critical centers of economic activity to international air and sea ports, and support

<sup>&</sup>lt;sup>1</sup> For more information on the STC, go to: <u>https://connect.ncdot.gov/projects/planning/Pages/NCTransportationNetwork.aspx</u>

interstate commerce. They must operate well to help North Carolina attract new businesses, grow jobs and catalyze economic development.

The primary purpose of the STC is to provide North Carolina with a network of highpriority, multimodal transportation corridors and facilities that connect statewide and regional activity centers to enhance economic development, promote highly-reliable, efficient mobility and connectivity, and support good decision-making. The primary goal to support this purpose is to create a greater consensus towards the development of a genuine vision for each corridor that establishes the statewide or regional importance of facilities and the need for maintaining high capacity and travel speed. During the development of CTPs, the STC network should be cross-referenced to ensure plan consistency. Incorporating the statewide and regional mobility goals set forth in the STC network 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.

In the development of this plan, travel demand was projected from 2014 to 2040 using a trend line analysis based on Annual Average Daily Traffic (AADT) from 1992 to 2013 for rural areas of the county, and a travel demand model for the urban areas. Travel demand models are developed to replicate travel patterns on the existing transportation system as well as to estimate travel patterns for 2040. In addition, local land use plans and growth expectations were used to further refine future growth rates and patterns. The established future growth rates were endorsed by the Scotland County Commissioners on July 8, 2014. Refer to Appendix G for more detailed information on growth expectations and the socio-economic data forecasting methodology.

Existing and future travel demand is compared to existing roadway capacities. Capacity deficiencies occur when the traffic volume of a roadway exceeds the roadway's capacity. Roadways are considered near capacity when the traffic volume is at least eighty percent of the capacity. Refer to Figures 2 and 3 for existing and future capacity deficiencies. The 2040 traffic volumes in Figure 3 are an estimate of the traffic volume in 2040 with only existing plus committed projects assumed to be in place, where committed is defined as projects programmed for construction in the 2016 – 2025 Transportation Improvement Program<sup>2</sup> (TIP).

Capacity is the maximum number of vehicles which have a "reasonable expectation" of passing over a given section of roadway, during a given time period under prevailing roadway and traffic conditions. Many factors contribute to the capacity of a roadway including the following:

Geometry of the road (including number of lanes), horizontal and vertical alignment, and proximity of perceived obstructions to safe travel along the road;

<sup>&</sup>lt;sup>2</sup> For more information on the TIP, go to: <u>https://connect.ncdot.gov/projects/planning/Pages/default.aspx</u>

- Typical users of the road, such as commuters, recreational travelers, and truck traffic;
- Access control, including streets and driveways, or lack thereof, along the roadway;
- Development along the road, including residential, commercial, agricultural, and industrial developments;
- Number of traffic signals along the route;
- Peaking characteristics of the traffic on the road;
- Characteristics of side-roads feeding into the road; and
- Directional split of traffic or the percentages of vehicles traveling in each direction along a road at any given time.

The relationship of travel demand compared to the roadway capacity determines the level of service (LOS) of a roadway. Six levels of service identify the range of possible conditions. Designations range from LOS A, which represents the best operating conditions, to LOS F, which represents the worst operating conditions.

LOS D indicates "practical capacity" of a roadway, or the capacity at which the public begins to experience delay. The practical capacity for each roadway was developed based on the 2000 Highway Capacity Manual using the Transportation Planning Branch's *LOS D Standards for Systems Level Planning*. Recommended improvements and overall design of the transportation plan were based upon achieving a minimum LOS D on existing facilities and a LOS C for new facilities. Refer to Appendix E for detailed information on LOS.

#### Traffic Crash Assessment

Traffic crashes are often used as an indicator for locating congestion and roadway problems. Crash patterns obtained from an analysis of crash data can lead to the identification of improvements that will reduce the number of crashes. The Traffic Safety Unit of NCDOT's Transportation Mobility and Safety Division identifies high frequency crashes at intersections and along roadway sections during a five year period. The high frequency crash locations examined during the development of the Scotland County CTP occurred between January 1, 2007 and December 31, 2011. During this period, a total of twelve intersections and thirty-four roadway sections were identified as having a high frequency of crashes as illustrated in Figure 4. Contact information for the Transportation Mobility and Safety Division can be found in Appendix A.

The NCDOT is actively involved with investigating and improving many of these locations. To request a more detailed analysis for any of these locations, or other intersections of concern, contact the Division Traffic Engineer (see Appendix A).

#### Bridge Deficiency Assessment

Bridges are a vital element of a highway system. First, they represent the highest unit investment of all elements of the system. Second, any inadequacy or deficiency in a bridge reduces the value of the total investment. Third, a bridge presents the greatest opportunity of all potential highway failures for disruption of community welfare. Finally, and most importantly, a bridge represents the greatest opportunity of all highway failures for loss of life. For these reasons, it is imperative that bridges be constructed to the same design standards as the system of which they are a part.

The NCDOT Structures Management Unit inspects all bridges in North Carolina at least once every two years. Bridges having the highest priority are replaced as federal and state funds become available. Twenty-nine deficient bridges were identified on roads evaluated as part of the CTP and are illustrated in Figure 5. Of these, six are scheduled for replacement in the 2016 – 2025 TIP. Additionally, twelve others occur along roadways recommended for improvement in the CTP. As deficient bridges are replaced, every consideration should be given to proposed CTP recommendation and cross section associated with the recommendation. Table 3 in Appendix F gives a listing of the deficient bridges identified in the CTP and the ID number associated with CTP project proposal. Refer to Appendix F for more detailed bridge deficiency information.











### Legend

#### Crash Intersections

- ♦ 50 and above
- ▲ 40 to 49
- **30 to 39**
- 20 to 29
- 10 to 19
- 9 4 to

**Crash Sections** 

- ----- 10 to 19 ----- 4 to 9
- ----- Study Roads
  - Roads

  - + Airports
  - Railroads
     Rivers and Streams
  - Water Bodies Military Base Municipal Boundary



Miles

Sheet 1 of 2

Base map date: January 3, 2014

### Figure 4 HIGH FREQUENCY CRASH LOCATIONS

January 1, 2007 to December 31, 2011



## Scotland County Comprehensive Transportation Plan



### Legend

#### **Crash Intersections**

- 50 and above  $\bigcirc$
- 40 to 49
- 30 to 39
- 20 to 29
- 10 to 19
- 4 to 9
- 20 to 29 - 10 to 19 4 to 9
- Crash Sections 50 and above

30 to 39

- 40 to 49
  - - + Airports
    - Railroads

Roads

Schools

**Rivers and Streams** Water Bodies Military Base **Municipal Boundary** County Boundary

- Study Roads



Sheet 2 of 2

Base map date: January 3, 2014

Miles

Figure 4 (Inset A) **HIĞH FREQUENCY CRASH LOCATIONS** 

January 1, 2007 to December 31, 2011



## **Scotland County** Comprehensive **Transportation Plan**







#### Public Transportation and Rail

Public transportation and rail are vital modes of transportation that give alternatives for transporting people and goods from one place to another.

#### Public Transportation

North Carolina's public transportation systems serve more than 50 million passengers each year. Five categories define North Carolina's public transportation system: community, regional community, urban, regional urban and intercity.

- Community Transportation Local transportation efforts formerly centered on assisting clients of human service agencies. Today, the vast majority of rural systems serve the general public as well as those clients.
- Regional Community Transportation Regional community transportation systems are composed of two or more contiguous counties providing coordinated / consolidated service. Although such systems are not new, single-county systems are encouraged to consider mergers to form more regional systems.
- Urban Transportation There are currently nineteen urban transit systems operating in North Carolina, from locations such as Asheville and Hendersonville in the west to Jacksonville and Wilmington in the east. In addition, small urban systems provide service in three areas of the state. Consolidated urban-community transportation exists in five areas of the state. In those systems, one transportation system provides both urban and rural transportation within the county.
- Regional Urban Transportation Regional urban transit systems currently operate in three areas of the state. These systems connect multiple municipalities and counties.
- Intercity Transportation Intercity bus service is one of a few remaining examples of privately owned and operated public transportation in North Carolina. Intercity buses serve many cities and towns throughout the state and provide connections to locations in neighboring states, Amtrak passenger station and throughout the United States and Canada. Greyhound and Amtrak Thruway service operate in North Carolina. However, community, urban and regional transportation systems are providing increasing intercity service in North Carolina.

An inventory of existing and planned fixed public transportation routes for the planning area is presented on Sheet 3 of Figure 1. In addition to operating an on demand transit service for citizens within the county, the Scotland County Area Transit System<sup>3</sup> (SCATS) also operates a fixed route transportation system from Monday through Friday to serve local residential neighborhoods and occupants of multi-family housing complexes wishing to access the various retail districts in Laurinburg. There are two routes that share several common stops allowing riders to change buses and access both sides of town. All recommendations for public transportation were coordinated with the local governments

<sup>&</sup>lt;sup>3</sup> For more information on SCATS, go to: <u>http://www.scotlandcounty.org/transportation-dept.aspx</u>

and the Public Transportation Division of NCDOT. Refer to Appendix A for contact information for the Public Transportation Division.

#### <u>Rail</u>

Today North Carolina has 3,245 miles of railroad tracks throughout the state. There are two types of trains that operate in the state, passenger trains and freight trains.

Intercity passenger service is provided by Amtrak which currently operates six passenger services daily in or through North Carolina serving 16 cities across the state. Five of the services are interstate (Crescent, Palmetto, Silver Meteor, Silver Star, and Carolinian passenger trains) and one service (Piedmont passenger train) operates exclusively within North Carolina. In addition to the six passenger services mentioned, Amtrak also operates its Auto Train service which passes through North Carolina but does not make any stops. Amtrak ridership demand has been on a rise in the state. In 2010 ridership was 840,000 and increased to 975,645 passengers in 2013.

The North Carolina Department of Transportation sponsors two passenger trains, the Carolinian and Piedmont. The Carolinian runs between Charlotte and New York City, while the Piedmont train carries passengers from Raleigh to Charlotte and back every day. However, no passenger trains operate over the rail line from High Point that dead ends at Asheboro or over the rail line that runs from Gulf, NC to Greensboro. Combined, the Carolinian and Piedmont carry more than 300,000 passengers each year.

There are two major freight railroad companies that operate in North Carolina, CSX Transportation and Norfolk Southern Corporation. Also, there are more than 17 smaller freight railroads, known as shortlines.

An inventory of existing and planned rail facilities for the planning area is presented on Sheet 3 of Figure 1. There are three active rail lines operating in Scotland County. The CSX Transportation South East railroad runs east from Richmond County, passing through Laurinburg before crossing into Robeson County. The CSX Transportation SH railroad runs southeast from Richmond County, passing through Gibson before crossing into South Carolina. The Laurinburg & Southern Company Inc. (LSR) is owned and operated by Gulf and Ohio Railways. The LSR railroad begins south of Laurinburg and runs northeast, passing through Laurinburg and Wagram before crossing into Hoke County. All recommendations for rail were coordinated with the local governments and the Rail Division of NCDOT. Refer to Appendix A for contact information for the Rail Division.

#### Bicycles & Pedestrians

Bicyclists and pedestrians are a growing part of the transportation system in North Carolina. Many communities are working to improve mobility for both cyclists and pedestrians.

NCDOT's Bicycle Policy, updated in 1991, clarifies responsibilities regarding the provision of bicycle facilities along the 77,000-mile state-maintained highway system. The policy details guidelines for planning, design, construction, maintenance, and operations pertaining to bicycle facilities and accommodations. All bicycle improvements undertaken by NCDOT are based upon this policy.

The 2000 NCDOT Pedestrian Policy Guidelines specifies that NCDOT will participate with localities in the construction of sidewalks as incidental features of highway improvement projects. At the request of a locality, state funds for a sidewalk are made available if matched by the requesting locality, using a sliding scale based on population.

NCDOT's administrative guidelines, adopted in 1994, ensure that greenways and greenway crossings are considered during the highway planning process. This policy was incorporated so that critical corridors which have been adopted by localities for future greenways will not be severed by highway construction.

Inventories of existing and planned bicycle and pedestrian facilities for the planning area are presented on Sheets 4 and 5 of Figure 1. The 2015 Laurinburg Walks<sup>4</sup> -Comprehensive Pedestrian Plan and the 2013 North Carolina Statewide Pedestrian and Bicycle Plan<sup>5</sup> (WalkBikeNC) were utilized in the development of these elements of the CTP. US Bicycle Route #1 runs northeast through the county from South Carolina along Old Stage Road (SR 1128), X-Way Road (SR 1108), Turnpike Road (SR 1105), US 74 Business(Church Street), Wilkinson Drive (SR 1358), Sneads Grove Road (SR 1105/SR 1324), Sneadtown Road (SR 1324), Silver Hill Road (SR 1328), US-15/US-501, Arch McLean Road (SR 1415) and Turnpike Road (SR 1412) into Hoke County. All recommendations for bicycle and pedestrian facilities were coordinated with the local governments and the NCDOT Division of Bicycle and Pedestrian Transportation. Refer to Appendix A for contact information for the Division of Bicycle and Pedestrian Transportation.

#### Land Use

G.S. §136-66.2 requires that local areas have a current (less than five years old) land development plan prior to adoption of the CTP. For this CTP, the 2015 City of Laurinburg and the 2014 Scotland County Land Use Plans (refer to Appendix G) were used to meet this requirement.

Land use refers to the physical patterns of activities and functions within an area. Traffic demand in a given area is, in part, attributed to adjacent land use. For example, a large shopping center typically generates higher traffic volumes than a residential area. The spatial distribution of different types of land uses is a predominant determinant of when, where, and to what extent traffic congestion occurs. The travel demand between different land uses and the resulting impact on traffic conditions varies depending on the size, type, intensity, and spatial separation of development. Additionally, traffic volumes have

<sup>&</sup>lt;sup>4</sup> To view the 2015 Laurinburg Walks plan, go to: <u>https://connect.ncdot.gov/municipalities/PlanningGrants/Pages/Grant-Recipients-and-Completed-Plans.aspx</u>.

<sup>&</sup>lt;sup>5</sup> To view the WalkBike NC plan, go to: <u>https://www.ncdot.gov/bikeped/walkbikenc/</u>.

different peaks based on the time of day and the day of the week. For transportation planning purposes, land use is divided into the following categories:

- Residential: Land devoted to the housing of people, with the exception of hotels and motels which are considered commercial.
- Commercial: Land devoted to retail trade including consumer and business services and their offices; this may be further stratified into retail and special retail classifications. Special retail would include high-traffic establishments, such as fast food restaurants and service stations; all other commercial establishments would be considered retail.
- Industrial: Land devoted to the manufacturing, storage, warehousing, and transportation of products.
- Public: Land devoted to social, religious, educational, cultural, and political activities; this would include the office and service employment establishments.
- Agricultural: Land devoted to the use of buildings or structures for the raising of non-domestic animals and/or growing of plants for food and other production.
- ◆ <u>Mixed Use:</u> Land devoted to a combination of any of the categories above.

Anticipated future land development is, in general, a logical extension of the present spatial land use distribution. Locations and types of expected growth within the planning area help to determine the location and type of proposed transportation improvements.

The majority of Scotland County's land use is agricultural operations. Residential, commercial, and industrial land uses are largely concentrated in and around the municipalities of Laurinburg, Wagram, Gibson and Maxton. According to 2015 Laurinburg land use plan, existing commercial, residential and industrial developments are mainly along major travel corridors such as US 15-401, US-15-401 Business, US -74 and US-74 Business.

In the future land use plan, mixed used, office/institutional and industrial developments are planned along the major travel corridors around Laurinburg. Rural areas will remain agricultural.

For detailed information on how land use and growth projections were developed for and applied in the CTP, refer to Appendix G.

### 1.2 Consideration of Natural and Human Environment

Environmental features are a key consideration in the transportation planning process. Section 102 of the National Environmental Policy Act<sup>6</sup> (NEPA) requires consideration of impacts on wetlands, wildlife, water quality, historic properties, and public lands. While a full NEPA evaluation was not conducted as part of the CTP, every effort was made to

<sup>&</sup>lt;sup>6</sup> For more information on NEPA, go to: <u>http://ceq.hss.doe.gov/</u>.

minimize potential impacts to these features utilizing the best available data. Any potential impacts to these resources were identified as a part of the project recommendations in Chapter 2 of this report. Prior to implementing transportation recommendations of the CTP, a more detailed environmental study would need to be completed in cooperation with the appropriate environmental resource agencies.

A full listing of environmental features that are typically examined as a part of a CTP study is shown in the following tables. Environmental features occurring within Scotland County are shown in Figures 6 and are shown in bold text in Table 1.

- Table 1 Environmental Features
- 24k Hydro Lines
- 303D Streams
- Airport Boundaries
- Anadromous Fish Spawning Areas
- APNEP Submerged Aquatic
   Vegetation
- Beach and Waterfront Access
- Benthic Habitat
- Bicycle Routes
- Boating Access
- Churches and Cemeteries
- Colleges and Universities (Points)
- Conservation Tax Credit
   Properties
- Critical Habitat for Threatened and Endangered Species
- Emergency Operation Centers
- Fish Nursery Areas
- Hazard Substance Disposal Sites (points & polygons)
- Hazardous Waste Facilities
- High Quality Waters and Outstanding Resource Water Management
- Historic Resources National Register and Determined Eligible (points and polygons)
- Hospitals

- Hydrography 1:24,000-scale (polygons)
- Landscape Habitat Indicator Guilds (LHIGs)
- Managed Areas
- National Wetlands Inventory (polygons)
- Natural Heritage Element
   Occurrences
- NC-CREWS: N.C. Coastal Region Evaluation of Wetland Significance
- NCDOT Maintained Mitigation Sites
- Railroads (1:24,000)
- Recreation Projects Land and Water Conservation Fund
- Regional Trails
- Sanitary Sewer Systems -Treatment Plants
- Schools (Public & Non-Public)
- Significant Natural Heritage Areas
- State Natural and Scenic Rivers
- State Parks
- Target Local Watersheds EEP
- Trout Streams (DWQ)
- Trout Waters WRC (arcs & polygons)
- Unique Wetlands
- Water Distribution Systems Pumping Stations, Tanks & Treatment Plants
- Water Supply Watersheds

Archaeological sites were also considered but are not mapped due to restrictions associated with the sensitivity of the data.



#### Legend



#### Schools

 $\circ$ Historic Resources Sites

#### Roads



Historic Resource Areas



Landscape Habitat Indicator Guilds



NCDOT Maintained Mitigation Sites



- Significant Natural Heritage Areas
- State Parks



Target Local Watersheds - EEP

#### 



County Boundary



### Figure 6 **Environmental Features** Мар



# **Scotland County**

# Comprehensive **Transportation Plan**

Base map date: January 3, 2014





#### Roads

24-HydroLines



Conservation Tax Credit Prop

Hydrography Areas



National Wetland Inventory

Municipalties





### Figure 6 **Environmental Features** Мар



# **Scotland County**

Comprehensive **Transportation Plan** 

Base map date: January 3, 2014


#### Legend



- **Emergency Operation Centers**
- Hazardous Substance Disposal Sites
- Sewer Treatment Plants ()



- WTP Water Distribution Treatment Plants
- O Water Pumping Stations



- Hazardous Substance Disposal Areas
- High Quality Waters



Water Supply Watersheds



Natural Heritage Element Occurence

Municipalties



County Boundary



# Figure 6 **Environmental Features** Мар



# **Scotland County**

# Comprehensive **Transportation Plan**



## Legend

- + **Churches & Cemeteries**
- Historic National Register Structures

## Hospitals

## **US Bicycle Route**

#### Recommenda



Bicycle Route - Needs Improvement 



**Airport Boundaries** 



Historic National Register Districts

Municipalties



County Boundary



# Figure 6 **Environmental Features** Мар



# **Scotland County**

# Comprehensive **Transportation Plan**

## 1.3 Public Involvement

Public involvement is a key element in the transportation planning process. Adequate documentation of this process is essential for a seamless transfer of information from systems planning to project planning and design.

A meeting was held with the Scotland County Board of Commissioners in February 2014 to formally initiate the study, provide an overview of the transportation planning process, and to gather input on area transportation needs.

Throughout the course of the study, the NCDOT Transportation Planning Branch cooperatively worked with the Scotland County CTP Steering Committee, which included a representative from each municipality, county staff, the RPO and others. The committee provided information on current local plans, developed transportation vision and goals, discussed population and employment projections, and developed proposed CTP recommendations. Refer to Appendix H for detailed information on the vision statement, the goals and objectives survey and a listing of committee members.

The public involvement process included six meetings with local officials and two public drop-in sessions in Scotland County. The purpose of the officials meetings was to review the draft plan recommendations prior to presenting it to the public. The purpose of the drop-in session was to present the proposed CTP to the public and solicit comments. The officials meetings were held at the following jurisdictions in Scotland County on the dates below:

- March 03, 2016 at 7:00 pm during the Town of Wagram Council Meeting
- March 10, 2016 at 7:00 pm during the Town of Gibson Council Meeting
- March 15, 2016 at 7:00 pm during the Town of Maxton Council Meeting
- May 02, 2016 at 7:00 pm during the Scotland County Board of Commissioners Meeting
- May 17, 2016 at 7:00 pm during the City of Laurinburg Council Meeting
- September 06, 2016 at 7:00 pm during the Town of East Laurinburg Council Meeting

The two public workshops were publicized in the local newspapers and held on June 27, 2016 from 4:30-6:30 pm at the Emergency Operations Center in Laurinburg and on October 17, 2016 from 5:00-7:00 pm at East Laurinburg Town Hall. Two comments were submitted, one each, during the two drop-in sessions, and no comments were received during the other meetings.

Public hearings were held throughout Scotland County on the following dates:

Locale	Date
Laurinburg City Council	October 18, 2016
East Laurinburg Town Council	November 01, 2016
Maxton Town Council	September 20, 2016
Gibson Town Council	October 13, 2016
Wagram Town Council	October 06, 2016
Scotland County Board of Commissioners	October 03, 2016

The purpose of these meetings was to discuss the plan recommendations and to solicit further input from the public. The CTP was adopted during these meetings.

The Lumber River RPO endorsed the CTP on November 28, 2016. The North Carolina Department of Transportation mutually adopted the Scotland County CTP on December 1, 2016

# 2. Recommendations

This chapter presents recommendations for each mode of transportation in the 2016 Scotland County CTP as shown in Figure 1. More detailed information on each recommendation is tabulated in Appendix C.

NCDOT adopted a "Complete Streets<sup>1</sup>" policy in July 2009. The policy directs the Department to consider and incorporate several modes of transportation when building new projects or making improvements to existing infrastructure. Under this policy, the Department will collaborate with cities, towns and communities during the planning and design phases of projects. Together, they will decide how to provide the transportation options needed to serve the community and complement the context of the area. The benefits of this approach include:

- making it easier for travelers to get where they need to go;
- encouraging the use of alternative forms of transportation;
- building more sustainable communities;
- increasing connectivity between neighborhoods, streets, and transit systems;
- improving safety for pedestrians, cyclists, and motorists.

Complete streets are streets designed to be safe and comfortable for all users, including pedestrians, bicyclists, transit riders, motorists and individuals of all ages and capabilities. These streets generally include sidewalks, appropriate bicycle facilities, transit stops, right-sized street widths, context-based traffic speeds, and are well-integrated with surrounding land uses. The complete street policy and concepts were utilized in the development of the CTP. The CTP proposes projects that include multi-modal project recommendations as documented in the problem statements within this chapter. Refer to Appendix C for recommended cross sections for all project proposals and Appendix D for more detailed information on the typical cross sections.

## 2.1 Implementation

The CTP is based on the projected growth for the planning area. It is possible that actual growth patterns will differ from those logically anticipated. As a result, it may be necessary to accelerate or delay the implementation of some recommendations found within this plan. Some portions of the plan may require revisions in order to accommodate unexpected changes in development. Therefore, any changes made to one element of the CTP should be consistent with the other elements.

Initiative for implementing the CTP rests predominately with the policy boards and citizens of the county and its municipalities. As transportation needs throughout the state exceed available funding, it is imperative that the local planning area aggressively pursue funding for priority projects. Projects should be prioritized locally and submitted to the Lumber River RPO for regional prioritization and submittal to NCDOT. Refer to Appendix A for contact information on regional prioritization and funding. Local governments may use the CTP to guide development and protect corridors for the recommended projects. It is

<sup>&</sup>lt;sup>1</sup> For more information on Complete Streets, go to: <u>http://www.completestreetsnc.org/</u>

critical that NCDOT and local governments coordinate on relevant land development reviews and all transportation projects to ensure proper implementation of the CTP. Local governments and NCDOT share the responsibility for access management and the planning, design and construction of the recommended projects.

Recommended improvements shown on the CTP map represents an agreement of identified transportation deficiencies and potential solutions to address the deficiencies. While the CTP does propose recommended solutions, it may not represent the final location or cross section associated with the improvement. All CTP recommendations are based on high level systems analyses that seek to minimize impacts to the natural and human environment. Prior to implementing projects from the CTP, additional analysis will be necessary to meet the National Environmental Policy Act (NEPA) or the North Carolina (or State) Environmental Policy Act<sup>2</sup> (SEPA). During the NEPA/SEPA process, the specific project location and cross section will be determined based on environmental analysis and public input. This CTP may be used to support transportation decision making and provide transportation planning data in the NEPA/SEPA process.

## 2.2 Problem Statements

Problem statements describe the transportation system deficiencies identified during the CTP process and recommend improvements to alleviate the deficiencies. The following pages contain problem statements for each recommendation, organized by CTP modal element. The information provided in the problem statement is intended to help support decisions made in the NEPA/SEPA process. A full, minimum or reference problem statement is presented for each recommendation, with full problem statements occurring first in each section. Full problem statements are denoted by a gray shaded box containing project information. Minimum problem statements are more concise and less detailed than full problem statements, but include all known or readily available information. Reference problem statements are developed for TIP projects where the purpose and need for the project has already been established.

<sup>&</sup>lt;sup>2</sup>For more information on SEPA, go to: <u>http://www.doa.nc.gov/clearing/faq.aspx</u>.

## **HIGHWAY**

#### US 15-401 (McColl Road), Proposed improvements from South Carolina to US 15-401 Business (Main Street)

Local ID: SCOT0001-H Last updated: 12/29/15



#### **Identified Problem**

US 15-401 (McColl Road) in Laurinburg is currently near capacity and is projected to be over capacity by 2040 from Tartan Road (SR 1628) to Turnpike Road (SR 1271). US 15-401 (McColl Road) is also projected to be near capacity by 2040 from Hasty Road (SR 1615) to US 74. Improvements are needed to accommodate projected traffic volumes such that a minimum Level of Service (LOS) D can be achieved.

#### Justification of Need

US 15-401 is a major north-south corridor connecting Laurinburg to South Carolina and the Aberdeen, Pinehurst and Southern Pines area to the north. The roadway characteristics along US 15-401 vary as follows:

Section (From – To)	Lanes	2014 AADT <sup>1</sup>	2040 AADT	2014 Capacity <sup>2</sup>
South Carolina to Turnpike Road (SR 1271)	2 – 12 foot lanes	6,100 - 11,500	8,300 - 14,500	12,900
Turnpike Road (SR 1271) to US 15-401 Business (Main Street)	5 – 12 foot lanes with a center turn lane	11,500 - 19,200	14,500 - 24,500	26,800 - 28,400
US 15-401 Business (Main Street) to US 74	4 – 12 foot lanes (divided facility)	17,300	22,500	24,600

<sup>1</sup> Annual Average Daily Traffic (AADT) given in vehicles per day (vpd)

<sup>2</sup> Existing capacity based on a Level of Service (LOS) D

By 2040, this facility is projected to be over capacity from Tartan Road (SR 1628) to Turnpike Road (SR 1271), and near capacity from Hasty Road (SR 1615) to US 74 based on providing a LOS D.

## Community Vision and Problem History

US 15-401 (McColl Road) is a major travel corridor through Laurinburg. This segment of US 15-401 (McColl Road) serves commercial, residential and office/institutional areas. Due to the anticipated increase in traffic volumes in the future years, local officials have the desire to maintain the integrity of US 15-401 (McColl Road), which is vital to the City of Laurinburg.

This problem was identified in the 1999 City of Laurinburg Thoroughfare Plan<sup>3</sup>.

## CTP Project Proposal

## **Project Description and Overview**

The proposed project (SCOT0001-H) is to widen the existing facility to a four lane divided boulevard from South Carolina to US 15-401 Business. This includes converting the existing five lane segment from Turnpike Road (SR 1271) to Hasty Road (SR 1615), which does not have capacity issues, to a four lane divided facility to maintain mobility and continuity along the corridor. Sidewalks and multi-use path accommodations are recommended on segments of the project. The proposed project will connect to the existing four lane divided facility at US 74.

A crash assessment performed during the CTP identified four locations along this section of US 15-401 (McColl Road) as having experienced four or more crashes between January 1, 2007 and December 31, 2011. The crossings at the US 74 interchange, Ford Drive, Lauchwood Circle and at Blues Farm Road (SR 1117) experienced between 4 and

<sup>&</sup>lt;sup>3</sup> To view this plan, go to: <u>https://archive.org/details/thoroughfareplan99laurin</u>

19 crashes during that period. The proposed improvements may reduce the amount of crashes at this location. Refer to Chapter 1 of the CTP report for more detailed information on these locations.

This project is recommended to help reduce the existing and projected capacity deficiencies along the US 15-401 (McColl Road) corridor south of Laurinburg. The proposed improvements to US 15-401 (McColl Road) will handle both through and local traffic for the area and help reduce both existing and projected traffic congestion along the corridor.

#### Natural & Human Environmental Context

Based on a planning level environmental assessment using available GIS data, the southern end of the proposed project is within the target watershed and the remainder of the proposed project is within a natural heritage element occurrence area. The proposed project may also potentially impact a historic resource site south of Turnpike Road (SR 1105), a hazardous substance disposal site south of Academy Road (SR 1101), and wetlands along the project corridor. Additionally, NCDOT's Structures Management Unit has identified bridge number 17 over Gum Swamp Creek as structurally deficient and functionally obsolete.

#### **Relationships to Land Use Plans**

Land use along this segment of US 15-401 (McColl Road) is a mix of commercial, residential and some office/institutional development. There are also frequent driveways along the corridor from Academy Road (SR 1101) to US 15 Business (Main Street).

The 2015 Laurinburg Land Use Plan categorizes this section of the US 15-401 (McColl Road) corridor as future mixed use and residential. The area has access to full community services.

#### Linkages to Other Plans and Proposed Project History

The 1999 City of Laurinburg Thoroughfare Plan recommended widening US 15-401 (McColl Road) to a multi-lane facility from South Carolina to Turnpike Road (SR 1271).

#### **Multi-modal Considerations**

US 15-401 (McColl Road) from Sycamore Lane to US 74 is part of a fixed bus route operated by Scotland County Area Transit System (SCATS).

#### Public/ Stakeholder Involvement

Respondents to the goals and objectives survey conducted during the development of this CTP identified US 15-401 as having large truck traffic causing congestion, damage to the existing roadways, noise, speeding and debris coming off the trucks.

# US 15 Business (Main Street), Proposed improvements from Atkinson Street to US 74 BUS (Church Street)

#### Local ID: SCOT0002-H Last updated: 04/28/16

#### **Identified Problem**

US 15 Business (Main Street) in Laurinburg is projected to be near capacity by 2040 from US 501 Business (Johns Road) to US 74 Business (Church Street). Improvements are needed to accommodate projected traffic volumes such that a minimum Level of Service (LOS) D can be achieved.

#### **Justification of Need**

US 15 Business (Main Street) is a major north-south corridor through the Laurinburg Central Business District (CBD). The facility is functionally classified as other principal arterial through Laurinburg. By 2040, this facility is projected to be near capacity from US 501 Business (Johns Road) to US 74 Business (Church Street) based on providing a LOS D. The roadway characteristics along US15 Business vary as follows:



Section (From – To)	Lanes	2014 AADT <sup>1</sup>	2040 AADT	2014 Capacity <sup>2</sup>
Atkinson Street (SR 1107) to US 501 Business (Johns Road)	4 – 12 foot lanes	11,300	14,600	22,200
US 501 Business (Johns Road) to US 74 Business (Church Street)	3 – 12 foot lanes	7,600 - 9,500	10,100 - 12,300	12,700

<sup>1</sup> Annual Average Daily Traffic (AADT) given in vehicles per day (vpd)

<sup>2</sup> Existing capacity based on a Level of Service (LOS) D

Currently, the Atkinson Street (SR 1107) and the Armory Street (SR 1640)/Biggs Street (SR 1642) corridors are parallel to US 15 Business (Main Street/Aberdeen Road) and serve as alternative routes for the busy US 15 Business (Main Street) corridor. These

corridors currently are currently two lane facilities with 12 foot lanes and two-way traffic patterns.

## Community Vision and Problem History

US 15 Business (Main Street) is a major travel corridor through Laurinburg. This segment of US 15 Business (Main Street) serves the CBD with commercial, residential and office/institutional areas. Due to the anticipated increase in traffic volumes in the future years, local officials have the desire to maintain the integrity of US 15 Business (Main Street), which is vital to the City of Laurinburg.

This problem was identified in the 1999 City of Laurinburg Thoroughfare Plan<sup>4</sup>.

## CTP Project Proposal

## Project Description and Overview

The proposed project (SCOT0002-H) is to modify the Atkinson Street (SR 1107) and Armory Street (SR 1640)/Biggs Street (SR 1642) corridors to one-way traffic patterns to serve as a one-way pair from the Atkinson Street (SR 1107)/ US 15-401 Business (Main Street) intersection to US 74 Business (Church Street). The Atkinson Street (SR 1107) corridor is proposed to serve southbound traffic and the Armory Street (SR 1640)/Biggs Street (SR 1642) corridor is proposed to serve northbound traffic. Sidewalk accommodations are recommended on segments of the Atkinson Street (SR 1107) and Armory Street (SR 1640)/Biggs Street (SR 1642) corridors.

A crash assessment performed during the CTP identified the US 15 Business (Main Street/Aberdeen Road), Atkinson Street (SR 1107), North Gill Street (SR 1107) and Biggs Street (SR 1642) as having experienced four or more crashes between January 1, 2007 and December 31, 2011 at the following locations:

- US 15 Business (Main Street/Aberdeen Road): just south of Plaza Road and at a location just north of Maple Street;
- Atkinson Street (SR 1107): at Crepe Myrtle Avenue;
- Gill Street (SR 1107): at Bizzel Street (SR 1394) and at Washington Avenue;
- Biggs Street (SR 1642): at Welch Street

These intersections experienced between 4 and 9 crashes during that period. The proposed improvements may reduce the amount of crashes at these locations. Refer to Chapter 1 of the CTP report for more detailed information on these locations.

This project is recommended to help reduce capacity deficiencies along the US 15 Business (Main Street) from US 501 Business (Johns Road) to US 74 Business (Church Street). The Atkinson Street (SR 1107) and Armory Street (SR 1640)/Biggs Street (SR 1642) one-way pair will serve as an alternate to US 15 Business (Main Street), handle through traffic in the downtown area and help reduce both existing and projected traffic congestion along the corridor.

<sup>&</sup>lt;sup>4</sup> To view this plan, go to: <u>https://archive.org/details/thoroughfareplan99laurin</u>

#### Natural & Human Environmental Context

Based on a planning level environmental assessment using available GIS data, the proposed project crosses Leith Creek and is within natural heritage element occurrence areas. It may also potentially impact wetlands, a hazardous substance disposal site, and historic recourses sites. A historic national register structure was also identified within the proposed project area.

#### **Relationships to Land Use Plans**

Land use along these segments of US 15 Business (Main Street), Atkinson Street (SR 1107), (SR 1107) and Biggs Street (SR 1642) is mainly commercial, residential and some office/institutional development. There are also frequent driveways along the entire length of the proposed project corridor.

The 2015 Laurinburg Land Use Plan categorize the areas along of US 15 Business (Main Street), Atkinson Street (SR 1107) and Biggs Street (SRS 1642) as future mixed use, office/institutional and some residential. The area has access to full community services.

#### Linkages to Other Plans and Proposed Project History

The 1999 City of Laurinburg Thoroughfare Plan recommended modifying the Atkinson Street (SR 1107) and Armory Street (SR 1640)/Biggs Street (SR 1642) corridors to a one-way pair through the Laurinburg CBD.

#### **Multi-modal Considerations**

US 15 Business (Main Street) from Atkinson Street (SR 1107) to Ivy Street and from West Boulevard (SR 1108) to Gill Street (SR 1107) is part of a fixed bus route operated by Scotland County Area Transit System (SCATS). Atkinson Street (SR 1107) and Biggs Street (SR 1642) are also part of the fixed bus route system. Atkinson Street (SR 1107) is part of the fixed bus route from West Boulevard (SR 1108) to McLean Street and from US 74 Business (Church Street) to US 15 Business (Main Street). Biggs Street (SR 1642) is part of the fixed bus route from Ivy Street to US 74 Business (Church Street). Sidewalk accommodations are recommended on the Atkinson Street (SR 1107) corridor from US 15 Business (Main Street) south to US 15 Business (Main Street) and on the Armory Street (SR 1640)/Biggs Street (SR 1642) corridor from US 15 Business (Main Street) south to US 15 Business (Main Street).

## Public/Stakeholder Involvement

Respondents to the goals and objectives survey conducted during the development of this CTP had the following comments related to the proposed US 15 Business (Main Street) project corridor:

- traffic accident concerns by the traffic light at Atkinson Street (SR 1107) and West Boulevard (SR 1108); and,
- a speeding concern on US 15 Business (Main Street/Aberdeen Road) and on Atkinson Street/Gill Street (SR 1107).

#### US 74 Business (Church Street), Proposed improvements Local IE from US 15 (McColl Road) to Caledonia Road (SR 1438) Last up



#### **Identified Problem**

US 74 Business (Church Street) in Laurinburg is currently near capacity from US 15 Business (Main Street/Aberdeen Road) to Biggs Street (SR 1642) and is projected to be near or over capacity by 2040 from US 15 (McColl Road) to Caledonia Road (SR 1438). Improvements are needed to accommodate projected traffic volumes such that a minimum Level of Service (LOS) D can be achieved.

#### **Justification of Need**

US 74 Business (Church Street) is a major east-west travel corridor through Laurinburg, serving the Central Business District (CBD). This segment of US 74 Business (Church Street) is currently a two lane major thoroughfare with 12 foot lanes from US 15 (McColl Road) to Caledonia Road (SR 1438).

By 2040, this facility is projected to be near or over capacity from US 15 (McColl Road) to Caledonia Road (SR 1438) based on providing a LOS D. Annual Average Daily Traffic (AADT) on this section of US 74 Business (Church Street) is projected to increase in range from 6,900 to 9,100 vehicles per day (vpd) in 2014 to a range of 8,900 to 11,600 vpd in 2040, compared to a LOS D capacity of 11,100 vpd.

## Community Vision and Problem History

US 74 Business (Church Street) is a major east-west travel corridor through downtown Laurinburg. This segment of US 74 Business (Church Street) serves numerous residences and businesses. Due to the anticipated increase in traffic volumes in the future years, local officials have the desire to maintain the integrity of US 74 Business (Church Street) which is vital to the City of Laurinburg.

This problem was identified in the 1999 City of Laurinburg Thoroughfare Plan<sup>5</sup>.

## CTP Project Proposal

## Project Description and Overview

The proposed project (SCOT0004-H) is to widen the existing facility to a three lane major thoroughfare with a continuous center turn lane and sidewalks from US 15 (McColl Road) to Caledonia Road (SR 1438). The proposed project will connect to the existing three lanes at US 15 (McColl Road).

A crash assessment performed during the CTP identified a location west of US 74 Business (Church Street) /US 15 Business (Main Street/Aberdeen Road) intersection as having experienced 4 to 9 crashes between January 1, 2007 and December 31, 2011. The proposed improvements may reduce the amount and severity of crashes at this location. Refer to Chapter 1 of the CTP report for more detailed information on this location.

## Natural & Human Environmental Context

Based on a planning level environmental assessment using available GIS data, natural heritage element occurrence areas, historic recourses sites, and historic resource areas were identified within the proposed project area.

## Relationships to Land Use Plans

Land use along this segment of US 74 Business (Church Street) is mainly office/institutional, commercial and residential development. There are also frequent driveways along the corridor. This segment of US 74 Business (Church Street) links two major activity centers in the Laurinburg area: a commercial district and a high school, located near US 15 (McColl Road), and the downtown area.

<sup>&</sup>lt;sup>5</sup> To view this plan, go to: <u>https://archive.org/details/thoroughfareplan99laurin</u>

The 2015 Laurinburg Land Use Plan categorizes this section of the US 74 Business (Church Street) corridor as future residential, office/institutional and mixed use areas. The area has access to full community services.

## Linkages to Other Plans and Proposed Project History

The 1999 City of Laurinburg Thoroughfare Plan recommended widening US 74 Business (Church Street) to three lanes from Fieldcrest Road (SR 1303) to Highland Road (SR 1323). Since then a segment of the roadway has been widened to three lanes from NC 79 to US 15-501. The other segments, from Fieldcrest Road (SR 1303) NC 79 and from Caledonia Road (SR 1438) to Highland Road (SR 1323) were projected to continue to be below capacity during this CTP study.

#### **Multi-modal Considerations**

US 74 Business (Church Street) from Peden Street to Atkinson Street (SR 1107) and from US 15 Business (Main Street/Aberdeen Road) to Caledonia Road (SR 1438) is part of a fixed bus route operated by Scotland County Area Transit System (SCATS). Sidewalks are recommended along the entire length of the proposed project.

#### Public/ Stakeholder Involvement

Respondents to the goals and objectives survey conducted during the development of this CTP had the following comments related to the proposed US 74 Business (Church Street) project corridor: a traffic accident concern near the high school and large trucks on US 74 Business (Church Street).

Lauchwood Drive (SR 1674), Proposed improvements from US 15-401 Business (McColl Road) to US 501 Business (Johns Road) Local ID: SCOT0010-H Last updated: 12/29/2015



#### **Identified Problem**

Lauchwood Drive (SR 1674) in Laurinburg is projected to be near capacity by 2040 from US 15-401 Business (McColl Road) to US 501 Business (Johns Road). Improvements are needed to accommodate projected traffic volumes such that a minimum Level of Service (LOS) D can be maintained.

#### **Justification of Need**

Lauchwood Drive (SR 1674) is an east-west corridor connecting two major facilities, US 15-401 Business to the west and US 501 Business to the east. This segment of Lauchwood Drive (SR 1674) is functionally classified as a major collector and is currently a three lane major thoroughfare with a continuous center left turn lane and 12 foot lanes.

By 2040, this facility is projected to be near capacity from US 15-401 (McColl Road) to US 501 Business (Johns Road) based on providing a LOS D. Annual Average Daily Traffic (AADT) on this section of Lauchwood Drive (SR 1674) is projected to increase from 8,300 vehicles per day (vpd) in 2014 to 10,800 vpd in 2040, compared to a LOS D capacity of 12,700 vpd.

## **Community Vision and Problem History**

Lauchwood Drive (SR 1674) is a local facility in Laurinburg. This segment of Lauchwood Drive (SR 1674) serves residences, businesses and office/institutional areas, including Scotland Memorial Hospital. Due to the anticipated increase in traffic volumes in the future years, local officials have the desire to maintain the integrity of Lauchwood Drive (SR 1674), which is vital to City of Laurinburg.

This problem was identified in the 1999 City of Laurinburg Thoroughfare Plan<sup>6</sup>.

## CTP Project Proposal

## Project Description and Overview

The proposed project (SCOT0010-H) is to widen the existing facility to a four lane divided boulevard from US 15-401 (McColl Road) to US 501 Business (Johns Road). Sidewalks and a multi-use path are recommended on segments of the project.

## Natural & Human Environmental Context

Based on a planning level environmental assessment using available GIS data, a hazardous substances disposal site and a natural heritage element occurrence area were identified within the proposed project area. The proposed project crosses Big Branch and may also potentially impact wetlands. Additionally, the Scotland Memorial Hospital and surrounding medical campus is located in the northwest quadrant of the Lauchwood Drive (SR 1674) and US 501 Business (Johns Road) intersection.

## **Relationships to Land Use Plans**

Land use along Lauchwood Drive (SR 1674) corridor is a mix of office/institutional, commercial and residential development. There are also frequent driveways along the entire corridor. The 2015 Laurinburg Land Use Plan categorizes this section of the Lauchwood Drive (SR 1674) corridor as future mixed use and office/institutional.

## Linkages to Other Plans and Proposed Project History

The 1999 City of Laurinburg Thoroughfare Plan recommended widening Lauchwood Drive (SR 1674) to a two lane divided facility from US 15-401 (McColl Road) to US 501 Business (Johns Road).

## Multi-modal Considerations

Lauchwood Drive (SR 1674) from US 15-401 (McColl Road) to US 501 Business (Johns Road) is part of a fixed bus route operated by Scotland County Area Transit System

<sup>&</sup>lt;sup>6</sup> To view this plan, go to: <u>https://archive.org/details/thoroughfareplan99laurin</u>

(SCATS). Sidewalks are recommended from US 15-401 (McColl Road) to Dogwood Mile Street and the existing sidewalks extend from Dogwood Mile Street to US 501 Business (Johns Road). A multi-use path is recommended along the proposed project from Dogwood Mile Street to US 501 Business (Johns Road).

#### Public/ Stakeholder Involvement

Respondents to the goals and objectives survey conducted during the development of this CTP had the following comments related to the proposed Lauchwood Drive (SR 1674) project corridor: sidewalks be constructed or improved and a traffic accident concern at US 15-401 (McColl Road).

X-Way Road/West Boulevard (SR 1108), Proposed improvements from Turnpike Road (SR 1105) to US 15 (McColl Road) Local ID: SCOT0015-H Last updated: 12/29/2015



#### **Identified Problem**

X-Way Road/West Boulevard (SR 1108) in Laurinburg is projected to be near capacity by 2040 from Turnpike Road (SR 1105) to US 15 (McColl Road). Improvements are needed to accommodate projected traffic volumes such that a minimum Level of Service (LOS) D can be maintained.

#### **Justification of Need**

X-Way Road/West Boulevard (SR 1108) is functionally classified as a minor arterial and is a major east-west corridor connecting the city of Laurinburg to the town of Gibson and to the western parts of Scotland County. This segment of X-Way Road/West Boulevard (SR 1108) is currently a two lane minor thoroughfare with 12 foot lanes from Turnpike

Road (SR 1105) to US 74 and a two lane major thoroughfare with 12 foot lanes from US 74 to US 15 (McColl Road).

By 2040, this facility is projected to be near capacity from Turnpike Road (SR 1105) to US 15 (McColl Road) based on meeting a LOS D threshold. Annual Average Daily Traffic (AADT) on this section of X-Way Road/West Boulevard (SR 1108) is projected to increase in range from 6,900 to 7,000 vehicles per day (vpd) in 2014 to a range of 8,900 vpd to 9,100 vpd in 2040, compared to a LOS D capacity of 11,100 vpd.

## Community Vision and Problem History

X-Way Road/West Boulevard (SR 1108) is a major travel corridor connecting Laurinburg to Gibson and western parts of Scotland County. This segment of X-Way Road/West Boulevard (SR 1108) serves a predominantly residential area. There are also some offices and businesses. Due to the anticipated increase in traffic volumes in the future years, local officials have the desire to maintain the integrity of X-Way Road/West Boulevard (SR 1108), which is vital to the City of Laurinburg.

This problem was identified in the 1999 City of Laurinburg Thoroughfare Plan<sup>7</sup>.

## CTP Project Proposal

## Project Description and Overview

The proposed project (SCOT0015-H) is to widen the existing facility to three lanes with a continuous center turn lane from Turnpike Road (SR 1105) to US 15 (McColl Road). The recommendation includes installing a pedestrian bridge and/or widening the existing bridge over US 74 to improve safety. Sidewalks and a multi-use path are recommended along the entire length of the project. The proposed project will connect to the existing three lanes at US 15 (McColl Road).

A crash assessment performed during the CTP identified the intersection of West Boulevard (SR 1108) and US 15 (McColl Road) as having experienced 10 and 19 crashes between January 1, 2007 and December 31, 2011. The proposed improvements may reduce the amount and severity of crashes at this location. Refer to Chapter 1 of the CTP report for more detailed information on this location.

## Natural & Human Environmental Context

Based on a planning level environmental assessment using available GIS data, a managed area and an emergency operation center were identified within the proposed project area just west of US 74. The proposed project is within a natural heritage element occurrence area, crosses Bridge Creek and may also potentially impact wetlands. Additionally, NCDOT's Structures Management Unit has identified bridge number 40 over US 74 as functionally obsolete.

<sup>&</sup>lt;sup>7</sup> To view this plan, go to: <u>https://archive.org/details/thoroughfareplan99laurin</u>

#### **Relationships to Land Use Plans**

Land use along this segment of X-Way Road/West Boulevard (SR 1108) is office/institutional, recreational, residential developments and commercial, including a Walmart Supercenter just east of US 74. There are also vacant and un-improved lands along the corridor.

The 2015 Laurinburg Land Use Plan categorizes this section of X-Way Road/West Boulevard (SR 1108) corridor as future mixed use, residential and conservation areas. The area has access to full community services and fall within municipal limits.

#### Linkages to Other Plans and Proposed Project History

The 1999 City of Laurinburg Thoroughfare Plan recommended lane width widening to 12 foot lanes on X-Way Road/West Boulevard (SR 1108) from Turnpike Road (SR 1105) to the western planning area boundary at Tom Gibson Road (SR 1102).

#### **Multi-modal Considerations**

X-Way Road/West Boulevard (SR 1108) from Pelham Drive to McColl Road (SR 1172) is part of a fixed bus route operated by Scotland County Area Transit System (SCATS). Sidewalks and a multi-use path are recommended along the entire length of the proposed project.

#### Public/ Stakeholder Involvement

Respondents to the goals and objectives survey conducted during the development of this CTP had the following comments related to the proposed X-Way Road/West Boulevard (SR 1108) project corridor: add on-road bicycle lanes or wide lanes; sidewalks be constructed or improved; add pedestrian bridge over US 74 and, traffic accident concerns at the Turnpike Road (SR 1105) intersection.

## US 74/Future I-74, Local ID: FS-1508A

US 74 within Scotland County is designated as a part of the Future I-74 Corridor. The I-74 corridor traverses 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 I-77 in Surry County. US 74 within Scotland County does not meet the future mobility needs and vision for the I-74 Corridor.

Additionally, the US 74 corridor is identified as a Strategic Transportation Corridor<sup>8</sup> (STC) within the North Carolina Transportation Network (NCTN). The STC Policy and Map was adopted by the NCDOT on March 4, 2015. The purpose of the NC Transportation Network (NCTN) is to preserve and maximize mobility and connectivity on a core network of multimodal transportation corridors, promoting environmental stewardship and economic prosperity. The US 74 (STC Corridor H) corridor serves as a major freight corridor and directly connects to many statewide activity and employment centers including two international airports, the Heart of NC Megasite, and multiple activity centers in the Piedmont Triad region.

US 74 within Scotland County is currently a 4 lane facility with 12 foot lanes. The 2016-2025 State Transportation Improvement Program (STIP) includes project FS-1508A, a feasibility study on upgrading the US 74 corridor to interstate standards from the Rockingham-Hamlet Bypass in Richmond County to the existing I-74 in Roberson County, which is currently underway. This CTP includes recommendations for an interchange at Old Wire Road (SR 1319) and grade separations at Saint Johns Church Road (SR 1148) and at Laurel Hill Church Road (SR 1321). As development occurs along this corridor every effort should be made to limit access in order to maintain mobility. For more information about FS-1508A, please contact the Feasibility Studies Unit of the NCDOT Program Development Branch (Refer to Appendix A for contact information).

A crash assessment performed during the development of the CTP identified twelve intersections and eleven roadway sections along this corridor that experienced four or more crashes between January 1, 2007 and December 31, 2011. Roadway sections of US 74 experienced a range of 4 to 39 crashes during this time period. Intersections experienced a range of 4 to 19 crashes during the same period. The proposed improvements may reduce the amount of crashes at these locations by reducing conflicts at intersections. Refer to Chapter 1 of the CTP report for more detailed crash information.

Based on a planning level environmental assessment using available GIS data, a managed area near X-Way Road (SR 1108), three rail crossings, hazardous substances disposal sites near US 15 and Ida Mill Road (SR 1305), water distribution systems near NC 144, and numerous natural heritage element occurrence areas, wetlands and historic recourses sites were identified within the proposed project area. Additionally, NCDOT's Structures Management Unit has identified bridges number 9 over CSX railroad, number 23 over Gum Swamp Creek, number 45 over US 15/401/501, numbers 49 and 51 over US 15/401 Business, numbers 57 and 60 over southern railroad, and numbers 71 and 72

<sup>&</sup>lt;sup>8</sup> For more information on the STC Vision Plan, go to:

https://connect.ncdot.gov/projects/planning/Pages/NCTransportationNetwork.aspx.

over Little Creek as structurally deficient and/or functionally obsolete. For more information, refer to Appendix F or contact the NCDOT's Structures Management Unit (Refer to Appendix A for contact information).

## US 15-401, Local ID: FS-1508B

Within Scotland County, US 15-401 from US 74 to Hoke County is designated as a Strategic Transportation Corridor (STC) within the North Carolina Transportation Network (NCTN). The STC Policy and Map was adopted by the NCDOT on March 4, 2015. The purpose of the NC Transportation Network (NCTN) is to preserve and maximize mobility and connectivity on a core network of multimodal transportation corridors, promoting environmental stewardship and economic prosperity. US 401 from US 74 to Hoke County does not does not meet the future mobility needs and vision for the US 401 Corridor.

The US 15-401 corridor (STC Corridor W) provides regional connectivity to employment centers, military bases, tourist attractions and the Port of Morehead City. It is a regional connector serving the southeastern Coastal Plains of North Carolina and is a direct 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.

Section (From – To)	Lanes
US 74 to Highland Road (SR 1323)	4 – 12 foot lanes
Highland Road (SR 1323) to NC 144	2 – 12 foot lanes
NC 144 to MC Kay Street (SR 1403)	3 – 12 foot lanes
MC Kay Street (SR 1403) to Hoke County	2 – 12 foot lanes

US 15-401 from US 74 to Hoke County currently has varying cross sections as follows:

The 2016-2025 STIP includes project FS-1508B, a feasibility study on widening the US 401 corridor to a multi-lane facility from South Carolina to US 401 Business northeast of Raeford in Hoke County. This CTP recommends upgrading/widening the existing facility to a four lane divided boulevard. As development occurs along this corridor every effort should be made to limit access in order to maintain mobility. For more information about FS-1508B, please contact the Feasibility Studies Unit of the NCDOT Program Development Branch (Refer to Appendix A for contact information).

A crash assessment performed during the development of the CTP identified six intersections and three roadway sections along this corridor that experienced a high number of crashes between January 1, 2007 and December 31, 2011. Sections of US 401 experienced a range of 4 to 19 crashes during this time period. Intersections experienced a range of 4 to 39 crashes during the same period. The proposed improvements may reduce the amount and severity of crashes at these locations by reducing conflicts at intersections. Refer to Chapter 1 of the CTP report for more detailed crash information.

Based on a planning level environmental assessment using available GIS data, two rail crossings, a water distribution tank in Wagram, three hazardous substance disposal sites, a hazardous substances disposal area near US 15, and numerous natural heritage element occurrence areas, wetlands and historic recourses sites were identified within the proposed project area. The area north of Sally McNair Road (SR 1424) is identified as a landscape habitat indicator guild, a significant natural heritage and a managed area. The northern end of the proposed project near Hoke County is within a landscape habitat indicator guild, the target local watershed, high quality waters and within managed and significant natural heritage areas. The proposed project also crosses the Lumber River at the county line which is designated as a state natural and scenic river. Additionally, NCDOT's Structures Management Unit has identified bridge number 39 over US 74 Business as functionally obsolete.

#### Minor Widening Improvements

The following routes are not expected to exceed capacity, but were identified as candidates for upgrading to NCDOT design standards in order to improve mobility, safety and/or to accommodate bicycles. Additionally, some facilities may require improvements to the vertical and/or horizontal alignment. Implementation of the proposed projects should be coordinated through NCDOT's Highway Division 8 office (refer to Appendix A for contact information).

- US 15 Business (Aberdeen Road), SCOT0003-H: widen to 12 foot lanes from US 401 Business (Main Street) to US 15/401
- US 74 Business (Andrew Jackson Highway), SCOT0005-H: widen to 12 foot lanes from 4<sup>th</sup> Street to Robeson County
- US 401 Business (Main Street), SCOT0006-H: widen to 12 foot lanes from US 15 Business (Aberdeen Road) to US 401 (McColl Road)
- NC 144 (Old Wire Road), SCOT0007-H: widen to 12 foot lanes from US 15 (Aberdeen Road) to US 401 (Main Street)
- Airbase Road (SR 1407), SCOT0008-H: widen to 11 foot lanes from Airport Road (SR 1434) to Riverton Road (SR 1403) and from Macintosh Road (SR 1421) to US 401 (Main Street)
- Hasty Road (SR 1615), SCOT0009-H: widen to 11 foot lanes from Crestline Road (SR 1622) to Blues Farm Road (SR 1117)
- Produce Market Road (SR 1439), SCOT0011-H: widen to 11 foot lanes from Old Lumberton Road (SR 1438) to US 401 Business (Main Street)
- Riverton Road (SR 1403), SCOT0012-H: widen to 11 foot lanes from River Road (SR 1404) to US 401 (Main Street)
- Sneads Grove Road (SR 1105/SR 1300), SCOT0013-H: widen to 11 foot lanes from US 15 (McColl Road) to NC 144 (Old Wire Road)
- Turnpike Road (SR 1271/SR 1105), SCOT0014-H: widen to 11 foot lanes from Barnes Bridge Road (SR 1614) to US 15/401 (McColl Road) and from US 74 to Sneads Grove Road (SR 1105)

• X-Way Road (SR 1108), SCOT0016-H: widen to 11 foot lanes from Leisure Road (SR 1100) to Blue Woods Road (SR 1116)

# **PUBLIC TRANSPORTATION & RAIL**

A public transportation and rail assessment was completed during the development of the CTP. Currently, there are no proposed fixed route bus services in Scotland County. However, there is an existing fixed route bus route service in Laurinburg that is operated by the Scotland County Area Transit System<sup>9</sup> (SCATS). There are three active rail lines within Scotland County. However, there are no rail improvements proposed in this CTP. Existing facilities are shown on the Public Transportation and Rail Map, Sheet 3 of Figure 1.

# **BICYCLE**

The 2015 Laurinburg Walks - Comprehensive Pedestrian Plan<sup>10</sup> and the 2013 North Carolina Statewide Pedestrian and Bicycle Plan (WalkBikeNC)<sup>11</sup> were used to identify multi-use paths facilities within the county. These facilities were incorporated into the CTP and are shown on the Bicycle Map, Sheet 4 of Figure 1. In accordance with American Association of State Highway and Transportation Officials (AASHTO), roadways identified as bicycle routes should incorporate the following standards as roadway improvements are made and funding is available:

- Curb & gutter sections require a minimum 5 foot bike lanes or 4 foot wide shoulder lanes.
- Shoulder sections require a minimum of 4 foot paved shoulder.
- All bridges along the roadways where bike facilities are recommended shall be equipped with 54 inch railings.

Additionally, during the development of the CTP, the following facilities were identified for bicycle improvements.

- US 74 Business (Martin Luther King Jr Highway), SCOT0005-H: from 0.1 miles west of the Maxton municipal boundary to Robeson County (Maxton)
- Central Street (SR 1629) SCOT0001-B: from US 74 Business (Martin Luther King Jr Highway) to Robeson County (Maxton)
- Old Lumberton Road (SR 1369), SCOT0002-B: from Airport Road (SR 1436) to Robeson County (Maxton)
- Sneads Grove Road (SR 1105/SR 1300), SCOT0013-H: from US 15 (McColl Road) to NC 144 (Old Wire Road)

<sup>&</sup>lt;sup>9</sup> For more information on SCATS, go to: <u>http://www.scotlandcounty.org/transportation-dept.aspx</u>

<sup>&</sup>lt;sup>10</sup> To view this plan, go to: <u>http://www.walklaurinburg.org/the-plan.html</u>

<sup>&</sup>lt;sup>11</sup> For more information on WalkBikeNC, go to: <u>http://www.ncdot.gov/bikeped/planning/walkbikenc/</u>.

- Turnpike Road (SR 1271/SR 1105), SCOT0014-H: from US 74 to US 74 Business (Church Street)
- X-Way Road (SR 1108), SCOT0016-H: from Leisure Road (SR 1100) to Blue Woods Road (SR 1116)

# **PEDESTRIAN**

The 2015 Laurinburg Walks<sup>12</sup> - Comprehensive Pedestrian Plan and the 2013 North Carolina Statewide Pedestrian and Bicycle Plan<sup>13</sup> (WalkBikeNC) were used to identify pedestrian facilities, including multi-use paths, within the county. These facilities were incorporated into the CTP and are shown on the Pedestrian Map, Sheet 5 of Figure 1. Additionally, during the development of the CTP, the following facilities were identified for pedestrian improvements.

- US 74 Business (Church Street), SCOT0005-H: from existing sidewalk west of 1<sup>st</sup> Street (Laurinburg) to 11<sup>th</sup> Street (East Laurinburg)
- US 74 Business (Martin Luther King Jr Highway), SCOT0005-H: from 0.1miles west of the municipal boundary to Robeson County (Maxton)
- US 401 (Main Street), SCOT0001-P: from 0.1 miles south of 1<sup>st</sup> Street to 1<sup>st</sup> Street and from Gilchrist Street to Center Street (Wagram)
- NC 79 (Main Street), SCOT0002-P: from NC 381 (Church Street) to Rockdale Avenue (SR 1168) (Gibson)
- 2<sup>nd</sup> Street, SCOT0003-P: from US 401 (Main Street) to Marlboro Street (Wagram)
- 5<sup>th</sup> Street (SR 1457), SCOT0004-P: from US 74 Business (Church Street) to the northern municipal boundary (East Laurinburg)
- Alder Road, SCOT0005-P: from Cypress Street to Tara Drive (Laurinburg)
- **Cameron Way, SCOT0006-P:** from McCormick Drive to US 74 Business (Martin Luther King Jr Highway) (Maxton)
- Central Street (SR 1629) SCOT0007-P: from US 74 Business (Martin Luther King Jr Highway) to Robeson County (Maxton)
- Cypress Street, SCOT0008-P: from Gill Street (SR 1107) to Alder Road (Laurinburg)
- Hill Street, SCOT0009-P: from Glenn Street to Cypress Street (Laurinburg)
- Hoyle Circle, SCOT0010-P: from McCormick Drive (south) to McCormick Drive (north) (Maxton)
- Marada Road, SCOT0011-P: from 0.1 miles south of ? to US 74 Business (Martin Luther King Jr Highway) (Maxton)

<sup>&</sup>lt;sup>12</sup> To view the 2015 Laurinburg Walks plan, go to: <u>https://connect.ncdot.gov/municipalities/PlanningGrants/Pages/Grant-Recipients-and-Completed-Plans.aspx</u>.

<sup>&</sup>lt;sup>13</sup> To view the WalkBikeNC plan, go to: <u>https://www.ncdot.gov/bikeped/walkbikenc/</u>.

- McCormick Avenue SCOT0012-P: from Robeson County to Old Lumberton Road (SR 1369) (Maxton)
- McCormick Drive, SCOT0013-P: from Cameron Way to US 74 Business
- Old Lumberton Road (SR 1369), SCOT0014-P: from 0.1 miles west of the municipal boundary to Robeson County (Maxton)
- Stewartsville Road (SR 1601), SCOT0015-P: from Hall Street to Caledonia Road (SR 1438) (Laurinburg)
- **Tara Drive, SCOT0016-P:** from Butler Street to the existing sidewalks 0.1 miles north of Butler Street (Laurinburg)

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# Appendix A Resources and Contacts

## Local Planning Organization

<u>Lumber River Rural Planning Organization</u> (www.lumberrivercog.org/) Contact the RPO for information on long-range multi-modal planning services. 30 CJ Walker Road Pembroke, NC 28372 (910) 618-5533

# North Carolina Department of Transportation

## Customer Service Office

Contact information for other units within the NCDOT that are not listed in this appendix is available by calling the Customer Service Office or by visiting the NCDOT directory:

1-877-DOT-4YOU (1-877-368-4968)

http://www.ncdot.gov/contact/

Secretary of Transportation	(http://www.ncdot.org/about/leade	ership/secretary.html)
1501 Mail Service Center	Raleigh, NC 27699-1501	(919) 707-2800
<u>Board of Transportation</u> 1501 Mail Service Center	<i>(http://www.nco</i> Raleigh, NC 27699-1501	dot.gov/about/board/) (919) 707-2820

<u>Highway Division 8</u> (https://apps.dot.state.nc.us/dot/directory/authenticated/ToC.aspx) 902 N Sandhills Boulevard. Aberdeen, NC 28315 (910) 944-5623

Contact the Highway Division with questions concerning NCDOT activities within each Division.

## Contact the following NCDOT divisions and units<sup>1</sup> for:

Transportation Planning	Information on long-range multi-modal planning services.
Branch (TPB)	1554 Mail Service Center Raleigh, NC 27699 (919) 707-0900
	Information concerning prioritization of transportation projects.
Strategic Planning Office	1501 Mail Service Center Raleigh, NC 27699 (919) 707-4740
Project Development & Environmental Analysis	Information on environmental studies for projects that are included in the TIP.
(PDEA)	1548 Mail Service Center Raleigh, NC 27699 (919) 707-6000
<u>State Asset Management</u> Unit	Information regarding the status for unpaved roads to be paved, additions and deletions of roads to the State maintained system and the Industrial Access Funds program.
	1535 Mail Service Center Raleigh, NC 27699 (919) 707-2500

<sup>&</sup>lt;sup>1</sup> Unit websites are hyperlinked and can also be accessed at <u>https://connect.ncdot.gov/Pages/default.aspx</u>.

Program Development	Information concerning Roadway Official Corridor Maps, Feasibility Studies and the Transportation Improvement Program (TIP).		
<u>Branch</u>	1542 Mail Service Center Raleigh, NC 27699 (919) 707-4610		
Public Transportation	Information on public transit systems.		
<u>Division</u>	1550 Mail Service Center Raleigh, NC 27699 (919) 707-4670		
	Rail information throughout the state.		
Rail Division	1553 Mail Service Center Raleigh, NC 27699 (919) 707-4700		
Division of Bicycle and	Bicycle and pedestrian transportation information throughout the state.		
Pedestrian Transportation	1552 Mail Service Center Raleigh, NC 27699 (919) 707-2600		
Structures Management	Information on bridge management throughout the state.		
<u>Unit</u>	1581 Mail Service Center Raleigh, NC 27699 (919) 707-6400		
<u>Roadway Design Unit</u>	Information regarding design plans and proposals for road and bridge projects throughout the state.		
	1582 Mail Service Center Raleigh, NC 27699 (919) 707-6200		
Transportation Mobility	Information regarding crash data throughout the state.		
and Safety Division	1561 Mail Service Center Raleigh, NC 27699 (919) 773-2800		

## **Other State Government Offices**

<u>Department of Commerce – Division of Community Assistance</u>

Contact the Department of Commerce for resources and services to help realize economic prosperity, plan for new growth and address community needs.

http://www.nccommerce.com/cd

# Appendix B Comprehensive Transportation Plan Definitions

This appendix contains descriptive information and definitions for the designations depicted on the CTP maps shown in Figure 1.

## Highway Map

The "<u>NCDOT Facility Type –Control of Access Definitions</u>" document provides a visual depiction of facility types for the following CTP classification.

#### Facility Type Definitions

#### Freeways

- Functional purpose high mobility, high volume, high speed
- Posted speed 55 mph or greater
- Cross section minimum four lanes with continuous median
- Multi-modal elements High Occupancy Vehicles (HOV)/High Occupancy Transit (HOT) lanes, busways, truck lanes, park-and-ride facilities at/near interchanges, adjacent shared use paths (separate from roadway and outside ROW)
- Type of access control full control of access
- Access management interchange spacing (urban one mile; non-urban three miles); at interchanges on the intersecting roadway, full control of access for 1,000ft or for 350ft plus 650ft island or median; use of frontage roads, rear service roads
- Intersecting facilities interchange or grade separation (no signals or at-grade intersections)
- Driveways not allowed

#### Expressways

- Functional purpose high mobility, high volume, medium-high speed
- Posted speed 45 to 60 mph
- Cross section minimum four lanes with median
- Multi-modal elements HOV lanes, busways, very wide paved shoulders (rural), shared use paths (separate from roadway but within ROW)
- Type of access control limited or partial control of access;
- Access management minimum interchange/intersection spacing 2,000ft; median breaks only at intersections with minor roadways or to permit U-turns; use of frontage roads, rear service roads; driveways limited in location and number; use of acceleration/deceleration or right turning lanes
- Intersecting facilities interchange; at-grade intersection for minor roadways; right-in/right-out and/or left-over or grade separation (no signalization for through traffic)
- Driveways right-in/right-out only; direct driveway access via service roads or other alternate connections

#### ✤ Boulevards

- Functional purpose moderate mobility; moderate access, moderate volume, medium speed
- Posted speed 30 to 55 mph
- Cross section two or more lanes with median (median breaks allowed for Uturns per current NCDOT Driveway Manual
- Multi-modal elements bus stops, bike lanes (urban) or wide paved shoulders (rural), sidewalks (urban - local government option)
- Type of access control limited control of access, partial control of access, or no control of access
- Access management two lane facilities may have medians with crossovers, medians with turning pockets or turning lanes; use of acceleration/deceleration or right turning lanes is optional; for abutting properties, use of shared driveways, internal out parcel access and cross-connectivity between adjacent properties is strongly encouraged
- Intersecting facilities at grade intersections and driveways; interchanges at special locations with high volumes
- Driveways primarily right-in/right-out, some right-in/right-out in combination with median leftovers; major driveways may be full movement when access is not possible using an alternate roadway

#### Other Major Thoroughfares

- Functional purpose balanced mobility and access, moderate volume, low to medium speed
- Posted speed 25 to 55 mph
- Cross section four or more lanes without median (US and NC routes may have less than four lanes)
- Multi-modal elements bus stops, bike lanes/wide outer lane (urban) or wide paved shoulder (rural), sidewalks (urban)
- Type of access control no control of access
- Access management continuous left turn lanes; for abutting properties, use of shared driveways, internal out parcel access and cross-connectivity between adjacent properties is strongly encouraged
- Intersecting facilities intersections and driveways
- Driveways full movement on two lane roadway with center turn lane as permitted by the current NCDOT *Driveway Manual*

#### Minor Thoroughfares

- Functional purpose balanced mobility and access, moderate volume, low to medium speed
- Posted speed 25 to 55 mph
- Cross section ultimately three lanes (no more than one lane per direction) or less without median
- Multi-modal elements bus stops, bike lanes/wide outer lane (urban) or wide paved shoulder (rural), sidewalks (urban)
- ROW no control of access

- Access management continuous left turn lanes; for abutting properties, use of shared driveways, internal out parcel access and cross-connectivity between adjacent properties is strongly encouraged
- Intersecting facilities intersections and driveways
- Driveways full movement on two lane with center turn lane as permitted by the current NCDOT *Driveway Manual*

## Other Highway Map Definitions

- **Existing** Roadway facilities that are not recommended to be improved.
- Needs Improvement Roadway facilities that need to be improved for capacity, safety, operations, or system continuity. The improvement to the facility may be widening, increasing the level of access control along the facility, operational strategies (including but not limited to traffic control and enforcement, incident and emergency management, and deployment of Intelligent Transportation Systems (ITS) technologies), or a combination of improvements and strategies. "Needs improvement" does not refer to the maintenance needs of existing facilities or the replacement or rehab of structures.
- **Recommended** Roadway facilities on new location that are needed in the future.
- Interchange Through movement on intersecting roads is separated by a structure. Turning movement area accommodated by on/off ramps and loops.
- Grade Separation Through movement on intersecting roads is separated by a structure. There is no direct access between the facilities.
- Full Control of Access Connections to a facility provided only via ramps at interchanges. No private driveway connections allowed.
- Limited Control of Access Connections to a facility provided only via ramps at interchanges (major crossings) and at-grade intersections (minor crossings and service roads). No private driveway connections allowed.
- Partial Control of Access Connections to a facility provided via ramps at interchanges, at-grade intersections, and private driveways. Private driveway connections shall be defined as a maximum of one connection per parcel. One connection is defined as one ingress and one egress point. These may be combined to form a two-way driveway (most common) or separated to allow for better traffic flow through the parcel. The use of shared or consolidated connections is highly encouraged.
- ✤ No Control of Access Connections to a facility provided via ramps at interchanges, at-grade intersections, and private driveways.

## Public Transportation and Rail Map

- Bus Routes The primary fixed route bus system for the area. Does not include demand response systems.
- Fixed Guideway Any transit service that uses exclusive or controlled rights-of-way or rails, entirely or in part. The term includes heavy rail, commuter rail, light rail,

monorail, trolleybus, aerial tramway, included plane, cable car, automated guideway transit, and ferryboats.

- Operational Strategies Plans geared toward the non-single occupant vehicle. This includes but is not limited to HOV lanes or express bus service.
- Rail Corridor Locations of railroad tracks that are either active or inactive tracks. These tracks were used for either freight or passenger service.
  - Active rail service is currently provided in the corridor; may include freight and/or passenger service
  - Inactive right of way exists; however, there is no service currently provided; tracks may or may not exist
  - Recommended It is desirable for future rail to be considered to serve an area.
- High Speed Rail Corridor Corridor designated by the U.S. Department of Transportation as a potential high speed rail corridor.
  - Existing Corridor where higher-speed rail service (over 79 mph) is provided or a corridor that is officially designated by FRA to run higher speed trains in the future. There is currently one federally designated high-speed rail corridor in North Carolina - The Southeast High Speed Rail Corridor.
  - Recommended Proposed corridor for higher speed rail service.
- **Rail Stop** A railroad station or stop along the railroad tracks.
- Multimodal Connector A location where more than one mode of transportation meet such as where light rail and a bus route come together in one location. (NOTE- intermodal refers to two or more modes that transfer the same cargo unitlike 40' shipping container from ship to train or truck); multimodal is the transfer of people/cargo between two or more modes and in NC is used in public transit settings i.e. Charlotte Multimodal Station)
- Park and Ride Lot A strategically located parking lot that provides commuters connections to transit or carpools.
- Existing Grade Separation Locations where existing rail facilities are physically separated from existing highways or other transportation facilities. These may be bridges, culverts, or other structures.
- Proposed Grade Separation Locations where rail facilities are recommended to be physically separated from existing or recommended highways or other transportation facilities. These may be bridges, culverts, or other structures.

## Bicycle Map

- On Road-Existing Conditions for bicycling on the highway facility are adequate to safely accommodate cyclists.
- On Road-Needs Improvement At the systems level, it is desirable for an existing highway facility to accommodate bicycle transportation; however, highway improvements are necessary to create safe travel conditions for the cyclists.

- On Road-Recommended At the systems level, it is desirable for a recommended highway facility to accommodate bicycle transportation. The highway should be designed and built to safely accommodate cyclists.
- Off Road-Existing A facility that accommodates only bicycle transportation and is physically separated from a highway facility either within the right-of-way or within an independent right-of-way.
- Off Road-Needs Improvement A facility that accommodates only bicycle transportation and is physically separated from a highway facility either within the right-of-way or within an independent right-of-way that will not adequately serve future bicycle needs. Improvements may include but are not limited to, widening, paving (not re-paving or other maintenance activities), and improved horizontal or vertical alignment.
- Off Road-Recommended A facility needed to accommodate only bicycle transportation and is physically separated from a highway facility either within the right-of-way or within an independent right-of-way.
- Multi-use Path-Existing An existing facility physically separated from motor vehicle traffic that is either within the highway right-of-way or on an independent right-of-way that serves bicycle and pedestrian traffic. Sidewalks should not be designated as a multi-use path.
- Multi-use Path-Needs Improvement An existing facility physically separated from motor vehicle traffic that is either within the highway right-of-way or on an independent right-of-way that serves bicycle and pedestrian traffic that will not adequately serve future needs. Improvements may include but are not limited to, widening, paving (not re-paving or other maintenance activities), and improved horizontal or vertical alignment. Sidewalks should not be designated as a multi-use path.
- Multi-use Path-Recommended A facility physically separated from motor vehicle traffic that is either within the highway right-of-way or on an independent right-of-way that is needed to serve bicycle and pedestrian traffic. Sidewalks should not be designated as a multi-use path.
- Existing Grade Separation Locations where existing "Off Road" facilities and "Multi-use Paths" are physically separated from existing highways, railroads, or other transportation facilities. These may be bridges, culverts, or other structures.
- Proposed Grade Separation Locations where "Off Road" facilities and "Multi-use Paths" are recommended to be physically separated from existing or recommended highways, railroads, or other transportation facilities. These may be bridges, culverts, or other structures.

## **Pedestrian Map**

- Sidewalk-Existing Paved paths (including but not limited to concrete, asphalt, brick, stone, or wood) on both sides of a highway facility and within the highway right-of-way that are adequate to safely accommodate pedestrian traffic.
- Sidewalk-Needs Improvement Improvements are needed to provide paved paths on both sides of a highway facility. The highway facility may or may not need improvements. Improvements do not include re-paving or other maintenance activities but may include: filling in gaps, widening sidewalks, or meeting ADA (Americans with Disabilities Act) requirements.
- Sidewalk-Recommended At the systems level, it is desirable for a recommended highway facility to accommodate pedestrian transportation or to add sidewalks on an existing facility where no sidewalks currently exist. The highway should be designed and built to safely accommodate pedestrian traffic.
- Off Road-Existing A facility that accommodates only pedestrian traffic and is physically separated from a highway facility usually within an independent right-ofway.
- Off Road-Needs Improvement A facility that accommodates only pedestrian traffic and is physically separated from a highway facility usually within an independent right-of-way that will not adequately serve future pedestrian needs. Improvements may include but are not limited to, widening, paving (not re-paving or other maintenance activities), improved horizontal or vertical alignment, and meeting ADA requirements.
- Off Road-Recommended A facility needed to accommodate only pedestrian traffic and is physically separated from a highway facility usually within an independent right-of-way.
- Multi-use Path-Existing An existing facility physically separated from motor vehicle traffic that is either within the highway right-of-way or on an independent right-of-way that serves bicycle and pedestrian traffic. Sidewalks should not be designated as a multi-use path.
- Multi-use Path-Needs Improvement An existing facility physically separated from motor vehicle traffic that is either within the highway right-of-way or on an independent right-of-way that serves bicycle and pedestrian traffic that will not adequately serve future needs. Improvements may include but are not limited to, widening, paving (not re-paving or other maintenance activities), and improved horizontal or vertical alignment. Sidewalks should not be designated as a multi-use path.
- Multi-use Path-Recommended A facility physically separated from motor vehicle traffic that is either within the highway right-of-way or on an independent right-of-way that is needed to serve bicycle and pedestrian traffic. Sidewalks should not be designated as a multi-use path.
- Existing Grade Separation Locations where existing "Off Road" facilities and "Multi-use Paths" are physically separated from existing highways, railroads, or other transportation facilities. These may be bridges, culverts, or other structures.
- Proposed Grade Separation Locations where "Off Road" facilities and "Multi-use Paths" are recommended to be physically separated from existing or recommended highways, railroads, or other transportation facilities. These may be bridges, culverts, or other structures.

## Appendix C CTP Inventory and Recommendations

#### Assumptions/ Notes:

- Local ID: This Local ID is the same as the one used for the Prioritization Project Submittal Tool. If a TIP project number exists it is listed as the ID. Otherwise, the following system is used to create a code for each recommended improvement: the first 4 letters of the county name is combined with a 4 digit unique numerical code followed by '-H' for highway, '-T' for public transportation, '-R' for rail, '-B' for bicycle, '-M' for multiuse paths, or '-P' for pedestrian modes. If a different code is used along a route it indicates separate projects will probably be requested. Also, upper case alphabetic characters (i.e. 'A', 'B', or 'C') are included after the numeric portion of the code if it is anticipated that project segmentation or phasing will be recommended.
- Jurisdiction: Jurisdictions listed are based on municipal limits, county boundaries, and MPO Metropolitan Planning Area Boundaries (MAB), as applicable.
- Existing Cross-Section: Listed under 'Total Width (ft)' is the approximate width of the roadway from edge of pavement to edge of pavement and under 'Lane Width (ft)' is the approximate width of a single lane based on centerline/ edge line markings. Listed under 'Lanes' is the total number of lanes, with 'D' if the facility is divided, and 'OW' if it is a one-way facility.
- Existing ROW: The estimated existing right-of-way is based on the NCDOT GIS Roadway Characteristics layer and NCDOT Division 8 information. These right-of-way amounts are approximate and may vary.
- Existing and Proposed Capacity: The estimated capacities are given in vehicles per day (vpd) based on LOS D for existing facilities and LOS C for new facilities. These capacity estimates were developed based on the 2000 Highway Capacity Manual using the Transportation Planning Branch's LOS D Standards for Systems Level Planning, as documented in Chapter 1.
- Existing and Proposed Volumes, given in vehicles per day (vpd), are estimates only based on a systems-level analysis. The '2040 Volume E+C' is an estimate of the volume in 2040 with only existing plus committed projects assumed to be in place, where committed is defined as projects programmed for construction in the 2016 2025 Transportation Improvement Program (TIP). The '2040 Volume with CTP' is an estimate of the volume in 2040 with all proposed CTP improvements assumed to be in place. The '2040 Volume with CTP' is shown in bold if it exceeds the proposed capacity, indicating an unmet need. For additional information about the assumptions and techniques used to develop the AADT volume estimates, refer to Chapter 1.
- Proposed Cross-section: The CTP recommended cross-sections are listed by code; for depiction of the cross-section, refer to Appendix D. An entry of 'ADQ' indicates the existing facility is adequate and there are no improvements recommended for the given mode as part of the CTP.
- CTP Classification: The CTP classification is listed, as shown on the adopted CTP Maps (see Figure 1). Abbreviations are F= freeway, E= expressway, B= boulevard, Maj= other major thoroughfare, Min= minor thoroughfare.

Proposals for Other Modes: If there is an improvement recommended for another mode of transportation that relates to the given recommendation, it is indicated by an alphabetic code (H= highway, T= public transportation, R= rail, B= bicycle, P= pedestrian, and M= multi-use path).

### **CTP INVENTORY AND RECOMMENDATIONS**

						Н	IGHW	ΑΥ											
		Sec	tion					201	4 Exis	ting Sy	stem			2040 P	roposed Sy	ystem			
Local ID	Facility	From	То	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2014 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross- Section	ROW (ft)	CTP Classifi- cation	Proposals for Other Modes
SCOT0001-H	US-15/US-401	South Carolina	Barnes Bridge Rd (SR 1614)	Scotland Co.	0.1	24	2	12	150	55	12900	6900	9400	9400	40000	4A	180	В	
SCOT0001-H	US-15/US-401	Barnes Bridge Rd (SR 1614)	Leisure Rd (SR 1100)	Scotland Co.	0.5	24	2	12	150	55	12900	6100	8300	8300	40000	4A	180	В	
SCOT0001-H	US-15/US-401	Leisure Rd (SR 1100)	Tartan Rd (SR 1628)	Scotland Co.	0.8	24	2	12	150	55	12900	6100	8300	8300	40000	4A	180	В	
SCOT0001-H	US-15/US-401	Tartan Rd (SR 1628)	Academy Rd (SR 1101)	Scotland Co.	0.4	24	2	12	150	55	12900	10000	13000	13000	40000	4A	180	В	
SCOT0001-H	US-15/US-401	Academy Rd (SR 1101)	Municipal Boundary	Scotland Co.	0.5	24	2	12	150	55	12900	10000	13000	13000	40000	4A	180	В	
SCOT0001-H	US-15/US-401	Municipal Boundary	Shaw Rd (SR 1627)	Laurinburg	0.1	24	2	12	150	55	12900	10000	13000	13000	40000	4A	180	В	
SCOT0001-H	US-15/US-401	Shaw Rd (SR 1627)	Purcell Rd (SR 1177)	Laurinburg	0.7	24	2	12	150	55	12900	10500	13600	13600	40000	4A	180	В	
SCOT0001-H	US-15/US-401	Purcell Rd (SR 1177)	Turnpike Rd (SR 1271)	Laurinburg	0.3	62	2	12	150	55	12900	11500	14500	14500	40000	4A	180	В	
SCOT0001-H	US-15/US-401	Turnpike Rd (SR 1271)	Turnpike Rd (SR 1105)	Laurinburg	0.4	62	5	12	150	55	28400	11500	14500	14500	40000	4A	180	В	
SCOT0001-H	US-15/US-401	Turnpike Rd (SR 1105)	Hasty Rd (SR 1615)	Laurinburg	0.3	68	5	12	200	55	28400	11500	14500	14500	40000	4A	180	В	
SCOT0001-H	US-15/US-401	Hasty Rd (SR 1615)	Blues Farm Rd (SR 1117)	Laurinburg	0.5	68	5	12	150	45	26800	16600	21500	21500	40000	4A	180	В	
SCOT0001-H	US-15/US-401	Blues Farm Rd (SR 1117)	US-15/US-401 BUS	Laurinburg	0.6	68	5	12	220	45	26800	19200	24500	24500	40000	4A	180	В	
	US-15/US-401	US-15/US-401 BUS	US-74	Laurinburg	0.5	48	4D	12	125	45	36600	17300	22500	22500	ADQ	ADQ	ADQ	В	
FS-1508B	US-15/US- 401/US-501	US-74	West Blvd (SR 1108)	Laurinburg	0.4	48	4D	12	100	45	24600	14600	19400	19400	36600	4A	180	В	Р
FS-1508B	US-15/US- 401/US-501	West Blvd (SR 1108)	US-74 BUS	Laurinburg	0.8	48	4D	12	125	55	25800	10800	14700	14700	40500	4A	180	В	
FS-1508B	US-15/US- 401/US-501	US-74 BUS	Railroad St (SR 1383)	Laurinburg	0.5	48	4D	12	115	55	25800	11100	11600	11600	40500	4A	180	В	
FS-1508B	US-15/US- 401/US-501	Railroad St (SR 1383)	Sneads Grove Rd (SR 1300)	Laurinburg	0.4	48	4D	12	115	55	25800	11400	14100	14100	40500	4A	180	В	
FS-1508B	US-15/US- 401/US-501	Sneads Grove Rd (SR 1300)	US-401	Laurinburg	1.0	48	4D	12	115	55	25800	10200	13300	13300	40500	4A	180	В	

						Н	IGHW	AY											
		Sec	tion					201	14 Exis	sting Sy	stem			2040 P	roposed Sy	/stem			
Local ID	Facility	From	То	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2014 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross- Section	ROW (ft)	CTP Classifi- cation	Proposals for Other Modes
	US-15/US-501	US-401	Plant Rd (SR 1301)	Laurinburg	0.3	24	2	12	100	35	11600	6600	8500	8500	ADQ	ADQ	ADQ	Maj	
	US-15/US-501	Plant Rd (SR 1301)	McFarland Rd (SR 1323)	Scotland Co.	1.6	24	2	12	100	55	15100	5100	6600	6600	ADQ	ADQ	ADQ	Maj	
	US-15/US-501	McFarland Rd (SR 1323)	NC-144	Scotland Co.	1.2	24	2	12	100	55	15100	5400	7000	7000	ADQ	ADQ	ADQ	Maj	
	US-15/US-501	NC-144	Silver Hill Rd (SR 1328)	Scotland Co.	2.8	24	2	12	100	55	15100	6200	8000	8000	ADQ	ADQ	ADQ	Maj	
	US-15/US-501	Silver Hill Rd (SR 1328)	Turnpike Rd (SR 1412)	Scotland Co.	0.4	24	2	12	100	55	15100	5800	7500	7500	ADQ	ADQ	ADQ	Maj	В
	US-15/US-501	Turnpike Rd (SR 1412)	Harold Morris Rd (SR 1324)	Scotland Co.	2.5	24	2	12	100	55	15100	5200	6700	6700	ADQ	ADQ	ADQ	Maj	
	US-15/US-501	Harold Morris Rd (SR 1324)	Hill Creek Rd (SR 1400)	Scotland Co.	4.7	24	2	12	100	55	15100	5300	6900	6900	ADQ	ADQ	ADQ	Maj	
	US-15/US-501	Hill Creek Rd (SR 1400)	Hoke County	Scotland Co.	2.3	24	2	12	100	55	15100	5700	7400	7400	ADQ	ADQ	ADQ	Maj	
	BUS	US-15/US-401	Lauchwood Dr (SR 1674)	Laurinburg	0.2	30	4	12	100	45	24600	12700	16000	16000	ADQ	ADQ	ADQ	Maj	Т
	US-15/US-401 BUS	Lauchwood Dr (SR 1674)	US-74/US 501	Laurinburg	0.3	74	5	12	100	35	24300	14300	18300	18300	ADQ	ADQ	ADQ	Maj	Р
	US-15/US-401 BUS	US-74/US 501	Atkinson St (SR 1107)	Laurinburg	0.2	74	4	12	100	35	22200	13400	17000	17000	ADQ	ADQ	ADQ	Maj	P,T
	US-15/US-401 BUS	Atkinson St (SR 1107)	Armory St (SR 1640)	Laurinburg	0.1	52	4	12	100	35	22200	11300	14600	14600	ADQ	ADQ	ADQ	Maj	P,T
	US-15/US-401 BUS	Armory St (SR 1640)	lvy St	Laurinburg	0.2		4	12	60	35	22200	11300	14600	14600	ADQ	ADQ	ADQ	Maj	Р
	US-15/US-401 BUS	Ivy St	US-501 BUS	Laurinburg	0.3	36	4	12	60	35	22200	11300	14600	14600	ADQ	ADQ	ADQ	Maj	Р
	US-15/US- 401/US-501 BUS	US-501 BUS	West Blvd (SR 1108)	Laurinburg	0.3	36	3	12	60	35	12700	9500	12300	12300	ADQ	ADQ	ADQ	Maj	P,T
	US-15/US- 401/US-501 BUS	West Blvd (SR 1108)	Vance Street	Laurinburg	0.1	36	3	12	60	35	12700	7800	10200	10200	ADQ	ADQ	ADQ	Maj	P,T
	US-15/US- 401/US-501 BUS	Vance Street	US-74 BUS	Laurinburg	0.3	45	2	12	100	35	12700	7600	10100	10100	ADQ	ADQ	ADQ	Maj	P,T

						Н	IGHW	AY											
		Sec	ction					201	4 Exis	ting Sy	stem			2040 P	roposed Sy	/stem			
Local ID	Facility	From	То	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2014 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross- Section	ROW (ft)	CTP Classifi- cation	Proposals for Other Modes
	US-15/US- 401/US-501 BUS	US-74 BUS	Railroad Street	Laurinburg	0.2	39	2	12	100	20	11000	5900	7600	7600	ADQ	ADQ	ADQ	Maj	P,T
	US-15/US- 401/US-501 BUS	Railroad Street	McGirts Bridge Rd (SR 1471)	Laurinburg	0.5	39	2	12	100	35	11100	6500	8400	8400	ADQ	ADQ	ADQ	Maj	P,T
	US-15/US- 401/US-501 BUS	McGirts Bridge Rd (SR 1471)	US-401 BUS	Laurinburg	0.1	36	3	12	80	35	12700	6500	8400	8400	ADQ	ADQ	ADQ	Maj	P,T
SCOT0003-H	US-15/US-501 BUS	US-401 BUS	Gill St (SR 1107)	Laurinburg	0.2	22	2	11	80	35	10700	3400	4400	4400	11100	2A	ADQ	Maj	P,T
SCOT0003-H	US-15/US-501 BUS	Gill St (SR 1107)	Poplar Dr	Laurinburg	0.5	36	2	11	60	35	10700	4400	5700	5700	11100	2A	ADQ	Maj	т
SCOT0003-H	US-15/US-501 BUS	Poplar Dr	US-401	Laurinburg	0.2	36	2	12	60	35	11100	4400	5700	5700	11100	2A	ADQ	Maj	Т
FS-1508A	US-74	Richmond County	Butler Rd (SR 1153)	Scotland Co.	3.4	48	4D	12	100	55	53600	17000	22000	22000	58000	4A	300	F	
FS-1508A	US-74	Butler Rd (SR 1153)	Old Wire Rd (SR 1152)	Scotland Co.	1.8	48	4D	12	100	55	53600	18200	23300	23300	58000	4A	300	F	
FS-1508A	US-74	Old Wire Rd (SR 1152)	Saint Johns Church Rd (SR 1148)	Scotland Co.	0.4	48	4D	12	100	45	53600	18000	20300	20300	58000	4A	300	F	
FS-1508A	US-74	Saint Johns Church Rd (SR 1148)	Spring Mill Rd (SR 1125)	Scotland Co.	0.8	48	4D	12	100	45	53600	18500	22600	22600	58000	4A	300	F	
FS-1508A	US-74	Spring Mill Rd (SR 1125)	Elmore Rd (SR 1321)	Scotland Co.	1.6	48	4D	12	100	55	53600	19200	25000	25000	58000	4A	300	F	
FS-1508A	US-74	Elmore Rd (SR 1321)	US-74 BUS	Scotland Co.	0.3	48	4D	12	100	55	53600	20600	26300	26300	58000	4A	300	F	
FS-1508A	US-74	US-74 BUS	NC-79	Scotland Co.	1.1	48	4D	12	90	65	56700	16100	20900	20900	58000	4A	300	F	
FS-1508A	US-74	NC-79	Turnpike Rd (SR 1105)	Scotland Co.	0.8	48	4D	12	90	65	56700	19500	24900	24900	58000	4A	300	F	
FS-1508A	US-74	Turnpike Rd (SR 1105)	US-15/US-401	Laurinburg	0.8	48	4D	12	100	65	57500	19500	24900	24900	58000	4A	300	F	
FS-1508A	US-74/US 501	US-15/US-401	US-15 BUS/US- 401 BUS	Laurinburg	0.4	48	4D	12	100	65	57500	20900	27100	27100	58000	4A	300	F	

						Н	IGHW	AY											
		Sec	tion					201	14 Exis	sting Sy	stem			2040 P	roposed Sy	ystem			
Local ID	Facility	From	То	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2014 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross- Section	ROW (ft)	CTP Classifi- cation	Proposals for Other Modes
FS-1508A	US-74/US 501	US-15 BUS/US- 401 BUS	US-501	Laurinburg	0.9	48	4D	12	200	65	57500	17700	22900	22900	58000	4A	300	F	
FS-1508A	US-74	US-501	Highland Rd (SR 1323)	Scotland Co.	1.7	48	4D	12	100	65	58000	18700	24400	24400	58000	4A	300	F	
FS-1508A	US-74	Highland Rd (SR 1323)	US-74 BUS	Scotland Co.	1.0	48	4D	12	100	65	58000	17000	22300	22300	58000	4A	300	F	
FS-1508A	US-74	US-74 BUS	Airport Road (SR- 1436)	Scotland Co.	2.6	48	4D	12	100	70	58000	14800	19800	19800	58000	4A	300	F	
FS-1508A	US-74	Airport Road (SR- 1436)	Robeson County	Scotland Co.	1.2	48	4D	12	170	70	58000	14000	20900	20900	58000	4A	300	F	
	US-74 BUS	US-74	Fieldcrest Rd (SR 1303)	Scotland Co.	0.8	24	2	12	50	55	15100	4500	5800	5800	ADQ	ADQ	ADQ	Maj	
	US-74 BUS	Fieldcrest Rd (SR 1303)	NC-79	Scotland Co.	0.6	24	2	12	100	55	15100	6200	8000	8000	ADQ	ADQ	ADQ	Maj	
	US-74 BUS	NC-79	Turnpike Rd (SR 1105)	Scotland Co.	0.1	32	3	12	80	35	12700	7400	8700	8700	ADQ	ADQ	ADQ	Maj	
	US-74 BUS	Turnpike Rd (SR 1105)	US-15/US-401/US- 501	Laurinburg	0.5	40	3	12	100	35	12700	7400	9600	9600	ADQ	ADQ	ADQ	Maj	B,P
SCOT0004-H	US-74 BUS	US-15/US-401/US- 500	Wilkinson Dr (SR 1358)	Laurinburg	0.1	36	3	12	100	35	12700	6900	8900	8900	12703	3B	ADQ	Maj	B,P
SCOT0004-H	US-74 BUS	Wilkinson Dr (SR 1358)	King St (SR 1300)	Laurinburg	0.5	36	3	12	100	35	12700	6900	8900	8900	12703	3B	ADQ	Maj	Р
SCOT0004-H	US-74 BUS	King St (SR 1300)	Peden Street	Laurinburg	0.1	44	2	12	100	35	11100	6900	8900	8900	12700	3B	ADQ	Maj	Р
SCOT0004-H	US-74 BUS	Peden Street	Atkinson St (SR 1107)	Laurinburg	0.2	36	2	12	60	35	11100	6900	8900	8900	12700	3B	80	Maj	P,T
SCOT0004-H	US-74 BUS	Atkinson St (SR 1107)	US-15/US-401/US- 501 BUS	Laurinburg	0.1	36	2	12	60	35	11100	7500	9300	9300	12700	3B	80	Maj	Р
SCOT0004-H	US-74 BUS	US-15/US-401/US- 501 BUS	Biggs St (SR 1642)	Laurinburg	0.1	36	2	12	60	35	11100	9100	11600	11600	12700	3B	80	Maj	P,T
SCOT0004-H	US-74 BUS	Biggs St (SR 1642)	Caledonia Rd (SR 1438)	Laurinburg	0.3	36	2	12	60	35	11100	7700	10000	10000	12700	3B	80	Maj	P,T
	US-74 BUS	Caledonia Rd (SR 1438)	5th St (SR 1457)	Laurinburg	0.7	25	2	12	60	45	12200	4200	5400	5400	ADQ	ADQ	ADQ	Maj	Р
SCOT0005-H	US-74 BUS	4th St	11th St	Laurinburg	0.4	20	2	10	100	45	11800	3400	4400	4400	14600	2A	ADQ	Maj	Р

						Н	IGHW	ΆΥ											
		Sec	ction					20 <sup>-</sup>	14 Exis	sting Sy	vstem			2040 P	roposed S	ystem			
Local ID	Facility	From	То	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2014 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross- Section	ROW (ft)	CTP Classifi- cation	Proposals for Other Modes
SCOT0005-H	US-74 BUS	11th St	Dixie Guano Rd (SR 1645)	Laurinburg	0.1		2	10	100	45	11800	3400	4400	4400	14600	2A	ADQ	Maj	
SCOT0005-H	US-74 BUS	Dixie Guano Rd (SR 1645)	Kiser Rd (SR 1452)	Scotland Co.	0.3	20	2	10	100	45	11800	3600	4700	4700	14600	2A	ADQ	Maj	
SCOT0005-H	US-74 BUS	Kiser Rd (SR 1452)	Highland Rd (SR 1323)	Scotland Co.	0.3	22	2	11	100	45	14100	3400	4400	4400	14600	2A	ADQ	Мај	
SCOT0005-H	US-74 BUS	Highland Rd (SR 1323)	US-74	Scotland Co.	0.9	22	2	11	100	55	14600	4300	5600	5600	15100	2A	ADQ	Maj	
SCOT0005-H	US-74 BUS	US-74	Rocky Ford Rd (SR 1611)	Scotland Co.	0.9	22	2	11	100	55	14600	5300	6900	6900	15100	2A	ADQ	Maj	
SCOT0005-H	US-74 BUS	Rocky Ford Rd (SR 1611)	0.1 MI West of Minicipal Boundary	Scotland Co.	1.6		2	11	100	45	14100	6100	7900	7900	14600	2A	ADQ	Maj	Ρ
SCOT0005-H	US-74 BUS	0.1 MI West of Minicipal Boundary	Airport Rd (SR 1436)	Scotland Co.	0.3	22	2	11	100	45	14100	6100	7900	7900	14600	2A	ADQ	Maj	Р
SCOT0005-H	US-74 BUS	Airport Rd (SR 1436)	Robeson County	Scotland Co.	0.5	22	2	11	100	45	14100	4300	5600	5600	14600	2A	ADQ	Maj	Ρ
															1.5000		100		
FS-1508B	US-401	US-15/US-501	US-401 BUS	Laurinburg	1.0	48	4D	12	110	55	25800	6800	7700	7700	45200	4A	180	В	
FS-1508B	US-401	US-401 BUS	Highland Rd (SR 1323)	Laurinburg	0.2	48	4D	12	110	55	25800	7800	9900	9900	45200	4A	180	В	
FS-1508B	US-401	Highland Rd (SR 1323)	Sally McNair Rd (SR 1424)	Scotland Co.	2.7	24	2	12	110	55	15100	7400	9600	9600	45200	4A	180	В	
FS-1508B	US-401	Sally McNair Rd (SR 1424)	Stubbs Rd (SR 1416)	Scotland Co.	1.6	24	2	12	100	55	15100	5500	6600	6600	45200	4A	180	В	
FS-1508B	US-401	Stubbs Rd (SR 1416)	Airbase Rd (SR 1407)	Scotland Co.	1.5	24	2	12	100	55	15100	5200	6900	6900	45200	4A	180	В	
FS-1508B	US-401	Airbase Rd (SR 1407)	NC-144	Scotland Co.	1.0	24	2	12	100	55	15100	6000	8000	8000	45200	4A	180	В	
FS-1508B	US-401	NC-144	0.1 MI South of 2nd St		0.1	36	3	12	100	35	16500	8000	9000	9000	43600	4A	180	В	
FS-1508B	US-401	0.1 MI South of 2nd St	MC Kay St (SR 1403)	Wagram	0.3	36	3	12	100	35	16500	8000	9000	9000	43600	4A	180	В	Р
FS-1508B	US-401	MC Kay St (SR 1403)	Center St	Wagram	0.6	24	2	12	100	55	15100	6600	8600	8600	45200	4A	180	В	Р
FS-1508B	US-401	Center St	Howard Street		0.1	24	2	12	100	55	15100	6600	8600	8600	45200	4A	180	В	Р
FS-1508B	US-401	Howard Street	Hoke County	Scotland Co.	0.7	24	2	12	100	55	15100	6600	8600	8600	45200	4A	180	В	

						Н	IGHW	/AY											
		Sec	ction					20 <sup>-</sup>	14 Exis	sting Sy	stem			2040 P	roposed S	ystem			
Local ID	Facility	From	То	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2014 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross- Section	ROW (ft)	CTP Classifi- cation	Proposals for Other Modes
SCOT0006-H	US-401 BUS	US-15/US-501 BUS	Lee's Mill Rd (SR 1425)	Laurinburg	0.2	20	2	10	100	35	10400	4400	5500	5500	10700	2E	ADQ	Maj	Р
SCOT0006-H	US-401 BUS	Lee's Mill Rd (SR 1425)	Cypress St	Laurinburg	0.1	20	2	10	100	35	10400	1700	2000	2000	10700	2E	ADQ	Maj	Р
SCOT0006-H	US-401 BUS	Cypress St	Gill St (SR 1107)	Laurinburg	0.1	20	2	10	100	35	10400	1700	2000	2000	10700	2E	ADQ	Maj	
SCOT0006-H	US-401 BUS	Gill St (SR 1107)	Produce Market Rd (SR 1439)	Laurinburg	0.4	20	2	10	100	35	10400	2100	2700	2700	10700	2E	ADQ	Maj	MU
SCOT0006-H	US-401 BUS	Produce Market Rd (SR 1439)	Harvel Ln	Laurinburg	0.3	21	2	10	100	45	11800	1700	2200	2200	12200	2A	ADQ	Maj	
SCOT0006-H	US-401 BUS	Harvel Ln	Wagram Road (SR-1516)	Laurinburg	0.3	21	2	10	100	45	11800	1700	2200	2200	12200	2A	ADQ	Maj	
SCOT0006-H	US-401 BUS	Wagram Road (SR-1516)	US-401	Laurinburg	0.1	21	2	10	100	45	11800	1700	2200	2200	12200	2A	ADQ	Maj	Т
	US-501	Robeson County	Pea Bridge Rd (SR 1619)	Scotland Co.	2.1	24	2	12	60	55	15100	3400	4400	4400	ADQ	ADQ	ADQ	Maj	
	US-501	Pea Bridge Rd (SR 1619)	Old Johns Rd (SR 1601)	Scotland Co.	0.1	24	2	12	60	55	15100	4800	6200	6200	ADQ	ADQ	ADQ	Maj	
	US-501	Old Johns Rd (SR 1601)	McQueen Rd (SR 1621)	Scotland Co.	1.4	24	2	12	60	55	15100	4700	6100	6100	ADQ	ADQ	ADQ	Maj	
	US-501	McQueen Rd (SR 1621)	Barnes Bridge Rd (SR 1614)	Scotland Co.	0.7	24	2	12	60	55	15100	4900	6300	6300	ADQ	ADQ	ADQ	Maj	
	US-501	Barnes Bridge Rd (SR 1614)	US-501 BUS	Scotland Co.	1.2	24	2	12	60	55	15100	6300	8200	8200	ADQ	ADQ	ADQ	Maj	
	US-501	US-501 BUS	Lauchwood Dr (SR 1674)	Scotland Co.	0.4	24	2	12	100	55	14600	4500	5800	5800	ADQ	ADQ	ADQ	Maj	
	US-501	Lauchwood Dr (SR 1674)	US-74	Scotland Co.	0.2	24	2	12	100	55	14600	6100	7900	7900	ADQ	ADQ	ADQ	Maj	
								<b> </b>											
	US-501 BUS	US-501	Lauchwood Dr (SR 1674)	Scotland Co.	0.4	24	2	12	60	55	12900	2000	2300	2300	ADQ	ADQ	ADQ	Maj	Т
	US-501 BUS	Lauchwood Dr (SR 1674)	Woodlawn St	Laurinburg	0.4	24	2	12	0	55	12900	2000	2400	2400	ADQ	ADQ	ADQ	Maj	Т
	US-501 BUS	Woodlawn St	Biggs St (SR 1641)	Laurinburg	0.4	24	2	12	0	55	12900	2000	2400	2400	ADQ	ADQ	ADQ	Maj	Р
	US-501 BUS	Biggs St (SR	US-15/US-401	Laurinburg	0.1	24	2	12	0	35	11100	1500	1900	1900	ADQ	ADQ	ADQ	Maj	Р

						Н	IGHW	AY											
		Sec	tion					201	14 Exis	ting Sy	stem			2040 P	roposed Sy	ystem			
Local ID	Facility	From	То	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2014 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross- Section	ROW (ft)	CTP Classifi- cation	Proposals for Other Modes
	NC-71	Robeson County	Skyway Church Rd (SR 1435)	Scotland Co.	0.4	24	2	12	100	55	15100	500	700	700	ADQ	ADQ	ADQ	Maj	
	NC-71	Skyway Church Rd (SR 1435)	Robeson County	Scotland Co.	0.1	24	2	12	100	55	15100	500	700	700	ADQ	ADQ	ADQ	Maj	
	NC-79	South Carolina State	NC-381	Gibson	0.3	30	2	12	60	35	11600	1800	2300	2300	ADQ	ADQ	ADQ	Maj	
	NC-79/NC-381	NC-381	X-Way Rd (SR 1131)	Gibson	0.8	30	2	12	60	20	11000	2900	3800	3800	ADQ	ADQ	ADQ	Maj	Р
	NC-79	X-Way Rd (SR 1131)	Rockdale Avenue (SR-1168)	Gibson	0.2	30	2	12	60	35	11600	2800	3600	3600	ADQ	ADQ	ADQ	Maj	Р
	NC-79	Rockdale Avenue (SR-1168)	Saint Johns Church Rd (SR 1148)	Scotland Co.	1.3	30	2	12	60	35	11600	2800	3600	3600	ADQ	ADQ	ADQ	Maj	
	NC-79	Saint Johns Church Rd (SR 1148)	Spring Mill Rd (SR 1125)	Scotland Co.	2.9	24	2	12	60	55	15100	2700	3500	3500	ADQ	ADQ	ADQ	Maj	
	NC-79	Spring Mill Rd (SR 1125)	Calhoun Rd (SR 1119)	Scotland Co.	0.3	24	2	12	60	35	11600	4700	6100	6100	ADQ	ADQ	ADQ	Maj	
	NC-79	Calhoun Rd (SR 1119)	US-74	Scotland Co.	1.7	24	2	12	60	55	15100	4100	5300	5300	ADQ	ADQ	ADQ	Maj	
	NC-79	US-74	US-74 BUS	Scotland Co.	0.6	24	2	12	60	55	15100	3400	4400	4400	ADQ	ADQ	ADQ	Maj	
	NC-144	US-74	Marston Rd (SR 1001)	Scotland Co.	0.3	24	2	12	60	20	11100	2600	3400	3400	ADQ	ADQ	ADQ	Maj	
	NC-144	Marston Rd (SR 1001)	Old Wire Rd (SR 1319)	Scotland Co.	0.2	24	2	12	0	35	11600	2000	2600	2600	ADQ	ADQ	ADQ	Maj	
	NC-144	Old Wire Rd (SR 1319)	Fieldcrest Rd (SR 1303)	Scotland Co.	1.1	24	2	12	0	35	11600	4500	5800	5800	ADQ	ADQ	ADQ	Maj	
	NC-144	Fieldcrest Rd (SR 1303)	Sneads Grove Rd (SR 1105)	Scotland Co.	0.4	24	2	12	0	55	15100	7100	9200	9200	ADQ	ADQ	ADQ	Maj	
	NC-144	Sneads Grove Rd (SR 1105)	McFarland Rd (SR 1323)	Scotland Co.	1.9	24	2	12	0	55	15100	3500	4500	4500	ADQ	ADQ	ADQ	Maj	
	NC-144	McFarland Rd (SR 1323)	Laurel Hill Church Rd (SR 1321)	Scotland Co.	0.4	24	2	12	0	55	15100	3500	4500	4500	ADQ	ADQ	ADQ	Maj	
	NC-144	Laurel Hill Church Rd (SR 1321)	US-15/US-501	Scotland Co.	0.4	20	2	10	60	55	14100	3600	4700	4700	ADQ	ADQ	ADQ	Maj	

						Н	IGHW	AY											
		Sec	ction					201	4 Exis	ting Sy	stem			2040 P	roposed Sy	ystem			
Local ID	Facility	From	То	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2014 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross- Section	ROW (ft)	CTP Classifi- cation	Proposals for Other Modes
SCOT0007-H	NC-144	US-15/US-501	Sally McNair Rd (SR 1424)	Scotland Co.	2.0	20	2	10	60	55	14100	2600	3400	3400	15100	2A	60	Maj	
SCOT0007-H	NC-144	Sally McNair Rd (SR 1424)	US-401	Scotland Co.	4.2	20	2	10	0	55	14100	2600	3400	3400	15100	2A	60	Maj	
	NC-381	South Carolina State	NC-79	Gibson	0.4	20	2	10	0	35	10400	600	800	800	ADQ	ADQ	ADQ	Мај	
	NC-381	NC-79/NC-381	Municipal Boundary (N)	Gibson	0.5	20	2	10	60	35	10400	1100	1400	1400	ADQ	ADQ	ADQ	Maj	
	NC-381	Municipal Boundary (N)	Old Wire Rd (SR 1152)	Scotland Co.	1.9	20	2	10	60	55	14100	600	800	800	ADQ	ADQ	ADQ	Maj	
	NC-381	Old Wire Rd (SR 1152)	Richmond County	Scotland Co.	2.5	20	2	10	60	55	14100	1600	2100	2100	ADQ	ADQ	ADQ	Maj	
	Airbase Rd (SR 1407)	Robeson County	Skyway Church Rd (SR 1435)	Scotland Co.	0.9	22	2	11	0	55	14600	500	500	500	ADQ	ADQ	ADQ	Min	
	Airbase Rd (SR 1407)	Skyway Church Rd (SR 1435)	Hickman Rd (SR 1497)	Scotland Co.	0.4	22	2	11	0	55	14600	500	600	600	ADQ	ADQ	ADQ	Min	
	Airbase Rd (SR 1407)	Hickman Rd (SR 1497)	Airport Rd (SR 1434)	Scotland Co.	2.1	22	2	11	20	55	14600	1200	1600	1600	ADQ	ADQ	ADQ	Min	
SCOT0008-H	Airbase Rd (SR 1407)	Airport Rd (SR 1434)	McGirts Bridge Rd (SR 1433)	Scotland Co.	0.5	22	2	10	0	55	14100	1300	2500	2500	14600	2B	60	Min	
SCOT0008-H	Airbase Rd (SR 1407)	McGirts Bridge Rd (SR 1433)	Riverton Rd (SR 1403)	Scotland Co.	0.9	20	2	10	0	55	14100	1700	2900	2900	14600	2B	60	Min	
	Airbase Rd (SR 1407)	Riverton Rd (SR 1403)	McIntosh Rd (SR 1421)	Scotland Co.	1.6	24	2	12	0	55	15100	900	1000	1000	ADQ	ADQ	ADQ	Min	
SCOT0008-H	Airbase Rd (SR 1407)	McIntosh Rd (SR 1421)	US-401	Scotland Co.	2.0	20	2	10	0	35	10400	1400	1800	1800	11200	2B	60	Min	
	Airport Rd (SR 1436)	US-74 BUS	Old Lumberton Rd (SR 1369)	Scotland Co.	0.7	22	2	11	0	55	14600	1300	1700	1700	ADQ	ADQ	ADQ	Min	
	Airport Rd (SR 1436)	Old Lumberton Rd (SR 1369)	US-74	Scotland Co.	0.3	24	2	12	120	55	15100	3200	4600	4600	ADQ	ADQ	ADQ	Min	
	Airport Rd (SR 1436)	US-74	Luter Rd (SR 1437)	Scotland Co.	0.2	24	2	12	120	55	15100	4400	6700	6700	ADQ	ADQ	ADQ	Min	
	Airport Rd (SR 1436)	Luter Rd (SR 1437)	Charles Craft Ln (SR 1435)	Scotland Co.	0.4	22	2	11	0	55	14600	3000	4800	4800	ADQ	ADQ	ADQ	Min	

						Н	IGHW	AY											
		Sec	tion					201	4 Exis	ting Sy	stem			2040 P	roposed Sy	/stem			
Local ID	Facility	From	То	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2014 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross- Section	ROW (ft)	CTP Classifi- cation	Proposals for Other Modes
	Airport Rd (SR 1434)	Charles Craft Ln (SR 1435)	Jump Rd (SR 1472)	Scotland Co.	2.4	20	2	10	0	55	14100	700	1800	1800	ADQ	ADQ	ADQ	Min	
	Airport Rd (SR 1434)	Jump Rd (SR 1472)	Airbase Rd (SR 1407)	Scotland Co.	0.8	22	2	11	0	55	14600	1100	2200	2200	ADQ	ADQ	ADQ	Min	
	Arch McLean Rd (SR 1415)	US-15/US-501	Turnpike Rd (SR 1412)	Scotland Co.	0.1	20	2	10	0	55	14100	600	800	800	ADQ	ADQ	ADQ	Min	
SCOT0002-H	Armory St (SR 1640)	US-15/US-401 BUS	Biggs St (SR 1641)	Laurinburg	0.1	33	2	12	0	35	10200	700	900	3100	11700	2E	ADQ	Min	Р
SCOT0002-H	Atkinson St (SR 1107)	US-15/US-401 BUS	West Blvd (SR 1108)	Laurinburg	0.9	41	2	12	0	35	10200	4300	5600	7300	11700	2E	ADQ	Min	Ρ
SCOT0002-H	Atkinson St (SR 1107)	West Blvd (SR 1108)	US-74 BUS	Laurinburg	0.4	41	2	12	0	35	10200	4600	6000	7800	11700	2E	ADQ	Min	P,T
	Atkinson St (SR 1107)	US-74 BUS	Railroad Street	Laurinburg	0.3	36	2	12	0	20	10000	2900	3600	3600	ADQ	ADQ	ADQ	Min	P,T
	Barnes Bridge Rd (SR 1614)	US-15/US-401	Turnpike Rd (SR 1271)	Scotland Co.	2.0	18	2	9	0	45	13100	900	1200	1200	ADQ	ADQ	ADQ	Min	
	Barnes Bridge Rd (SR 1614)	Turnpike Rd (SR 1271)	Hasty Rd (SR 1615)	Scotland Co.	1.2	22	2	11	0	45	14600	900	1200	1200	ADQ	ADQ	ADQ	Min	
	Barnes Bridge Rd (SR 1614)	Hasty Rd (SR 1615)	US-501	Scotland Co.	2.0	22	2	11	0	55	14600	2000	2600	2600	ADQ	ADQ	ADQ	Min	
	Barnes Bridge Rd (SR 1614)	US-501	Old Johns Rd (SR 1601)	Scotland Co.	1.4	22	2	11	0	55	14600	700	800	800	ADQ	ADQ	ADQ	Min	
	Barnes Bridge Rd (SR 1614)	Old Johns Rd (SR 1601)	Harry Malloy Rd (SR 1609)	Scotland Co.	0.9	22	2	11	0	55	14600	600	700	700	ADQ	ADQ	ADQ	Min	
SCOT0002-H	Biggs St (SR 1641)	Armory St (SR 1640)	Ivy St	Laurinburg	0.2	33	2	12	0	35	10200	1000	1300	3200	11700	2E	ADQ	Min	Р
SCOT0002-H	Biggs St (SR 1641)	Ivy St	US-501 BUS	Laurinburg	0.3	33	2	12	0	35	10200	1000	1300	3200	11700	2E	ADQ	Min	P,T
SCOT0002-H	Biggs St (SR 1642)	US-501 BUS	Vance Street	Laurinburg	0.5	40	2	12	0	35	10200	600	700	3100	11700	2E	ADQ	Min	P,T
SCOT0002-H	Biggs St (SR 1642)	Vance Street	US-74 BUS	Laurinburg	0.3	30	2	12	0	35	10200	1700	1800	4100	11700	2E	ADQ	Min	P,T

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		Sec	tion					201	4 Exis	ting Sy	stem			2040 P	roposed Sy	ystem			
Local ID	Facility	From	То	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2014 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross- Section	ROW (ft)	CTP Classifi- cation	Proposals for Other Modes
	Biggs St (SR 1642)	US-74 BUS	Railroad Street	Laurinburg	0.2	41	2	12	0	35	10200	3400	4400	4400	ADQ	ADQ	ADQ	Min	Р
	Biggs St (SR 1642)	Railroad Street	Bizzel St (SR 1643)	Laurinburg	0.0	42	2	12	0	35	10200	3400	4400	4400	ADQ	ADQ	ADQ	Min	Р
	Blakley Rd (SR 1425)	Lee's Mill Rd (SR 1427)	Sally McNair Rd (SR 1424)	Scotland Co.	0.9	22	2	11	0	55	14600	700	900	900	ADQ	ADQ	ADQ	Min	
	Blakley Rd (SR 1425)	Sally McNair Rd (SR 1424)	McIntosh Rd (SR 1421)	Scotland Co.	1.0	22	2	11	0	55	14600	600	800	800	ADQ	ADQ	ADQ	Min	
	Blues Farm Rd (SR 1117)	X-Way Rd (SR 1108)	Purcell Rd (SR 1177)	Laurinburg	0.7	22	2	11	0	45	11300	3400	4100	4100	ADQ	ADQ	ADQ	Min	
	Blues Farm Rd (SR 1117)	Purcell Rd (SR 1177)	Turnpike Rd (SR 1105)	Laurinburg	0.9	22	2	11	0	45	11300	2700	3400	3400	ADQ	ADQ	ADQ	Min	
	Blues Farm Rd (SR 1117)	Turnpike Rd (SR 1105)	US-15/US-401	Laurinburg	0.5	30	2	11	0	45	11300	5700	7000	7000	ADQ	ADQ	ADQ	Min	
	Caledonia Rd (SR 1438)	US-74	College dr	Laurinburg	0.3	44	2	12	60	35	11100	4500	5600	5600	ADQ	ADQ	ADQ	Maj	MU
	Caledonia Rd (SR 1438)	College Dr	Mackenzie St	Laurinburg	0.2	44	2	12	60	35	11100	4500	5600	5600	ADQ	ADQ	ADQ	Maj	MU,T
	Caledonia Rd (SR 1438)	Mackenzie St	Stewartsville Rd (SR 1601)	Laurinburg	0.4	44	2	12	60	35	11100	4500	5600	5600	ADQ	ADQ	ADQ	Maj	MU,P
	Caledonia Rd (SR 1438)	Stewartsville Rd (SR 1601)	Vance Street	Laurinburg	0.1	44	2	12	60	35	11100	1500	1800	1800	ADQ	ADQ	ADQ	Maj	MU,P,T
	Caledonia Rd (SR 1438)	Vance Street	McRae St	Laurinburg	0.2	24	2	12	0	35	11100	4700	6100	6100	ADQ	ADQ	ADQ	Мај	MU,P.T
	Caledonia Rd (SR 1438)	McRae St	US-74 BUS	Laurinburg	0.1	24	2	12	0	35	11100	4700	6100	6100	ADQ	ADQ	ADQ	Maj	MU,P
	Caledonia Rd (SR 1438)	US-74 BUS	McKay St	Laurinburg	0.1	20	2	10	0	35	10400	2200	2700	2700	ADQ	ADQ	ADQ	Maj	MU,P,T
	Caledonia Rd (SR 1438)	McKay St	Old Lumberton Rd (SR 1438)	Laurinburg	0.4	20	2	10	0	35	10400	2200	2700	2700	ADQ	ADQ	ADQ	Maj	MU,P
	Caledonia Rd (SR 1433)	Old Lumberton Rd (SR 1438)	McGirts Bridge Rd (SR 1471)	Laurinburg	0.4	48	2	12	60	35	11100	1300	1600	1600	ADQ	ADQ	ADQ	Maj	MU,P
	Central St (SR 1629)	US-74 BUS	Robeson County	Maxton	0.5	22	2	11	100	45	14100	3300	1600	1600	ADQ	ADQ	ADQ	Maj	B,P

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		Sec	tion					201	4 Exis	ting Sy	stem			2040 P	roposed Sy	/stem			
Local ID	Facility	From	То	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2014 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross- Section	ROW (ft)	CTP Classifi- cation	Proposals for Other Modes
	Elmore Rd (SR 1321)	NC-79	US-74	Scotland Co.	1.2	18	2	9	0	55	13600	100	400	400	ADQ	ADQ	ADQ	Min	
	· · · · ·																		
	Fieldcrest Rd (SR 1303)	US-74 BUS	Laurel Hill Church Rd (SR 1321)	Scotland Co.	1.0	24	2	12	0	55	15100	1800	2300	2300	ADQ	ADQ	ADQ	Min	
	Fieldcrest Rd (SR 1303)	Laurel Hill Church Rd (SR 1321)	NC-144	Scotland Co.	2.1	24	2	12	0	55	15100	2300	3000	3000	ADQ	ADQ	ADQ	Min	
	Gill St (SR 1107)	Railroad Street	US-15/US-501 BUS	Laurinburg	0.7	24	2	12	0	35	10200	1700	2200	2200	ADQ	ADQ	ADQ	Min	P,T
	Gill St (SR 1107)	US-15/US-501 BUS	US-401 BUS	Laurinburg	0.4	24	2	12	0	35	10200	2600	2600	2600	ADQ	ADQ	ADQ	Min	MU,P,T
	Harold Morris Rd (SR 1324)	US-15/US-501	Turnpike Rd (SR 1412)	Scotland Co.	1.4	18	2	9	60	35	9200	500	600	600	ADQ	ADQ	ADQ	Min	
	Harry Malloy Rd	Old Johns Rd (SR	Highland Rd (SR	Scotland Co	0.5	18	2	٩	0	55	13600	500	600	600	ADO			Min	
	(SR 1609) Harry Malloy Rd (SR 1609)	1601) Highland Rd (SR 1323)	1323) Barnes Bridge Rd (SR 1614)	Scotland Co.	0.5	18	2	9	0	55	13600	800	1000	1000	ADQ	ADQ	ADQ	Min	
	Harry Malloy Rd (SR 1609)	Barnes Bridge Rd (SR 1614)	Stewartsville Cemetery Rd (SR 1613)	Scotland Co.	0.3	18	2	9	0	55	13600	1300	1600	1600	ADQ	ADQ	ADQ	Min	
	Harry Malloy Rd (SR 1609)	Stewartsville Cemetery Rd (SR 1613)	Rocky Ford Rd (SR 1610)	Scotland Co.	0.0	18	2	9	0	55	13600	1300	1700	1700	ADQ	ADQ	ADQ	Min	
	Lleets Dd (CD	Dee Dridge Dd																	
	1615)	(SR 1619)	1621)	Scotland Co.	1.3	20	2	10	0	55	14100	500	600	600	ADQ	ADQ	ADQ	Min	
SCOT0009-H	Hasty Rd (SR 1615)	Crestline Rd/ McQueen Rd (SR 1621)	Barnes Bridge Rd (SR 1614)	Scotland Co.	2.1	20	2	10	0	55	14100	1600	2000	2000	14600	2B	60	Min	
SCOT0009-H	Hasty Rd (SR 1615)	Barnes Bridge Rd (SR 1614)	Elm Ave (SR 1607)	Scotland Co.	0.9	20	2	10	0	55	14100	1300	1600	1600	14600	2B	60	Min	
SCOT0009-H	Hasty Rd (SR 1615)	Elm Ave (SR 1607)	US-15/US-401	Laurinburg	0.7	20	2	10	0	45	10900	1000	1300	1300	11300	2E	60	Min	
SCOT0009-H	Hasty Rd (SR 1615)	US-15/US-401	Blue Farms Rd (SR 1117)	Laurinburg	0.3	30	2	9	0	35	9200	1600	2100	2100	9900	2E	60	Min	

						Н	IGHW	ΆΥ											
		Sec	tion					201	4 Exis	ting Sy	stem			2040 P	roposed Sy	/stem			
Local ID	Facility	From	То	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2014 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross- Section	ROW (ft)	CTP Classifi- cation	Proposals for Other Modes
	Highland Rd (SR 1323)	Harry Malloy Rd (SR 1609)	US-74	Scotland Co.	0.7	22	2	11	0	55	15100	1300	1300	1300	ADQ	ADQ	ADQ	Min	
	Highland Rd (SR 1323)	US-74	Dixie Guano Rd (SR 1645)	Scotland Co.	0.1	36	2	12	0	55	15100	1300	1600	1600	ADQ	ADQ	ADQ	Min	
	Highland Rd (SR 1323)	Dixie Guano Rd (SR 1645)	US-74 BUS	Scotland Co.	0.5	24	2	12	0	55	15100	800	1000	1000	ADQ	ADQ	ADQ	Min	
	Highland Rd (SR 1323)	US-74 BUS	Old Lumberton Rd (SR 1438)	Scotland Co.	0.7	20	2	10	0	55	14100	1700	2400	2400	ADQ	ADQ	ADQ	Min	
	Highland Rd (SR 1323)	Old Lumberton Rd (SR 1438)	McGirts Bridge Rd (SR 1433)	Scotland Co.	1.2	20	2	10	0	55	14100	1000	1300	1300	ADQ	ADQ	ADQ	Min	
	Highland Rd (SR 1323)	McGirts Bridge Rd (SR 1433)	Lee's Mill Rd (SR 1425)	Scotland Co.	0.6	20	2	10	0	55	14100	2300	3400	3400	ADQ	ADQ	ADQ	Min	
	Highland Rd (SR 1323)	Lee's Mill Rd (SR 1425)	US-401	Scotland Co.	0.5	24	2	12	60	55	15100	1800	2700	2700	ADQ	ADQ	ADQ	Min	
	Hill Creek Rd (SR 1400)	MC Kay St (SR 1403)	Horseshoe Rd (SR 1413)	Scotland Co.	3.1	20	2	10	0	35	9500	1100	1400	1400	ADQ	ADQ	ADQ	Min	
	Hill Creek Rd (SR 1400)	Horseshoe Rd (SR 1413)	Turnpike Rd (SR 1412)	Scotland Co.	1.4	18	2	9	0	35	9200	1100	1400	1400	ADQ	ADQ	ADQ	Min	
	Hill Creek Rd (SR 1400)	Turnpike Rd (SR 1412)	US-15/US-501	Scotland Co.	5.0	18	2	9	0	35	9200	600	800	800	ADQ	ADQ	ADQ	Min	
	Jane Shaw Rd (SR 1403)	Turnpike Rd (SR 1412)	Wooley Rd (SR 1406)	Scotland Co.	3.0	20	2	10	0	35	9500	600	800	800	ADQ	ADQ	ADQ	Min	
	Jump Rd (SR 1472)	Airbase Rd (SR 1407)	McGirts Bridge Rd (SR 1433)	Scotland Co.	0.4	20	2	10	60	55	14100	700	1000	1000	ADQ	ADQ	ADQ	Min	
	King St (SR 1300)	US-74 BUS	Railroad St (SR 1394)	Laurinburg	0.3	27	2	12	60	35	10200	800	1200	1200	ADQ	ADQ	ADQ	Min	MU
	King St (SR 1300)	Railroad St (SR 1394)	US-15/US-401/US- 501	Laurinburg	0.4	36	2	12	60	35	10200	2000	2800	2800	ADQ	ADQ	ADQ	Min	
												ļ							
SCOT0010-H	Lauchwood Dr (SR 1674)	US-15/US-401 BUS	US-501 BUS	Laurinburg	1.0	36	3	12	55	35	12700	8300	10800	10800	28100	4C	110	В	MU,P,T
	Lauchwood Dr (SR 1674)	US-501 BUS	US-501	Laurinburg	0.2	36	3	12	40	35	12700	3300	4000	4000	ADQ	ADQ	ADQ	Maj	MU,P,T

						Н	IGHW	AY											
		Sec	tion					201	4 Exis	ting Sy	stem			2040 P	roposed Sy	ystem			
Local ID	Facility	From	То	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2014 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross- Section	ROW (ft)	CTP Classifi- cation	Proposals for Other Modes
	Laurel Hill	-			~ /					× I /	× 1 *		-	-					
	Church Rd (SR 1321)	US-74	1303)	Scotland Co.	0.4	18	2	9	0	55	13600	500	600	600	ADQ	ADQ	ADQ	Min	
	Laurel Hill Church Rd (SR 1321)	Fieldcrest Rd (SR 1303)	Sneads Grove Rd (SR 1105)	Scotland Co.	1.4	18	2	9	0	55	13600	100	400	400	ADQ	ADQ	ADQ	Min	
	Laurel Hill Church Rd (SR 1321)	Sneads Grove Rd (SR 1105)	Plant Rd (SR 1301)	Scotland Co.	1.4	18	2	9	0	55	13600	100	400	400	ADQ	ADQ	ADQ	Min	
	Laurel Hill Church Rd (SR 1321)	Plant Rd (SR 1301)	NC-144	Scotland Co.	0.9	18	2	9	0	55	13600	200	400	400	ADQ	ADQ	ADQ	Min	
	Lee's Mill Rd (SR 1425)	US-401 BUS	Produce Market Rd (SR 1439)	Laurinburg	0.5	22	2	11	0	35	9900	2300	3000	3000	ADQ	ADQ	ADQ	Min	
	Lee's Mill Rd (SR 1425)	Produce Market Rd (SR 1439)	Morris Drive (SR- 1466)	Laurinburg	0.7	22	2	11	0	35	10200	1600	2000	2000	ADQ	ADQ	ADQ	Min	Т
	Lee's Mill Rd (SR 1425)	Morris Drive (SR- 1466)	Highland Rd (SR 1323)	Scotland Co.	0.3	22	2	11	0	35	10200	1600	2000	2000	ADQ	ADQ	ADQ	Min	
	Lee's Mill Rd (SR 1425)	Highland Rd (SR 1323)	Blakley Rd (SR 1425)	Scotland Co.	2.2	22	2	11	0	55	14600	1000	1300	1300	ADQ	ADQ	ADQ	Min	
	Lee's Mill Rd (SR 1427)	Blakley Rd (SR 1425)	Riverton Rd (SR 1403)	Scotland Co.	1.7	20	2	10	100	55	14100	300	400	400	ADQ	ADQ	ADQ	Min	
	Marston Rd (SR 1001)	NC-144	Old Wire Rd (SR 1319)	Scotland Co.	0.1	20	2	10	60	35	9500	2000	2500	2500	ADQ	ADQ	ADQ	Min	
	Marston Rd (SR 1001)	Old Wire Rd (SR 1319)	McFarland Rd (SR 1323)	Scotland Co.	2.7	20	2	10	60	35	9500	700	900	900	ADQ	ADQ	ADQ	Min	
	Marston Rd (SR 1001)	McFarland Rd (SR 1323)	Sneads Grove Rd (SR 1001)	Scotland Co.	5.3	20	2	10	60	55	14100	300	400	400	ADQ	ADQ	ADQ	Min	
			MaQinta Delatera D.L																
	Micarn Rd (SR 1369)	(SR 1438)	(SR 1433)	Scotland Co.	1.9	18	2	9	0	55	13600	900	1300	1300	ADQ	ADQ	ADQ	Min	
	McEarland Pd		McEachin Rd (SP																
	(SR 1347)	Richond County	1347)	Scotland Co.	1.3	20	2	10	0	55	14100	400	500	500	ADQ	ADQ	ADQ	Min	
	(SR 1323)	ivic⊨acnin Rd (SR 1347)	1001)	Scotland Co.	2.9	18	2	9	0	55	13600	400	500	500	ADQ	ADQ	ADQ	Min	

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		Sec	tion					201	4 Exis	sting Sy	stem			2040 P	roposed Sy	/stem			
Local ID	Facility	From	То	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2014 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross- Section	ROW (ft)	CTP Classifi- cation	Proposals for Other Modes
2000.12	McFarland Rd	Marston Rd (SR	Sneads Grove Rd		()		_	_	()	(p.i.)	(				(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		(,		
	(SR 1323)	1001)	(SR 1324)	Scotland Co.	2.9	18	2	9	0	55	13600	600	800	800	ADQ	ADQ	ADQ	Min	
	McFarland Rd (SR 1323)	Sneads Grove Rd (SR 1324)	NC-144	Scotland Co.	2.0	18	2	9	0	55	13600	500	600	600	ADQ	ADQ	ADQ	Min	
	McFarland Rd (SR 1323)	US-15/US-501	US-401	Scotland Co.	1.8	24	2	12	60	55	15100	1100	1400	1400	ADQ	ADQ	ADQ	Min	
	McGirts Bridge Rd (SR 1471)	US-15/US-401/US- 501 BUS	Melton St	Laurinburg	0.2	44	2	12	60	35	10200	2200	2800	2800	ADQ	ADQ	ADQ	Min	Ρ
	McGirts Bridge Rd (SR 1471)	Melton St	Caledonia Rd (SR 1433)	Laurinburg	0.3	44	2	12	60	35	10200	2200	2800	2800	ADQ	ADQ	ADQ	Min	P,T
	McGirts Bridge Rd (SR 1433)	Caledonia Rd (SR 1433)	Produce Market Rd (SR 1439)	Laurinburg	0.4	44	2	12	0	35	10200	2100	2700	2700	ADQ	ADQ	ADQ	Min	MU,P,T
	McGirts Bridge Rd (SR 1433)	Produce Market Rd (SR 1439)	Municipal Boundary	Laurinburg	0.3	22	2	11	0	55	14100	900	1200	1200	ADQ	ADQ	ADQ	Min	
	McGirts Bridge Rd (SR 1433)	Municipal Boundary	Highland Rd (SR 1323)	Scotland Co.	0.7	22	2	11	0	55	14600	900	1200	1200	ADQ	ADQ	ADQ	Min	
	McGirts Bridge Rd (SR 1433)	Highland Rd (SR 1323)	McArn Rd (SR 1369)	Scotland Co.	0.2	22	2	11	0	55	14600	2300	3100	3100	ADQ	ADQ	ADQ	Min	
	McGirts Bridge Rd (SR 1433)	McArn Rd (SR 1369)	Jump Rd (SR 1472)	Scotland Co.	3.2	22	2	11	60	55	14600	1500	1800	1800	ADQ	ADQ	ADQ	Min	
	McGirts Bridge Rd (SR 1433)	Jump Rd (SR 1472)	Airbase Rd (SR 1407)	Scotland Co.	0.9	22	2	11	0	55	14600	1600	2100	2100	ADQ	ADQ	ADQ	Min	
	McGirts Bridge Rd (SR 1433)	Airbase Rd (SR 1407)	Hoke County	Scotland Co.	0.5	22	2	11	0	55	14600	1100	1200	1200	ADQ	ADQ	ADQ	Min	
	McIntosh Rd (SR 1421)	Blakley Rd (SR 1425)	Stubbs Rd (SR 1416)	Scotland Co.	0.2	22	2	11	0	55	14600	2700	3400	3400	ADQ	ADQ	ADQ	Min	
	MC Kov St (SD	Waalay Dd (CD	Hill Crook Dd (CD																
	1403)	1406)	1400)	Wagram	0.5	20	2	10	0	35	9500	800	1200	1200	ADQ	ADQ	ADQ	Min	
	MC Kay St (SR 1403)	Hill Creek Rd (SR 1400)	US-401	Wagram	0.4	34	2	12	0	35	10200	2000	2500	2500	ADQ	ADQ	ADQ	Min	
	Old Johns Rd (SR 1601)	US-501	Barnes Bridge Rd (SR 1614)	Scotland Co.	2.7	18	2	9	0	45	13100	200	200	200	ADQ	ADQ	ADQ	Min	
	Old Johns Rd (SR 1601)	Barnes Bridge Rd (SR 1614)	Harry Malloy Rd (SR 1609)	Scotland Co.	0.7	18	2	9	0	45	13100	300	300	300	ADQ	ADQ	ADQ	Min	

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		Sec	tion					201	4 Exis	ting Sy	stem			2040 P	roposed Sy	/stem			
Local ID	Facility	From	То	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2014 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross- Section	ROW (ft)	CTP Classifi- cation	Proposals for Other Modes
	Old Johns Rd (SR 1601)	Harry Malloy Rd (SR 1609)	US-74	Scotland Co.	1.2	24	2	12	0	45	14600	100	200	200	ADQ	ADQ	ADQ	Min	
	Old Lumberton Rd (SR 1438)	Caledonia Rd (SR 1433)	Sanford Rd (SR 1457)	Laurinburg	0.4	20	2	10	0	35	9500	1500	1900	1900	ADQ	ADQ	ADQ	Min	
	Old Lumberton Rd (SR 1438)	Sanford Rd (SR 1457)	Produce Market Rd (SR 1439)	Laurinburg	0.2	20	2	10	0	55	9500	1400	1700	1700	ADQ	ADQ	ADQ	Min	
	Old Lumberton Rd (SR 1438)	Produce Market Rd (SR 1439)	Kiser Rd (SR 1452)	Laurinburg	0.3	20	2	10	0	55	9500	1500	1900	1900	ADQ	ADQ	ADQ	Min	
	Old Lumberton Rd (SR 1438)	Kiser Rd (SR 1452)	Highland Rd (SR 1323)	Scotland Co.	0.2	20	2	10	0	55	9500	1500	1900	1900	ADQ	ADQ	ADQ	Min	
	Old Lumberton Rd (SR 1438)	Highland Rd (SR 1323)	McArn Rd (SR 1369)	Scotland Co.	1.3	20	2	10	0	55	14100	600	800	800	ADQ	ADQ	ADQ	Min	
	Old Lumberton Rd (SR 1369)	McArn Rd (SR 1369)	US-74	Scotland Co.	0.6	24	2	12	0	55	15100	1200	1700	1700	ADQ	ADQ	ADQ	Min	
	Old Lumberton Rd (SR 1369)	US-74	Rocky Ford Rd (SR 1611)	Scotland Co.	0.3	24	2	12	0	55	15100	1500	2100	2100	ADQ	ADQ	ADQ	Min	
	Old Lumberton Rd (SR 1369)	Rocky Ford Rd (SR 1611)	Charles Craft Ln (SR 1505)	Scotland Co.	0.9	24	2	12	0	55	15100	2200	2900	2900	ADQ	ADQ	ADQ	Min	
	Old Lumberton Rd (SR 1369)	Charles Craft Ln (SR 1505)	Airport Rd (SR 1436)	Scotland Co.	0.8	22	2	11	0	55	14600	2400	3200	3200	ADQ	ADQ	ADQ	Min	
	Old Lumberton Rd (SR 1369)	Airport Rd (SR 1436)	Municipal Boundary	Scotland Co.	0.7	22	2	11	0	55	14600	1500	1600	1600	ADQ	ADQ	ADQ	Min	
	Old Lumberton Rd (SR 1369)	Municipal Boundary	Robeson County	Maxton	0.3	18	2	9	0	55	13600	1300	1400	1400	ADQ	ADQ	ADQ	Min	
	Old Maxton Rd (SR 1619)	US-501	Stewartsville Cemetery Rd (SR 1613)	Scotland Co.	1.4	20	2	10	60	55	14100	900	1100	1100	ADQ	ADQ	ADQ	Min	
	Old Maxton Rd (SR 1619)	Stewartsville Cemetery Rd (SR 1613)	Patterson Rd (SR 1611)	Scotland Co.	2.4	20	2	10	60	55	14100	800	1000	1000	ADQ	ADQ	ADQ	Min	
	Old Maxton Rd (SR 1612)	Patterson Rd (SR 1611)	Robeson County	Scotland Co.	1.1	20	2	10	0	55	14100	3300	3700	3700	ADQ	ADQ	ADQ	Min	
	Old Wire Rd (SR 1152)	South Carolina State	NC-381	Scotland Co.	1.1	18	2	9	0	55	13600	400	600	600	ADQ	ADQ	ADQ	Min	

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		Sec	tion					201	4 Exis	ting Sy	stem			2040 P	roposed Sy	/stem			
Local ID	Facility	From	То	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2014 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross- Section	ROW (ft)	CTP Classifi- cation	Proposals for Other Modes
	Old Wire Rd (SR 1152)	NC-381	Lauch Blue Rd (SR 1145)	Scotland Co.	2.4	18	2	9	0	55	13600	1500	2000	2000	ADQ	ADQ	ADQ	Min	
	Old Wire Rd (SR 1319)	US-74	Marston Rd (SR 1001)	Scotland Co.	0.5	24	2	12	0	35	10200	3000	3900	3900	ADQ	ADQ	ADQ	Min	
	Old Wire Rd (SR 1319)	Marston Rd (SR 1001)	NC-144	Scotland Co.	0.2	24	2	12	0	35	10200	3200	4100	4100	ADQ	ADQ	ADQ	Min	
	Patterson Rd (SR 1611)	Old Maxton Rd (SR 1612)	Harry Malloy Rd (SR 1609)	Scotland Co.	1.3	22	2	11	0	55	14600	300	400	400	ADQ	ADQ	ADQ	Min	
	Patterson Rd (SR 1611)	Harry Malloy Rd (SR 1609)	Rocky Ford Rd (SR 1610)	Scotland Co.	0.8	22	2	11	0	55	14600	300	400	400	ADQ	ADQ	ADQ	Min	
	Pea Bridge Rd (SR 1619)	South Carolina State	Crestline Rd (SR 1622)	Scotland Co.	0.8	20	2	10	0	55	14100	500	700	700	ADQ	ADQ	ADQ	Min	
	Pea Bridge Rd (SR 1619)	Crestline Rd (SR 1622)	Hasty Rd (SR 1615)	Scotland Co.	1.5	20	2	10	60	55	14100	600	800	800	ADQ	ADQ	ADQ	Min	
	<b>D</b> 1 <b>1</b> 1 1 1																		
SCOT0011-H	Produce Market Rd (SR 1439)	Old Lumberton Rd (SR 1438)	McGirts Bridge Rd (SR 1433)	Laurinburg	0.7	18	2	9	0	35	9200	1800	2300	2300	9900	2E	60	Min	Т
SCOT0011-H	Produce Market Rd (SR 1439)	McGirts Bridge Rd (SR 1433)	Lee's Mill Rd (SR 1425)	Laurinburg	0.5	18	2	9	0	35	9200	2200	2800	2800	9900	2E	60	Min	MU,T
SCOT0011-H	Produce Market Rd (SR 1439)	Lee's Mill Rd (SR 1425)	US-401 BUS	Laurinburg	0.2	20	2	10	0	35	9500	1400	1800	1800	9900	2E	60	Min	MU,T
		T " D.L (0D																	
	Railroad St (SR 1383)	1umpike Rd (SR 1105)	08-15/08-401/08- 501	Scotland Co.	0.8	24	2	12	80	35	10200	800	1100	1100	ADQ	ADQ	ADQ	Min	
	Railroad St (SR 1394)	US-15/US-401/US- 501	King St (SR 1300)	Laurinburg	0.3	20	2	12	50	35	9500	800	1100	1100	ADQ	ADQ	ADQ	Min	
	Railroad Street	Gill St (SR 1107)	US-15/US-401/US- 501 BUS	Laurinburg	0.1	24	2	12	0	35	10200	800	1100	1100	ADQ	ADQ	ADQ	Min	Р
	Railroad Street	US-15/US-401/US- 501 BUS	Biggs St (SR 1642)	Laurinburg	0.1	24	2	12	0	35	10200	100	100	100	ADQ	ADQ	ADQ	Min	Ρ
	River Road (SR 1404)	Riverton Rd (SR 1403)	Hoke Co.	Scotland Co.	0.6	20	2	20	0	55	14100	1000	1100	1100	ADQ	ADQ	ADQ	Min	
	Riverton Rd (SR 1403)	Lee's Mill Rd (SR 1425)	Airbase Rd (SR 1407)	Scotland Co.	0.7	20	2	10	100	55	14100	300	400	400	ADQ	ADQ	ADQ	Min	

						Н	IGHW	ΆΥ											
		Sec	tion					201	4 Exis	ting Sy	stem			2040 P	roposed Sy	/stem			
Local ID	Facility	From	То	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2014 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross- Section	ROW (ft)	CTP Classifi- cation	Proposals for Other Modes
	Riverton Rd (SR	Airbase Rd (SR	Crumptown Rd	Scotland Co.	4.4	20	2	10	0	55	14100	500	1500	1500	ADQ	ADQ	ADQ	Min	
SCOT0012-H	Riverton Rd (SR 1403)	River Road (SR 1404)	US-401	Wagram	0.7	20	2	10	0	35	9500	1200	2300	2300	9900	2B	60	Min	
	Rocky Ford Rd (SR 1610)	Harry Malloy Rd (SR 1609)	Patterson Rd (SR 1611)	Scotland Co.	0.9	18	2	9	0	55	13600	1300	1600	1600	ADQ	ADQ	ADQ	Min	
	Rocky Ford Rd (SR 1611)	Patterson Rd (SR 1611)	US-74 BUS	Scotland Co.	0.2	22	2	11	0	55	14600	3200	4100	4100	ADQ	ADQ	ADQ	Min	
	Rocky Ford Rd (SR 1611)	US-74 BUS	Old Lumberton Rd (SR 1369)	Scotland Co.	0.4	24	2	12	0	55	15100	3100	3900	3900	ADQ	ADQ	ADQ	Min	
	Rocky Ford Rd (SR 1611)	US-74 BUS	Old Lumberton Rd (SR 1369)	Scotland Co.	0.4	24	2	12	0	55	15100	3100	3900	3900	ADQ	ADQ	ADQ	Min	
	Saint Johns Church Rd (SR 1148)	NC-79	Rockingham Rd (SR 1126)	Scotland Co.	2.2	22	2	11	0	55	15100	2300	2900	2900	ADQ	ADQ	ADQ	Min	
	Saint Johns Church Rd (SR 1148)	Rockingham Rd (SR 1126)	US-74	Scotland Co.	1.4	24	2	12	0	55	15100	2300	2900	2900	ADQ	ADQ	ADQ	Min	
	Sally McNair Rd (SR 1424)	Blakley Rd (SR 1425)	US-401	Scotland Co.	0.9	20	2	10	60	45	13600	100	200	200	ADQ	ADQ	ADQ	Min	
	Sally McNair Rd (SR 1424)	US-401	NC-144	Scotland Co.	2.0	18	2	9	60	55	13600	1100	1500	1500	ADQ	ADQ	ADQ	Min	
	Silver Hill Rd (SR 1328)	Nashville Church Rd (SR 1324)	US-15/US-501	Scotland Co.	1.1	18	2	9	0	55	13600	600	800	800	ADQ	ADQ	ADQ	Min	В
	Skyway Church Rd (SR 1435)	Airport Rd (SR 1436)	Hickman Rd (SR 1497)	Scotland Co.	1.2	22	2	11	70	55	14600	600	900	900	ADQ	ADQ	ADQ	Min	
	Skyway Church Rd (SR 1435)	Hickman Rd (SR 1497)	Airbase Rd (SR 1407)	Scotland Co.	0.4	22	2	11	70	55	14600	400	500	500	ADQ	ADQ	ADQ	Min	
	Skyway Church Rd (SR 1435)	Airbase Rd (SR 1407)	NC-71	Scotland Co.	0.8	30	2	12	60	55	15100	500	700	700	ADQ	ADQ	ADQ	Min	
SCOT0013-H	Sneads Grove Rd (SR 1300)	US-15/US-401/US- 501	Rea Magnet Rd (SR 1302)	Scotland Co.	1.0	20	2	10	60	55	14100	1300	1900	1900	14600	2B	ADQ	Min	В

				HIGHWAY															
		Sec	tion					201	4 Exis	ting Sy	stem			2040 P	roposed Sy	/stem			
Local ID	Facility	From	То	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2014 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross- Section	ROW (ft)	CTP Classifi- cation	Proposals for Other Modes
SCOT0013-H	Sneads Grove	Rea Magnet Rd	Turnpike Rd (SR	Scotland Co.	0.7	20	2	10	60	55	14100	1400	2100	2100	14600	2B	ADQ	Min	В
SCOT0013-H	Rd (SR 1300) Sneads Grove Rd (SR 1105)	Turnpike Rd (SR 1105)	Laurel Hill Church Rd (SR 1321)	Scotland Co.	0.4	20	2	10	0	55	14100	1800	2700	2700	14600	2B	60	Min	В
SCOT0013-H	Sneads Grove Rd (SR 1105)	Laurel Hill Church Rd (SR 1321)	NC-144	Scotland Co.	1.7	20	2	10	0	55	14100	1600	2500	2500	14600	2B	60	Min	В
	Sneads Grove Rd (SR 1324)	NC-144	McFarland Rd (SR 1323)	Scotland Co.	1.2	20	2	10	0	55	14100	1400	1800	1800	ADQ	ADQ	ADQ	Min	В
	Sneads Grove Rd (SR 1324)	McFarland Rd (SR 1323)	Sneadtown Rd (SR 1324)	Scotland Co.	1.0	20	2	10	0	55	14100	1100	1500	1500	ADQ	ADQ	ADQ	Min	В
	Sneads Grove Rd (SR 1345)	Sneadtown Rd (SR 1324)	Marston Rd (SR 1001)	Scotland Co.	4.9	20	2	10	0	55	14100	800	1100	1100	ADQ	ADQ	ADQ	Min	
	Sneads Grove Rd (SR 1001)	Marston Rd (SR 1001)	Richmond County	Scotland Co.	4.4	18	2	9	60	55	13600	600	800	800	ADQ	ADQ	ADQ	Min	
	Sneadtown Rd (SR 1324)	Sneads Grove Rd (SR 1345)	Nashville Church Rd (SR 1324)	Scotland Co.	2.0	20	2	10	0	55	14100	600	800	800	ADQ	ADQ	ADQ	Min	В
	Stewartsville Rd (SR 1601)	US-74	Hall St	Laurinburg	0.9	24	2	12	0	35	11100	100	200	200	ADQ	ADQ	ADQ	Min	
	Stewartsville Rd (SR 1601)	Hall St	Caledonia Rd (SR 1438)	Laurinburg	0.2	24	2	12	0	35	11100	100	200	200	ADQ	ADQ	ADQ	Min	Р
	Stubbs Rd (SR 1416)	McIntosh Rd (SR 1421)	US-401	Scotland Co.	0.7	20	2	10	60	55	14100	300	300	300	ADQ	ADQ	ADQ	Min	
SCOT0014-H	Turnpike Rd (SR 1271)	Barnes Bridge Rd (SR 1614)	US-15/US-401	Laurinburg	1.7	18	2	9	60	35	9200	2200	2800	2800	10700	2B	ADQ	Min	Р
	Turnpike Rd (SR 1105)	US-15/US-401	Blues Farm Rd (SR 1117)	Laurinburg	0.6	18	2	9	0	35	9200	3300	4600	4600	ADQ	ADQ	ADQ	Min	Р
	Turnpike Rd (SR 1105)	Blues Farm Rd (SR 1117)	X-Way Rd (SR 1108)	Laurinburg	1.0	22	2	11	0	35	9900	3500	4200	4200	ADQ	ADQ	ADQ	Min	Р
	Turnpike Rd (SR 1105)	X-Way Rd (SR 1108)	Springchase Rd	Laurinburg	0.2	22	2	11	0	35	9900	2700	3200	3200	ADQ	ADQ	ADQ	Min	B,P,T
	Turnpike Rd (SR 1105)	Springchase Rd	US-74	Laurinburg	0.3	22	2	11	0	35	9900	2700	3200	3200	ADQ	ADQ	ADQ	Min	B,P
SCOT0014-H	Turnpike Rd (SR 1105)	US-74	US-74 BUS	Laurinburg	0.8	18	2	9	0	35	9200	2700	3200	3200	14098	2C	50	Min	B,P

						Н	IGHW	AY											
		Sec	tion					201	14 Exis	ting Sy	stem			2040 P	roposed Sy	/stem			
Local ID	Facility	From	То	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2014 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross- Section	ROW (ft)	CTP Classifi- cation	Proposals for Other Modes
SCOT0014-H	Turnpike Rd (SR 1105)	US-74 BUS	Railroad St (SR 1383)	Laurinburg	0.4	18	2	9	0	35	9200	900	1300	1300	14099	2C	50	Min	
SCOT0014-H	Turnpike Rd (SR 1105)	Railroad St (SR 1383)	Sneads Grove Rd (SR 1300)	Scotland Co.	1.5	18	2	9	0	55	13600	400	600	600	14100	2C	50	Min	
	Turnpike Rd (SR 1412)	Arch McLean Rd (SR 1415)	Jane Shaw Rd (SR 1403)	Scotland Co.	2.3	18	2	9	0	55	13600	600	800	800	ADQ	ADQ	ADQ	Min	В
	Turnpike Rd (SR 1105)	US-15/US-401	Blues Farm Rd (SR 1117)	Laurinburg	0.6	18	2	9	0	35	9200	3300	4600	4600	ADQ	ADQ	ADQ	Min	В
	Turnpike Rd (SR 1412)	Jane Shaw Rd (SR 1403)	Hill Creek Rd (SR 1400)	Scotland Co.	2.9	18	2	9	0	35	9200	800	1000	1000	ADQ	ADQ	ADQ	Min	В
	Turnpike Rd (SR 1412)	Hill Creek Rd (SR 1400)	Hoke County	Scotland Co.	2.2	18	2	9	0	35	9200	600	800	800	ADQ	ADQ	ADQ	Min	В
	Vance St	Atkinson St (SR 1107)	US-15/US-401/US- 501 BUS	Laurinburg	0.1	24	2	12	0	35	10200	1200	1400	1400	ADQ	ADQ	ADQ	Min	Р
	Vance St	US-15/US-401/US- 501 BUS	Biggs St (SR 1642)	Laurinburg	0.1	24	2	12	0	35	10200	2600	3200	3200	ADQ	ADQ	ADQ	Min	Р
	Vance St	Biggs St (SR 1642)	Caledonia Rd (SR 1438)	Laurinburg	0.3	24	2	12	0	35	10200	1100	1400	1400	ADQ	ADQ	ADQ	Min	Р
SCOT0015-H	West Blvd (SR 1108)	US-74	US-15/US-401/US- 501	Laurinburg	0.3	24	2	12	0	45	11100	3700	4600	4600	ADQ	ADQ	ADQ	Maj	MU,P
	West Blvd (SR 1108)	US-15/US-401/US- 501	Asheville St	Laurinburg	0.5	52	3	12	60	35	12700	4900	7000	7000	ADQ	ADQ	ADQ	Maj	MU,P
	West Blvd (SR 1108)	Asheville St	Azure Ct	Laurinburg	0.2	30	2	12	50	35	10200	2000	2700	2700	ADQ	ADQ	ADQ	Min	MU,P
	West Blvd (SR 1108)	Azure Ct	Atkinson St (SR 1107)	Laurinburg	0.2	30	2	12	50	35	10200	2000	2700	2700	ADQ	ADQ	ADQ	Min	Р
	West Blvd (SR 1108)	Atkinson St (SR 1107)	US-15/US-401/US- 501 BUS	Laurinburg	0.1	30	2	12	50	35	10200	2000	2700	2700	ADQ	ADQ	ADQ	Maj	Ρ
	X-Way Rd (SR 1131)	NC-79/NC-381	Gibson Municipal Boundary (E)	Gibson	0.4	20	2	10	0	45	13600	800	1000	1000	ADQ	ADQ	ADQ	Min	
	X-Way Rd (SR 1131)	Gibson Municipal Boundary (E)	Old Stage Rd (SR 1128)	Scotland Co.	2.5	20	2	10	0	45	13600	800	1000	1000	ADQ	ADQ	ADQ	Min	
	X-Way Rd (SR 1131)	Old Stage Rd (SR 1128)	Leisure Rd (SR 1100)	Scotland Co.	0.8	20	2	10	0	45	13600	800	1000	1000	ADQ	ADQ	ADQ	Min	В

						н	IGHW	AY											
		Sec	ction					20	14 Exis	sting Sy	vstem			2040 P	roposed Sy	ystem			
Local ID	Facility	From	То	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2014 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross- Section	ROW (ft)	CTP Classifi- cation	Proposals for Other Modes
SCOT0016-H	X-Way Rd (SR 1108)	Leisure Rd (SR 1100)	Blue Woods Rd (SR 1116)	Scotland Co.	1.9	18	2	9	0	45	13100	2200	2700	2700	14100	2B	60	Min	В
	X-Way Rd (SR 1108)	Blue Woods Rd (SR 1116)	Pelham Dr	Laurinburg	1.8	24	2	12	0	45	12200	2700	3200	3200	ADQ	ADQ	ADQ	Min	В
	X-Way Rd (SR 1108)	Pelham Dr	Turnpike Rd (SR 1105)	Laurinburg	0.2	24	2	12	0	45	12200	2700	3200	3200	ADQ	ADQ	ADQ	Min	B,T
SCOT0015-H	X-Way Rd (SR 1108)	Turnpike Rd (SR 1105)	US-74	Laurinburg	0.4	24	2	12	0	35	10200	6900	8900	8900	12700	3C	80	Min	MU,T,P

#### PUBLIC TRANSPORTATION AND RAIL

		PUBLIC TRANSPORTA					
			Speed		Existing System	Proposed System	
			Limit	Distance			Other
Local ID	Facility/ Route	Section (From - To)	(mph)	(mi)	Туре	Туре	Modes
	US-15/US-401	Sycamore Ln - US-15/US-401	45	0.8	Bus		H,P
	US-15/US-401	US-15/US-401 BUS - US-74	45	0.5	Bus		,
	US-15/US-401	US-74 - West Blvd (SR 1108)	45	0.4			H,P
	US-15/US-401/US-501 BUS	US-15 - Ivy St	35	1.1	Bus		P
	US-15/US-401/US-501 BUS	West Blvd (SR 1108) - US-401 BUS	20	1.2	Bus		
	US-15/US-501 BUS	US-401 BUS - US-401	35	0.9	Bus		H,P
	US-74 BUS	Peden St - Atkinson St (SR 1107)	35	0.2	Bus		H,P
	US-74 BUS	US-15/US-401/US-501 BUS - James St	35	0.3	Bus		H,P
	US-401	US-15/US-501 BUS - Harvell Ln	55	0.7	Bus		Ĥ
	US-401 BUS	Samoa St - Alder Rd	35	0.0	Bus		Н
	US-401 BUS	Harvell Ln (SR 1432) - Wagram Rd (SR 1516)	45	0.4	Bus		Н
	US-501 BUS	Lauchwood Dr (SR 1674) - Woodlawn St	45	0.4	Bus		
	5th St (SR 1457)	McKay St - Commonwealth St	35	0.1	Bus		
	Alder Rd	Cypress Street - Tara Dr	35	0.1	Bus		Р
	Alder Rd	Ashley Dr - US-401 BUS	35	0.1	Bus		
	Alexander Ave	McKenzie St - Roosevelt St	35	0.2	Bus		
	Alpha St	Tuskeegee Dr - Roseville St	35	0.1	Bus		
	Ashley Dr	Alder Rd - Butler St	35	0.3	Bus		Р
	Atkinson St (SR 1107)	West Blvd (SR 1108) - McLean St	20	0.3	Bus		H.P
	Atkinson St (SR 1107)	US-74 BUS - S Gill St (SR 1107)	20	0.2	Bus		H,P
	Azure Ct	Prince St - S King St	35	0.1	Bus		P, MU
	Biggs St (SR 1641)	Ivy St - US-74 BUS	35	1.1	Bus		H,P
	Butler St	Ashley Dr - Trad St	35	0.1	Bus		,
	Carver St	Dickson St - Tuskeegee Dr	35	0.3	Bus		Р
	Charlotte St	Heather Ln (SR 1172) - Raleigh St	35	0.2	Bus		Р
	College Dr	Woodlawn St - S Caledonia Rd (SR 1438)	35	0.4	Bus		Р
	Cypress St	N Gill St (SR 1107) - Alder Rd	35	0.2	Bus		Р
	Dickson St	US-15/US-401/US-501 BUS - Carver St	35	0.2	Bus		Р
	Duncan St	Sanford Rd (SR 1457) - Produce Market Rd	35	0.2	Bus		
	Elm Ave	Svcamore Ln - US-15	35	0.6	Bus		P. B
	Ford Dr	Scotland Crossing Dr - US-15/US-401/US- 501 BUS	35	0.2	Bus		P
	Harvell Ln (SR 1432)	US-401 BUS - US-401	35	0.3	Bus		
	Heather Ln (SR 1172)	West Blvd (SR 1108) - Pinewood Park Apartment	30	0.5	Bus		
	Ivy St	US-15/US-401/US-501 BUS - Biggs St (SR 1641)	30	0.1	Bus		
	James St	McRae St - US-74 BUS	30	0.1	Bus		Р
	Lauchwood Dr (SR 1674)	US-15/US-401/US-501 BUS - US-501 BUS	35	1.0	Bus		H,P, MU

		PUBLIC TRANSPORTA	TION <sup>1</sup>				
			Speed		Existing System	Proposed System	
			Limit	Distance			Other
Local ID	Facility/ Route	Section (From - To)	(mph)	(mi)	Туре	Туре	Modes
	Lee's Mill Rd (SR 1425)	Produce Market Rd (SR 1439) - Morris Dr (SR 1466)	35	0.7	Bus		
	Marcellus St	Melton St - Washington St	30	0.3	Bus		Р
	McBride Ave	Shopping Center Access Rd - Sunset Dr	30	0.1	Bus		
	McGirts Bridge Rd (SR 1471)	Melton St - Roseville St	35	0.3	Bus		Р
	McGirts Bridge Rd (SR 1433)	Washington St - Produce Market Rd (SR 1439)	35	0.4	Bus		P,MU
	McKay St	S Caledonia Rd (SR 1438) - 5th St (SR 1457)	30	0.7	Bus		Р
	McKenzie St	S Caledonia Rd (SR 1438) - Alexander Ave	30	0.0	Bus		
	McLean St	S King St - Atkinson St (SR 1107)	30	0.3	Bus		Р
	McRae St	James St - S Caledonia Rd (SR 1438)	30	0.2	Bus		P
	Melton St	McGirts Bridge Rd (SR 1471) - Marcellus St	30	0.1	Bus		
	Midland Way	Wilmington St - Sunset Dr	30	0.2	Bus		
	Morris Dr (SR 1466)	Wagram Rd (SR 1516) - Lee's Mill Rd (SR 1425)	40	0.4	Bus		
	N Gill St (SR 1107)	W Bizzel St (SR 1394) - US-15/US-501 BUS	35	0.9	Bus		Ρ, Β
	Peden St	Prince St - US-74 BUS	35	0.4	Bus		Р
	Pelham Dr	X-Way Rd (SR 1108) - Stonewall Rd	30	0.1	Bus		
	Pinewood Park Apartment	Heather Ln (SR 1172) - Heather Ln (SR 1172)	30	0.2	Bus		
	Plaza Rd	US-15 - Shopping Center Access Rd	30	0.4	Bus		Р
	Poplar Dr	US-15/US-501 BUS - Dead End	30	0.1	Bus		
	Prince St	Raleigh St - Peden St	30	0.3	Bus		Р
	Produce Market Rd (SR 1439)	Duncan St - Warren Ave	35	1.3	Bus		Η
	Raleigh St	West Blvd (SR 1108) - Prince St	30	0.4	Bus		
	Roosevelt St	Alexander Ave - Stewartsville Rd (SR 1601)	30	0.0	Bus		
	Roseville St	McGirts Bridge Rd (SR 1471) - Alpha St	30	0.1	Bus		Р
	S Caledonia Rd (SR 1438)	College Dr - McKenzie St	35	0.2	Bus		P, MU
	S Caledonia Rd (SR 1438)	Stewartsville Rd (SR 1601) - McRae St	35	0.2	Bus		P, MU
	S Caledonia Rd (SR 1438)	US-74 BUS - McKay St	35	0.1	Bus		P, MU
	S Gill St (SR 1107)	Atkinson St (SR 1107) - W Bizzel St (SR 1394)	20	0.1	Bus		Р
	S King St	Azure Ct - McLean St	30	0.3	Bus		P, MU
	S Turnpike Rd (SR 1105)	X-Way Rd (SR 1108) - Kenwyn Dr	30	0.3	Bus		Р
	Samoa St	US-401 BUS - Warren Ave	30	0.0	Bus		
	Sanford Rd (SR 1457)	5th St (SR 1457) - Duncan St	35	0.1	Bus		
	Scotland Crossing Dr (SR- 1175)	US-15 - X-Way Rd (SR 1108)	30	0.7	Bus		
	Shopping Center Access Rd	Plaza Rd - McBride Ave	30	0.1	Bus		
	Stewartsville Rd (SR 1601)	Roosevelt St - S Caledonia Rd (SR 1438)	35	0.1	Bus		Р

		PUBLIC TRANSPORTA	TION <sup>1</sup>				
			Speed		Existing System	Proposed System	
			Limit	Distance			Other
Local ID	Facility/ Route	Section (From - To)	(mph)	(mi)	Туре	Туре	Modes
	Stonewall Rd	Pelham Dr - Dead End	30	0.1	Bus		
	Sunset Dr	McBride Ave - Midland Way	30	0.4	Bus		Р
	Sycamore Ln	US-15 - Elm Ave	30	0.5	Bus		Р
	Tara Dr	Alder Rd - Trad St	30	0.4	Bus		Р
	Trad St	Tara Dr - Butler St	30	0.1	Bus		
	Tuskeegee Dr	Carver St - Alpha St	30	0.2	Bus		
	Unknown	McBride Ave - McBride Ave	30	0.0	Bus		
	Unknown	McBride Ave - McBride Ave	30	0.2	Bus		
	Wagram Rd (SR 1516)	US-401 BUS - Morris Dr (SR 1466)	35	0.1	Bus		
	Warren Ave	Samoa St - Produce Market Rd (SR 1439)	30	0.3	Bus		
	Washington St	McGirts Bridge Rd (SR 1433) - Marcellus St	30	0.1	Bus		Р
	West Blvd (SR 1108)	US-74 - Heather Ln (SR 1172)	35	0.3	Bus		H,P, MU
	West Blvd (SR 1108)	Raleigh St - Wilmington St	35	0.2	Bus		P, MU
	West Blvd (SR 1108)	Atkinson St (SR 1107) - US-15/US-401/US- 501 BUS	35	0.1	Bus		P, MU
	Wilmington St	Midland Way - West Blvd (SR 1108)	35	0.1	Bus		
	Woodlawn St	Carl Dr - College Dr	35	0.1	Bus		Р
	X-Way Rd (SR 1108)	Pelham Dr - Turnpike Rd (SR 1105)	45	0.2	Bus		В
	X-Way Rd (SR 1108)	Turnpike Rd (SR 1105) - US-74	45	0.5	Bus		H, MU, P

			RAIL									
				Speed		Exi	sting Syste	m	Prop	posed Syste	em	
				Limit	Distance		ROW	Trains		ROW	Trains	Other
Local ID	Facility/ Route	Section (From - To)	Class	(mph)	(mi)	Туре	(ft)	per day	Туре	(ft)	per day	Modes
	CSX Transportation (CSX) SE											
	Line	Richmond County - Robeson County	1	50	17.1	Freight	200	30				
	CSX Transportation (CSX) SE											
	Line	Richmond County - South Carolina	1	50	6.4	Freight	200	8				
	Laurinburg & Southern		Short									
	Company, Inc. (LRS) ML Line	South of Laurinburg - Hoke County	Line	15	12.3	Freight						

## BICYCLE AND PEDESTRIAN<sup>1</sup>

BICYCLE									
				Existing System		Proposed System			
			Distance	Cross-	Section			Other	
Local ID	Facility/ Route	Section (From - To)	(mi)	(ft)	lanes	Туре	Cross-Section	Modes	
	US-15-501	Silver Hill Rd (SR 1328) - Arch McLean Rd (SR 1415)	0.41	24	2				
SCOT0005-H	US 74 BUS (Martin Luther King Jr Hwy)	01 mile west of Maxton Municipal Boundary - Robeson County	0.88	22	2	Bicycle	2A	Н	
	US 74 BUS (Church Street)	Turnpike Rd (SR 1105) - Wilkinson Dr (SR 1358)	0.65	40	3				
	Arch McLean Rd (SR 1415)	US-15/US-501 - Turnpike Rd (SR 1412)	0.11	20	2				
SCOT0001-B	Central St (SR 1629)	US 74 BUS (Martin Luther King Jr Hwy) - Robeson County	0.50	22	2	Bicycle	2B		
SCOT0002-B	Old Lumberton Rd (SR 1369)	Airport Road (SR 1436) to Robeson County	0.98	22	2	Bicycle	2B		
	Old Stage Rd (SR 1128)	South Carolina - X-Way Rd (SR 1131)	1.14	22	2				
	Silver Hill Rd (SR 1328)	Nashville Church Rd (SR 1324) - US-15/US- 501	1.07	18	2				
SCOT0013-H	Sneads Grove Rd (SR 1300)	US 15 (McColl Road) - Turnpike Rd (SR 1105)	1.80	20	2	Bicycle	2B	Н	
SCOT0013-H	Sneads Grove Rd (SR 1105)	Turnpike Rd (SR 1105) - NC-144	2.14	20	2	Bicycle	2B	Н	
	Sneads Grove Rd (SR 1324)	NC-144 - Sneadtown Rd (SR 1324)	2.20	20	2				
	Sneadtown Rd (SR 1324)	Sneads Grove Rd (SR 1345) - Nashville Church Rd (SR 1324)	1.96	18	2				
	Turppiko Pd (SP 1105)	X Way Road (SR 1108) US 74	0.55	22	2				
SCOT0014-H	Turnpike Rd (SR 1105)	LIS 74 to LIS 74 BLIS (Church Street)	0.55	18	2	Bicycle	20	н	
	Turnpike Rd (SR 1412)	Arch McLean Rd (SR 1415) - Hoke County	7.36	18	2	Dicycle	20		

BICYCLE									
				Existing System		Proposed System			
			Distance	Cross-Section				Other	
Local ID	Facility/ Route	Section (From - To)	(mi)	(ft)	lanes	Туре	<b>Cross-Section</b>	Modes	
	Wilkinson Dr (SR 1358)	US 74 BUS (Church Street) - Sneads Grove Rd (SR 1300)	0.85	20	2				
	X-Way Road (SR 1131)	Old Stage Rd (SR 1128) -Leisure Road (SR 1100)	0.85	20	2				
SCOT0016-H	X-Way Road (SR 1108)	Leisure Road (SR 1100) to Blue Woods Road (SR 1116)	1.88	18	2	Bicycle	2B	Н	
	X-Way Road (SR 1108)	Blue Woods Road (SR 1116) - Turnpike Rd (SR 1105)	2.01	12	2				

PEDESTRIAN <sup>2</sup>								
			Existing System		Propos	Other		
			Distance		Side of			
Local ID	Facility/ Route	Section (From - To)	(mi)	Туре	Street	Туре	Side of Street	Modes
SCOT0005-H	US 74 BUS (Church St)		0.86			Sidewalk	Both	Н
		0.10MI West of Minicipal Bound -Roberson	0.00			Sidowolk	Poth	
SCOT0005-H	US 74 BUS (MLK Jr Hwy)	County	0.00			Sidewalk	BOILI	
SCOT0001- P	US 401 (Main St)	0.14MI South - 1st St	0.14			Sidewalk	Both	
	US 401 (Main St)	1st St - Gilchrist St	0.40	Sidewalk	Both			
SCOT0001- P	US 401 (Main St)	Gilchrist St - Center St	0.35			Sidewalk	Both	
SCOT0002- P	NC 79-381	NC-381 - Oil Mill Rd (SR 1144)	0.10			Sidewalk	Both	
SCOT0002- P	NC 79-381	Oil Mill Rd - Fletcher St	0.16			Sidewalk	Both	
SCOT0002- P	NC 79-381	Fletcher St - Rockdale Ave (SR 1168)	0.69			Sidewalk	Both	
SCOT0003- P	2nd St	US-401 - Marlboro Rd	0.08			Sidewalk	Both	
SCOT0004- P	5th St (SR 1457)	US 74 BUS (Church St) - Municipal Boundary	0.25			Sidewalk	Both	
SCOT0005- P	Alder Rd	Cypress St - Tara Dr	0.14			Sidewalk	Both	
	Ashley Dr	Butler St - Scarlet Ct	0.09	Sidewalk	West			
	Butler St	Tara Dr - Ashley Dr	0.12	Sidewalk	South			

PEDESTRIAN <sup>2</sup>								
				Existing System		Proposed System		Other
			Distance		Side of			
Local ID	Facility/ Route	Section (From - To)	(mi)	Туре	Street	Туре	Side of Street	Modes
SCOT0006- P	Cameron Way	McCormick Drive - US 74 BUS (Martin Luther King Jr Hwy)	0.36			Sidewalk	Both	
SCOT0007- P	Central Street (SR 1629)	US 74 BUS (Martin Luther King Jr Hwy) - Robeson County	0.48			Sidewalk	Both	
SCOT0008 D	Cuproco St		0.09			Sidowolk	Poth	
SCOT0008- P	Cypress St	Hill St. Alder Dd	0.00			Sidewalk	Both	
3CO10006- P			0.07			Sidewalk	DOILI	
	Gilchrist St	US-401 - 0.11MI North	0.12	Sidewalk	East			
00070000								
SCO10009- P	Hill St	Glenn St - Cypress St	0.13			Sidewalk	North	
SCOT0010- P	Hoyle Circle	McCormick Drive (south) to McCormick Drive (north)	0.26			Sidewalk	Both	
SCOT0011- P	Marada Road	0.1MI south to US 74 BUS (Martin Luther King Jr Hwy)	0.12			Sidewalk	Both	
SCOT0012- P	McCormick Avenue	Roberson County to Old Lumberton Road SR (1369)	0.16			Sidewalk	Both	
SCOT0013- P	McCormick Drive	Cameron Way to US 74 BUS (Martin Luther King Jr Hwy)	0.42			Sidewalk	Both	
SCOT0014- P	Old Lumberton Road SR (1369)	0.1MI west of municipal boundary to Roberson County	0.30			Sidewalk	Both	
SCOT0015- P	Stewartsville Rd (SR 1601)	Hall St - Douglas St	0.05			Sidewalk	Both	
SCOT0015- P	Stewartsville Rd (SR 1601)	Douglas St - 1st St	0.07			Sidewalk	Both	
SCOT0015- P	Stewartsville Rd (SR 1601)	1st St - S Caledonia Rd (SR 1438)	0.10			Sidewalk	Both	
SCOT0016- P	Tara Dr	Alder Rd - Butler St	0.20			Sidewalk	Both	
SCOT0016- P	Tara Dr	Butler St - Trad St	0.19			Sidewalk	Both	

1 Only major routes and proposals are shown here. 2 The 2015 Laurinburg Comprehensive Pedestrian Plan was used to identify pedestrian facilities, including multi-use paths, within the Laurinburg area. To view this plan, go to: http://www.walklaurinburg.org/the-plan.html

## Appendix D Typical Cross Sections

Cross section requirements for roadways vary according to the capacity and level of service to be provided. Universal standards in the design of roadways are not practical. Each roadway section must be individually analyzed and its cross section determined based on the volume and type of projected traffic, existing capacity, desired level of service, and available right-of-way. These cross sections are typical for facilities on new location and where right-of-way constraints are not critical. For widening projects and urban projects with limited right-of-way, special cross sections should be developed that meet the needs of the project.

The comprehensive planning and design "typical" highway cross sections, as depicted on the following pages, were updated on May 5, 2014 in response to the Strategic Transportation Investments<sup>1</sup> (STI) law (House Bill 817) and are also consistent with SPOTOn!ine (used for project prioritization<sup>2</sup>), NCDOT's GIS-based web application for providing automated, near real-time prioritization scores and project costs. This guidance establishes design elements that emphasize safety, mobility, complete streets<sup>3</sup>, and accessibility for multiple modes of travel. These "typical" highway cross sections should be used as guidelines for comprehensive transportation planning, project planning and project design activities. The specific and final cross section details and right of way limits for projects will be established through the preparation of the National Environmental Policy Act<sup>4</sup> (NEPA) documentation and through final design preparation.

On all existing and proposed roadways delineated on the CTP, adequate right-of-way should be protected or acquired for the recommended cross sections. In addition to cross section and right-of-way recommendations for improvements, Appendix C may recommend ultimate needed right-of-way for the following situations:

- roadways which may require widening after the current planning period,
- roadways which are borderline adequate and accelerated traffic growth could render them deficient,
- roadways where an urban curb and gutter cross section may be locally desirable because of urban development or redevelopment, and
- roadways which may need to accommodate an additional transportation mode.

<sup>&</sup>lt;sup>1</sup> For more information on STI, go to: <u>http://www.ncdot.gov/strategictransportationinvestments/</u>.

<sup>&</sup>lt;sup>2</sup> For more information on prioritization, go to: <u>https://connect.ncdot.gov/projects/planning/Pages/StrategicPrioritization.aspx</u>.

<sup>&</sup>lt;sup>3</sup> For more information on Complete Streets, go to: <u>http://www.completestreetsnc.org/</u>.

<sup>&</sup>lt;sup>4</sup> For more information on NEPA, go to: <u>http://ceq.hss.doe.gov/</u>.

## FIGURE 7 "TYPICAL" HIGHWAY CROSS SECTIONS



2A

2B

2C

2 LANE UNDIVIDED WITH PAVED SHOULDERS POSTED SPEED 55 MPH



2 LANES UNDIVIDED POSTED SPEED 45 MPH OR LESS



2 LANE UNDIVIDED WITH PAVED SHOULDERS POSTED SPEED 25 - 35 MPH

# "TYPICAL" HIGHWAY CROSS SECTIONS



2 LANE UNDIVIDED WITH PAVED SHOULDERS AND SIDEWALKS POSTED SPEED 25-45 MPH



2 LANE UNDIVIDED WITH CURB & GUTTER, BIKE LANES, AND SIDEWALKS POSTED SPEED 25-45 MPH



2 LANE UNDIVIDED WITH PAVED SHOULDERS AND SIDEWALKS IN CAMA COUNTIES POSTED SPEED 25-45 MPH







2 LANE DIVIDED (23' RAISED MEDIAN) WITH CURB & GUTTER AND SIDEWALKS POSTED SPEED 25-45 MPH



2 LANE DIVIDED (23' RAISED MEDIAN) WITH CURB & GUTTER, BIKE LANES, AND SIDEWALKS POSTED SPEED 25-45 MPH



2 LANE DIVIDED (17'-6" RAISED MEDIAN) WITH CURB & GUTTER AND SIDEWALKS POSTED SPEED 25-45 MPH



2 LANE DIVIDED (17'-6" RAISED MEDIAN) WITH CURB & GUTTER, BIKE LANES, AND SIDEWALKS POSTED SPEED 25-45 MPH



2 LANE WITH TWO WAY LEFT TURN LANE, AND PAVED SHOULDERS POSTED SPEED 25-55 MPH



2 LANE WITH TWO WAY LEFT TURN LANE, CURB & GUTTER, AND SIDEWALKS POSTED SPEED 25-45 MPH



2 LANE WITH TWO WAY LEFT TURN LANE, CURB & GUTTER, BIKE LANES, AND SIDEWALKS POSTED SPEED 25-45 MPH

# "TYPICAL" HIGHWAY CROSS SECTIONS



### 4 LANE DIVIDED (46' DEPRESSED MEDIAN) WITH PAVED SHOULDERS POSTED SPEED 45-70 MPH



4 LANE DIVIDED (23' RAISED MEDIAN) WITH PAVED SHOULDERS AND SIDEWALKS POSTED SPEED 35-55 MPH



4 LANE DIVIDED (23' RAISED MEDIAN) WITH CURB & GUTTER, WIDE OUTSIDE LANES, AND SIDEWALKS POSTED SPEED 35-45 MPH


Revised 05/05/2014

SIDEWALK

10'

MIN.

17'-6" MEDIAN

100' MIN. RIGHT OF WAY

4 LANE DIVIDED (17'-6" RAISED MEDIAN) WITH CURB & GUTTER, WIDE OUTSIDE LANES AND SIDEWALKS POSTED SPEED 35-45 MPH

12'

14

SIDEWALK

10'

MIN.

14'

12

4F

## "TYPICAL" HIGHWAY CROSS SECTIONS



4 LANE WITH TWO WAY LEFT TURN LANE, CURB & GUTTER, AND SIDEWALKS POSTED SPEED 35-45 MPH "TYPICAL" HIGHWAY CROSS SECTIONS



Revised 05/05/2014

"TYPICAL" HIGHWAY CROSS SECTIONS



6 LANE FREEWAY (27' MEDIAN WITH JERSEY BARRIER) WITH PAVED SHOULDERS AND 2 LANE ONE-WAY SERVICE ROADS EACH SIDE



6 LANE FREEWAY (4 GENERAL PURPOSE LANES, 2 MANAGED LANES, AND 27' MEDIAN WITH JERSEY BARRIER) WITH PAVED SHOULDERS POSTED SPEED 55-70 MPH

6D

Revised 05/05/2014

"TYPICAL" HIGHWAY CROSS SECTIONS



Revised 05/05/2014

## "TYPICAL" HIGHWAY CROSS SECTIONS



MULTI - USE PATH ADJACENT TO RIGHT OF WAY OR SEPARATE PATHWAY



ΜΒ



## Appendix E Level of Service Definitions

The relationship of travel demand compared to the roadway capacity determines the level of service (LOS) of a roadway. Six levels of service identify the range of possible conditions. Designations range from LOS A, which represents the best operating conditions, to LOS F, which represents the worst operating conditions.

Design requirements for roadways vary according to the desired capacity and level of service. LOS D indicates "practical capacity" of a roadway, or the capacity at which the public begins to express dissatisfaction. Recommended improvements and overall design of the transportation plan were based upon achieving a minimum LOS D on existing facilities and a LOS C on new facilities. The six levels of service are described below and illustrated in Figure 8.

- LOS A: Describes free-flow operations. Free Flow Speed (FFS) prevails and vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream. The effects of incidents or point breakdowns are easily absorbed.
- LOS B: Represents reasonably free-flow operations, and FFS is maintained. The ability to maneuver within the traffic stream is only slightly restricted, and the general level of physical and psychological comfort provided to drivers is still high. The effects of minor incidents and point breakdowns are still easily absorbed.
- LOS C: Provides for flow with speeds near the FFS. Freedom to maneuver within the traffic stream is noticeably restricted, and lane changes require more care and vigilance on the part of the driver. Minor incidents may still be absorbed, but the local deterioration in service quality will be significant. Queues may be expected to form behind any significant blockages.
- LOS D: The level at which speeds begin to decline with increasing flows, with density increasing more quickly. Freedom to maneuver within the traffic stream is seriously limited and drivers experience reduced physical and psychological comfort levels. Even minor incidents can be expected to create queuing, because the traffic stream has little space to absorb disruptions.
- LOS E: Describes operation at capacity. Operations at this level are highly volatile because there are virtually no usable gaps within the traffic stream, leaving little room to maneuver within the traffic stream. Any disruption to the traffic stream, such as vehicles entering from a ramp or a vehicle changing lanes, can establish a disruption wave that propagates throughout the upstream traffic flow. At capacity, the traffic stream has no ability to dissipate even the most minor disruption, and any incident can be expected to produce a serious breakdown and substantial queuing. The physical and psychological comfort afforded to drivers is poor.
- LOS F: Describes breakdown, or unstable flow. Such conditions exist within queues forming behind bottlenecks.

Figure 8 - Level of Service Illustrations

LOS A

LOS B



LOS C

LOS D



LOS E

LOS F

Source: 2010 Highway Capacity Manual, Exhibit 11-4

## Appendix F Bridge Deficiency Assessment

The Transportation Improvement Program (TIP) development process for bridge projects involves consideration of several evaluation methods in order to prioritize needed improvements. A sufficiency index is used to determine whether a bridge is sufficient to remain in service, or to what extent it is deficient. The index is a percentage in which 100 percent represents an entirely sufficient bridge and zero represents an entirely insufficient or deficient bridge. Factors evaluated in calculating the index are listed below.

- structural adequacy and safety
- serviceability and functional obsolescence
- essentiality for public use
- type of structure
- traffic safety features

The NCDOT Structures Management Unit inspects all bridges in North Carolina at least once every two years. A sufficiency rating for each bridge is calculated and establishes the eligibility and priority for replacement. Bridges having the highest priority are replaced as federal and state funds become available.

A bridge is considered deficient if it is either structurally deficient (SD) or functionally obsolete (FO). Structurally deficient means there are elements of the bridge that need to be monitored and/or repaired. The fact that a bridge is "structurally deficient" does not imply that it is likely to collapse or that it is unsafe. It means the bridge must be monitored, inspected and repaired/replaced at an appropriate time to maintain its structural integrity. A functionally obsolete bridge is one that was built to standards that are not used today. These bridges are not automatically rated as structurally deficient, nor are they inherently unsafe. Functionally obsolete bridges are those that do not have adequate lane widths, shoulder widths, or vertical clearances to serve current traffic demand or to meet the current geometric standards, or those that may be occasionally flooded.

A bridge must be classified as deficient in order to qualify for federal replacement funds. Additionally, the sufficiency rating must be less than 50% to qualify for replacement or less than 80% to qualify for rehabilitation under federal funding. Deficient bridges located on roads evaluated as a part of the CTP are listed in Table 3. For more details on deficient bridges within the planning area, contact the Structures Management Unit using the information in Appendix A.

## Table 3 - Deficient Bridges

Bridge Number	Facility	Feature	Condition	Local ID
6	Marston Road (SR 1001)	Gum Swamp Creek	FO & SD	
8	Turnpike Road (SR 1412)	Lumber River	FO & SD	B-4967 <sup>1</sup>
9	US 74 EBL <sup>2</sup>	CSX Railroad	FO	FS-1508A
11	Sneadtown Road (SR 1324)	Jordan's Creek	SD	
15	US 74 Business EBL	US 74 WBL	FO	
17	US 15/401	Gum Swamp	FO & SD	B-4639
18	US 501	Leith's Creek	SD	B-5551
23	US 74 WBL <sup>3</sup>	Gum Swamp Creek	FO	B-4817
24	US 501 Business	US 74/501	FO	
26	NC 79	US 74	FO	
27	Mcgirts Bridge Road (SR 1433)	Big Shoe Heel Creek	FO & SD	
30	Lee's Mill Road (SR 1425)	Juniper Creek	FO & SD	B-5741
35	Turnpike Road (SR 1105)	US 74	FO	SCOT0014-H
39	US 15/401/501 SBL	US 74 Business/NC 79	FO	FS-1508B
40	X-Way Road (SR 1108)	US 74	FO	SCOT0016-H
42	US 74 EBL	US 15/401/501	FO	FS-1508A
45	US 74/501 WBL	US 15/401/501	FO	FS-1508A
49	US 74 EBL	US 15/401 Business	FO	FS-1508A
51	US 74 WBL	US 15/401 Business	FO	FS-1508A
55	US 501	US 74	FO	
56	Old Johns Road (SR 1601)	US 74	FO	
57	US 74 EBL	Southern Railroad	FO	FS-1508A
60	US 74 WBL	Southern Railroad	FO	FS-1508A
65	US 15/501	Juniper Creek	FO & SD	B-4816
68	Highland Road (SR 1323)	US 74	FO	
70	Old Wire Road (SR 1152)	Joe's Creek	FO	
71	US 74 EBL	Little Creek	SD	FS-1508A
72	US 74 WBL	Little Creek	SD	FS-1508A
90	Caledonia Road (SR 1438)	Leith's Creek	SD	

 <sup>&</sup>lt;sup>1</sup> This project is currently underway.
 <sup>2</sup> EBL – East Bound Lane
 <sup>3</sup> WBL – West Bound Lane

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## Appendix G Socio-Economic Data Forecasting Methodology

In the development of the Scotland County CTP, existing and anticipated deficiencies were determined through an analysis of the transportation system looking at both current and future travel patterns. Two analysis methods were used: one for the non-modeled/rural areas and another for the more urbanized area around Laurinburg.

For the non-modeled/rural portion of Scotland County, including the towns of Gibson, Wagram and Maxton, travel demand was projected from 2014 to 2040 using a trend line analysis based on Annual Average Daily Traffic (AADT) from 1992 to 2013. In addition, local land use plans and growth expectations were used to further refine future growth rates and patterns. For this CTP, the 2015 City of Laurinburg and the 2014 Scotland County Land Use Plans were used and are illustrated in Figures 9, 10, 11 and 12 respectively.

It is more difficult to predict future travel patterns in urban areas where there are more alternative route options. Therefore, for Laurinburg, East Laurinburg and the surrounding area, travel demand was projected from 2014 to 2040 using a computerized travel demand model. Travel demand models are developed to replicate travel patterns on the existing transportation system as well as to estimate travel patterns for 2040. Additionally, travel demand models require a broad range of socio-economic input data such as population and employment. These inputs are available from sources like the U.S. Census Bureau for the year 2014, but data for 2040 is also required.

The CTP Steering Committee worked with NCDOT to estimate population growth, economic development potential, and land use trends to determine the potential impacts on the future transportation system in 2040. This data was endorsed by the Scotland County Commissioners on July 8, 2014.

Below is a description of the methodology used in the analysis.

#### Population and Housing Projections

Before projecting the population and housing data to the future year of 2040, the current population and housing data must be determined. For the model area, the population and persons per household was derived from 2010 Census data. It was then updated to reflect the number of dwelling units that had been added between 2010 and 2014. Using this data, the population was determined to be 37,603 and the number of dwelling units was determined to be 13,158.

In order to project the employment and population data for the future year of 2040, a population growth rate has to be determined. To do this, historic population data was gathered from the North Carolina Office of State Budget and Management for Scotland County. Past trends in census data from 1980, 1990, 2000 and 2010 for Scotland

County were looked at along with the growth in population within the model area as shown in Tables 4 and 5 below.

Table 4. Growin Rates					
Growth Rates Per Year	1980-2010	1990-2010	2000-2010		
North Carolina	1.62%	1.83%	1.71%		
Scotland County	0.38%	0.34%	0.04%		
Model Area	0.38%	0.34%	0.04%		

## Table 4: Growth Rates

 Table 5: Population Data

Location	1980	1990	2000	2010	2014	2020	2030	2040
North Carolina	5,880,095	6,632,448	8,046,813	9,535,483	10,166,530	11,039,342*	12,463,244*	N/A
Scotland County	32,273	33,763	35,998	36,157	37,603**	39,773**	43,388**	47,004**
Model Area	28,427	29,739	31,708	31,848	33,122**	33,220**	37,997**	41,404**

\* Projections by the North Carolina State Data Center

\*\* Projections provided by the NCDOT – Transportation Planning Branch

To determine future housing numbers, the model area population developed above must be converted to dwelling units. To do this, past persons/dwelling unit data for Scotland County was graphed and a trend line was extended to the future year of 2040 as shown in Tables 6 and 7 below.

•						
	I otal HH		Persons/Dwelling			
Scotland County	Population	Total Households	Unit			
1980	32,273	11112	2.90			
1990	33,763	12759	2.65			
2000	35,998	14693	2.45			
2010	36,157	15193	2.38			
2014	37,603	15,801	2.38			
2020	39,773	16,712	2.38			
2030	43,388	18,126	2.38			
2040	47,004	19,751	2.38			

## **Table 6: Scotland County Household Data**

			Persons/Dwelling
Model area	Population	Households	Unit
1980	28,427	9,788	2.90
1990	29,739	11,238	2.65
2000	31,708	12,942	2.45
2010	31,848	13,382	2.38
2014	33,122	13,918	2.38
2020	35,033	14,721	2.38
2030	38,217	16,059	2.38
2040	41,404	17,398	2.38

#### Table 7: Model Area Household Data

These houses must be distributed throughout the model area in accordance with the Laurinburg Future Land Use Plan (Figures 9) to areas designated as Developed, Rural Development, Rural and Conservation.

#### **Employment Projections**

Employment data was obtained from Info USA. Employment figures for 2010 in the model area were gathered and then projected to 2014. The final total was 13,244 jobs. To determine the number of future jobs in the model area, a ratio was taken with the current number of jobs over the present population.

2014 Employment = 13,2442014 Population = 33,122Employment to Population (emp/pop) = 0.3998

Assuming slow and continued growth, the employment to population ratio as well as the total future employment is shown in the following table:

	······································			
Year	Population	Employment/Population Ratio	Employment	
2014	33,122	0.3999	13,244	
2020	35,033	0.4264	14,939	
2030	38,217	0.4264	16,297	
2040	41,404	0.4264	17,656	

#### Table 8: Model Area Population to Employment Ratio

Similar to housing, employment is distributed throughout the model area. Percentages from the North American Industry Classification System are determined based on the existing breakdown and the land use plan recommendations and expectations for the future. The existing breakdown is shown in the table below:

		J
Classification	2014 Employment	Percentage
Industry	3164	24%
Retail	2105	16%
Highway Retail	1058	8%
Service	5540	42%
Office	1368	10%

### **Table 9: Current Employment Types**

Once these future projections are determined, the number of jobs for each classification can be calculated and inserted into the table of future employment below:

Classification	2040 Employment	Percentage		
Industry	4269	24%		
Retail	2832	16%		
Highway Retail	1425	8%		
Service	7289	41%		
Office	1841	10%		

#### Table 10: Projected Employment Types

We can now total the number of jobs added by classification type in the table below:

Classification	Projected Employment Change 2014-2040
Industry	1105
Retail	727
Highway Retail	367
Service	1749
Office	473
Total	4421

#### Table 11: Total Projected Employment Growth

# Figure 9: Laurinburg Existing Land Use





# Figure 10: Laurinburg Future Land Use



# Figure 11: Scotland County Existing Land Use



## Figure 12: Scotland County Future Land Use



## Appendix H Public Involvement

This appendix documents the public involvement process and includes a listing of steering committee members, the goals and objectives survey results, and public meetings held throughout the development of the CTP.

## List of CTP Steering Committee Members

At the start of a CTP study, a committee is formed that is comprised of individuals who represent the various needs, issues and populations of the community. These representatives are responsible for capturing the transportation needs of the community relative to all modes of transportation and for guiding the development of the CTP. A listing of steering committee members for the Scotland County CTP is given below.

- Charles Nichols, Laurinburg City Manager
- Dee Hammond, Laurinburg City Council Member
- Kevin Patterson, Scotland County Manager
- Greg Icard, Scotland County Economic Development
- Bob Davis, Scotland County Commissioner
- Phyllis Lowery, Town of Wagram
- Cory Hughes, Tourism Development Authority
- Tonia Stephens, Chamber of Commerce
- Darius Sturdivant, NCDOT Division 8 Planning Engineer

## CTP Vision, Goals, Objectives and MOEs

The CTP vision, goals and objectives are developed as part of the public involvement process and help identify how the people within an area would like to develop the transportation system (all modes). The CTP committee develops the draft vision, goals, objectives, and MOEs which are further refined with input from citizens via the CTP Goals & Objectives (G&O) survey. These products become the official guide for the CTP being developed.

The vision statement, goals and objectives reflect what is important for the area and defines any local preferences concerning the transportation system and community assets. The vision statement is the framework for the area's strategic planning. Goals and objectives document how the area plans to fulfill its vision. The goals break down the vision statement into themes, while the objectives document how the area plans to make progress towards achieving each goal. MOEs are established to enable the area to track the progress of each objective.

**Vision Statement**: Enhance the connectivity within Scotland County through the development of a transportation network which promotes and supports economic development compatible with the existing and future environmental and land use patterns.

Provide safe, reliable, affordable, and convenient transportation choices to the residents of the county as well as public awareness of those choices. Develop a regional transportation network that improves Scotland County residents' quality of life and surrounding environment.

### Goals:

- 1. Ensure the integrity of the existing transportation system by encouraging planned and strategic development.
- 2. Encourage right of way preservation to ensure expansion of the existing system and future roadway projects.
- 3. Coordinate transportation and improvement needs between multiple jurisdictions.
- 4. Provide means to identifying and prioritizing transportation system needs on a local and regional scale.
- 5. Enhance and expand services for alternative needs of transportation including but not limited to transit, walking and bicycling through increased funding and cooperative regional planning.
- 6. Acknowledge ways to improve safety and congestion as well as programs to educate the public on traffic safety.
- 7. Recognize a sustainable transportation infrastructure linking the county with surrounding major activity centers including Raleigh, Charlotte, Fayetteville, Wilmington, State of South Carolina Beaches and other areas.
- 8. Educate the public on general transportation issues as well as alternative forms of transportation.

## Goals and Objectives Survey

A G&O survey is a public involvement technique used to help identify an area's perception of transportation-related issues, identify concerns that should be addressed during the development of a CTP, and to help develop a vision for the community. The G&O survey is most appropriately implemented at the beginning of the transportation planning study. In addition to determining up front what is important to the citizens of the planning area, initiating the G&O survey early in the planning process allows the survey to serve as an introduction to the transportation planning process. The survey usually includes a brief introduction explaining what a transportation plan is and how the area can benefit from having one. The survey also includes a wide variety of questions that is tailored to each area as appropriate. A summary of the Scotland County G & O survey is given below.

1. How many people live in your household, including yourself?				
Answer Options	Response Percent	Response Count		
1	35.8%	128		
2	39.9%	143		
3	13.7%	49		
4	5.6%	20		
5 or more	5.0%	18		

2. How many drivers are in your household?			
Answer Options	Response Percent	Response Count	
0	5.3%	19	
1	37.3%	133	
2	44.8%	160	
3	8.4%	30	
4	3.4%	12	
5 or more	0.8%	3	

3. How many vehicles does your household have?			
Answer Options	Response Percent	Response Count	
0	5.9%	21	
1	28.8%	102	
2	40.7%	144	
3	16.7%	59	
4	5.1%	18	
5 or more	2.8%	10	

4. Do any of the following apply to you or your household?							
Answer Options	Yes	No	Response Count				
Someone in your household is 65 or older?	200	152	352				
Someone in your household is disabled?	97	232	329				
Someone in your household is unemployed and transportation is an obstacle to finding a job?	20	299	319				

5. How often do you use the fixed bus routes provided by Scotland County Area Transit System (SCATS)?						
Answer Options	Response Percent	Response Count				
Daily	0.6%	2				
Twice a Week	1.1%	4				
Once a Week	0.3%	1				
Once a Month	0.0%	0				
Rarely	3.1%	11				
Never	94.9%	335				

#### 6. How often would you use the SCATS bus routes if they were expanded to other areas?

Answer Options	Response Percent	Response Count				
Daily	4.0%	14				
Twice a Week	2.6%	9				
Once a Week	3.1%	11				
Once a Month	3.4%	12				
Rarely	18.8%	66				
Never	68.2%	240				
Where should fixed bus routes be expanded?						

The most frequent responses included:

- Access to medical offices, hospitals and St Andrews Student Union
- Between towns in Scotland County
- South Side of Laurinburg
- As a case manager for Medicaid, residents in Scotland County need transportation to Richmond County, Robeson County, Moore County, Charlotte (doctor's appointments), and Chapel Hill (doctor's appointments).

7. How often would you use vanpools or carpools if available?						
Answer Options	Response Percent	Response Count				
Daily	3.4%	12				
Twice a Week	2.0%	7				
Once a Week	1.7%	6				
Once a Month	3.7%	13				
Rarely	22.9%	80				
Never	66.2%	231				

8. How often do you/would you use off-road bicycle trails or greenways for walking, running and/or biking?					
Answer Options	Response Percent Response Percent				
Daily	16.1%	56			
Twice a Week	12.6%	44			
Once a Week	12.4%	43			
Once a Month	3.7%	13			
Rarely	16.1%	56			
Never	39.1%	136			
Where should off road trails and greenways be constructed?					

The most frequent responses included:

- All over Laurinburg. Scotland Yard Park could have a much better trail.
- As a connector to all County parks
- Greenways would be a huge asset if they could include shopping and entertainment areas
- St. Andrews and Scotland Memorial Hospital area, around the John Blue House and Parks & Rec, around solar farms & make the company who installs them pay to have it done.

9. How often do you/would you use on-road bicycle lanes and/or wide shoulders?						
Answer Options	Response Percent	Response Count				
Daily	10.5%	37				
Twice a Week	9.7%	34				
Once a Week	6.0%	21				
Once a Month	3.7%	13				
Rarely	17.7%	62				
Never	52.4%	184				
Where should on-road bike lanes or wide shoulders be located?						

The most frequent responses included:

- US 401, 501, S. Main St., West Blvd/X-Way Rd, Turnpike Rd., Barnes Bridge Rd. Church St.
- Main Street-Church Street-Atkinson Street-Railroad Street Caledonia Road-West Boulevard-Scotia Village and St. Andrews toward downtown following the bicycle routes previously researched and developed in the county and city.
- To shops and go to activity areas

10. Are there areas where you would like to see sidewalks constructed or improved?							
Answer Options	Response Percent	Response Count					
Yes	47.6%	157					
No	52.4%	173					
If yes, where?							
The most frequent responses included:							
<ul> <li>US 401, Turnpike Rd, X-Way Road</li> </ul>							
West Boulevard							
<ul> <li>Atkinson and Main St around Splash pad, soccer fields</li> </ul>							
Throughout downtown Covington neighborhood							

• North Laurinburg area

11. Are you concerned about traffic accidents in your area?						
Answer Options	Response Percent	Response Count				
Yes	37.5%	131				
No	62.5%	218				
If yes, where?						
The most frequent responses included: • US 401 South						

- X-Way Road and Turnpike Road
- West Boulevard especially bridge overpass
- 5-points (Aberdeen Road and Old Wire)

12. Are there any other transportation related safety issues in your area?					
Answer Options	Response Percent	Response Count			
Yes	23.6%	78			
No	76.4%	252			
Please explain the issue:					

The most frequent responses included:

- Blues Farm Road Mopeds and pedestrians walking early morning/late evening
- Speeding in 35 mph zone
- Corner of Turnpike and X-way needs a traffic light not caution lights. 15-501 Laurinburg to Aberdeen needs to be widened with a passing lane very, very dangerous road.

13. Is large truck traffic a problem? If yes, What is the nature of the truck problem (congestion, damage to the existing roadways, trucks on minor streets, noise, speed, debris coming off trucks, etc.)?

Answer Options	Response Percent	Response Count
Yes	14.7%	49
No	85.3%	284

Please explain. Thank you.

The most frequent responses included:

- 15-501 Bypass Speed of some of the large trucks along the road.
- Congestion, damage to the existing roadways, trucks on minor streets, noise, speed, debris coming off trucks in Laurinburg.
- The section of Barnes Bridge Road that is within the city limits. Logging trucks and chip trucks tear it up through this area. Again, a sidewalk would provide a safe zone for the neighbors.
- West Blvd., noise, speed, and sirens

Regional Travel Habits (Response to Questions 14 &16):							
Answer OptionsDailyTwice a WeekOnce a WeekOnce a MonthRarelyNeve						Never	Response Count
How often do you go to Fayetteville?	5	12	22	106	179	25	349
How often do you go to Aberdeen/Pinehurst/Southern Pines?	18	26	71	141	76	15	347

State Travel Habits (Response to Questions 15 & 17 - 21):									
Answer Options	Daily	Twice a Week	Once a Week	Once a Month	Rarely	Never	Seasonal	Response Count	
How often do you go to Raleigh?	0	1	2	55	187	78	23	346	
How often do you go to Greensboro?	0	2	2	22	189	121	14	350	
How often do you go to Charlotte?	0	2	6	56	175	85	24	348	
How often do you go to Wilmington?	1	2	2	31	186	97	30	349	
How often do you go to N.C. beaches?	0	1	9	44	150	60	85	349	
How often do you go to the Myrtle Beach area?	0	1	5	42	149	59	92	348	

22. Please rate the importance of each of the following goals:					
Answer Options	High	Medium	Low	Very Low	Response Count
More Transportation Choices (Buses, sidewalks, bike lanes, multi-use paths, trains, etc.)	99	95	86	64	344
Improved Safety and Maintenance (Speed limits, intersections, road conditions, pot holes, site distance, etc.)	155	112	52	23	342
Support Economic Growth (New and improved roads and railways to attract and expand business.)	183	89	41	27	340
Increased Public Transit Options (Bus service to more destinations. Park-n-Ride lots for carpooling.)	71	87	108	74	340
Community and Rural Culture Preservation (Keep businesses downtown. Protect existing neighborhoods. Preserve rural landscape.)	159	100	46	36	341
Environmental Protection (Protect wetlands, streams and wildlife, Reduce air and noise pollution.)	183	86	43	29	341
Care for Special Needs Citizens (Better transportation for elderly, low-income, and disabled residents.)	185	86	49	20	340
Improved Connectivity (Better connections from residential areas to goods, services, and jobs.)	141	95	67	24	327

#### 23. Of the topics in Question #22, which is the most important to you? Why?

The most frequent responses included:

- Increased access to public transit to allow the community to access jobs, the public library, downtown, and the community college/schools to help more people be involved.
- Economic development would affect all areas of our lives and safety.
- Environment protect our natural resources including water supply.
- Safety and maintenance. Roads need improvement and speed limits need enforced.

24. What is your age group?			
Answer Options	Response Percent	Response Count	
Under 18	0.3%	1	
19 - 24	0.6%	2	
25 - 34	3.5%	12	
35 - 44	5.2%	18	
45 - 54	12.7%	44	
55 - 64	27.1%	94	
65 - 74	30.8%	107	
75+	19.9%	69	

25. What is your race or ethnicity?				
Answer Options	Response Percent	Response Count		
Caucasian (White)	72.6%	247		
African American (Black)	19.4%	66		
Native America	4.7%	16		
Asian	0.9%	3		
Hispanic	0.3%	1		
Other	2.1%	7		

#### H-7

26. What is your zip code? (if other please provide)				
Answer Options	Response Percent	Response Count		
28343	1.2%	4		
28351	4.7%	16		
28352	86.2%	294		
28353	4.4%	15		
28396	3.5%	12		
Other (please specify)		2		

## 27. Are there any other Scotland County transportation related comments or issues you would like to share?

The most frequent responses included:

- I think SCATS should be expanded. The cost should be kept reasonable, particularly for special need groups such as disabled children and adults and low income people. Provide more public awareness on available public transportation in the county.
- Lower speed limits in residential areas on Main Street the speed limit is 20 MPH. There are sidewalks and cross walks.
- Please get some outdoor space for running and biking!! Safe place for families to be together and be active in a rural community--this would be wonderful. Other communities have done great things with old railway lines. I know many of ours are still active. Having greenspace trails would be wonderful! Your survey didn't list frequent travel to Pembroke in the options of traffic habits but I believe that there are many people commuting to Robeson County from Scotland County. Hammond Park is a great resource and frequently used by lots of different people but the traffic flies down the surrounding streets as people use Peden to cut across town.
- Walking/pedestrian traffic on West Blvd to/from Wal-Mart is often dangerous. Pedestrians walking in the road often seem to be daring drivers to run them down. Many small children are often walking with very little supervision.

## **Public Meetings**

Brief summaries of public meetings held within the planning area are given below.

#### Official Meetings

The purpose of the officials meetings was to review the draft plan recommendations prior to presenting it to the public. The officials meetings were held at the following jurisdictions in Scotland County on the dates below:

- March 03, 2016 at 7:00 pm during the Town of Wagram Council Meeting
- March 10, 2016 at 7:00 pm during the Town of Gibson Council Meeting
- March 15, 2016 at 7:00 pm during the Town of Maxton Council Meeting
- May 02, 2016 at 7:00 pm during the Scotland County Board of Commissioners Meeting
- May 17, 2016 at 7:00 pm during the City of Laurinburg Council Meeting
- September 06, 2016 at 7:00 pm during the Town of East Laurinburg Council Meeting

Additional pedestrian facilities were identified to create a network of sidewalks within East Laurinburg during the East Laurinburg Town Council Meeting held on September 06, 2016, and no comments were received during the other meetings.

## Public Workshop

The purpose of the drop-in sessions was to present the proposed CTP to the public and solicit comments. Two public workshops were publicized in the local newspapers and held on June 27, 2016 from 4:30-6:30 pm at the Emergency Operations Center in Laurinburg and on October 17, 2016 from 5:00-7:00 pm at East Laurinburg Town Hall. Six citizens attended the first session and three citizens attended the second session. Two comments were submitted, one each, during the two drop-in sessions. The comment submitted during the first session centered on adding on-road bicycle lanes or wide lanes, constructing sidewalks and adding a pedestrian bridge over US 74. The concern had already been addressed in the CTP recommendation that includes widening X-Way Road/West Boulevard (SR 1108), installing a pedestrian bridge and/or widening the existing bridge over US 74, and constructing sidewalks and a multi-use path. The comment submitted during the second session was to consider adding sidewalk on 5<sup>th</sup> Street/Sanford Road (SR 1457). The concern was addressed by recommending sidewalks along 5<sup>th</sup> Street/Sanford Road (SR 1457).

## Public Hearings

Public hearings were held throughout Scotland County on the following dates:

Locale	Date
Laurinburg City Council	October 18, 2016
East Laurinburg Town Council	November 01, 2016
Maxton Town Council	September 20, 2016
Gibson Town Council	October 13, 2016
Wagram Town Council	October 06, 2016
Scotland County Board of Commissioners	October 03, 2016

The purpose of these meetings was to discuss the plan recommendations and to solicit further input from the public. The CTP was adopted during these meetings.

The Lumber River RPO endorsed the CTP on November 28, 2016. The North Carolina Department of Transportation mutually adopted the Scotland County CTP on December 1, 2016.

## Appendix I Alternatives & Scenarios Studied

In the development of the Scotland County CTP, the project that required additional alternatives analyses was the proposed improvements to US 15 Business (Main Street). Maps showing the alternatives studied, but not selected as the CTP proposal, are shown in Figure 13.

#### CTP Project Proposal

The proposed project (SCOT0002-H) is to modify the Atkinson Street (SR 1107) and Armory Street (SR 1640)/Biggs Street (SR 1642) corridors to one-way traffic patterns to serve as a one-way pair from the Atkinson Street (SR 1107)/US 15-401 Business (Main Street) intersection to US 74 Business (Church Street). The Atkinson Street (SR 1107) corridor is proposed to serve southbound traffic and the Armory Street (SR 1640)/Biggs Street (SR 1642) corridor is proposed to serve northbound traffic.

This alternative was determined as the 'CTP Project Proposal' because it would reduce traffic volumes on US 15 Business (Main Street) south of US 74 (Church Street), where it is projected to be near capacity, and maintain traffic on Main Street north of US 74 (Church Street), where no capacity deficiencies are expected through 2040.

#### Other Alternatives Studied

**Alternative 1:** Modify the Atkinson Street/Gill Street (SR 1107) and Armory Street (SR 1640)/Biggs Street (SR 1642)/Pine Street corridors to one-way traffic patterns to serve as a one-way pair from the Atkinson Street (SR 1107)/US 15-401 Business (Main Street) intersection (south) to US 15 Business/Gill Street (SR 1107) intersection (north). This included extending Pine Street on new location from Dickson Street to the US 15/401 Business split as a two lane minor thoroughfare with 12 foot lanes.

Alternative 1 was determined to be an unreasonable solution during the CTP process due to its failure to meet the community's vision. This alternative would reduce traffic volumes along the entire length of US 15 Business (Main Street). However, the City of Laurinburg felt that as much as this proposal would provide a solution to the projected congestion on Main Street, it would not be consistent with the city's vision of a two-way traffic pattern through Main Street and would also negatively impact the businesses along the Main Street corridor.

**Alternative 2:** Modify the Atkinson Street/Gill Street (SR 1107) and US 15 (Main Street) to one-way traffic patterns to serve as a one-way pair from the Atkinson Street (SR 1107)/US 15-401 Business (Main Street) intersection (south) to US 15 Business/Gill Street (SR 1107) intersection (north). This also includes extending Pine Street on new

location from Dickson Street to the US 15/401 Business split as a two lane minor thoroughfare with 12 foot lanes. The Atkinson Street/Gill Street (SR 1107) corridor is proposed to serve southbound traffic and the US 15 (Main Street) corridor is proposed to serve northbound traffic.

Alternative 2 was determined to be an unreasonable solution during the CTP process due to its failure to meet the community's vision. While it solved the anticipated future congestion, it was not consistent with the City of Laurinburg's vision of maintaining a two way traffic pattern along Main Street in addition to negatively impacting businesses north of Church Street.

**Alternative 3:** Widen the existing US 15 (Main Street) to three lanes with a continuous center turn lane from US 74 (Church Street) to US 15/401 Business split. This would convert the entire segment of US 15 Business (Main Street), from Atkinson Street (SR 1107) intersection (south) to US 15/401 Business split, to a three or four lane facility.

Alternative 3 was determined to be an unreasonable solution during the CTP process due to its failure to address the transportation deficiency. While it is consistent with the City of Laurinburg's vision of maintaining a two-way traffic pattern along Main Street, the proposal made capacity deficiencies worse by increasing traffic volumes on US 15 (Main Street) beyond its existing capacity.



decreased by up to 25% - Congestion is reduced

# Legend

Schools

74

+ Airports

Study Roads 2040 Volumes (AADT) 2014 Capacity

- Roads
- Roads
  Railroads
  - **Rivers and Streams**

Water Bodies Military Base Municipal Boundary County Boundary

11000 22200



Atkinson St Pair Alternatives & Scenarios Studied **Scotland County** Comprehensive Transportation Plan

Pine Street/Biggs St &



Traffic volumes on Main Street decreased by up to 35%
Congestion is reduced

# Legend

Schools

74

+ Airports

Study Roads 2040 Volumes (AADT) 2014 Capacity

- Roads
- Railroads
  - **Rivers and Streams**



10200

2200



Pair & Pine St Extension Alternatives & Scenarios Studied **Scotland County** Comprehensive Transportation Plan

Main Street / Atkinson St



Traffic volumes on Main Street
 increase by approximately 15%
 Congestions becomes worse

# Legend

Schools

74

- + Airports
- Study Roads 2040 Volumes (AADT) 2014 Capacity
  - Roads
  - Railroads
    - **Rivers and Streams**



16800 <mark>22200</mark>



