# Comprehensive Transportation Plan

# Lee County

**December 2011**

# Comprehensive Transportation Plan

# Lee County

**Prepared by:** Brendan Merithew, EI
Frances Bisby, EI,
Scott Walston, Triangle Planning Group Supervisor
Transportation Planning Branch
N.C. Department of Transportation

**In Cooperation with:** The County of Lee
The City of Sanford
The Town of Broadway
Triangle Area Rural Planning Organization
The Federal Highways Administration
U. S. Department of Transportation

**December 2011**

**Scott Walston, PE**

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# Executive Summary

In February of 2005, the Transportation Planning Branch of the North Carolina Department of Transportation and Lee County initiated a study to cooperatively develop the Lee County Comprehensive Transportation Plan (CTP) in conjunction with the municipalities of Sanford and Broadway. This is a long-range, multimodal transportation plan which covers the county's projected transportation needs through the year 2035. The modes of transportation evaluated in the CTP study and included in the final plan are as follows: highway, public transportation, rail, and bicycle.

The following report details the results of a thorough examination of the county's transportation system and outlines the improvements as recommendations necessary to ensure the continued provision of a safe, efficient transportation system that effectively maintains statewide connectivity and supports the economic, social and environmental interests of Lee County and its citizens. Findings regarding the Lee County CTP study are based upon analysis of the county's existing multimodal transportation system, regional environmental screening, and compiled public input.

Graphical representation of the recommendations is provided in Figure 9, sheets one through five. These figures comprise the CTP map set mutually endorsed and adopted by Lee County, the City of Sanford, the Town of Broadway and NCDOT in 2008. The implementation of the plan is the responsibility of the participating stakeholders -- Lee County, its municipalities, and NCDOT. Refer to Chapter I for information on the implementation process.

The primary recommendations are listed below and are further detailed in Chapter II:

## Primary Projects

**US 1:** Widen to a 6-lane cross section and upgrade the facility to a freeway from Chatham County to US 15-501. From NC 42 to Moore County, upgrade the facility to a freeway with four lanes. Interchanges are recommended at Pendergrass Road, Hickory House Road, US 15-501 and Old US 1. A grade separation is recommended at US 1 and NC 78.

**US 15-501 - North of US 1:** From US 1 northwest to Chatham County, upgrade 15-501 to a 4-lane, divided expressway. Re-align intersection with Deep River Road (SR 1466).

**NC 87 – South of US 421:** From US 421 to the proposed US 421-NC 87 Sanford Bypass interchange, recommendations provide for a 4-lane median-divided boulevard facility. From the proposed US 421-NC 87 Sanford Bypass interchange to the Harnett County Line, NC 87 recommendations provide for a 4-lane, divided expressway facility with multiple improvements for accesses and traffic control.

**Boone Trail Road (US 421):** Widen and upgrade to a freeway facility from Chatham County to the US 421-NC 87 Sanford Bypass currently under construction. These improvements comply with the North Carolina Strategic Highway Corridor Plan.

**Hawkins Avenue (US 1 BUS):** Widen and upgrade facility to a 4-lane, divided boulevard from US 1 to Burns Drive (SR 1406). Recommendations include bicycle lanes along the entire roadway length. The intersection of Hawkins Avenue (US 15-501) at Burns Drive (SR 1406) is recommended for a roundabout.

**Horner Boulevard (US 421):** Widen to a 4-lane, median-divided boulevard from US 1 to Harnett County. Sidewalks are recommended where warranted.

*Please note the following: The term "improvements" refers to geometric and/or roadway cross section upgrades. The CTP does not address standard bridge replacements, routine maintenance, or traffic operation issues. Contact information pertaining to the services provided by NCDOT for the maintenance and operation of transportation infrastructure is listed in Appendix A for the purpose of convenient reference.*

## Adopted by:

**Lee County**
**Date: December 3, 2007**

**City of Sanford**
**Date: November 20, 2007**

**Town of Broadway**
**Date: November 26, 2007**

**NCDOT**
**Date: June 6, 2008**

## Endorsed by:

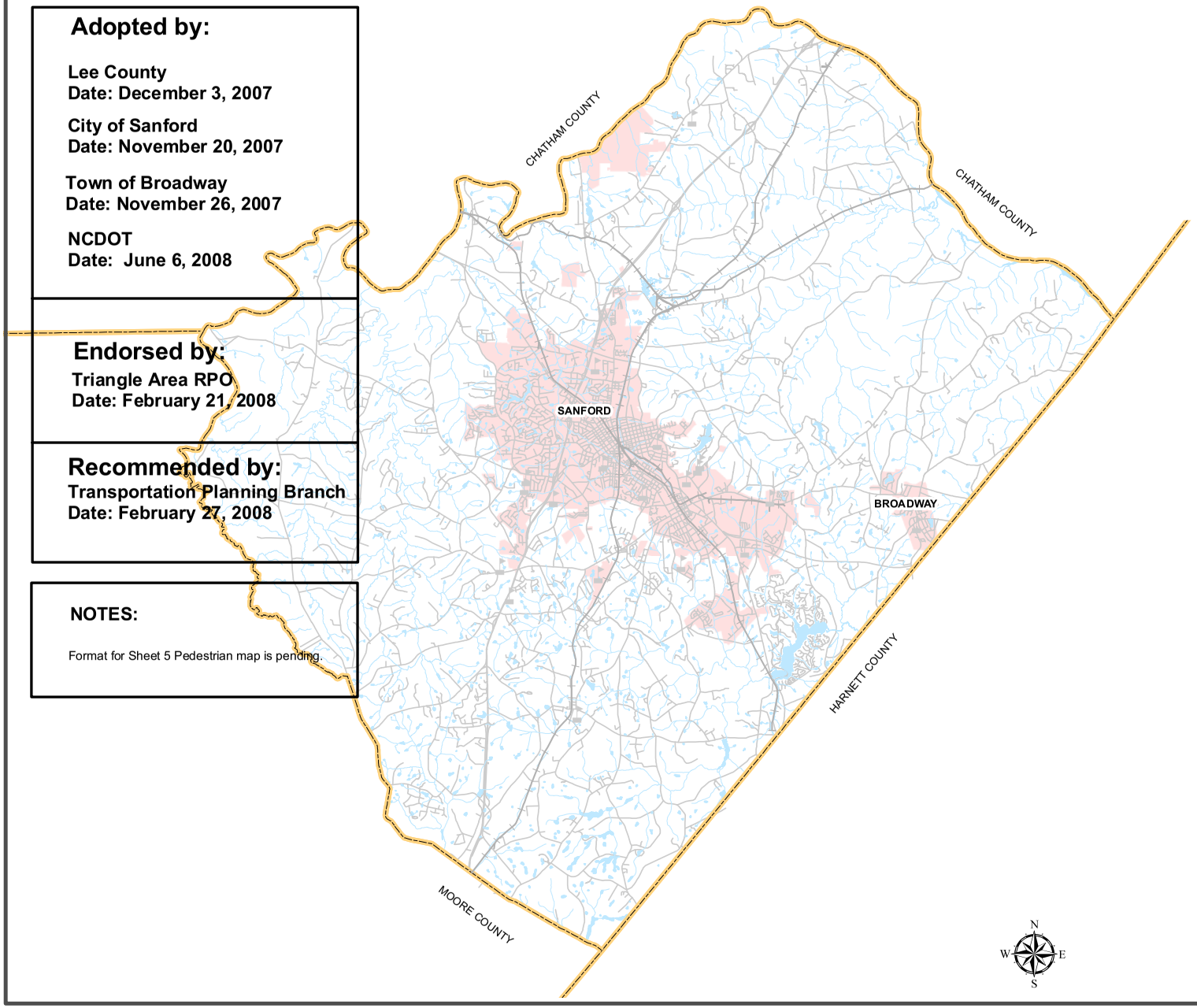
**Triangle Area RPO**
**Date: February 21, 2008**

## Recommended by:

**Transportation Planning Branch**
**Date: February 27, 2008**

**NOTES:**

Format for Sheet 5 Pedestrian map is pending.




## Figure 1, Sheet 1

# LEE COUNTY

### Comprehensive Transportation Plan

Plan date: October 8, 2007

| | |
|---|---|
| Sheet 1 | **Adoption Sheet** |
| Sheet 2 | **Highway Map** |
| Sheet 3 | **Public Transportation and Rail Map** |
| Sheet 4 | **Bicycle Map** |
| Sheet 5 | **Pedestrian Map** |

**Legend**

- Airport
- Schools
- Railroad
- Roads
- Streams, Lakes
- Municipal Limits
- County Boundaries

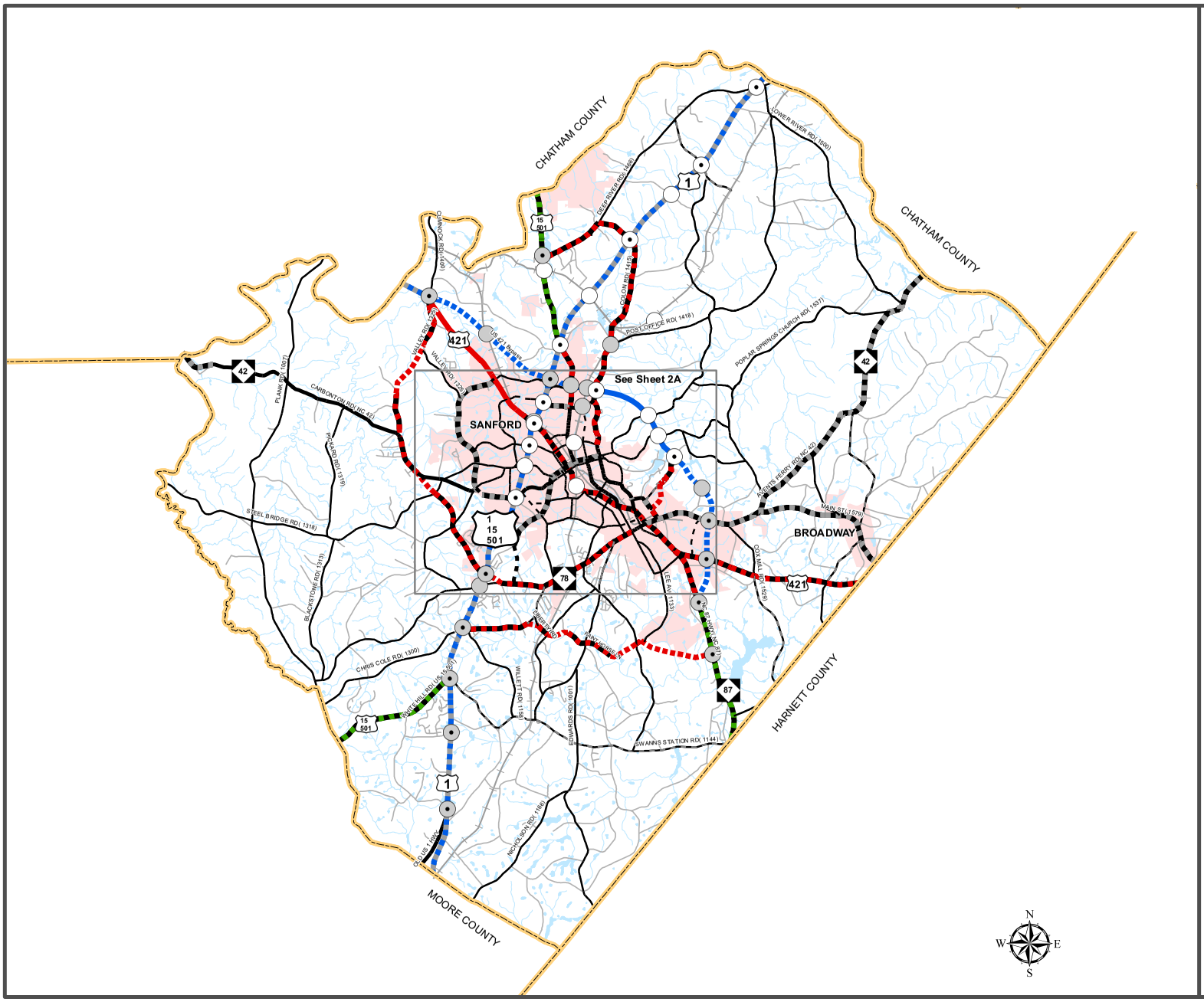
Miles
0 0.5 1 2 3

Sheet 1 of 5

*Base map date: January 2006*

Refer to CTP document for more details

Back of Figure




# Figure 1, Sheet 2
# Highway Map

## LEE COUNTY
### Comprehensive Transportation Plan

Plan date: October 8, 2007

Freeways
- Existing
- Needs Improvement
- Recommended

Expressways
- Existing
- Needs Improvement
- Recommended

Boulevards
- Existing
- Needs Improvement
- Recommended

Other Major Thoroughfares
- Existing
- Needs Improvement
- Recommended

Minor Thoroughfares
- Existing
- Needs Improvement
- Recommended

- Existing Interchange
- Proposed Interchange
- Existing Grade Separation
- Proposed Grade Separation

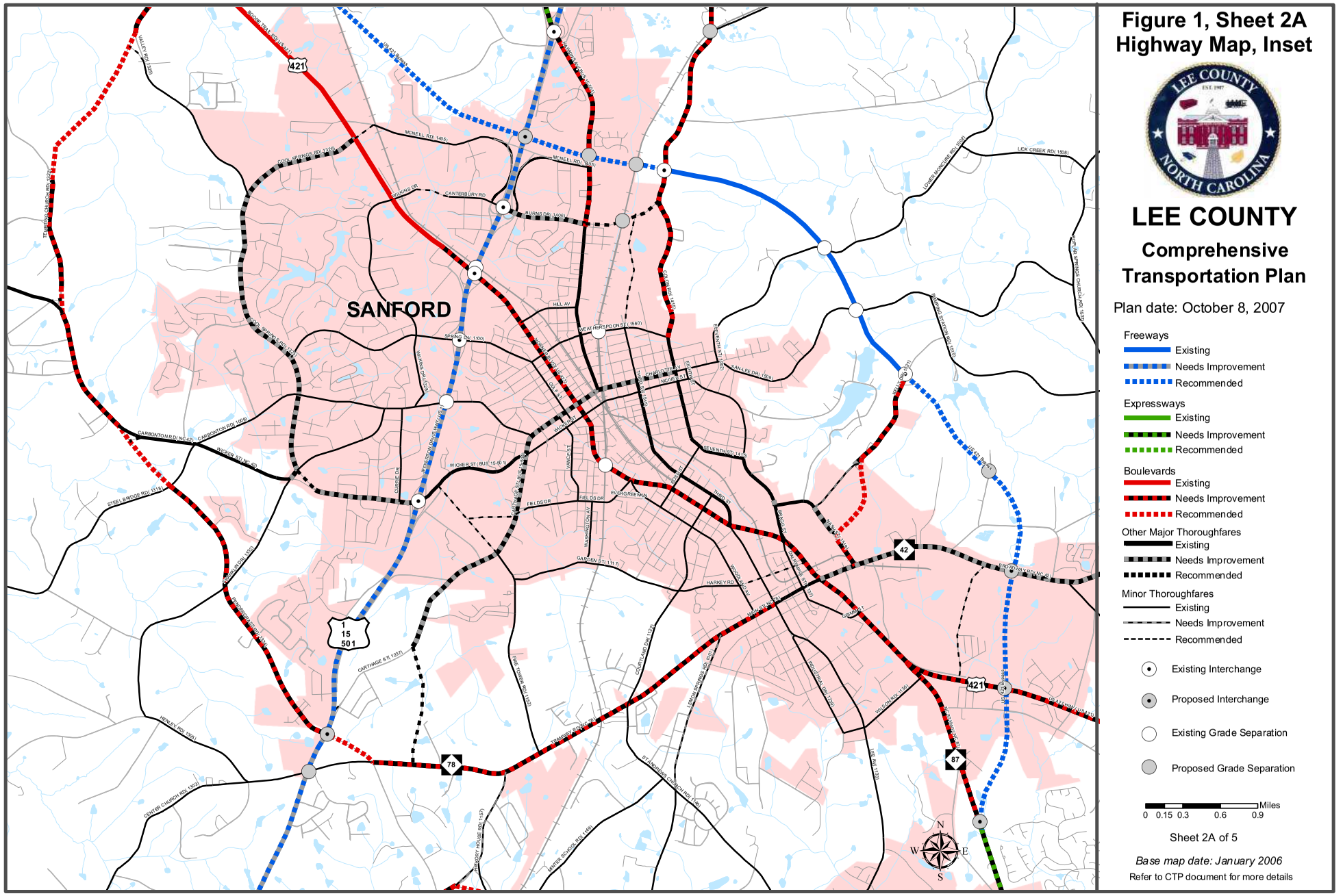
Miles
0 0.5 1 2 3

Sheet 2 of 5

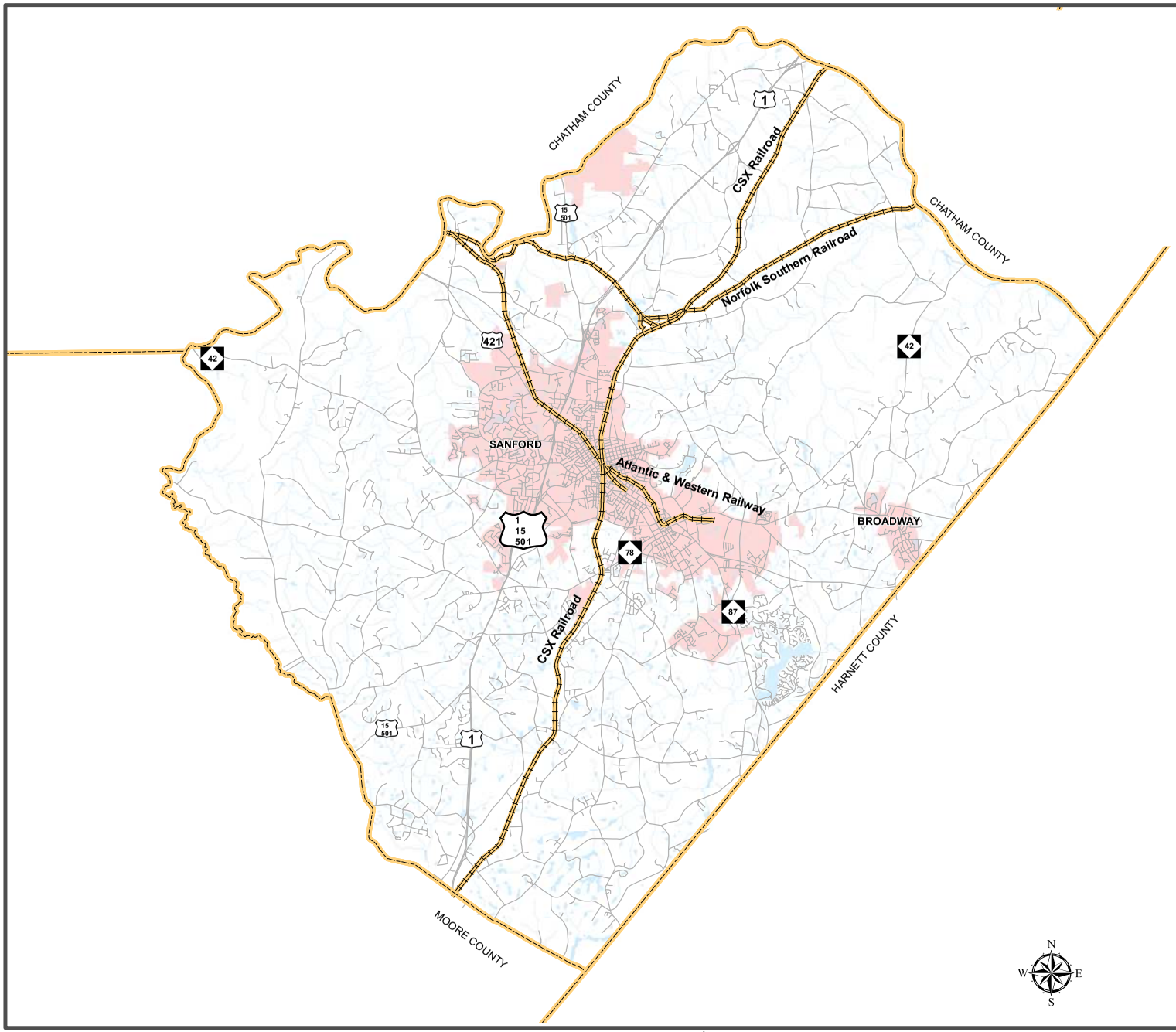
*Base map date: January 2006*

Refer to CTP document for more details

Back of figure


SANFORD
421
1
15
501
78
42
87
Figure 1, Sheet 2A
Highway Map, Inset
LEE COUNTY
Comprehensive
Transportation Plan
Plan date: October 8, 2007
Freeways
Existing
Needs Improvement
Recommended
Expressways
Existing
Needs Improvement
Recommended
Boulevards
Existing
Needs Improvement
Recommended
Other Major Thoroughfares
Existing
Needs Improvement
Recommended
Minor Thoroughfares
Existing
Needs Improvement
Recommended
Existing Interchange
Proposed Interchange
Existing Grade Separation
Proposed Grade Separation
Miles
0 0.15 0.3 0.6 0.9
Sheet 2A of 5
Base map date: January 2006
Refer to CTP document for more details

Back of figure




# Figure 1, Sheet 3
# Public Transportation and Rail Map

## LEE COUNTY
### Comprehensive Transportation Plan

Plan date: October 8, 2007

Bus Routes
- Existing
- Needs Improvement
- Recommended

Fixed Guideway
- Existing
- Needs Improvement
- Recommended

Operational Strategies
- Existing
- Needs Improvement
- Recommended

Rail Corridor
- Active
- Inactive
- Recommended

High Speed Rail Corridor
- Existing
- Recommended

Rail Stops
- Existing
- Recommended

Intermodal Connector
- Existing
- Recommended

Park and Ride Lot
- Existing
- Recommended

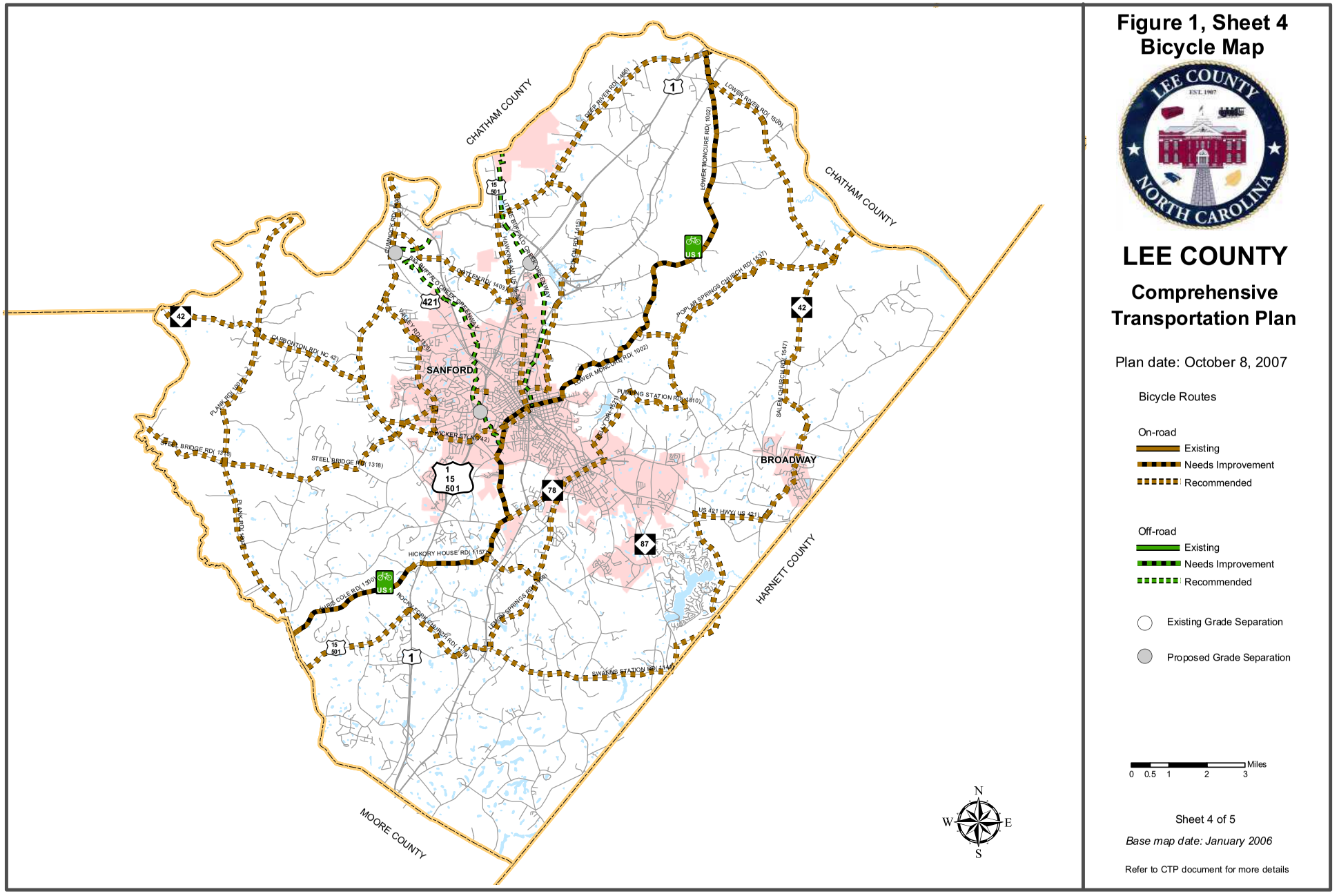
0 0.5 1 2 3 Miles

Sheet 3 of 5

*Base map date: January 2006*

Refer to CTP document for more details

Back of figure




# Figure 1, Sheet 4
# Bicycle Map

## LEE COUNTY

### Comprehensive Transportation Plan

Plan date: October 8, 2007

Bicycle Routes

On-road
- Existing
- Needs Improvement
- Recommended

Off-road
- Existing
- Needs Improvement
- Recommended

- Existing Grade Separation
- Proposed Grade Separation

Miles
0 0.5 1 2 3

Sheet 4 of 5

*Base map date: January 2006*

Refer to CTP document for more details

Back of figure

# I. Analysis of the Existing and Future Transportation System

A Comprehensive Transportation Plan (CTP) is developed to ensure that the progressively developed 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 Comprehensive Transportation Plan (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.

## *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 desires. 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 such as pavement widths, intersection geometry, and intersection controls; or system problems, such as the need to construct missing travel links, bypass routes, loop facilities, additional radial routes or infrastructure improvements to meet statewide initiatives.

One of those statewide initiatives is the Strategic Highway Corridor (SHC) Vision Plan adopted by NC DOT on September 2, 2004 and last revised on July 10, 2008. The SHC vision plan represents a timely initiative to protect and maximize the mobility and connectivity on a core set of highway corridors throughout North Carolina, while promoting environmental stewardship through maximizing the use of existing facilities to the extent possible, and fostering economic prosperity through the quick and efficient movement of people and goods.

The primary purpose of the SHC vision plan is to provide a network of high-speed, safe, reliable highways throughout North Carolina. The primary goal to support this purpose is to create a greater consensus towards the development of a genuine vision for each Corridor – specifically towards the identification of a desired facility type (Freeway, Expressway, Boulevard, or Thoroughfare) for each corridor. Individual Comprehensive Transportation Plans shall incorporate the long-term vision of each Corridor. Refer to Appendix A for contact information.

In the development of this plan, travel demand was projected from 2003 to 2035 using a trend line analysis based on Annual Average Daily Traffic (AADT) from 1983 to 2003. 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 CTP committee members in April of 2006.

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 1 and 2 for existing and future capacity deficiencies.

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;
- 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 express dissatisfaction. The practical capacity for each roadway was developed based on the 2000 Highway Capacity Manual. 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 Analysis

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. A crash analysis was performed for the Lee County CTP for crashes occurring in the planning area between January 1, 2003 and December 31, 2005. During this period, a total of 62 intersections were identified as having ten or more crashes, as illustrated in Figures 3, 4 and 5. Refer to Appendix F for a detailed crash analysis.

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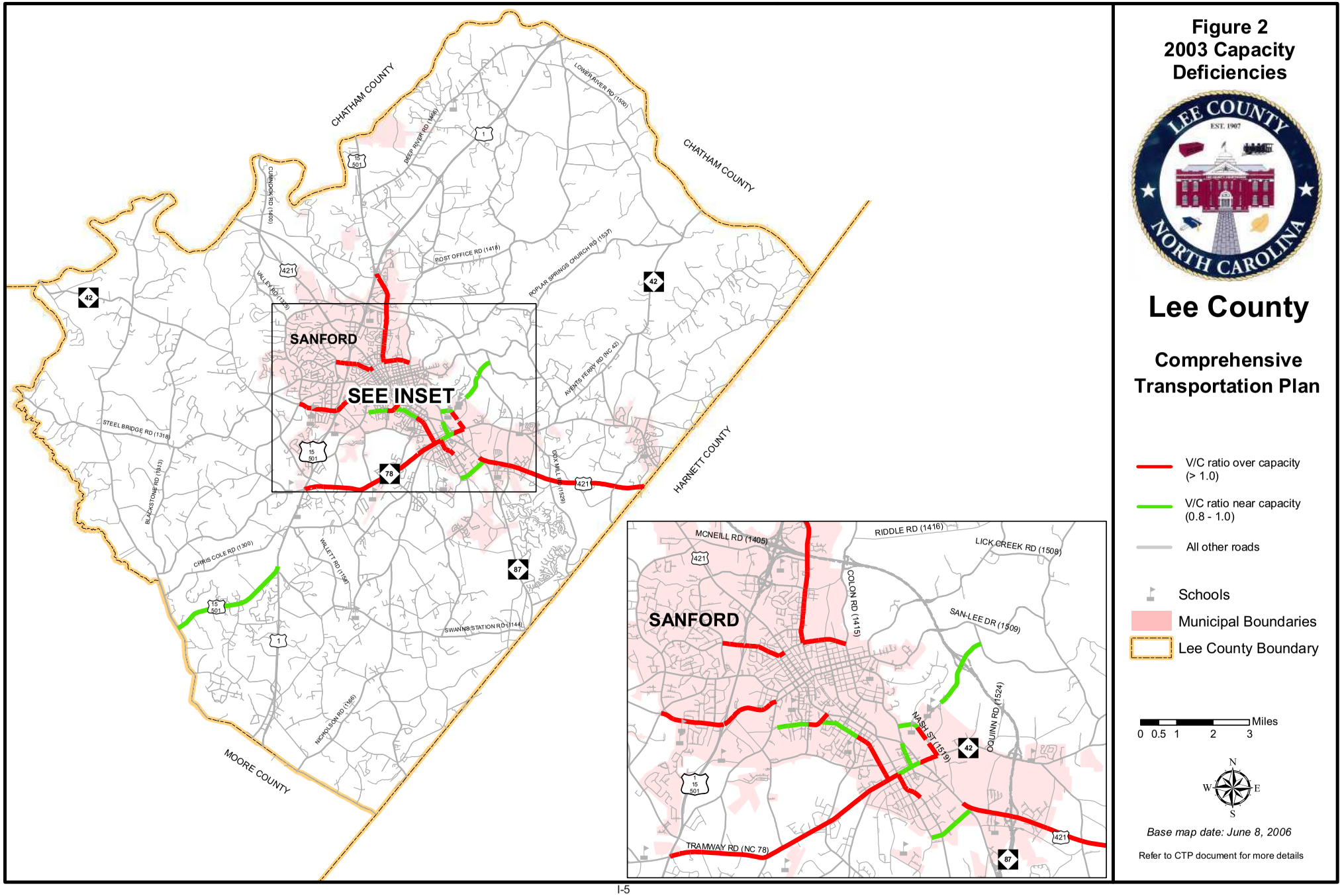


# Figure 2
# 2003 Capacity Deficiencies

## Lee County

### Comprehensive Transportation Plan

- V/C ratio over capacity (> 1.0)
- V/C ratio near capacity (0.8 - 1.0)
- All other roads
- Schools
- Municipal Boundaries
- Lee County Boundary

Miles
0 0.5 1 2 3

N
W E
S

*Base map date: June 8, 2006*

Refer to CTP document for more details

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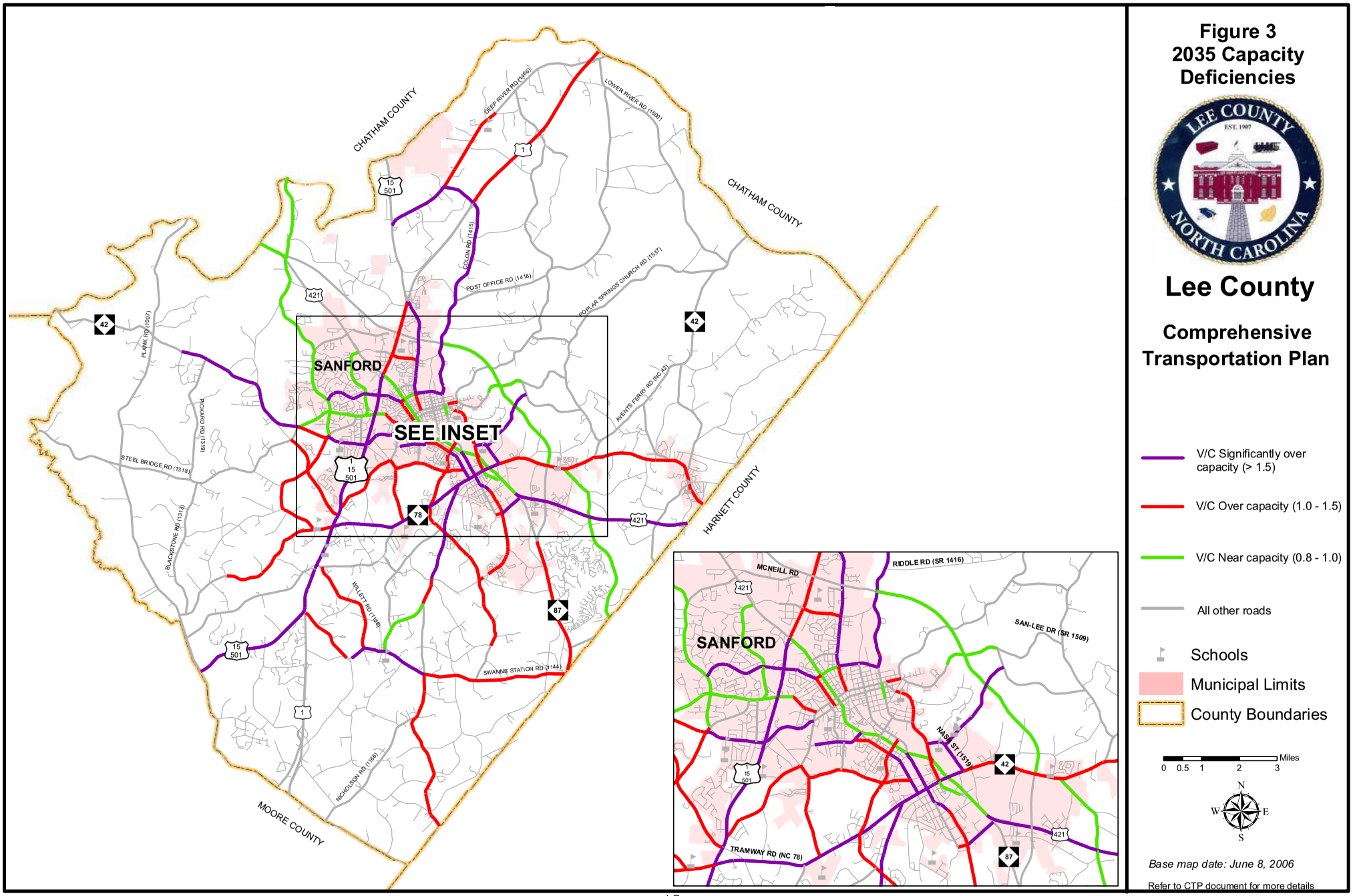



# Figure 3
# 2035 Capacity Deficiencies

## Lee County

### Comprehensive Transportation Plan

- V/C Significantly over capacity (> 1.5)
- V/C Over capacity (1.0 - 1.5)
- V/C Near capacity (0.8 - 1.0)
- All other roads
- Schools
- Municipal Limits
- County Boundaries

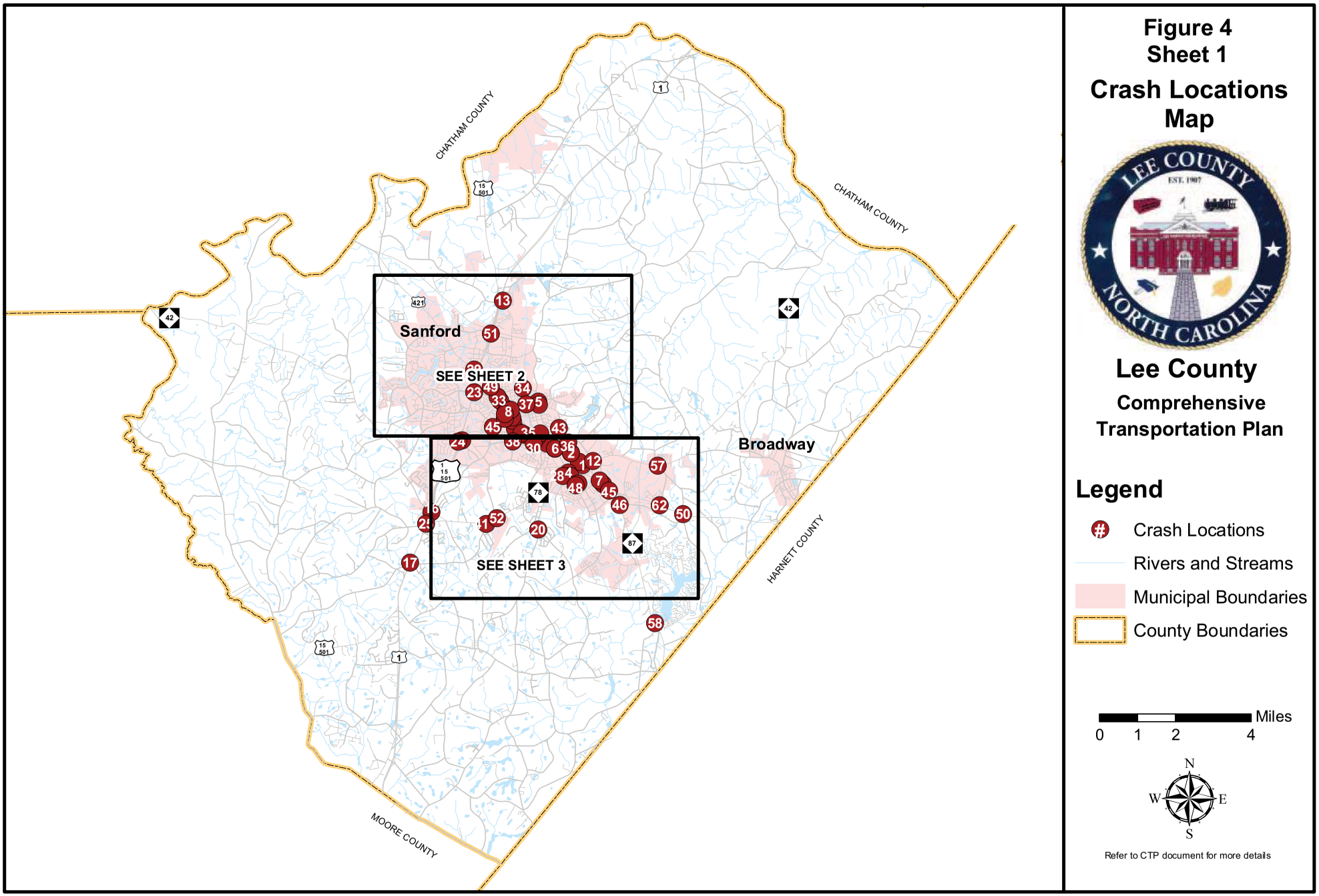
Miles
0 0.5 1 2 3

N
W E
S

*Base map date: June 8, 2006*

Refer to CTP document for more details

Back of Figure




# Figure 4
# Sheet 1
# Crash Locations Map

## Lee County
### Comprehensive Transportation Plan

## Legend

- Crash Locations
- Rivers and Streams
- Municipal Boundaries
- County Boundaries

Miles
0 1 2 4

N
W E
S

Refer to CTP document for more details

Back of Figure

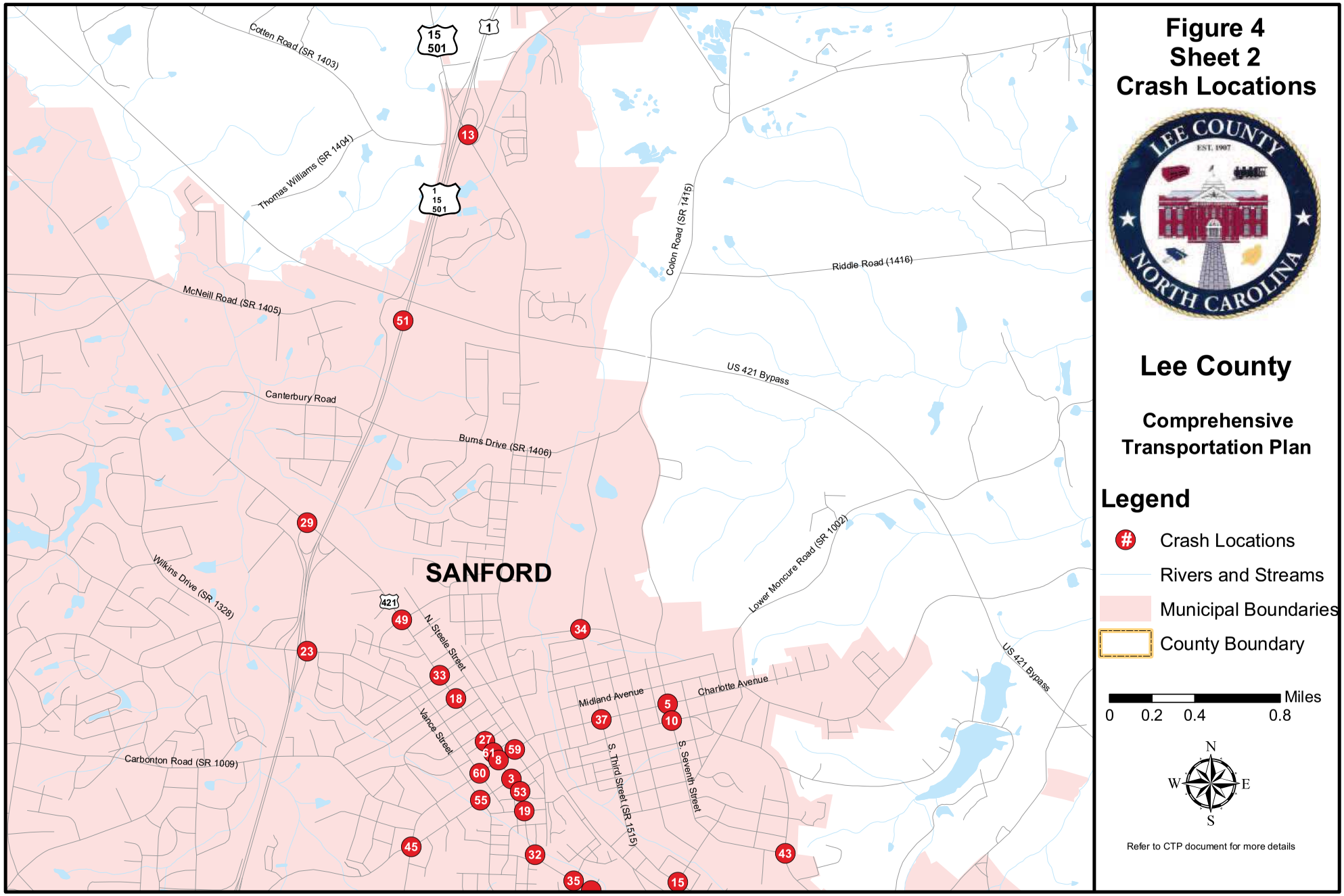
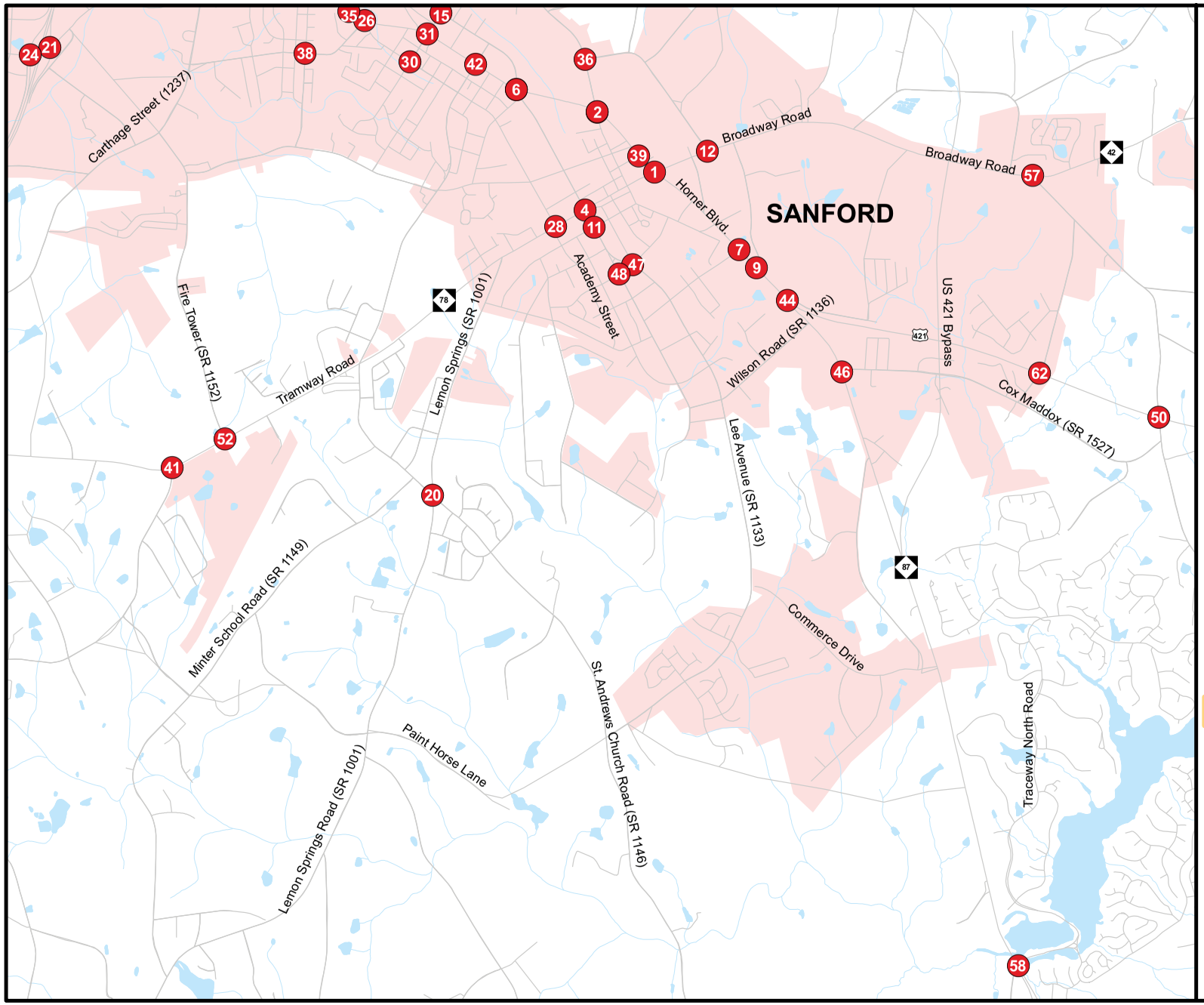


Figure 4
Sheet 2
Crash Locations
Lee County
Comprehensive Transportation Plan
Legend
Crash Locations
Rivers and Streams
Municipal Boundaries
County Boundary
Miles
0 0.2 0.4 0.8
N
W E
S
Refer to CTP document for more details
SANFORD
Cotten Road (SR 1403)
Thomas Williams (SR 1404)
McNeill Road (SR 1405)
Canterbury Road
Burns Drive (SR 1406)
Wilkins Drive (SR 1328)
Carbonton Road (SR 1009)
Colon Road (SR 1415)
Riddle Road (1416)
US 421 Bypass
Lower Moncure Road (SR 1002)
N. Steele Street
Vance Street
Midland Avenue
Charlotte Avenue
S. Third Street (SR 1515)
S. Seventh Street
15 501
1
421
13
51
29
23
49
33
18
34
37
5
10
27
61
8
59
60
3
53
55
19
45
32
35
15
43

Back of Figure




# Figure 4
# Sheet 3
# Crash Locations

## Lee County

**Comprehensive Transportation Plan**

## Legend

- Crash Locations
- Rivers and Streams
- Municipal Boundaries
- County Boundaries

Miles
0 0.25 0.5 1

N W E S

Refer to CTP document for more details

Back of Figure

Bridge Deficiency Assessment

Bridges are a vital and unique 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 Structure 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. Fifteen deficient bridges were identified within the planning area and are illustrated in Figure 6. Refer to Appendix G for more detailed information.

### *Public Transportation and Rail*

Public transportation and rail are vital modes of transportation that give alternative options 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, the NCDOT Board of Transportation is encouraging single-county systems 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 are at work 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 and throughout the United States and Canada. Greyhound/Carolina Trailways operates 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. Public transportation in Lee County is provided by the County of Lee Transportation System (COLTS) and is based on a demand-response model. COLTS contracts with human services agencies in Lee County and is available to the public. Funding comes from multiple sources, including NCDOT, Federal, local county resources and the public. All recommendations for public transportation were coordinated with the local governments and the Public Transportation Division of NCDOT. Refer to Appendix A for contact information.

Rail

Today, North Carolina has 3,684 miles of railroad tracks throughout the state. There are two types of trains that operate in the state, passenger trains and freight trains.

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. Combined, the Carolinian and Piedmont carry more than 200,000 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 20 smaller freight railroads, known as shortlines.

CTP recommendations and mapping for Public Transportation and Rail modes were limited to the existing railroad corridors owned by CSX, Norfolk Southern, and the Atlantic & Western Railway Companies.

An inventory of existing and planned rail facilities for the planning area is presented on Sheet 4 of Figure 1. All recommendations for rail were coordinated with the local governments and the Rail Division of NCDOT. Refer to Appendix A for contact information.

### *Bicycles & Pedestrians*

Bicyclists and pedestrians are a growing part of the transportation equation 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 upon and 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 the 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 facilities for the planning area are presented on Sheets 3 of Figure 9. A portion of the US 1 Bike Route, an on-road designated bike route which runs from Maine to Florida, passes through Lee County. The route takes riders through historically significant areas as well as several parks and other recreational facilities. Refer to Appendix A for contact information.

### *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 *Sanford and Lee County 2020 Land Use Map* was used and is illustrated in Figure 7.

Lee County and its municipalities are expected to maintain the historical trends of moderate growth well into the CTP study period based on the *Sanford & Lee County 2020 Land Use Plan (1999)*. For the county, the population growth rate has remained close to two percent yearly, which translates to the addition of approximately 1,000 people each year. This growth is considered to be primarily migratory in nature. The City of Sanford has experienced a fairly robust annual growth rate of approximately 22 percent. However, this takes into account the continued occurrence of annexation through the years.

It is important to note that municipal growth rates can be skewed by the annexation of county land since newly recruited county residents are calculated as part of municipal growth even though the residents have resided in a stationary location. Likewise, population projections through the year 2020 reflect a consistent trend

and show the county maintaining a two percent growth rate while Sanford is once again expected to experience a higher growth rate due mostly to annexation.

In regards to transportation and land use planning, community visions and goals clearly expressed the stakeholders' focus on the preservation of local character and community identity in light of the impacts of existing urban sprawl, arterial congestion and regional air quality. Lee County and the City of Sanford identified key issues such as promoting density through revitalization and in-fill within the urban cores using transportation options and multi-modal application to enhance the quality of life, increase bicycle and pedestrian opportunities for residents, and provide sustainable communities with attractive public spaces.

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 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.
- Mixed Use: 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.

Fort Bragg is expected to draw roughly 40,000 military personnel, dependents, civilians and contractors to the region. Commercial and residential development in and around Sanford and Broadway, due to military growth, is expected to place added demands on Lee County's roadway system, but particularly along NC 87 which is considered the "Main Street" entrance to Fort Bragg.

With recent and planned military base closings and consolidations, Fort Bragg is expected to become the largest military base in the world, reaching up to 65,000 soldiers and employees on call for world-wide crisis response. The magnitude of this operation opens opportunities for both growth and economic development within Lee County and the state of North Carolina.

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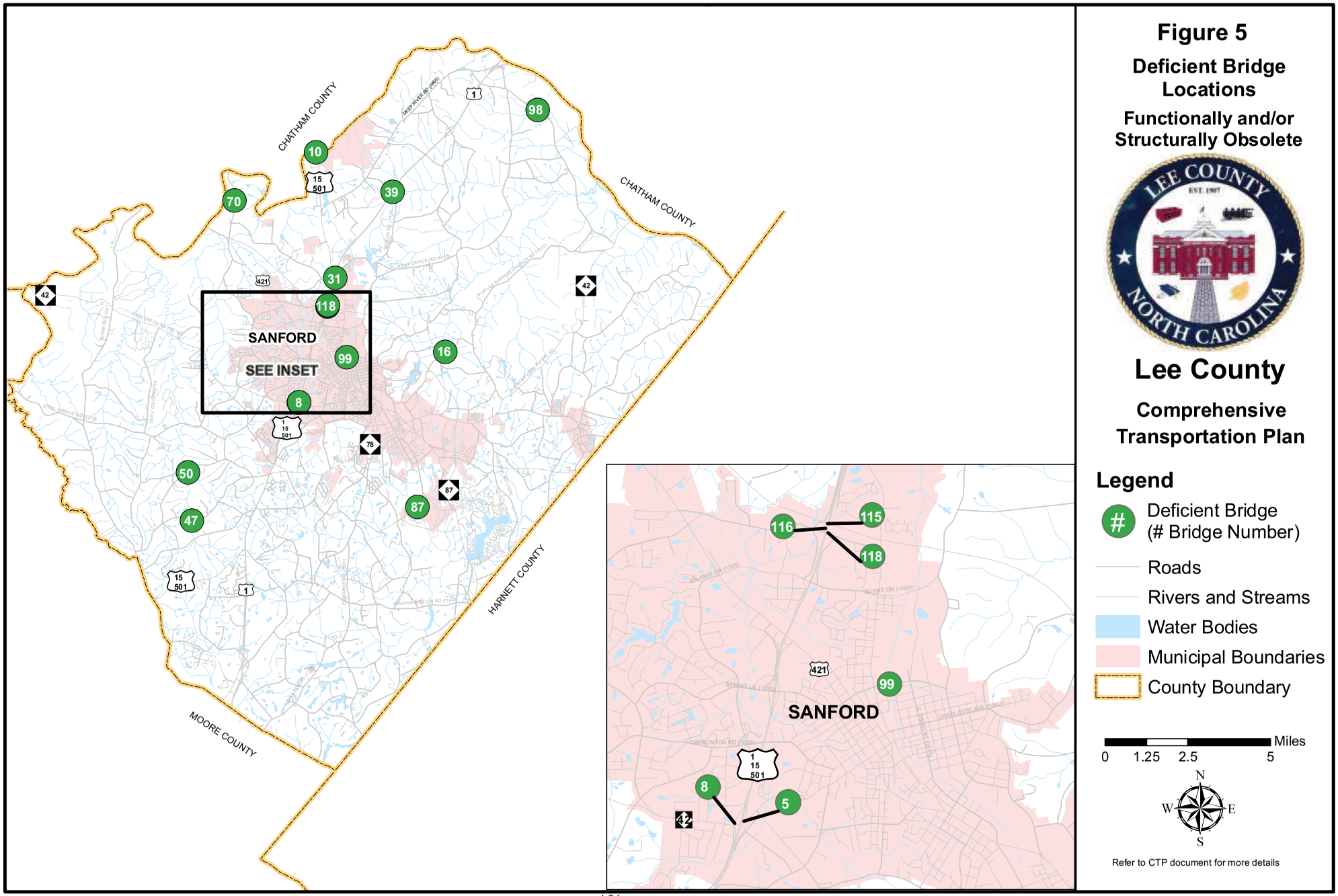

CHATHAM COUNTY
CHATHAM COUNTY
HARNETT COUNTY
MOORE COUNTY
SANFORD
SEE INSET
SANFORD
10
98
70
39
31
118
99
16
8
50
47
87
87
116
115
118
99
8
5
Figure 5
Deficient Bridge Locations
Functionally and/or Structurally Obsolete
Lee County
Comprehensive Transportation Plan
Legend
Deficient Bridge (# Bridge Number)
Roads
Rivers and Streams
Water Bodies
Municipal Boundaries
County Boundary
Miles
0 1.25 2.5 5
N
W E
S
Refer to CTP document for more details

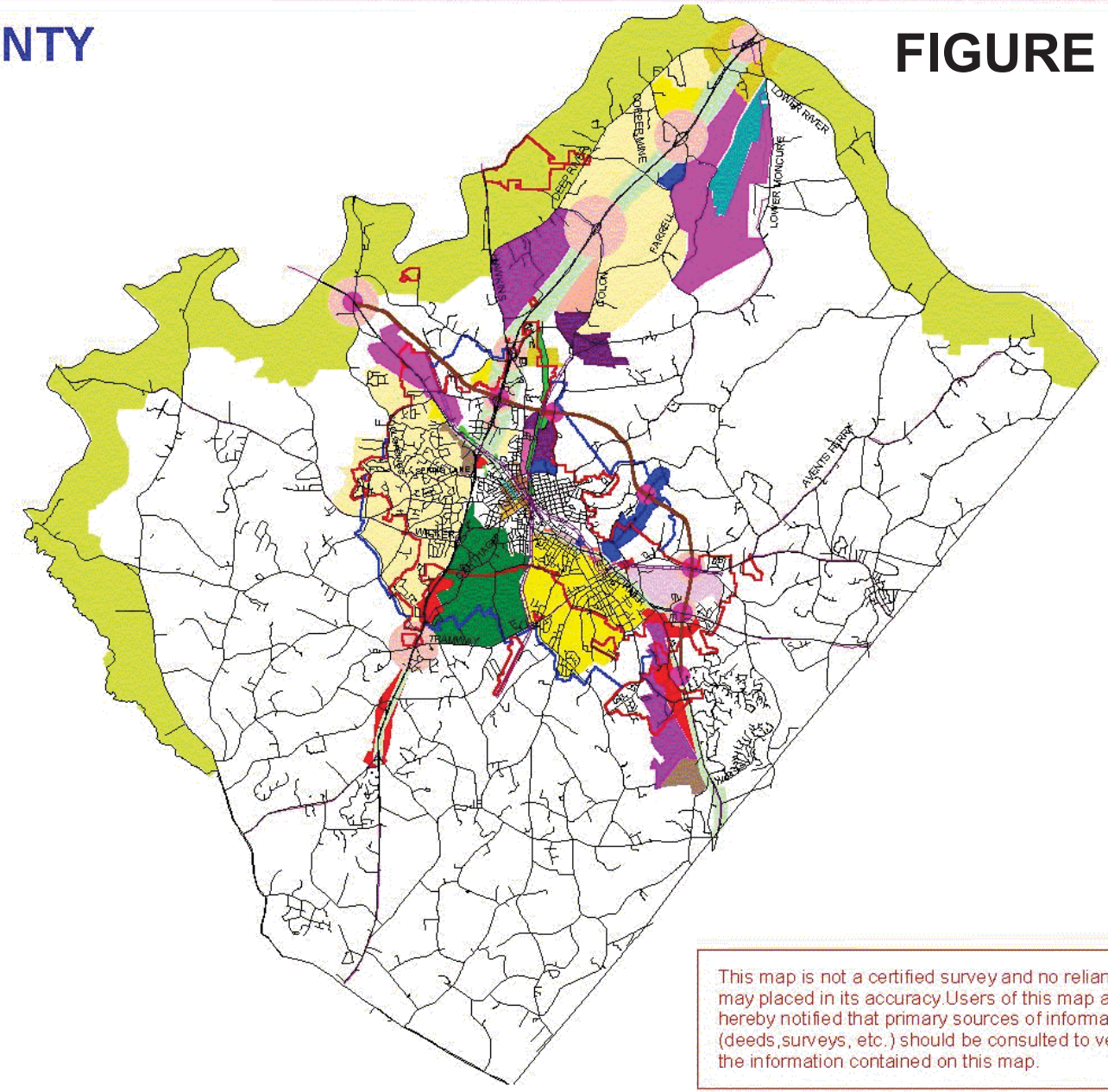
Back of Figure

# SANFORD & LEE COUNTY

# 2020

## LAND USE MAP

**FIGURE 6**




### LEGEND

- Streets
- Rail road
- US Highway 421bypass
- Extra Territorial Juridiction
- City limits
- Interchange/Highway Node
- Highway overlay
- Ressdential/Agricultural
- Open space/Greenways
- Low/Mid Density Residential
- large lot SF(3 Acres Min.) Conservation Zone
- Mid/High Density Residential - Office
- Residential Mix (Single & Multi Family)
- Historic District
- Central Business District
- Commercial - High Density Residential
- Commercial Overlay District
- Retail-Commercial
- Commercial - Office &Institutional
- Office & Institutional Overlay District
- Office & Institutional
- Airport
- Light Industrial
- Commercial-Light Industrial
- Industrial-Commercial-Office
- Industrial Park
- Heavy Industrial

N
W E
S

10000 0 10000 20000 30000 Feet

Prepared by Sanford/Lee County Community Development Department- May 3, 1999

This map is not a certified survey and no reliance may placed in its accuracy.Users of this map are hereby notified that primary sources of information (deeds,surveys, etc.) should be consulted to verify the information contained on this map.

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## *Consideration of Natural and Human Environment*

In recent years, the environmental considerations have come to the forefront of the transportation planning process. Section 102 of the National Environmental Policy Act (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, 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 were examined as a part of this study is shown in the following tables utilizing the best available data. Environmental features occurring within Lee County are shown in Figure 8.

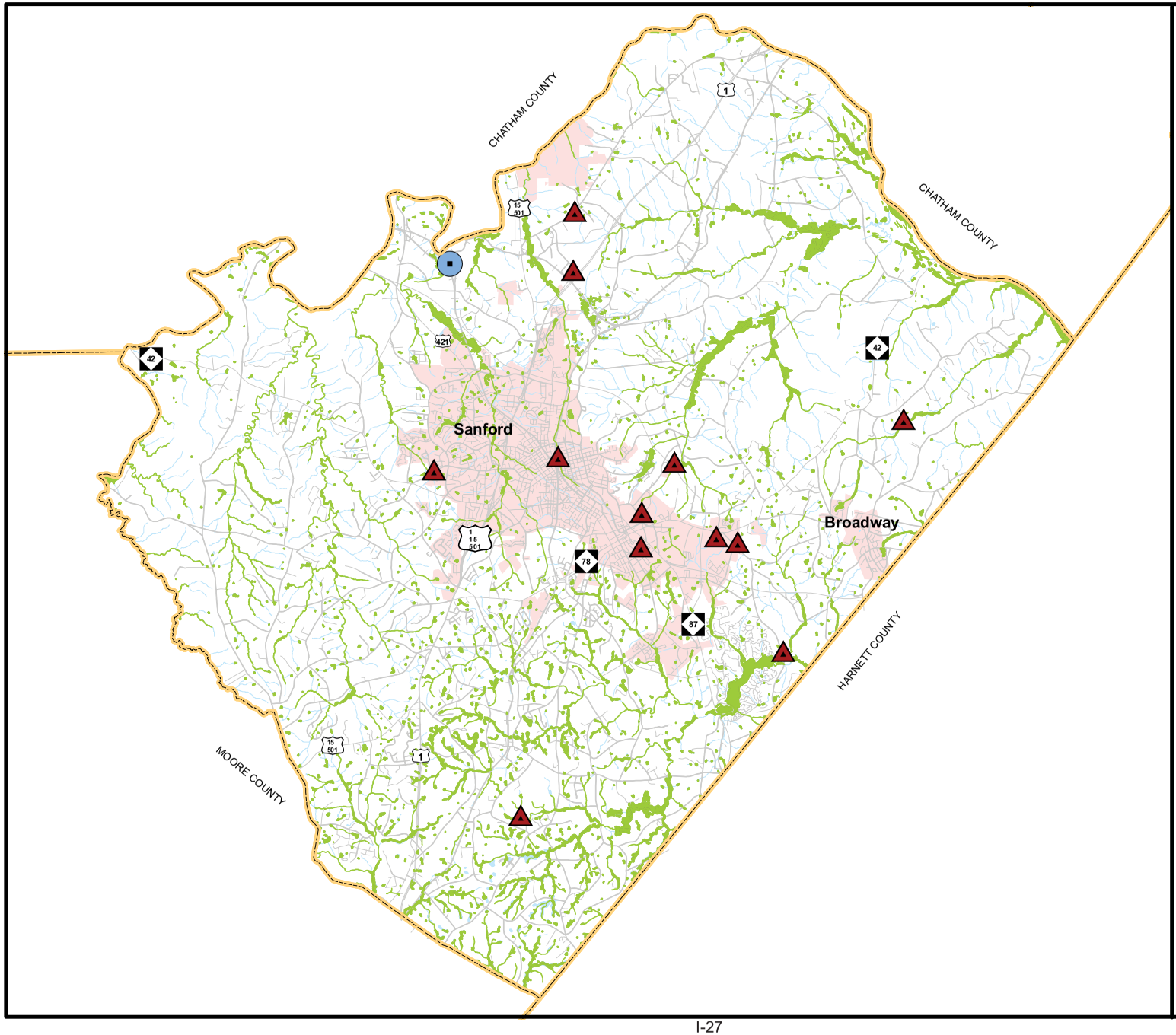
**Table 1 – Environmental Features**

- Airport Boundaries
- Anadromous Fish Spawning Areas
- Bike Routes (NCDOT)
- Colleges and Universities
- Conservation Tax Credit Properties
- Emergency Operation Centers
- Federal Land Ownership
- Fisheries Nursery Areas
- Geology (including Dikes and Faults)
- Hazardous Substance Disposal Sites
- Hazardous Waste Facilities
- High Quality Water and Outstanding Resource Water Management Zones
- Hospital Locations
- Hydrography (1:24,000 scale)
- Land Trust Priority Areas
- National Heritage Element Occurrences
- National Wetlands Inventory
- Railroads (1:24,000 scale)
- Recreation Projects – Land and Water Conservation Fund
- Sanitary Sewer Systems – Discharges, Land Application Areas, Pipes, Pumps and Treatment Plants
- Schools – Public and Non-Public
- Significant Natural Heritage Areas
- State Parks
- Submersed Rooted Vasculars
- Target Local Watersheds - EEP
- Trout Streams (DWQ)
- Trout Waters (WRC)
- Water Distribution Systems – Pipes, Pumps, Tanks, Treatment Plants, and Wells
- Water Supply Watersheds
- Wild and Scenic Rivers

Additionally, the following environmental features were considered but are not mapped due to restrictions associated with the sensitivity of the data.

**Table 2 – Restricted Environmental Features**

- Archaeological Sites
- Historic National Register Districts
- Historic National Register Structures
- Macrosite Boundaries
- Managed Areas
- Megasite Boundaries




# Figure 7

## Environmental Screening Map

## Lee County

### Comprehensive Transportation Plan

### Legend

- County Boundary
- Sanitary Sewer
- Haz. Substance Disposal Sites
- Wetlands
- Roads
- Rivers and Streams
- Municipal Boundaries

Miles
0 1 2 4

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Refer to CTP document for more details

Back of Figure

## *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.

After a request made by the Triangle Area RPO for the development of a Comprehensive Transportation Plan (CTP) for Lee County, a meeting was held with the Lee County Board of Commissioners in January of 2005 to formally initiate the study. The initial meeting provided an overview of the transportation planning process and served to gather input on area transportation needs.

The development of the CTP study and plan recommendations was a cooperative effort between NCDOT, Lee County, its municipalities and the Triangle Area Rural Planning Organization. Stakeholder, as well as participation by the general public, was an integral part of the CTP process. Opportunities for stakeholder and public input and endorsement were scheduled into each stage of the plan including the collection of data, identification of facility deficiencies and project selection by means of mass surveys, public presentations, as well as open forums and meetings with representative officials.

Throughout the course of the study, the Transportation Planning Branch cooperatively worked with a Comprehensive Travel Plan Committee, which included representatives from the county and its municipalities, including elected officials, staff, the Triangle Area RPO and others, to provide information on current local plans, to develop transportation vision and goals, to discuss population and employment projections, and to develop proposed CTP recommendations.

The public involvement process included holding a public drop-in session to present the proposed Comprehensive Transportation Plan to the public and solicit comments. This meeting was held on October 18, 2007 in the Sanford City Council Chambers. The session was publicized and held from 6:00 to 8:00 p.m. with a formal presentation.

The Lee County Commissioners adopted the Lee County CTP at their regular meeting on December 3, 2007.

The Triangle Area RPO endorsed the CTP on February 21, 2008. North Carolina Department of Transportation mutually adopted the Lee County CTP on June 6, 2008.

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# II. Recommendations

This report documents the development of the 2008 Lee County CTP as shown in Figure 1. This chapter presents recommendations for each mode of transportation in the county. Refer to Appendix K for documentation of project alternatives and scenarios that were studied, but are not included in the adopted CTP.

### *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 Comprehensive Transportation Plan should be consistent with the other elements.

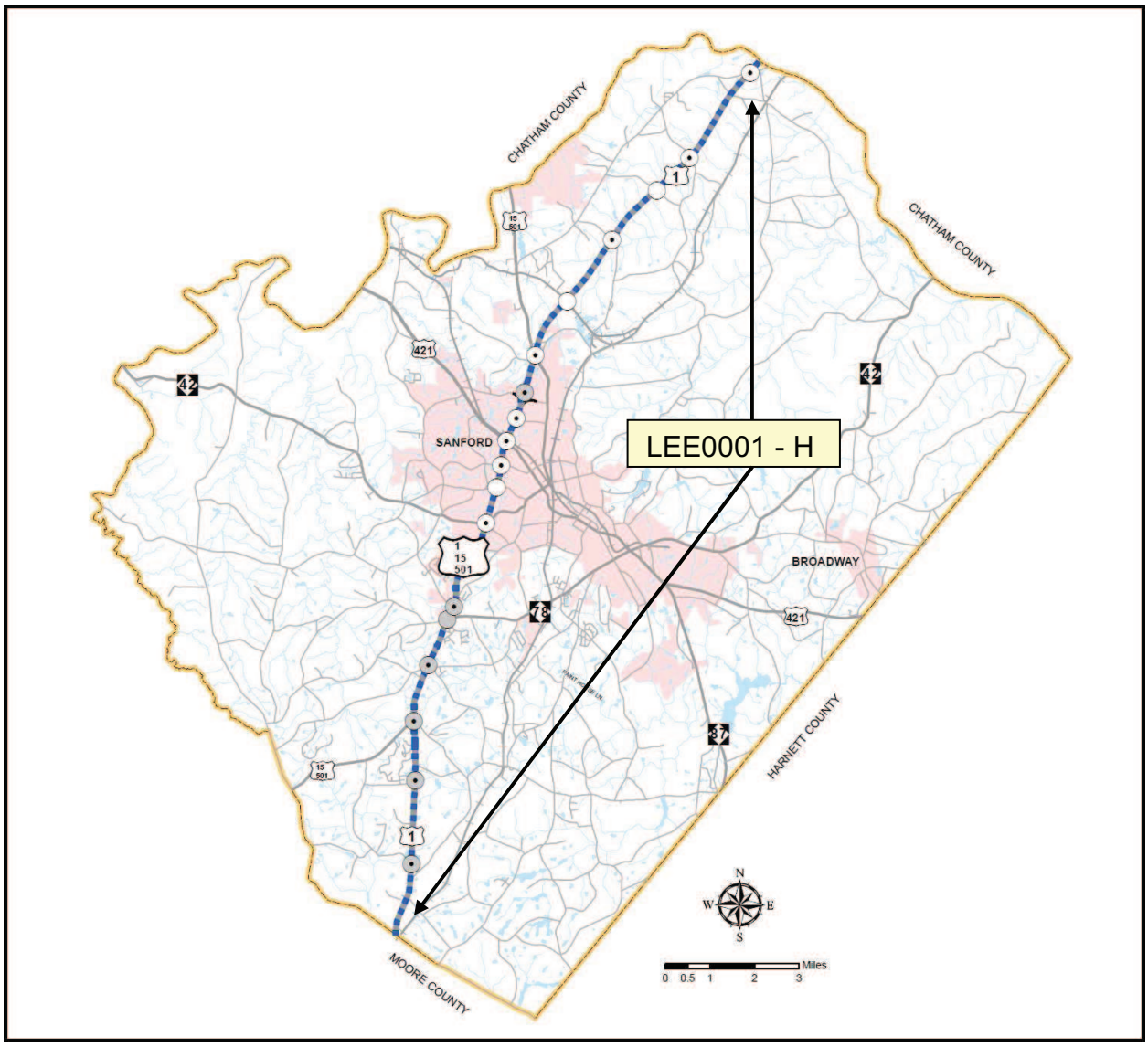
Initiative for implementing the CTP rests predominately with the policy boards and citizens of the County and its municipalities. As transportation needs throughout the State exceed available funding, it is imperative that the local planning area aggressively pursue funding for priority projects. Projects should be prioritized locally and submitted to the Triangle Area RPO for regional prioritization and submittal to NCDOT. Refer to Appendix A for contact information on funding. Local governments may use the CTP to guide development and protect corridors for the recommended projects. It is critical that NCDOT and local government coordinate on relevant land development reviews and all transportation projects to ensure proper implementation of the CTP. Local governments and the North Carolina Department of Transportation share the responsibility for access management and the planning, design and construction of the recommended projects.

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 (SEPA). This CTP may be used to provide information in the NEPA/SEPA process.

The following pages contain problem statements for each recommendation, organized by CTP modal element.

## HIGHWAY

| US 1 Improvements | Local ID: LEE0001-H |
|---|---|




### Identified Problem

The primary purpose for improvements to US 1 is to maintain mobility in compliance with the state's Strategic Highway Corridors Vision Plan. Under 2004 conditions, no segment of US 1 within Lee County reflected a deficiency between demand and roadway capacity. Traffic projections indicated volumes exceeding LOS D in 2035 for portions of US 1 north of US 15-501.

## Justification of Need

US 1 has been identified as a Strategic Highway Corridor (SHC) and is a major north-south highway that connects Lee County regionally with destinations north through Chatham and Wake Counties to Virginia as well as south to destinations in Moore County and South Carolina. US 1 also joins other major highway facilities such as I-440, US 401, and US 15-501 along its route. The facility is considered a crucial route for both Lee County and North Carolina.

Today, the majority of US 1 has a 4-lane, median-divided cross section in Lee County: north of its intersection with NC 42, US 1 is a freeway; from NC 42 to the US 15-501 South split, US 1 is a boulevard; and south of US 15-501 South split, US 1 is an expressway. In the study year 2004, the traffic volumes on US 1 range from 11,000 vehicles per day (vpd) to 29,000 vpd. Since the current capacity of US 1 ranges between 42,800 to 50,600 vpd, there is no segment of the existing facility under 2004 conditions that is over capacity.

However, traffic volumes projected to 2035 reflect roadway capacity deficiencies along segments of US 1 north of US 15-501. These traffic volumes range between 53,000 and 84,000 vpd for this segment of US 1 in study year 2035. The proposed 6-lane cross section would have a capacity of approximately 90,000 vpd and should mitigate all facility deficiencies for the study year.

## Community Vision and Problem History

US 1 improvements and upgrades play an important role in addressing the communities' needs. Based upon study analysis and future projections, US 1 is classified as a freeway in the state's Strategic Highway Corridors Vision Plan and portions of the facility are recommended to have a 6-lane divided cross section. Typically, roadways with freeway classification provide the safest, most efficient travel due to the absence of conflict points from side street and driveway entrances. The lack of access interruption to the traffic flow also reduces local emissions and improves regional air quality.

For those sections of US 1 already under freeway classification, US 1 allows Lee County users direct access to high-speed, free-flow regional connectivity. With five Sanford interchanges, US 1 draws congestion from Sanford's central core and US 1 Bus. route along multiple collectors. This allows other recommendations for future transportation improvements within the commercial and business districts to promote the mixed-use density and character called for in the *Sanford & Lee County 2020 land Use Plan (1999).*

The segments of US 1 which have remained classified as boulevard have also been identified as having the most serious traffic and safety issues in Lee County. These are related primarily to the heavy traffic volumes and congested intersections along US 1 from NC 42 to the US 15-501 South split, and the recommended improvements to US 1 may help alleviate these problems.

In June of 2006, corridors in Lee County were identified for safety analysis based on the most recent statewide crash rates at the time, 2001-2003. Two segments of US

1 were examined: US 1 from Rocky Fork Church Road (SR 1179) to Sanford's southern city limits and US 1 from the southern city limits to northern city limits.

Neither segment exceeded the statewide Crash Rate for Primary Routes at that time. However, US 1 from Rocky Fork Church Road (SR 1179) to Sanford's southern city limits approached the statewide thresholds. With the recommended CTP improvements to US 1 and upgrade to freeway classification, crash rates along these segments of US 1 should be expected to decrease dramatically due to the removal of conflict points at facility accesses.

## CTP Project Proposal

### Project Description and Overview

The US 1 CTP recommendations call for improvements along the corridor as follows:

1. From the Chatham County line to the US 15-501 South split, US 1 is recommended as a 6-lane freeway facility.
2. From NC 42 to the Moore County Line, US 1 is recommended as a 4-lane freeway with interchanges at Pendergrass Road (SR 1334)/Tramway Road (NC 78) realignment, Hickory House Road (SR 1157), US 15-501, and Old US 1.
3. A grade separation is recommended with NC 78 (refer to NC 78 Project Statement).

The addition of one northbound and one southbound through lane is necessary to mitigate facility deficiencies projected in the study year 2035 north of NC 42. Therefore, the CTP project as proposed for the US 1 corridor adheres to the Strategic Highway Corridor Vision Plan upgrading the roadway facility, access management policies, and overall mobility of the corridor to meet the designated freeway classification.

### Linkages to Other Plans and Proposed Project History

The primary purpose for the development of this project and its recommendations is to bring US 1 into compliance with the Strategic Highway Corridor Vision Plan.

US 1 is also a primary focus in the Sanford Thoroughfare Plan Technical Report dated 1994. At the time of development, the thoroughfare plan outlined the lack of continuity along the US 1 corridor as the facility characteristics varied regarding cross sections and access management throughout Lee County. Recommendations included a multi-step schedule to improve US 1 to a 4-lane, divided freeway facility from just north of Sanford to Cary. Improvements to US 1 in southern Lee County were already underway at the time the 1994 thoroughfare plan was adopted.

### Relationship to Land Use Plans

There are significant commercial and residential developments zoned along the US 1 corridor in the *Sanford & Lee County 2020 Land Use Plan (1999)* north of its intersection with existing US 421. The plan shows these areas to be predominantly low to mid density residential as well as commercial and light industrial. These

zoning areas also surround the airport with small pockets of office, institutional, and industrial park intermixed along the corridor. South of US 421, residential density increases within the central districts of Sanford, but there is also a significant agricultural component preserved within Sanford's primary residential areas. Retail zoning along the US 1 corridor is mainly to the south of Sanford.

The US 1 corridor as proposed in the statewide Strategic Highway Corridor Vision Plan would ensure these residential and business centers are tactically serviced by local and regional connectivity; convenient access to a high speed facility; and a safe, efficient route for daily commuters. The US 1 proposed project would facilitate Lee County and the City of Sanford to develop in a manner consistent with their respective land use plan.

**Natural & Human Environmental Context**

In the general scope of the project, there are no significant impacts anticipated. However, the study did consider a bypass on new location that involved the Tramway area. This alternative was not carried forward due to the abundance of wetlands in the area and the preferences indicated by local stakeholders to upgrade the existing facility.

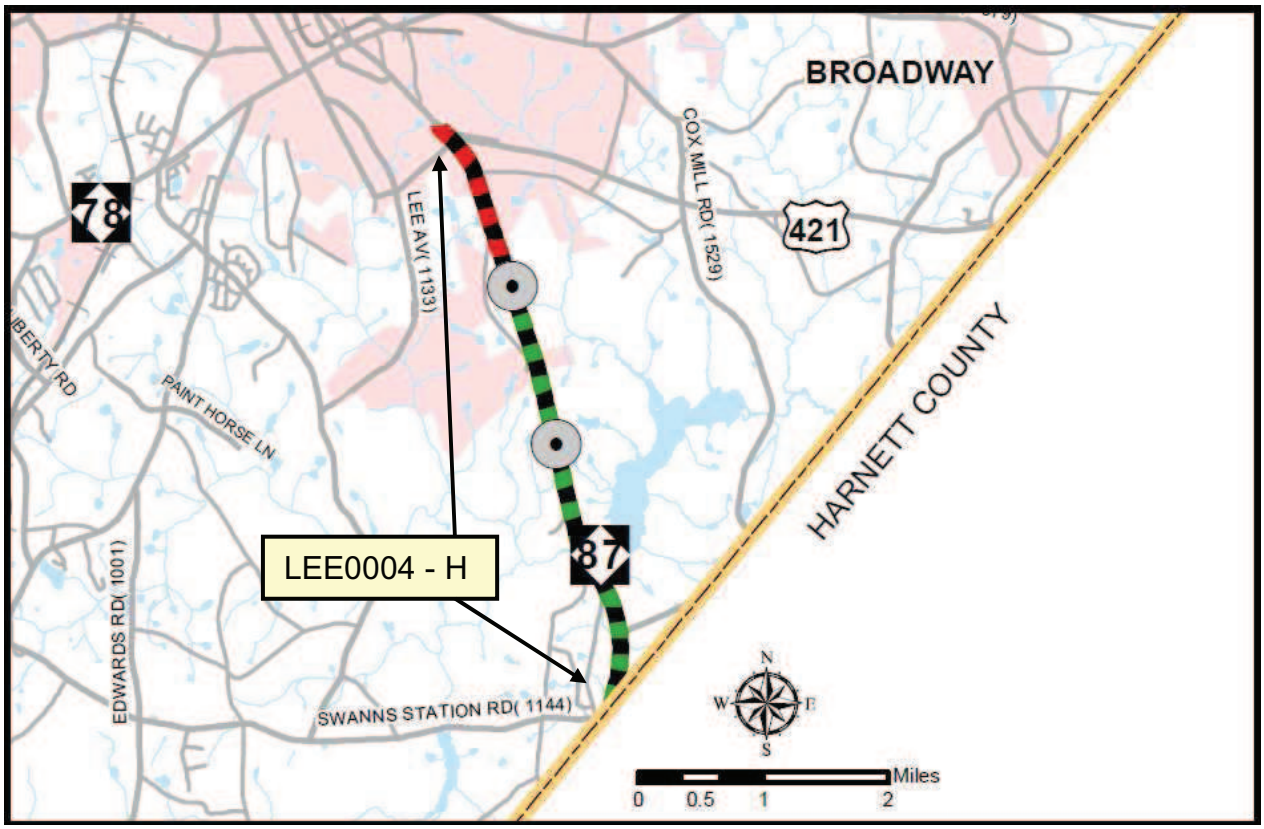
**Multi-modal Considerations**

Freeway facilities do not support shared use with bicycles and pedestrians due to the strict control of access and high speeds. Because US 1 is a vital route for commuters both locally and regionally, improvements to the facility could impact public transit.

**Public/ Stakeholder Involvement**

See Appendix H

| NC 87 Corridor improvements south of US 421 to county line | Local ID: LEE0004-H |
|---|---|




**Identified Problem**

NC 87 holds an important position in North Carolina's State Highway System including key roles in the Strategic Highway Corridors Vision Plan and the National System of Interstate and Defense Highways. It is considered a principal roadway in Fort Bragg's connectivity to the regional roadway network and mobilization capabilities. In 2004, no segment of NC 87 is over capacity, but traffic projections for 2035 indicate that portions of the facility will exceed LOS D. The primary purpose for improvements to NC 87 is to address capacity deficiencies thereby maintaining mobility in compliance with the state's Strategic Highway Corridors Vision Plan.

**Justification of Need**

NC 87 coincides with Horner Boulevard (US 421) through the center of Sanford's urban core. However, the CTP project improvements corridor for NC 87 originates at the US 421/NC 87 split and continues southeast toward the Harnett County Line. The CTP recommendations are segregated into two distinct highway classifications along NC 87. From the Horner Boulevard (US 421)/ NC 87 split to the proposed NC 87 interchange with the US 421-NC 87 Sanford Bypass, the facility is recommended as a median-divided boulevard. The roadway classification transitions from boulevard to expressway at the planned interchange and then continues as such for approximately 1 mile to the Harnett County Line.

Existing conditions include a cross section of five, 12-foot lanes with a continuous center turn lane allowing for a maximum facility capacity of approximately 43,300 vpd. In 2004, traffic volumes range between 22,000 and 26,000 and the facility operates well within the limits of an acceptable level-of-service. Conversely, projected traffic volumes show by 2035 the facility will be deficient to service user demand. 2035 traffic volumes are expected to range between 35,000 and 66,000 vpd driving the facility capacity near or beyond its estimated maximums.

In 2035, the corridor's capacity deficiencies occur west of the US 421-NC 87 Sanford Bypass interchange with traffic volumes approaching facility maximums east of the bypass. The CTP recommendations offer a modest increase in facility capacity with an addition of only 2,000 vpd. Yet, the result of median-divided access management does provide a significant contribution to the facility's overall mobility. This is accomplished through the elimination of inadvertent left turns from the center lane between intersections. Left turning vehicles both from the center lane as well as from establishments located along the corridor contribute to the interruption of mainstream traffic flow. Additionally, left turning vehicles introduce potential points of conflicts with opposing traffic further deteriorating the facility's level-of-service with crash incurred delays.

With the completion of the US 421-NC 87 Sanford Bypass, the local focus is re-aligning its priorities with the expected expansion of retail and commercial development along NC 87. Additionally, based on quantifiable projections, Army officials designated Lee County as one of the primary counties for impacts due to the Base Realignment and Closure (BRAC) process. The impacts to the county are in direct correlation to the expansion of Fort Bragg and literally affect every aspect of agency provided services and Lee County infrastructure. However, specific to the transportation system, the impacts are primarily attributed to the infusion of commercial/residential development and user demand upon the roadway system.

### Community Vision and Problem History

The *Sanford & Lee County 2020 Land Use Plan (1999)* strongly emphasizes the community's vision of "livability" as a direct correlation with future economic development. As improvements to Lee County's transportation infrastructure are warranted due to growth and demand, corridors such as NC 87 provide the opportunity to revisit these goals and assure their observance.

Existing land use along NC 87 is a representative spectrum of Lee County special interests transitioning from dense commercial build-out to intermittent businesses amid farmland and clustered neighborhoods like Carolina Trace. With the completion of the US 421-NC 87 Sanford Bypass and NC 87 interchange on the horizon, commercial and industrial sites along the corridor are likely to continue their emergence especially since BRAC-driven residential development is also speculated to the south.

Taking these factors into consideration, protecting the NC 87 corridor from urban sprawl is paramount to maintaining its operational viability as well as safeguarding the community's vision for growth and development. The recommendations of the

City of Sanford, Town of Broadway, and Lee County CTP establish the necessary access management, multi-modal opportunities, and framework for the balanced growth and compact land use patterns outlined within the context of the county's land use plan.

## CTP Project Proposal

### Project Description and Overview

The CTP recommendations for NC 87 call for improvements along the corridor as follows:

1. From US 421 to the planned interchange with the future US 421-NC 87 Sanford Bypass, NC 87 is recommended as a 4-lane divided boulevard facility.
2. From the planned interchange with the future US 421-NC 87 Sanford Bypass to the Harnett County Line, NC 87 is recommended as a 4-lane divided expressway facility.
3. Sidewalks are recommended where warranted by development.
4. A wide shoulder that will also serve as a bicycle lane is proposed from Cox Mill Road (SR 1529) to Swanns Station Road (SR 1144).
5. An interchange is recommended with the proposed new S E Boulevard and entrance into Carolina Trace.
6. The existing intersection at NC 87 and the entrance to Carolina Trace is proposed for geometric improvements and conversion to superstreet operation.

### Linkages to Other Plans and Proposed Project History

The Sanford/Lee County Planning Department has identified NC 87 as one of the community's "gateway" corridors. These corridors are identified by agency stakeholders as the showcase for local identity and are used to create the focal points through which Livable Community Standards can integrate pedestrian and bicycle facilities into picturesque landscaping and common areas abundant in aesthetic appeal.

Prior to the CTP study, the 1994 Sanford Thoroughfare Plan recommended widening of NC 87 to 4-lanes. This recommendation was constructed and is reflected in the CTP analysis as existing conditions for the facility.

### Relationship to Land Use Plans

The *Sanford and Lee County 2020 Land Use Plan (1999)* establishes the NC 87 corridor as a concentrated strip of mixed retail/commercial, industrial, and office-institutional land use with undesignated areas laying outside the City Limit along the east side of the roadway including the Trace Lake area. Presently, NC 87 serves as an access to an industrial park near Wilson Road (SR 1136) and business developments near the NC 87/US 421 split.

However, the corridor is unique in that it also offers a mixture of urban and rural land uses directly adjacent to one another creating the ideal relationship between urban amenities and wooded landscapes that is the basis for Livable Community Standards. The land along the corridor south of Cox Maddox Road (SR 1527) is predominantly rural in nature, but offers the ecological benefits, visual inspiration and cultural platform upon which future residential developments can capitalize as the area grows under the influence of BRAC and incoming industry. By implementing the recommendations of the CTP, controlled growth patterns can be encouraged and the community vision realized through the preservation and enhancement of the corridor's natural resources.

**Natural & Human Environmental Context**

There are no significant impacts anticipated with the recommendations of the CTP.

**Multi-modal Considerations**

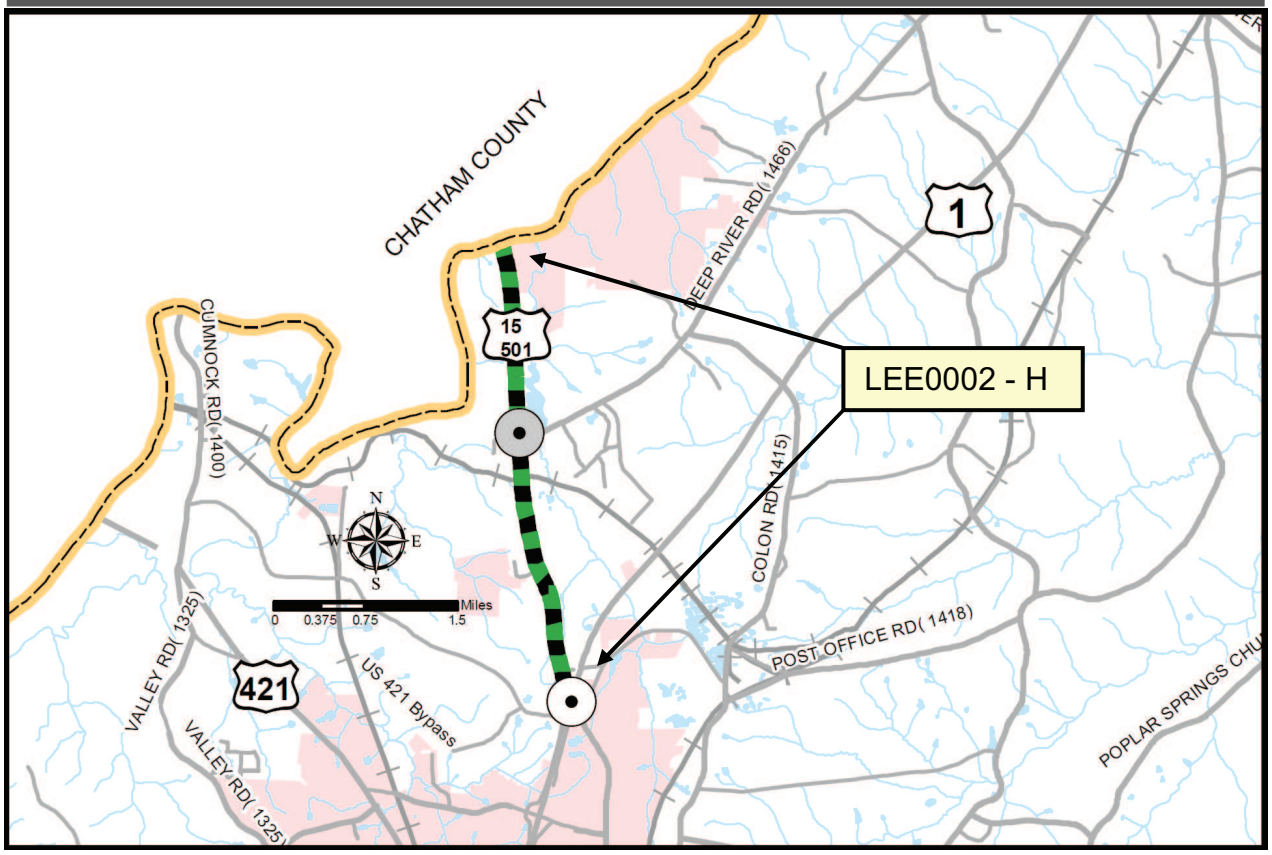
The Lee County CTP includes recommendations for multi-modal facilities as congruent with the visions and goals of the planning agencies and municipal stakeholders. Recommendations for NC 87 include pedestrian and bicycle accommodations where roadway conditions and development warrant, including a wide shoulder from Cox Mill Road (SR 1529) to Swanns Station Road (SR 1144) to serve as a bicycle lane. As residential and commercial development expands along the corridor, alternative modes of transportation will offer important conveniences in terms of both recreational and functional applications.

There were no contributions or impacts concerning NC 87 and modal options for Public Transportation or Rail. Recommendations for these transportation alternatives were limited to the existing rail road corridors owned by CSX, Norfolk Southern and the Atlantic & Western Railway Companies. Currently, Lee County has not developed a fixed-route, public transportation plan or regional public transportation service for commuters. There is, however, public transportation that supports social services throughout the county known as COLTS. Since these services do not adhere to a fixed route, they fall outside the scope of the CTP.

**Public/ Stakeholder Involvement**

See Appendix H

| US 15-501 – North of US 1 | Local ID: LEE0002-H |
|---|---|




## Identified Problem

By 2035, traffic projections show sections of US 15-501 north of US 1 exceeding LOS D. This US 15-501 project corridor extends from the US 1 interchange northwest to the Lee County Line. This corridor is a vital component in the county's regional connectivity intersecting a multitude of interstate, US, and intrastate routes upon which the areas economic prosperity depends. Thus, the importance of the corridor is recognized in the Strategic Highway Corridors Vision Plan. A secondary purpose for the CTP project recommendations along the US 15-501 corridor is to sustain mobility in compliance with the state's Strategic Highway Corridors Vision Plan.

### Justification of Need

The corridor is approximately 7 miles in length with the existing cross section transitioning from 4-lanes to 2-lanes near Deep River Road (SR 1466). It continues on from Deep River Road (SR 1466) for another 5 miles to the Chatham County Line. Although capacity is not an issue in 2004 for either cross section, projections

show traffic volumes exceeding LOS D by a factor between two and three times the estimated facility maximum by 2035.

From the US 1 interchange to the intersection of Deep River Road (SR 1466), US 15-501 has four, 12-foot lanes and is divided only by a painted median. The capacity of this section of roadway is estimated to be 43,300 vehicles per day (vpd). The 2004 traffic volumes remain well under the facility's capacity with volumes ranging between 8,000 and 15,000 vpd. From Deep River Road (SR 1466) to the Chatham County Line, the existing 2-lane facility capacity is approximately 9,500 vpd with a 2004 user demand of 7,200 vpd. In terms of current study year traffic, the 2-lane facility is not over capacity.

By study year 2035, the projected traffic volumes for the US 15-501 corridor range between 19,000 and 28,000 vpd. With the facility maximum capacity roughly 9,500 vpd, the 2-lane section of the US 15-501 corridor will be significantly over capacity. The CTP recommended cross section and expressway classification will increase the facility's estimated capacity to 46,100 vpd mitigating facility deficiencies and bringing the US 15-501 corridor into compliance with the Strategic Highway Corridor Vision Plan.

The CTP improvements to the US 15-501 corridor also coincide with the recommendations and improvements to Hawkins Avenue (US 15-501 BUS). Although Hawkins Avenue (US 15-501 BUS) is classified as boulevard through the central core of Sanford's business district, the two projects together provide the US 15-501 corridor with continuous access management optimizing facility capacity and balancing its compliance with the Strategic Highway Corridors Vision Plan with the community's goals and needs.

**Community Vision and Problem History**

The US 15-501 corridor is an essential element in Lee County's regional connectivity providing access to the Research Triangle Park as well as safe, efficient access to both local and regional roadway systems for one of the County's primary industrial park as well as its largest proposed residential development. The corridor actually represents the only roadway in the county that provides users with direct passage to the Research Triangle Park. The Lee County Industrial Park located just east of US 15-501 off of Deep River Road (SR 1466) hosts fourteen separate industries and reserves multiple undeveloped sites for future expansion.

Truck traffic generated from the industrial park is a factor for consideration from both the safety aspect of the motoring public as well as from the aspect of supporting the operation of the industrial park. The preservation and improvement of serviceable freight routes accessing and connecting to the industrial park is pivotal to the areas economic development strategies. Therefore, sustaining the mobility of the US 15-501 corridor is paramount to the future prosperity of Lee County, its communities, and its residents.

Land use along the corridor is mixed with residential driveways interspersed amid industrial and commercial entrances. Traffic conditions vary operationally as the facility's cross sections transition from 4-lanes to 2-lanes. Some segments of US

15-501 provide only a painted median between directional traffic. Along these segments, there is no restriction of left-turn movements from the mainline through lanes. The combination of intermittent stops and the lack of designated turn lanes creates prime conditions for rear-end collisions and disruption to mainline, vehicular progression.

Crash rates throughout the corridor have remained below the state average in spite of these conditions. However, as traffic volumes approach capacity maximums over the study period, disruption in traffic flow caused by left-turning vehicles is expected to impact the facility's level-of-service due to both the incurred delay and the statistical probability of increasing crash-rates. Likewise, the high truck volumes along the corridor are expected to exacerbate the issues of safety and the deterioration of the facility's level-of-service as congestion and the onset of capacity deficiencies present themselves under the existing geometric conditions.

Efficient operation of the corridor is essential to the region as it opens a direct link to Pittsboro, Chapel Hill and the Research Triangle Park to the north and as a conduit for points north to Aberdeen, Fort Bragg, and Myrtle Beach. It also connects to both interstate and intrastate Strategic Highways such as I-74, I-85, I-95, US 1, US 64, US 401, US 421, NC 42, and NC 87. Implementation of the CTP recommendations would ensure the operational integrity of the facility, enhance the safety of the corridor, and bring the facility into compliance with the Strategic Highway Corridor Vision Plan.

## CTP Project Proposal

### Project Description and Overview

The CTP recommendations for US 15-501 call for improvements along the corridor as follows:

1. From US 1 to the Lee County Line, US 15-501 is recommended as a 4-lane divided expressway facility.
2. Bicycle accommodations are recommended between Cotton Road (SR 1403) and Deep River Road (SR 1466).
3. Recommendations include re-aligning the westbound approach of Deep River Road (SR 1466).
4. Construction of an interchange at the Deep River Road (SR 1466) intersection is also proposed.

### Linkages to Other Plans and Proposed Project History

The US 15-501 corridor is recognized in both the state's and county's future planning efforts including expressway designation in the Strategic Highway Corridor Vision Plan. The inclusion denotes the corridor's importance not only to the Lee County, but also the importance of its role both regionally and statewide as a conduit for moving North Carolina's people, goods, and services safely and effectively.

The Sanford/Lee County Planning Department has identified the corridor as a community gateway and has included plans for sidewalks, bicycle facilities, and landscaping to enhance its visual appeal. The US 15-501 CTP recommendations abut the Hawkins Avenue (US 1 BUS) project recommendations transitioning from expressway to boulevard classification as the corridor extends southeast from the US 1 interchange toward the central business district of Sanford.

**Relationship to Land Use Plans**

*Sanford & Lee County 2020 Land Use Plan (1999)* allocates a substantial zoning area just northeast of the US 15-501 project corridor as heavy industrial with an expansive conservation zone from the Lee County Industrial Park to the Deep River. The conservation zone restricts residential development to large lots with three acre minimums and is predominantly wooded with some farming of timber and agricultural utilization. Congruent with the land use plan, there is predominant industrial presence outside the conservation zone along the corridor, but there is also commercial and residential tracks dispersed within the land use mix. In fact, one of the largest proposed development projects in Lee County, Deep River Forest, is also adjacent to the corridor.

**Natural & Human Environmental Context**

Impacts are expected to be negligible for the proposed corridor improvements as there are no human/social, historical districts/structures, or wetlands expected within the project limits. Even the re-alignment of Deep River Road (SR 1466) was intended to utilize the existing stream crossing with an unnamed tributary of Little Buffalo Creek to avoiding an existing pond.

**Multi-modal Considerations**

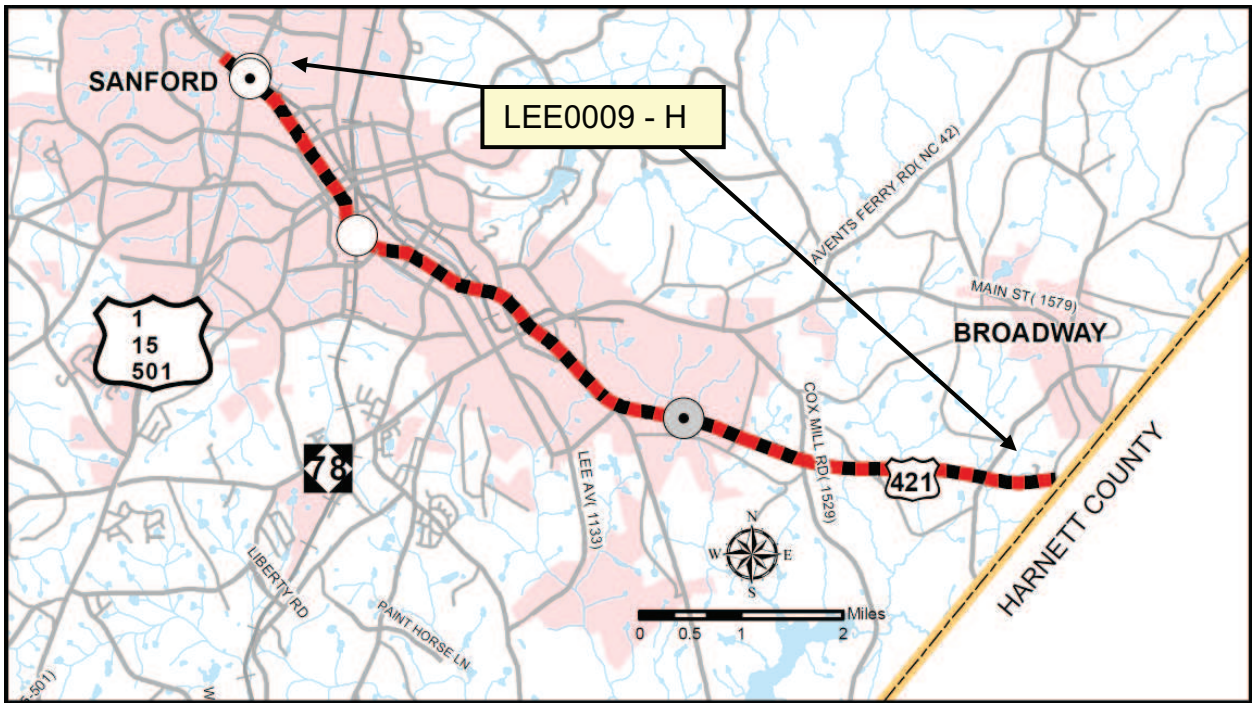
City of Sanford, Town of Broadway, and Lee County CTP includes recommendations for multi-modal facilities as congruent with the visions and goals of the planning agencies and municipal stakeholders. The Triangle Transit Authority has regional plans for commuter rail service connecting Durham, the Research Triangle Park, Morrisville, Cary and Raleigh which could have future implications for Lee County especially in light of the continued efforts to progress the South East High Speed Rail corridor plans by NCDOT. However, at the present time, there are no immediate proposals for improvements to the rail corridors. Likewise, opportunities for commuter bus service along the US 15-501 corridor to regional locations such as Chapel Hill and the Research Triangle Park are viable possibilities for future consideration.

*Sanford & Lee County 2020 Land Use Plan (1999)* has identified this corridor as a gateway corridor and proposes sidewalk and pedestrian facilities as development warrants their implementation. Additionally, the land use plan calls for open spaces and “green” amenities such as biking trails and greenways. The conservation zone near the Deep River and nearby residential developments like Deep River Forest create a conducive environment for these facilities with convenient access to the both the local and regional roadway network.

**Public/ Stakeholder Involvement**

See Appendix H

| Horner Boulevard (US 421) Improvements<br>From US 1/15/501 to county line | Local ID: LEE0009-H |
|---|---|




## Identified Problem

Horner Boulevard (US 421) is considered the primary business corridor servicing Sanford's urban areas and commercial district. Under 2004 conditions, analysis shows several segments along the corridor approaching and/or exceeding LOS D. Projections show the facility continuing to exceed LOS D into the future. Also, portions of Horner Boulevard experience crash rates that are in excess of the state average.

## Justification of Need

Bisecting the City of Sanford along a southeasterly axis, Boone Trail Road (US 421) becomes Horner Boulevard (US 421) just prior to its grade-separated intersection with US 1. It then continues southeast toward the Harnett County Line. The facility consists of three distinct segments delineated by cross section, described in detail below. Both existing congestion and future projections along Horner Boulevard (US 421) predicated the development of the US 421-NC 87 Sanford Bypass. Since Horner Boulevard (US 421) is an economic lifeline for the business and commercial districts of Sanford, mitigation of both existing and future congestion is the primary purpose for the recommended improvements along the corridor.

The facility deficiencies calculated in the analysis are directly correlated to the roadway cross section and are described as defined above. From US 1 to the CSX railroad bridge, Horner Boulevard (US 421) has four, 12-foot lanes with no median

separation and a current capacity of approximately 45,000 vpd. From the CSX railroad bridge to Ashby Road (SR 1580), the cross section increases to a 5-lane cross section adding a 16 foot continuous center turn lane. The current capacity of this 5-lane cross section is approximately 37,000 vpd. Since current traffic volumes range from 28,000 to 32,000 vpd, traffic demands do not yet exceed the capacity of the facility. However, the volumes are encroaching upon the maximum threshold leaving little available capacity for growth. From Lee Street to the Harnett County Line, Horner Boulevard (US 421) becomes a 2-lane road. The capacity for this segment of roadway is estimated at approximately 9,500 vpd while the actual volumes reach as high as 10,000 vpd. Along this segment of Horner Boulevard (US 421), current traffic volumes exceed the roadway's capacity even in 2004. Traffic volumes, by 2035, along the corridor from US 1 to the CSX rail road bridge approach the limits of the facility's maximum capacity and the segments east of the CSX railroad bridge are pushed far beyond the maximum thresholds.

Commercial traffic provides a significant contribution to the congestion identified along Horner Boulevard (US 421). The high traffic volumes, typical urban geometrics, lack of access management, and commercial businesses that line Horner Boulevard (US 421) combine to create ideal conditions for congestion. Turning vehicles entering and exiting mainline traffic disrupt the flow of through traffic and cause delays. Consequently, the number of access points along a corridor also significantly impact congestion. Motorists traveling the length of Horner Boulevard (US 421) experience the effects of congestion due to the presence of heavy traffic volumes, densely clustered driveways, and the close proximity of side streets.

These conditions may also increase the risk of traffic crashes. Studies show drivers are more likely to take navigational risks under congested conditions. Likewise, with the addition of each access point (driveway or side street), comes the addition of potential conflict points between through traffic and turning vehicles. Travel conditions, like those found along Horner Boulevard (US 421), generally parallel higher accident rates. Two of the three delineated segments of Horner Boulevard (US 421) yield crash rates that are between 1.75 and 2.83 times greater than the state average for roadways of comparable classification. This further supports the need for roadway improvements along the full length of the Horner Boulevard (US 421) corridor.

Although the US 421-NC 87 Sanford Bypass currently under construction is expected to divert much of the regional truck and vehicular traffic around Sanford, commercial traffic will continue to utilize Horner Boulevard (US 421) as a connector. The 2035 traffic projections under the US 421-NC 87 Sanford Bypass "build" scenario still show both segments of Horner Boulevard (US 421) east of the CSX rail road bridge as approaching or exceeding capacity without any improvements.

### Community Vision and Problem History

Horner Boulevard (US 421) provides the ideal framework to implement the communities' goals to encourage density development through revitalization, infill, and multi-modal amenities. With the completion of the US 421-NC 87 Sanford

Bypass, most of Horner Boulevard (US 421) is expected to revert more to local traffic as regional through-traffic utilizes the bypass. However, in terms of traffic generated, it will remain the most important commercial route in both Lee County and the City of Sanford. Therefore, transitioning Horner Boulevard (US 421) from regional connector to true "boulevard" classification would provide both sufficient capacity to mitigate existing and future congestion as well as consistency with the Lee County and City of Sanford land use goals.

US 421 currently serves both local and regional traffic with the majority of Sanford's "strip" development being located along this corridor and predominantly on the 5-lane segment between the CSX rail road bridge and Ashby Road (SR 1580). Conversion to boulevard with median division would help consolidate ingress and egress interruption of mainline traffic flow and simultaneously reduce conflict points precipitating elevated crash rates. Median-divided roadway within a congested commercial area typically increases traffic flow along a corridor and ultimately allows the facility to service more traffic. The net effect to local businesses includes increased pass-by traffic and safer, more convenient access for customers. Since more commercial development is expected along the eastern segments of the corridor, improvements that effectively and efficiently progress high traffic volumes without the delay of congestion are vital to the economic development and revitalization of Sanford's commercial district.

## CTP Project Proposal

### Project Description and Overview

The CTP recommendations for Horner Boulevard (US 421) call for improvements along the corridor as follows:

1. From US 1 to the Harnett County Line, Horner Boulevard (US 421) is recommended for widening to a 4-lane, median-divided boulevard with a capacity of approximately 48,000 vpd.
2. Sidewalks are recommended where warranted.

### Linkages to Other Plans and Proposed Project History

The northern US 421-NC 87 Sanford Bypass is currently under construction as TIP Project R-2417, and was a recommendation in the 1994 Sanford Thoroughfare Plan. Note, improvements to Horner Boulevard (US 421) were not included in the thoroughfare plan. The new bypass will be a 4-lane, divided facility and with interchanges at existing US 421, US 1, Colon Road (SR 1415), Kelly Road (SR 1521), Broadway Road (NC 42) and NC 87.

Sanford's Planning and Community Development Department and the Lee County Department of Community Development have identified Horner Boulevard (US 421) as a "gateway" corridor and have chosen it to represent their community's vision of multi-modal mobility including pedestrian facilities where feasible in conjunction with prominent street and landscaping for aesthetic appeal.

This project is not in the draft 2012-2019 TIP. However, improvements to Horner Boulevard (US 421) from NC 87 to the County Line are on the Triangle Area Rural Planning Organization's (TARPO's) 2012-2018 TIP Priority List ranked seventeenth amongst region's most important transportation needs.

**Relationship to Land Use Plans**

East of US 1, Horner Boulevard (US 421) land use oscillates between light industrial, commercial, and office use according to the *Sanford & Lee County 2020 Land Use Plan (1999)*. NC 87 splits off of Horner Boulevard (US 421) less than 5 miles from the Harnett County Line. This location hosts dense retail and commercial areas both on Horner Boulevard (US 421) and on NC 87 preceding and following their divergence. It is important to consider Horner Boulevard's (US 421) role in connecting these retail/commercial districts with Sanford's central business core. Commercial and retail development is expected to grow eastward along the Horner Boulevard (US 421) corridor as a natural progression toward the vitality of the existing retail drivers.

There are also high-density, residential areas just south of Horner Boulevard (US 421) that use the corridor as a collector route as well as for connectivity to Lee County's transportation network. The Horner Boulevard (US 421) CTP recommendations provide a sustainable solution to existing and future facility deficiencies while supporting economic growth and development. The CTP boulevard recommendation will help set the stage for the revitalization and in-fill of the older business districts as well as encourage the expansion of economic generators along the eastern segments of the corridor.

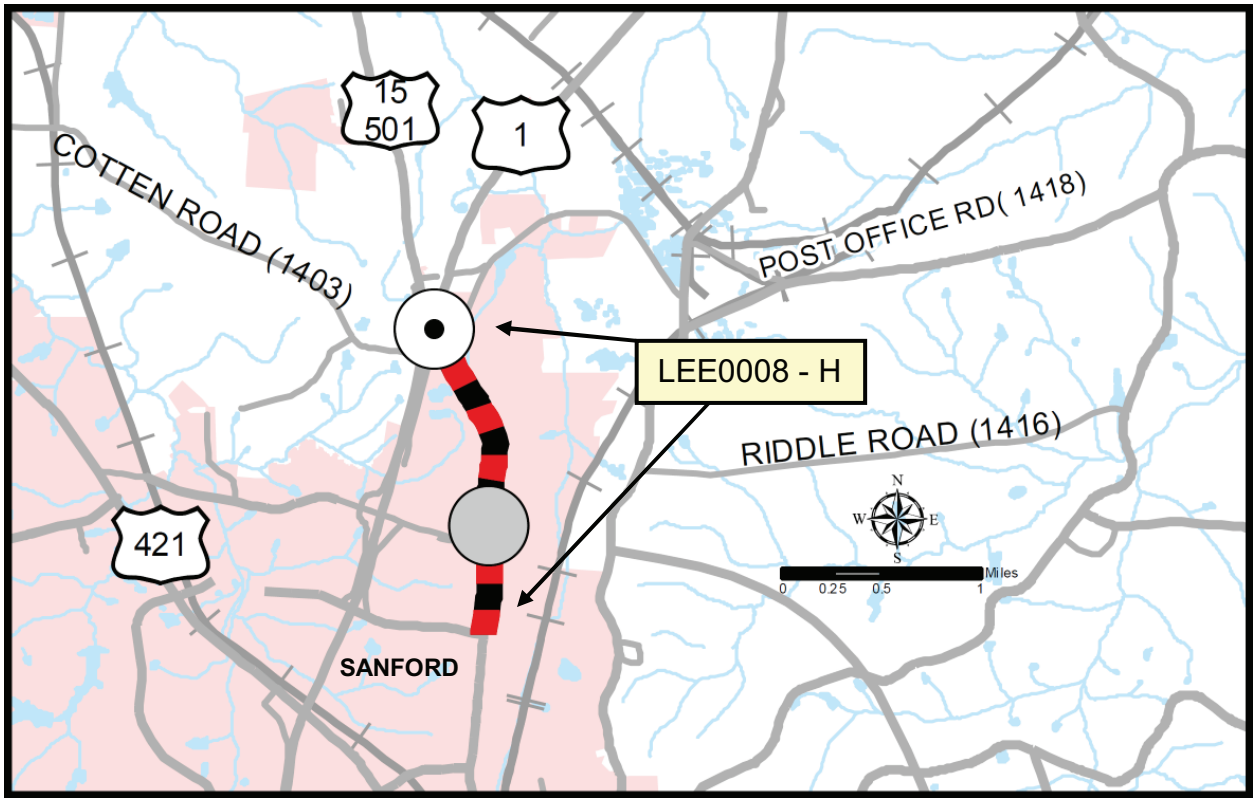
**Natural & Human Environmental Context**

In the general scope of the project, there are no significant impacts anticipated.

**Public/ Stakeholder Involvement**

See Appendix H

Hawkins Avenue (US 15-501 Bus.) Local ID: LEE0008-H
From US 1-15-501 to Burns Drive (SR 1406)




## Identified Problem

Hawkins Avenue (US 15-501 Bus.) is considered a gateway corridor to Sanford's urban core and historic district. Additionally, it provides connectivity from Sanford's business district to Chapel Hill and Pittsboro. In 2004, portions of this 3-mile stretch of roadway experience traffic volumes that exceed the estimated facility capacity by a factor greater than two. By 2035, projected traffic volumes exceed the existing facility's roadway capacity along every segment of Hawkins Avenue (US 15-501 Bus.). The primary purpose for improvements on Hawkins Avenue (US 15-501 Bus.) is to mitigate both current and future congestion. The presence of historic districts south of Burns Drive (SR 1406) will restrict or prohibit specific improvements, such as widening.

## Justification of Need

The Hawkins Avenue (US 15-501 Bus.) corridor begins at the intersection of US 15-501 at US 1 and extends southeast approximately 3 miles to Burns Drive (SR 1406). The existing 2-lane cross section provides left turn lanes at primary intersections and has a capacity range, depending on segment location, between 6,300 and 7,300 vehicles per day (vpd). However, from US 1 to Weather Spoon Road (SR 1560), 2004 traffic volumes range from 11,000 to 14,000 vpd. Projected

volumes for study year 2035 along Hawkins Avenue (US 15-501 Bus.) range between 22,000 and 31,000 vpd. Without improvements, the entire corridor will be operating in excess of LOS D by the end of the study period. However, with the recommended improvements, Hawkins Avenue (US 15-501 Bus.) will accommodate approximately 45,400 vpd surpassing even the study year projections.

In terms of the Sanford community, it is second only to Horner Boulevard (US 421) as a principal business corridor. Hawkins Avenue (US 15-501 Bus.) serves Sanford as a collector for residential, commercial, and commuters alike. In the more rural settings between Burns Drive (SR 1406) and US 1, it provides connectivity to satellite, commercial establishments contiguous to the roadway as well as commuters from cluster and infill developments. It also serves as an entrance into Sanford's urban, business, and historic districts that lay to the south of Burns Drive (SR 1406). Hawkins Avenue (US 15-501 Bus.) links regional commuters directly to Sanford's business district and residential commuters with the regional roadway system. Hawkins Avenue (US 15-501 Bus.) is considered a vital component in the growth and development of Lee County.

### Community Vision and Problem History

Land use along the corridor is diverse. Consequently, Hawkins Avenue's (US 15-501 Bus.) function within the community's vision is also multi-faceted. It serves the residents, commuters, and businesses of both Sanford's urban core and its rural areas. Prime locations exist near US 1 and the proposed US 421-NC 87 Sanford Bypass, now under construction, for commercial development with convenient access to regionally significant roadways. The corridor also hosts residential developments which provide local users and trip contribution to nearby commercial destinations. These intermittent developments offer potential expansion and the opportunity to propagate the higher development densities necessary to support future multi-modal transportation infrastructure such as transit, bicycle, and pedestrian facilities. As a gateway to Sanford's business district and urban core, its appearance, viability, and efficiency is considered crucial to the quality of life in Lee County.

## CTP Project Proposal

### Project Description and Overview

The CTP recommendations for Hawkins Ave (US 15-501 Bus.) call for improvements along the corridor as follows:

1. From US 1 to Burns Drive (SR 1406), Hawkins Avenue is recommended to be widened to 4-lanes and upgraded to a median-divided boulevard.
2. The intersection of Hawkins Avenue (US 15-501Bus.) at Burns Drive is recommended for a roundabout.
3. Bicycle lanes are recommended for the length of the project.

4. Due to the presence of historic districts, no improvements are recommended between Burns Drive (SR 1406) and Charlotte Avenue (SR 1002).

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

The Sanford/Lee County Planning Department has identified Hawkins Avenue (US 15-501 Bus.) as a gateway corridor leading to the downtown district. Enhancements to this corridor are incorporated in local redevelopment plans and improvements specify the inclusion of sidewalks, bicycle facilities, and substantial landscaping for aesthetic appeal.

A feasibility study for Hawkins Avenue (US 15-501 Bus.) was completed by NCDOT in 2005 which recommended widening the facility to a 4-lane, divided cross section from US 1 to Burns Drive (SR 1406). A roundabout with landscaping was also recommended at the terminal intersection of the project with Burns Drive (SR 1406). Recommendations for the Lee County CTP are congruent with the 2005 NCDOT Feasibility Study.

However, the 1994 Thoroughfare Plan proposed Hawkins Avenue improvements as a 3-lane, curb and gutter facility. The variation between these two plans is mainly attributed to updated traffic projections and the communities expressed desire to integrate bicycle facilities into the Hawkins Avenue (US 15-501 Bus.) project.

**Relationship to Land Use Plans**

Much of Hawkins Avenue (US 15-501 Bus.) lies along the fringes of the access-controlled highway corridor for US 1. Therefore, the areas surrounding the avenue are mostly unspecified in terms of land use just south of the US 1 freeway. This property is prime location for businesses seeking convenient access to intrastate/interstate highway systems. As Hawkins Avenue (US 15-501 Bus.) draws closer to Burns Drive (SR 1406), both industrial and residential land use zoning are designated. This serves to reinforce the avenue's designation as a gateway to Sanford business and commercial districts and the regional roadway network.

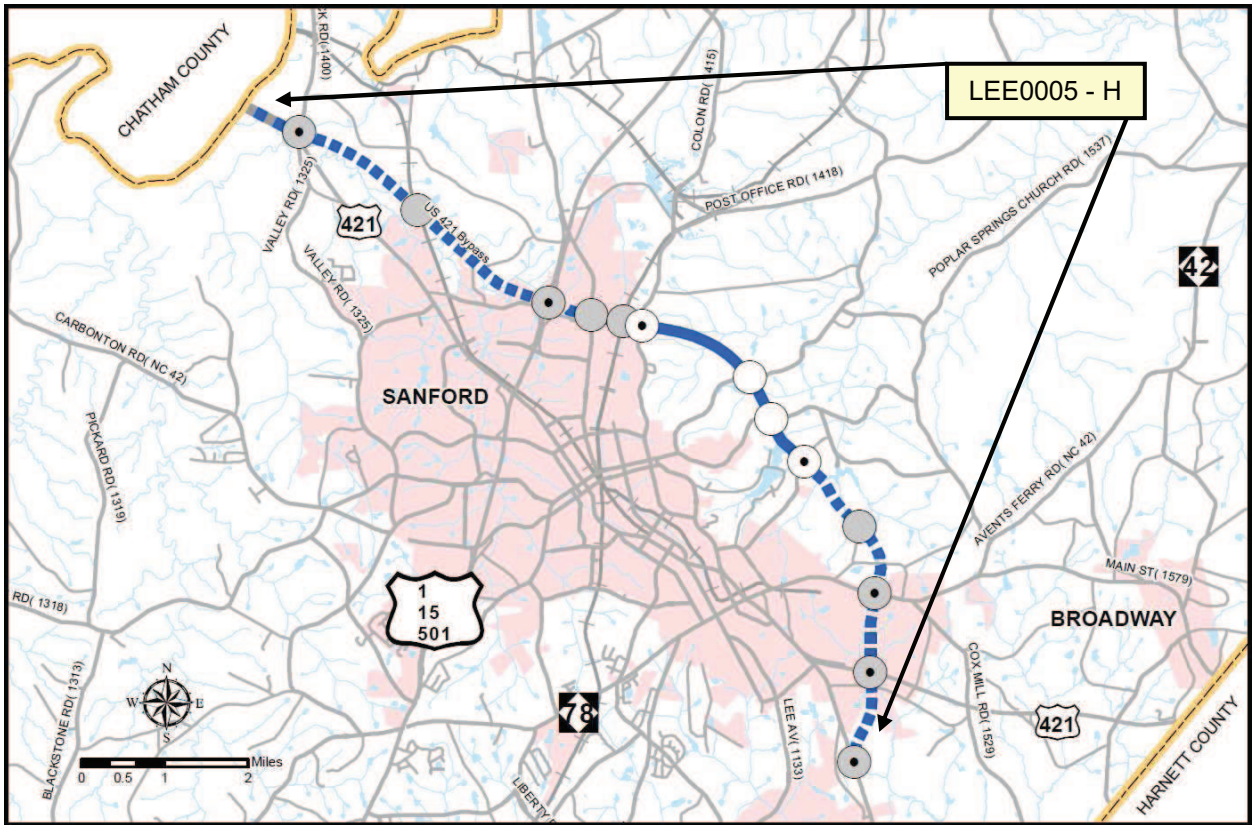
**Natural & Human Environmental Context**

In the general scope of the Hawkins Avenue (US 15-501 Bus.) project, there are no significant impacts anticipated. However, extension of the project corridor was not considered due to the impacts on two historic neighborhoods south of the recommended widening between Burns Drive (SR 1406) and Charlotte Avenue (SR 1002).

**Public/ Stakeholder Involvement**

See Appendix H

| US 421/NC 87/Sanford Bypass/ Boone Trail Road | Local ID: LEE0005 - H |
|---|---|




## Identified Problem

With the construction of the US 421-NC 87 Sanford Bypass underway (construction is completed from Broadway Road/NC 42 to US 1), the last segment of the US 421 freeway corridor to meet the goals of the Strategic Highway Corridor Vision Plan is located along Boone Trail Road (US 421) between the proposed project terminus of the US 421-NC 87 Sanford Bypass (Section A) and the County Line. Since this section of roadway is the portal for regional traffic via the intrastate system, it is considered a vital component to the Lee County transportation system. The purpose of the CTP project recommendation is to extend the freeway classification from the bypass's proposed interchange at Boone Trail Road (US 421) and Cumnock Road (SR 1400) to the Lee County Line to meet the mobility goals of the Strategic Highway Corridor Vision Plan.

### Justification of Need

The US 421-NC 87 Sanford Bypass, TIP Project R-2417, was originally proposed to improve capacity and safety for through traffic using the US 421-NC 87 corridor. Additionally, the US 421-NC 87 Sanford Bypass was expected to divert traffic committed to the existing Horner Boulevard (US 421) facility and reduce traffic

congestion within the City of Sanford. The CTP project recommendation for Boone Trail Road (US 421) should support and indemnify the original Purpose and Need for the bypass.

Currently, this section of Boone Trail Road (US 421) is 4-lane, median divided with an at-grade intersection at Cumnock Road (SR 1400)/Forestwood Park Road (SR 1384) and a few isolated minor side street accesses north and west of the intersection. Under the TIP Project R-2417 scope, the Cumnock Road (SR 1400) intersection is proposed as an interchange. Upgrading the remaining Lee County segment of Boone Trail Road (US 421) to freeway classification would complete the Strategic Highway Corridor Vision Plan for the US 421 corridor and provide the county with crucial regional connectivity to both markets and destinations for local industry, commuters, and travelers alike.

### Community Vision and Problem History

The US 421 corridor traverses the length of the county providing direct statewide accessibility for residents and critical trade routes for commercial and industrial interests. Via either Boone Trail Road (US 421) and the US 421-NC 87 Sanford Bypass or Boone Trail Road (US 421) and Horner Boulevard (US 421), Lee County residents and visitors have intrastate access and passage through the entire breadth of the county stretching west to Siler City, Greensboro, and Boone as well as east to Lillington, Clinton and Wilmington. Since NC 87 runs concurrently with the proposed bypass and US 421 corridor, Sanford has direct links to Pittsboro, Graham, and Reidsville to the north and Fayetteville, Elizabethtown, and Wilmington to the south. The US 421-NC 87 corridors together also serve as a connector between I-40 and I-85 in Greensboro and I-95 in Fayetteville, and US 421 extends west and north through Tennessee, Kentucky and Indiana to Lake Michigan.

Throughout the CTP development process, the local stakeholders of the plan emphasized the importance of a transportation system that provides safe, effective and efficient traffic flow in the defining visions of their long range planning efforts. The combined improvements proposed for Boone Trail Road (US 421), the US 421-NC 87 Sanford Bypass, and Horner Boulevard (US 421) define the infrastructure necessary to bring this local vision to fruition and preserve the mobility and regional connectivity that is vital to the US 421 corridor and Lee County.

## CTP Project Proposal

### Project Description and Overview

The CTP recommendations for Boone Trail Road (US 421) call for improvements along the corridor as follows:

1. From Chatham County Line, Boone Trail Road (US 421) is recommended for widening and upgrade to a freeway facility.

2. For additional information about the TIP Project R-2417, US 421-NC 87 Sanford Bypass, including funding, construction schedules and/or Purpose and Need, contact NCDOT's Project Development and Environmental Analysis Branch.

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

The primary consideration for the Boone Trail Road (US 421) facility upgrade is compliance with the Strategic Highway Corridor Vision Plan. This CTP project recommendation creates a consistent and continuous freeway facility as it joins up with the US 421-NC 87 Sanford Bypass. Construction of the bypass was scheduled in multiple phases due to funding constraints with project let dates estimated in 2002, 2003, 2004, 2009, and 20011, as per the draft 2012-2019 Transportation Improvement Program (TIP). Elements of the CTP recommendations for the Boone Trail Road (US 421) may be incorporated into the design and construction of US 421-NC 87 Sanford Bypass's Section A as the project limits may reach the US 421 bridge over the Deep River.

**Relationship to Land Use Plans**

The CTP project recommendation calling for the upgrade of Boone Trail Road (US 421) to freeway classification occurs north of the existing US 421 commercial and industrial zones and is predominantly located within the Conservation Zone defined by the *Sanford and Lee County 2020 Land Use Map (1999).* The area is heavily wooded with land-use including large-lot residential tracts, tree farms and agricultural applications.

**Natural & Human Environmental Context**

In the general scope of the project, there are no significant impacts anticipated.

**Public/ Stakeholder Involvement**

See Appendix H

**US 15-501 – South of US 1 Split, Local ID: LEE0003 – H**

The US 15-501 corridor serves as a connector between US 1 and NC 24-27, which are both identified as Strategic Highway Corridors, and is a primary route in the region providing connectivity between Lee and Moore Counties as well as points south where US 15 and US 501 diverge and enter into South Carolina. Currently, it is a 2-lane facility with an estimated capacity of 9,500 vehicles per day (vpd). Projected traffic volumes for 2035 show user demand is expected to increase to approximately 28,000 vpd. The existing facility will be insufficient and infrastructure improvements will be warranted.

CTP recommendations for the US 15-501 corridor south of the US 1 divergence include widening the existing 2-lane facility to a 4-lane, median-divided expressway from the proposed interchange with US 1 southwest to the Moore County Line.

This segment of US 15-501 is a vital component in the county's regional connectivity as it intersects many interstate, US, and intrastate routes. Maintaining the US 15-501 corridor to effectively meet regional user demand ultimately supports the local economies capitalizing on the attraction of mobile interstate routes for through travelers and provides congruency with the transportation goals sited in the *Sanford & Lee County Land Use Plan, (1999)* for a safe, effective, and efficient transportation system.

**Colon Road (SR 1415), Local ID: LEE0006 – H**

Colon Road (SR 1415) serves as a direct route to the Lee County Industrial Park, and in conjunction with 7th Street, provides a connection into Sanford's central business district. Traffic forecasts indicate that Colon Road (SR 1415) will become a major link between US 1 and US 421. The primarily 2-lane facility can currently support approximately 9,500 vehicles per day (vpd). However, projections indicate that future traffic volumes will reach between 13,000 and 18,000 vpd, putting the facility well in excess of LOS D.

Colon Road (SR 1415) has cross sections varying from two 11-foot lanes between Deep River Road (SR 1466) and Riddle Road (SR 1422) to two 12-foot lanes between Riddle Road (SR 1466) and Weatherspoon Street (SR 1560). In 2004, traffic volumes range between 3,700 to 5,100 vpd and are well within the parameters of the facility's maximum capacity.

Because all sections of Colon Road (SR 1415) are projected to be over capacity in 2035 if no improvements are made, final CTP recommendations include widening the facility to a 4-lane, median-divided boulevard with paved shoulders. The paved shoulders are recommended to accommodate truck traffic as well as multimodal usage through the provision of shoulders suitable for bicycle lanes. The proposed improvements should increase capacity to roughly 45,400 vpd mitigating projected facility deficiencies in 2035. There are no historical or environmental impacts expected with the proposed improvements.

The corridor has seen a significant increase in both vehicular and truck traffic since the opening of the US 421-NC 87 Sanford Bypass segment referred to locally as the Kelly-

Colon Connector. The truck traffic is attributed to Colon Road's (SR 1415) direct connectivity to the industrial park, Sanford's central business district, and US 1's convenient access. In addition to the roadway improvements, a grade-separated crossing of the CSX Railroad is also suggested to further safeguard and accommodate the integration of multimodal transportation usage.

As infrastructure improvements to the north of Sanford are provided to support the increase of Triangle-area commuters living in the county, residential growth in the Colon Road (SR 1415) service area is also expected to see substantial gains. However, as noted, Colon Road is a heavily used truck route. Since Colon Road serves both industrial and residential centers, converting an existing roadway to accommodate multimodal usage warrants continued monitoring for potential safety concerns. Currently, crash rates remain below the state average.

The Sanford/Lee County Planning Department has identified Colon Road (SR 1415) as a gateway corridor and included paved shoulders in the community vision to enhance multimodal usage, mobility, and safety enhancements for all Colon Road transportation facility users. The 1994 Sanford Thoroughfare Plan recommended relocating a portion of Colon Road in conjunction with construction of a US 421 Bypass interchange. This project has since been constructed.

**Deep River Road (SR 1466), Local ID: LEE0007 - H**

Deep River Road (SR 1466) intersects US 15-501 (Hawkins Avenue) as a sharply skewed, T-type intersection with multiple lane splits to facilitate right-turn movements from both US 15-501 (Hawkins Road) and Deep River Road (SR 1466). This creates multiple access points in close proximity along US 15-501. From the US 15-501 (Hawkins Road) intersection, Deep River Road (SR 1466) continues northeast toward Chapel Hill as a 2-lane road. The current capacity of this segment of Deep River Road (SR 1466) is 9,500 vehicles per day (vpd). By 2035, the projected traffic volume is 17,000 vpd which far exceeds the maximum capacity of the facility.

Deep River Road (SR 1466) is the primary entrance to the Lee County Industrial Park, a key focus of both local vision and the local land use plan. To better support the industrial center; manage heavy truck volumes amid vehicular traffic; and preserve the aesthetic value of scenic roadway; the CTP study recommendations include the realignment of Deep River Road (SR 1466) at the US 15-501 (Hawkins Avenue) and the replacement of the at-grade intersection with an interchange slightly north of the present location. Roadway improvements also include widening the 2-lane, 2-way facility to a 4-

lane boulevard cross section. With construction of the recommended improvements, Deep River Road (SR 1466) will not be over capacity in 2035.

Most of the Deep River Area is zoned Residential Agriculture (RA) according to the Lee County Land Use Plan with the exception of other zoning districts in the vicinity of the Lee County Industrial Park. The 1994 Sanford Thoroughfare Plan outlined similar recommendations widening Deep River Road (SR 1466) to four lanes between US 15-501 (Hawkins Avenue) to Womack Road to accommodate traffic from the existing industrial park. Noteworthy to long-range planning, the Sharon Harris Nuclear Power Plant, operated by Progress Energy, is located in the southwest corner of Wake County. The northeastern portion of the Deep River Area is in the 10-mile Emergency Planning Zone for the plant.

The draft 2012 -2018 TIP Priority List for the Triangle Area Rural Planning Organization includes improvements to Deep River Road in the US 15-501 (Hawkins Avenue) vicinity.

**Southeastern Sanford Boulevard, Local ID: LEE0010 – H**

NC 78 is primarily a 2-lane, 2-way roadway traversing Lee County in an east-west orientation that connects US 1/15-501 with the new US 421 Bypass. Most sections of NC 78 are approaching or exceeding capacity in study year 2004. The Southeastern Sanford Boulevard is a proposed facility comprised of Hickory House Road (SR 1157), Liberty Road (SR 1293), Paint Horse Lane, and connecting segments on new location. This facility would create a new east-west route parallel to, and south of, NC 78 in southeast Lee County. The Southeastern Sanford Boulevard should reduce congestion and traffic demand on NC 78; provide an alternative route for truck traffic especially those transporting sand from the mines in Southern Lee County; and eliminate the need for truck traffic to enter the City of Sanford to access major highway facilities.

In 2004, Hickory House Road is a 2-lane, 2-way facility with a capacity of approximately 9,500 vehicles per day (vpd) and traffic volumes that range from 1,700 to 2,200 vpd. Liberty Road (SR 1293) has two, 12-foot lanes with a maximum capacity of 9,500 vpd and maintains traffic volumes under 1,000 vpd. Paint Horse Lane is a private drive considered as substandard for use as a public facility. Both Liberty Road (SR 1293) and Paint Horse Lane terminate with no outlet.

The final CTP recommendations provide for a continuous east-west connection linking these three roadways with some sections on new location to provide a uniform 4-lane, 2-way boulevard facility. The existing roadways will require widening as well as interchanges at the facility's intersections with US 1 and NC 87. There are no capacity deficiencies associated with these specific roadways in 2035 and crash rates calculated are not approaching the state averages. However, NC 78 is the true benefactor of the recommended improvements.

NC 78 serves several local schools, residential cores, as well as commercial traffic. Since the proposed Southeastern Sanford Boulevard is expected to draw local traffic from NC 78 and provide a facility more conducive to heavy truck traffic like the large dump trucks that frequent the rural roads of Southern Lee County; the existing

conditions on NC 78 are also expected to improve in terms of congestion and safety with the implementation of the Southeastern Sanford Boulevard.

Project effects and impacts do include new stream crossings and some wetland areas, but corridors and crossings were selected to minimize and/or reduce the total impacted area of the project. There were no historical districts or structures identified during the CTP planning level analysis. Other noteworthy elements considered in the development of recommendations included the consideration of the Strategic Highway Corridor Vision Plan. NC 87 and the US 421 Bypass are identified in the Strategic Highway Corridor Vision Plan. The interchange recommended at the intersection of the Southeastern Sanford Boulevard and NC 87 is congruent with the requirements of the plan. The recommended facility also increases local connectivity by creating a parallel route to NC 78 and a more efficient connection between US 1, US 421, and NC 87.

Relationship to Other Plans: A loop in southern Sanford was shown in the 1994 Sanford Thoroughfare Plan. However, the route shown on the 1994 plan has been compromised by development.

**Western Sanford Boulevard, Local ID: LEE0012 – H**

Presently, Pendergrass Road (SR 1334), Carbonton Road (NC 42), Tempting Church Road (SR 1322) and Valley Road (SR 1325) are two-lane facilities with lanes varying from 11 to 18 feet. In 2004, none of the facilities were experiencing capacity deficiencies. Projections indicate that both Pendergrass Road (SR 1334) and Carbonton Road (NC 42) will be in excess of LOS D by 2035.

An expected increase in residential development in the project area will enhance the need for efficient transportation to employment and retail centers accessible via US 1 and US 421. Also, the route will provide better regional connectivity between Lee, Chatham and Moore counties and may help alleviate some of the mobility constraints associated with truck traffic traveling directly through Sanford.

Western Sanford Boulevard is proposed to be a four-lane divided boulevard comprised of Pendergrass Road (SR 1334), Carbonton Road (NC 42), Tempting Church Road (SR 1322), Valley Road (SR 1325) and two segments of roadway on new location. The two segments of roadway on new location will connect Pendergrass Road (SR 1334) to Carbonton Road (NC 42), and Carbonton Road (NC 42) to Tempting Church Road (SR 1322), making one contiguous route.

A portion the proposed new location roadway may require crossing Patterson Creek between existing Tempting Church Road (1322) and Valley Road (SR 1325). There are no other expected stream crossings or environmental issues associated with this project.

A loop facility, similar to the proposed Western Sanford Boulevard project, was proposed in the 1994 Sanford Thoroughfare Plan to address local and regional mobility

needs. However, due to development in the project area, the previous alignment is so longer feasible. This underlines the importance of using the four existing roads identified for the Western Sanford Boulevard project as well as actively preserving the corridors which the new location road segments will require.

**Wicker Street (NC 42) and Cool Springs Road (SR 1325), Local ID LEE0013 - H**


The Intersection of Wicker Street (NC 42), Cool Springs Road (SR 1325) and Franklin Drive (SR 1332) is recommended to be reconfigured so that Wicker Street (NC 42) and Cool Springs Road (SR 1325) are aligned, forming the major through route. Both Wicker Street (NC 42) and Cool Springs Road (SR 1325) will be widened to three lanes, with a center turn lane and room for a bicycle lane from where Wicker Street (NC 42) meets US 1 to where Cool Springs Road (SR 1325) meets US 421. Wicker Street (NC 42) meets US 1 to where Cool Springs Road (SR 1325) meets US 421.

Wicker Street (NC 42) is currently over capacity. While Cool Springs Road (SR 1325) is not experiencing capacity problems currently, projections indicate that it will be over capacity in 2035. The project's proposed three-lane configuration, with an estimated capacity of 13,500 vehicles per day (vpd), should be able to alleviate future capacity issues for the estimated 8,000 vpd on Cool Springs Road (SR 1325).

Wicker Street (NC 42) will be over capacity in 2035 with an estimated 18,000 vpd. However, many of the trips generated on Wicker Street (NC 42) are ultimately going from US 1 to US 421. If the Western Sanford Boulevard project (Local ID LEE0012-H) is implemented, many of those through trips will be pulled off of Wicker Street (NC 42), which may help alleviate the capacity issue, leaving the Wicker Street realignment with Cool Springs Road (SR 1325) to serve the growing neighborhoods in the project area.

Preliminary studies show now historical or unusual environmental impacts associated with this project.

## Tramway Road/Main Street (NC 78), Local ID: LEE0011 - H

NC 78/Tramway Road is recommended to be reconfigured to align with Pendergrass Road (SR 1334) at US 1, including a new interchange facility connecting US 1 with NC 78 and Pendergrass Road. From Woodland Avenue to US 1 (approximately 3.9 miles including new location), NC 78 is recommended to be widened to a four-lane divided boulevard facility.


NC 78/Tramway Road, from US 1 to the western Sanford city limit consists of two 12-foot lanes and has an estimated capacity of 9,500 vehicles per day (vpd). Currently, there are approximately 11,000 to 14,000 vpd using this segment, putting it over capacity. From the western Sanford city limit to US 421, NC 78 consists of two 12-foot lanes with a 14-foot center turn lane and estimated capacity of 14,500 vpd and experiences from 14,000 to 16,000 vpd.

Improving the facility to a four-lane divided boulevard will address the capacity issues from Woodland Avenue to US 1. Also, the facility currently experiences a crash rate higher than that of the state average. Adding additional lanes and constructing a median may help to lower the crash rate.

Locally, NC 78 is a major route that serves schools, businesses, residential and shopping areas. By aligning it with Pendergrass Road (SR 1334), NC 78 will serve as the southeast portion of an inner loop for the Sanford area, better connecting the increasing residential development to the southwest to the eastern portion of the city and US 421. Because commercial development where US 1 intersects with NC 78/Tramway Road is also increasing, realigning the intersection and adding an interchange will help handle the additional trips that can be expected to the area in the future.

No major environmental or historic property impacts are expected from this project. As US 1 is shown to be a freeway facility on the Strategic Highway Corridors (SHC) Vision plan, the prosed interchange is in-line with regional transportation plans.

## PUBLIC TRANSPORTATION & RAIL

There are not recommendations for public transportation or rail facilities. Existing rail lines can be seen in the Public Transportation and Rail map, Figure 1, sheet 3. Public transportation in Lee county is provided by the County of Lee Transportation System (COLTS) and is based on a demand-response model. COLTS contracts with human services agencies in Lee County and is available to the public.

## BICYCLE

The bicycle element of the Lee County CTP is shown in Figure 1, sheet 4. The bicycle routes depicted on that map were recommended by the CTP committee, made up of representatives of Lee County and its municipalities.

### Big Buffalo Creek Greenway

An off-road bicycle facility is proposed on the Big Buffalo Creek Greenway spanning from Carthage Street (SR 1237) approximately where it intersects with Fields Drive (SR 1107) north to the railroad tracks near Iron Furnace Road (SR 1463). See CTP Bicycle map Figure 1, sheet 4.

### Little Buffalo Creek Greenway

An off-road bicycle facility is proposed on the Little Buffalo Creek Greenway from Charlotte Avenue north to the Chatham County line. See CTP Bicycle map, Figure 1, sheet 4.

Recommendations for the addition of on-road bicycle facilities were made for portions of Avents Ferry Road (NC 42), Carbonton Road (SR 1009), Carthage Street (SR 1237), Cotton Road (SR 1403), Cox Mill Road (SR 1529), Cumnock Road (SR 1400), East Weatherspoon Street (SR 1560), Lemon Springs Road (SR 1001), Lower Moncure Road (SR 1002), Lower River Road (SR 1500), North Plank Road (SR 1007), Poplar Springs Church Road (SR 1537), South Moore Street, South Plank Road (SR 1007), Steele Bridge Road (SR 1318), Swanns Station Road (SR 1144), White Hill Road (US 15) and Wicker Street (NC 42). See CTP Bicycle map, Figure 1, sheet 4.

It is recommend that bike lanes be added to US Bike Route 1 (The Carolina Connection), which enters northern Lee County at the Chatham County line and exits southern Lee County at the Moore County line. This route coincides with portions of Carthage Street (SR 1237), Charlotte Avenue (SR 1002), Chris Cole Road (SR 1300), Deep River Road (SR 1466), Eleventh Street (SR 1002), Fire Tower Road (SR 1152), Hickory House Road (SR 1157), Lower Moncure Road (SR 1002) and Valley View Drive (SR 1588).

The division of Bicycle and Pedestrian Transportation should be consulted before improvements are made.

## PEDESTRIAN

There are no pedestrian facility recommendations in this plan.

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# Appendix A
# Resources and Contacts

## *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 homepage:

1-877-DOT-4YOU
(1-877-368-4968)
https://apps.dot.state.nc.us/dot/directory/authenticated/ToC.aspx

*Secretary of Transportation*

Eugene A. Conti, Jr., Ph.D.
1501 Mail Service Center
Raleigh, NC 27699-1501
(919) 733-2520
gconti@ncdot.gov
http://www.ncdot.org/about/leadership/secretary.html

*Board of Transportation Member*

David L. Burns
1204 Shepherd Ave.
Laurinburg, NC 28352
(910) 462-2122
Email: david@zvpate.com
http://www.ncdot.gov/about/board/default.html

*Highway Division Engineer*

Contact the Division Engineer with general questions concerning NCDOT activities within each Division and for information on Small Urban Funds.

Tim Johnson, PE
902 N. Sandhills Blvd.
PO Box 1067
Aberdeen, NC 28315
(910) 944-2344
tjohnson@ncdot.gov
http://www.ncdot.gov/doh/operations/division8/

*Division Project Manager*

Contact the Division Project Manager with questions concerning transportation projects within each Division.

L. Alison Whitesell, PE
902 N. Sandhills Blvd.
PO Box 1067
Aberdeen, NC 28315
(910) 944-2344
AWhitesell@ncdot.gov

*Division Construction Engineer*

Contact the Division Construction Engineer for information concerning major roadway improvements under construction.

John R.G. Olinger, PE
902 N. Sandhills Blvd.
PO Box 1067
Aberdeen, NC 28315
(910) 944-2344
jolinger@ncdot.gov

*Division Traffic Engineer*

Contact the Division Traffic Engineer for information concerning traffic signals, highway signs, pavement markings and crash history.

David B. Willett
902 N. Sandhills Blvd.
PO Box 1067
Aberdeen, NC 28315
(910) 947-3930
dbwillett@ncdot.gov

*Division Operations Engineer*

Contact the Division Operations Engineer for information concerning facility operations.

Robert W. Stone II, PE
902 N. Sandhills Blvd.
PO Box 1067
Aberdeen, NC 28315
(910) 944-2344
robstone@ncdot.gov

*Division Maintenance Engineer*

Contact the Division Maintenance Engineer for information regarding maintenance of all state roadways, improvement of secondary roads and other small improvement projects. The Division Maintenance Engineer also oversees the District Offices, the Bridge Maintenance Unit and the Equipment Unit.

Jeff Picklesimer, PE, PLS
902 N. Sandhills Blvd.
PO Box 1067
Aberdeen, NC 28315
(910) 944-2344
jpicklesimer@ncdot.gov

*District Engineer*

Contact the District Engineer for information on outdoor advertising, junkyard control, driveway permits, road additions, subdivision review and approval, Adopt A Highway program, encroachments on highway right of way, issuance of oversize/overwidth permits, paving priorities, secondary road construction program and road maintenance.

C.E. Chuck Dumas, Jr., PE
902 N. Sandhills Blvd.
PO Box 1067
Aberdeen, NC 28315
(910) 944-7621
cdumas@ncdot.gov

*Transportation Planning Branch (TPB)*

Contact the Transportation Planning Branch for information on long-range multi-modal planning services, including Strategic Highway Corridors.

1554 Mail Service Center
Raleigh, NC 27699-1554
(919) 707-0900
http://www.ncdot.gov/doh/preconstruct/tpb/

*Triangle Area Rural Planning Organization (RPO)*

Contact the RPO for information on long-range multi-modal planning services.

Matt Day
P.O. Box 12276
Research Triangle Park, NC 27709
(919) 558-9397
http://tarpo.org

*Strategic Planning Office*

Contact the Strategic Planning Office for information concerning prioritization of transportation projects.

Mr. Don Voelker
1501 Mail Service Center
Raleigh, NC 27699-1501
(919) 715-0951
djvoelker@ncdot.gov
https://apps.dot.state.nc.us/dot/directory/authenticated/UnitPage.aspx?id=11054

*Project Development & Environmental Branch (PDEA)*

Contact PDEA for information on environmental studies for projects that are included in the TIP.

1548 Mail Service Center
Raleigh, NC 27699-1548
(919) 707-6000
http://www.ncdot.gov/doh/preconstruct/pe/

*Secondary Roads Office*

Contact the Secondary Roads Office for 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 27699-1535
(919) 733-3250
http://www.ncdot.gov/doh/operations/secondaryroads/

*Program Development Branch*

Contact the Program Development Branch for information concerning Roadway Official Corridor Maps, Feasibility Studies and the Transportation Improvement Program (TIP).

1534 Mail Service Center
Raleigh, NC 27699-1534
(919) 733-2039
http://www.ncdot.org/planning/development/

*Public Transportation Division*

Contact the Public Transportation Division for information public transit systems.

1550 Mail Service Center
Raleigh, NC 27699-1550
(919) 733-4713
http://www.ncdot.org/transit/nctransit/

*Rail Division*
Contact the Rail Division for rail information throughout the state.

1553 Mail Service Center
Raleigh, NC 27699-1553
(919) 733-7245
http://www.bytrain.org/

*Division of Bicycle and Pedestrian Transportation*
Contact this Division for bicycle and pedestrian transportation information throughout the state.

1552 Mail Service Center
Raleigh, NC 27699-1552
(919) 707-2600
http://www.ncdot.gov/transit/bicycle/

*Bridge Maintenance Unit*
Contact the Bridge Maintenance Unit for information on bridge management throughout the state.

1565 Mail Service Center
Raleigh, NC 27699-1565
(919) 733-4362
http://www.ncdot.gov/doh/operations/dp_chief_eng/maintenance/bridge/

*Highway Design Branch*
The Highway Design Branch consists of the Roadway Design, Structure Design, Photogrammetry, Location & Surveys, Geotechnical, and Hydraulics Units. Contact the Highway Design Branch for information regarding design plans and proposals for road and bridge projects throughout the state.

1584 Mail Service Center
Raleigh, NC 27699-1584
(919) 250-4001
http://www.ncdot.gov/doh/preconstruct/highway/

## *Other State Government Offices*

Department of Commerce – Division of Community Assistance
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/en/CommunityServices/

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# Appendix B
# Comprehensive Transportation Plan Definitions

## *Highway Map*

*For visual depiction of facility types for the following CTP classification, visit http://www.ncdot.gov/doh/preconstruct/tpb/SHC/facility/.*

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 U-turns 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, or system continuity. The improvement to the facility may be widening, other operational strategies, increasing the level of access control along the facility, or a combination of improvements and strategies. *"Needs improvement" does not refer to the maintenance needs of existing facilities.*
- **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 high speed rail service is provided (there are currently no existing high speed corridor in North Carolina).
  - Recommended – Proposed corridor for high speed rail service.
- **Rail Stop** – A railroad station or stop along the railroad tracks.
- **Intermodal 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 or a bus station.
- **Park and Ride Lot** – A strategically located parking lot that is free of charge to anyone who parks a vehicle and commutes by transit or in a carpool.
- **Existing Grade Separation** – Locations where existing rail facilities and 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-of-way.
- **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.

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# 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 multi-use 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 '(ft)' is the approximate width of the roadway from edge of pavement to edge of pavement. Listed under 'lanes' is the total number of lanes, with the letter 'D' if the facility is divided.
- **Existing ROW:** The estimated existing right-of-way is based on NCDOT records. 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 using the NCLOS software with 2000 Highway Capacity Manual standards, as documented in Chapter I.
- **Existing and Proposed AADT** (Annual Average Daily Traffic) volumes, given in vehicles per day (vpd), are estimates only based on a systems-level analysis. The '2035 AADT E+C' is an estimate of the volume in 2035 with only existing plus committed projects assumed to be in place. Transportation Improvement Program (TIP). The '2035 AADT with CTP' is an estimate of the volume in 2035 with all proposed CTP improvements assumed to be in place. The '2035 AADT 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 I.
- **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 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.
- **Tier:** Tiers are defined as part of the North Carolina Mulitmodal Investment Network (NCMIN). Abbreviations are Sta= statewide tier, Reg= regional tier, Sub= subregional tier.
- **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, and P= pedestrian).

| HIGHWAY | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 2003 Existing System | | | | | | 2035 Proposed System | | |
| | | | | Cross-Section | | | | | | | | |
| Local ID | Facility | Section (From - To) | Dist. (mi) | (ft) | lanes | ROW FT | Speed Limit (mph) | Existing Capacity (vpd) | 2003 AADT | Cross-Section | Proposed Capacity (vpd) | PROPOSED 2035 AADT |
| | **US 1 (Jefferson Davis Hwy)** | | | | | | | | | | | |
| LEE0001-H | US 1** | Moore Co. to 4-lane US 1 | 3.74 | 48 | 4 | 160 | 65 | 45,400 | 11,000 | 4A | 59,900 | 33,000 |
| LEE0001-H | US 1 | 4 Lane US 1 to US 15-501 | 1.23 | 48 | 4 | 160 | 65 | 45,400 | 11,000 | 4A | 59,900 | 33,000 |
| LEE0001-H | US 1-15-501 | US 15-501 SR 1300 | 1.10 | 48 | 4 | 160 | 65 | 45,400 | 20,000 | 4A | 59,900 | 60,000 |
| LEE0001-H | US 1-15-501 | SR 1300 to NC 78 | 1.22 | 48 | 4 | 160 | 65 | 45,400 | 26,000 | 4A | 59,900 | 78,000 |
| LEE0001-H | US 1-15-501 | NC 78 to SR 1237 | 0.54 | 60 | 4 | 150 | 60 | 42,800 | 28,000 | 4A | 59,900 | 84,000 |
| LEE0001-H | US 1-15-501 | SR 1237 to NC 42 | 1.87 | 48 | 4 | 260 | 60 | 42,800 | 20,000 | 4A | 59,900 | 70,000 |
| LEE0001-H | US 1-15-501 | NC 42 to SR 1009 | 0.82 | 48 | 4 | 260 | 60 | 42,800 | 23,000 | 4A | 59,900 | 81,000 |
| LEE0001-H | US 1-15-501 | SR 1009 to US 421/NC 87 | 1.06 | 48 | 4 | 260 | 55 | 42,800 | 26,000 | 4A | 59,900 | 67,000 |
| LEE0001-H | US 1-15-501/NC 87 | US 421/NC 87 to SR 1406 | 0.58 | 48 | 4 | 260 | 55 | 42,800 | 24,000 | 4A | 59,900 | 62,000 |
| LEE0001-H | US 1-15-501/NC 87 | SR 1406 to SR 1405/US 421 BYP (FUTURE) | 0.50 | 48 | 4 | 260 | 55 | 42,800 | 24,000 | 4A | 59,900 | 62,000 |
| LEE0001-H | US 1-15-501/NC 87 | SR 1405/US 421 BYP (FUTURE) to US 15-501/NC 87 | 0.97 | 48 | 4 | 300 | 55 | 42,800 | 24,000 | 4A | 59,900 | 53,000 |
| LEE0001-H | US 1 | US 15-501/NC 87 to SR 1415 | 3.17 | 48 | 4 | 340 | 55 | 50,600 | 16,000 | 4A | 59,900 | 35,000 |
| LEE0001-H | US 1 | SR 1415 to SR 1423 | 2.55 | 48 | 4 | 340 | 55 | 50,600 | 19,000 | 6A | 90,000 | 67,000 |
| LEE0001-H | US 1 | SR 1423 to Chatham Co. | 2.71 | 48 | 4 | 340 | 55 | 50,600 | 21,000 | 6A | 90,000 | 74,000 |
| | | | | | | | | | | | | |
| | **US 1 Business (Hawkins Ave., Carthage Ave., Wicker St.)** | | | | | | | | | | | |
| | Wicker St. | US 1 to Timber Place | 0.73 | 22 | 2 | 100 | 35 | 7,300 | 8,800 | ADQ | 7,300 | 19,000 |
| | Wicker St. | Timber Place to Carthage Ave. | 0.27 | 48 | 2 | 100 | 20 | 7,300 | 8,800 | ADQ | 7,300 | 19,000 |
| | Carthage Ave. | Wicker St. to SR 1009 | 0.16 | 46 | 2 | 60 | 35 | 7,300 | 8,700 | 4D | 28,100 | 19,000 |
| | Carthage Ave. | SR 1009 to US 421/NC 42-87 | 0.44 | 60 | 4 | 60 | 35 | 36,000 | 8,900 | 4D | 28,100 | 31,000 |
| | Carthage Ave. | US 421/NC 42-87 to SR 1002 | 0.21 | 60 | 5 | 60 | 35 | 37,100 | 7,000 | 4D | 28,100 | 25,000 |
| | Hawkins Ave. | SR 1002 to SR 1560 | 0.46 | 36 | 3 | 60 | | 12,300 | 6,300 | ADQ | 12,300 | 22,000 |
| | Hawkins Ave. | SR 1560 to Burns Dr. | 0.81 | 36 | 3 | 100 | | 12,300 | 14,000 | 4D | 28,100 | 31,000 |
| LEE0008-H | Hawkins Ave. | Greenway Ct. to US 1 | 1.72 | 22 | 2 | 100 | | 7,300 | 11,000 | 4D | 28,100 | 24,000 |
| | | | | | | | | | | | | |
| | **US 15 (Hawkins Ave., White Hill Rd.)** | | | | | | | | | | | |
| LEE0003-H | White Hill Rd. | Moore Co. to US 1 | 3.28 | 24 | 2 | 150 | 55 | 9,500 | 7,900 | 4B | 57,400 | 28,000 |
| | See US 1 | US 1 to US 1 | | | | | | | | | | |
| | Hawkins Ave. | US 1 to SR 1466 | 2.09 | 55 | 4 | 100 | | 43,300 | 15,000 | 4E | 57,400 | 28,000 |
| | Hawkins Ave. | SR 1466 to End 4 lane | 0.71 | 48 | 4 | 250 | | 43,300 | 8,000 | 4E | 57,400 | 21,000 |
| | Hawkins Ave. | End 4 Lane to Chatham Co. | 1.08 | 24 | 2 | 250 | | 9,500 | 7,200 | 4E | 57,499 | 19,000 |

* 2006 AADT

**2005 AADT

***Traffic from McNeil Rd. was added to Burns Dr.
to account for recommended interchange.

| HIGHWAY | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 2003 Existing System | | | | | | 2035 Proposed System | | |
| | | | | Cross-Section | | | | | | | | |
| Local ID | Facility | Section (From - To) | Dist. (mi) | (ft) | lanes | ROW FT | Speed Limit (mph) | Existing Capacity (vpd) | 2003 AADT | Cross-Section | Proposed Capacity (vpd) | PROPOSED 2035 AADT |
| | | | | | | | | | | | | |
| | **US 501 (Common to US 15)** | | | | | | | | | | | |
| | See US 15 | Moore Co. to Chatham Co. | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **US 421 (Horner Blvd., Boone Trail Rd.)** | | | | | | | | | | | |
| LEE0009-H | US 421 | Harnett Co. to SR 1531 | 0.81 | 24 | 2 | 340 | 55 | 9,500 | 9,900 | 4E | 40,500 | 35,000 |
| LEE0009-H | US 421 | SR 1531 to SR 1529 | 1.81 | 24 | 2 | 340 | 55 | 9,500 | 10,000 | 4E | 40,500 | 26,000 |
| LEE0009-H | US 421 | SR 1529 to SR 1526 | 0.71 | 24 | 2 | 340 | 55 | 9,500 | 11,000 | 4E | 40,500 | 28,000 |
| LEE0009-H | US 421 | SR 1526 to US 421 BYP. (FUTURE) | 0.56 | 24 | 2 | 340 | 35 | 9,500 | 10,000 | 4E | 28,100 | 26,000 |
| LEE0009-H | US 421 | US 421 BYP. (FUTURE) to SR 1580 | 0.83 | 24 | 2 | 340 | 35 | 7,300 | 10,000 | 4E | 28,100 | 16,000 |
| LEE0009-H | S. Horner Blvd. | SR 1580 to SR 1520 | 0.23 | 68 | 5 | 100 | 35 | 37,100 | 34,000 | 4E | 28,100 | 55,000 |
| LEE0009-H | S. Horner Blvd. | SR 1520 to NC 42 | 0.74 | 68 | 5 | 100 | 35 | 37,100 | 30,000 | 4E | 28,100 | 57,000 |
| LEE0009-H | Horner Blvd. | NC 42 to SR 1514 | 0.44 | 52 | 5 | 100 | 35 | 37,100 | 33,000 | 4E | 28,100 | 62,000 |
| LEE0009-H | Horner Blvd. | SR 1514 AW RR | 0.22 | 52 | 5 | 120 | 35 | 37,100 | 28,000 | 4E | 28,100 | 62,000 |
| LEE0009-H | Horner Blvd. | AW RR to SR 1515 | 0.28 | 52 | 5 | 100 | 35 | 37,100 | 28,000 | 4E | 28,100 | 62,000 |
| LEE0009-H | Horner Blvd. | SR 1515 to SR 1119 | 0.55 | 52 | 5 | 70 | 35 | 37,100 | 28,000 | 4E | 28,100 | 45,000 |
| LEE0009-H | Horner Blvd. | SR 1119 to SR 1107 | 0.35 | 52 | 5 | 90 | 35 | 37,100 | 28,000 | 4E | 28,100 | 45,000 |
| LEE0009-H | Horner Blvd. | SR 1107 to CSX RR | 0.23 | 52 | 5 | 100 | 35 | 37,100 | 27,000 | 4E | 28,100 | 43,000 |
| LEE0009-H | Horner Blvd. | CSX RR to US 1 Business | 0.56 | 52 | 4 | 80 | 35 | 45,600 | 22,000 | 4E | 28,100 | 48,000 |
| LEE0009-H | Horner Blvd. | US 1 Business to Marks St. | 0.55 | 52 | 4 | 80 | 35 | 45,600 | 19,000 | 4E | 28,100 | 42,000 |
| LEE0009-H | N. Horner Blvd. | Marks St. to US 1 | 0.79 | 54 | 4 | 80 | 35 | 45,600 | 16,000 | 4E | 28,100 | 35,000 |
| | N. Horner Blvd. | US 1 to Begin Divided | 0.36 | 54 | 4 | 100 | 35 | 45,600 | 17,000 | ADQ | 45,600 | 27,000 |
| | Boone Trail Rd. | Begin Divided to NCL Sanford | 2.15 | 48 | 4 | 200 | 35 | 43,300 | 16,000 | ADQ | 43,300 | 26,000 |
| | Boone Trail Rd. | NCL Sanford to US 421 BYP> (FUTURE) | 1.81 | 48 | 4 | 300 | 55 | 43,300 | 11,000 | ADQ | 43,300 | 21,000 |
| LEE0009-H | Boone Trail Rd. | US 421 BYP (FUTURE) to Chatham Co. | 0.60 | 48 | 4 | 300 | 55 | 43,300 | 11,000 | 4A | 59,900 | 39,000 |
| | | | | | | | | | | | | |
| | **US 421 Bypass** | | | | | | | | | | | |
| LEE0005-H | US 421 Bypass | US 421 to US 1 | 3.81 | 48 | 4 | 300 | 65 | 42,800 | N/A | 4A | 59,900 | 24,000 |
| LEE0005-H | US 421 Bypass | US 1 to SR 1415 | 1.17 | 48 | 4 | 300 | 65 | 42,800 | N/A | 4A | 59,900 | 31,000 |
| LEE0005-H | US 421 Bypass | SR 1415 to SR 1521 | 1.65 | 48 | 4 | 300 | 65 | 42,800 | N/A | 4A | 59,900 | 37,000 |
| LEE0005-H | US 421 Bypass | SR 1521 to NC 42 | 1.92 | 48 | 4 | 300 | 65 | 42,800 | N/A | 4A | 59,900 | 36,000 |

* 2006 AADT

**2005 AADT

***Traffic from McNeil Rd. was added to Burns Dr.
to account for recommended interchange.

| HIGHWAY | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 2003 Existing System | | | | | | 2035 Proposed System | | |
| | | | | Cross-Section | | | | | | | | |
| Local ID | Facility | Section (From - To) | Dist. (mi) | (ft) | lanes | ROW FT | Speed Limit (mph) | Existing Capacity (vpd) | 2003 AADT | Cross-Section | Proposed Capacity (vpd) | PROPOSED 2035 AADT |
| | US 421 Bypass | NC 42 to US 421 | 0.94 | 48 | 4 | 300 | 65 | 42,800 | N/A | ADQ | 42,800 | 34,000 |
| | US 421 Bypass | US 421 to NC 87 | 1.31 | 48 | 4 | 300 | 65 | 42,800 | N/A | ADQ | 42,800 | 23,000 |
| | | | | | | | | | | | | |
| | **NC 42 (Avents Ferry Rd., Broadway Rd., E Main St., Wicker St., Carbonton Rd.)** | | | | | | | | | | | |
| | Carbonton Rd. | Chatham Co. to SR 1007 | 2.88 | 18 | 2 | 60 | 55 | 7,700 | 1,300 | ADQ | 7,700 | 2,100 |
| | Carbonton Rd. | SR 1007 to SR 1736 | 0.88 | 22 | 2 | 60 | 55 | 9,500 | 1,300 | ADQ | 9,500 | 3,900 |
| | Carbonton Rd. | SR 1736 to SR 1392 | 2.14 | 18 | 2 | 60 | 55 | 7,700 | 3,700 | ADQ | 7,700 | 13,000 |
| LEE0012-H | Carbonton Rd. | SR 1392 to Glass Dr. | 1.08 | 18 | 2 | 60 | 55 | 7,700 | 3,700 | 4B | 40,500 | 13,000 |
| | Carbonton Rd. | Dlass Dr. to Wicker St. | 0.74 | 18 | 2 | 60 | 55 | 7,700 | 3,700 | ADQ | 7,700 | 13,000 |
| | Wicker St. | SR 1318 to WCL Sanford | 0.76 | 20 | 2 | 60 | 55 | 9,300 | 3,700 | ADQ | 9,300 | 13,000 |
| LEE0013-H | Wicker St. | WCL Sanford to US 1 | 1.12 | 22 | 2 | 60 | 55 | 7,300 | 8,200 | 3B | 15,900 | 18,000 |
| | See US 1 Business | US 1 to US 421 | | | | | | | | | | |
| | See US 421 | US421 to US 421 | | | | | | | | | | |
| | E. Main St. | US 421 to SR 1519 | 0.27 | 48 | 3 | 90 | | 12,300 | 16,000 | | | 30,000 |
| | Broadway Rd. | SR 1519 to US 421 BYP. (FUTURE) | 1.35 | 24 | 2 | 60 | | 7,300 | 17,000 | | | 32,000 |
| | Broadway Rd. | US 421 BYP. (FUTURE) to SR 1523 | 0.32 | 24 | 2 | 60 | | 7,300 | 17,000 | | | 44,000 |
| | Broadway Rd. | SR 1523 to ECL Sanford | 0.53 | 32 | 3 | 60 | | 12,300 | 8,900 | | | 20,000 |
| | Broadway Rd. | ECL Sanford to SR 1579 | 0.45 | 24 | 2 | 60 | | 9,500 | 8,900 | | | 20,000 |
| | Avents Ferry Rd. | SR 1579 to SR 1538 | 3.68 | 20 | 2 | 60 | | 9,300 | 3,300 | | | 9,900 |
| | Avents Ferry Rd. | SR 1538 to SR 1537 | 2.67 | 23 | 2 | 60 | | 9,500 | 2,900 | | | 8,700 |
| | Avents Ferry Rd. | SR 1537 to Chatham Co. | 1.33 | 23 | 2 | 60 | | 9,500 | 2,900 | | | 7,500 |
| | | | | | | | | | | | | |
| | **NC 78 (Tramway Rd., W Main St.)** | | | | | | | | | | | |
| LEE0011-H | Tramway Rd. | US 1 to SR 1157 | 1.62 | 24 | 2 | 100 | 55 | 9,500 | 11,000 | 4C | 40,500 | 28,000 |
| LEE0011-H | Tramway Rd. | SR 1157 to WCL Sanford | 1.82 | 24 | 2 | 100 | 55 | 9,500 | 14,000 | 4C | 40,500 | 31,000 |
| LEE0011-H | W Main St. | WCL Sanford to Woodland Ave. | 0.54 | 38 | 3 | 100 | 35 | 14,500 | 16,000 | 4C | 28,100 | 26,000 |
| LEE0011-H | W Main St. | Woodland Ave. to Horner Blvd. | 0.60 | 38 | 3 | 60 | 35 | 14,500 | 16,000 | ADQ | 14,500 | 26,000 |
| | | | | | | | | | | | | |
| | **NC 87** | | | | | | | | | | | |
| LEE004-H | NC 87 | Harnett Co. to SR 1143 | 0.60 | 60 | 5 | 150 | 55 | 43,300 | 22,000 | 4C | 57,400 | 66,000 |
| LEE004-H | NC 87 | SR 1143 to US 421 BYP. (FUTURE) | 2.97 | 60 | 5 | 150 | 55 | 43,300 | 22,000 | 4C | 57,400 | 57,000 |
| LEE004-H | NC 87 | US 421 BYP (FUTURE) to SR 1527 | 1.00 | 60 | 5 | 150 | 35 | 43,300 | 22,000 | 4C | 28,100 | 35,000 |
| LEE004-H | NC 87 | SR 1527 to US 421 | 0.48 | 50 | 5 | 150 | 35 | 43,300 | 26,000 | 4C | 28,100 | 42,000 |
| | See US 421 | US 421 to US 1 | | | | | | | | | | |

* 2006 AADT

**2005 AADT

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to account for recommended interchange.

| HIGHWAY | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 2003 Existing System | | | | | | 2035 Proposed System | | |
| | | | | Cross-Section | | | | | | | | |
| Local ID | Facility | Section (From - To) | Dist. (mi) | (ft) | lanes | ROW FT | Speed Limit (mph) | Existing Capacity (vpd) | 2003 AADT | Cross-Section | Proposed Capacity (vpd) | PROPOSED 2035 AADT |
| | See US 1 | US 1 to US 15 | | | | | | | | | | |
| | See US 15 | US 15 to Chatham Co. | | | | | | | | | | |
| | | | | | | | | | | | | |
| | **SR 1001 (Lemon Springs Rd., Edwards Rd.)** | | | | | | | | | | | |
| | Lemon Springs Rd. | NC 78 to SR 1150 | 2.75 | 20 | 2 | 60 | 55 | 9,300 | 5,400 | ADQ | 9,300 | 14,000 |
| | Edwards Rd. | SR 1150 to SR 1144 | 1.88 | 20 | 2 | 60 | 55 | 9,300 | 2,100 | ADQ | 9,300 | 6,300 |
| | Edwards Rd. | SR 1144 to Harnett Co. | 4.40 | 20 | 2 | 60 | 55 | 9,300 | 3,800 | ADQ | 9,300 | 11,000 |
| | | | | | | | | | | | | |
| | **SR 1002 (Lower Moncure Rd., Charlotte Ave.)** | | | | | | | | | | | |
| | Charlotte Ave. | US 1 Business to First St. | 0.15 | 55 | 4 | 80 | 45 | 36,000 | 3,200 | ADQ | 36,000 | 11,000 |
| | Charlotte Ave. | First St. to Eighth St. | 0.53 | 52 | 4 | 80 | 45 | 36,000 | 3,200 | ADQ | 36,000 | 11,000 |
| | Charlotte Ave. | Eighth St. to SR 1509 | 0.31 | 36 | 2 | 80 | 35 | 7,300 | 2,500 | ADQ | 7,300 | 8,800 |
| | Lower Moncure Rd. | SR 1509 to SR 1508 | 2.97 | 18 | 2 | 60 | 55 | 7,300 | 1,700 | ADQ | 7,300 | 4,400 |
| | Lower Moncure Rd. | SR 1508 to SR 1418 | 1.81 | 18 | 2 | 60 | 55 | 7,300 | 1,200 | ADQ | 7,300 | 3,100 |
| | Lower Moncure Rd. | SR 1418 to SR 1425 | 3.91 | 18 | 2 | 60 | 55 | 7,300 | 850 | ADQ | 7,300 | 1,600 |
| | Lower Moncure Rd. | SR 1425 to SR 1500 | 2.25 | 18 | 2 | 60 | 55 | 7,300 | 650 | ADQ | 7,300 | 1,400 |
| | Lower Moncure Rd. | SR 1500 to 1466 | 0.79 | 18 | 2 | 60 | 55 | 7,300 | 1,500 | ADQ | 7,300 | 5,300 |
| | | | | | | | | | | | | |
| | **SR 1007 (Plank Rd., County Line Rd.)** | | | | | | | | | | | |
| | N Plank Rd. | Chatham Co. to NC 42 | 3.47 | 18 | 2 | 60 | 55 | 7,700 | 740 | ADQ | 7,700 | 2,200 |
| | S Plank Rd. | NC 42 to SR 1320 | 2.61 | 18 | 2 | 60 | 55 | 7,700 | 820 | ADQ | 7,700 | 2,900 |
| | S Plank Rd. | SR 1320 to SR 1303 | 5.46 | 18 | 2 | 60 | 55 | 7,700 | 570 | ADQ | 7,700 | 2,000 |
| | S Plank Rd. | SR 1303 to US 15-501 | 1.61 | 22 | 2 | 60 | 55 | 9,500 | 1,600 | ADQ | 9,500 | 5,600 |
| | | | | | | | | | | | | |
| | **SR 1009 (Carbonton Rd.)** | | | | | | | | | | | |
| | Carbonton Rd. | NC 42 to WCL Sanford | 0.81 | 20 | 2 | 60 | 55 | 8,500 | 2,000 | ADQ | 8,500 | 7,000 |
| | Carbonton Rd. | WCL Sanford to US 1-15-501 | 1.33 | 24 | 2 | 60 | 45 | 8,500 | 2,500 | ADQ | 8,500 | 7,500 |
| | Carbonton Rd. | US 1-15-501 to Palmer Drive | 0.28 | 24 | 2 | 60 | 35 | 8,500 | 3,300 | ADQ | 8,500 | 8,500 |
| | Carbonton Rd. | Palmer Drive to US 1 Bus/NC 42 | 0.50 | 36 | 2 | 60 | 35 | 8,500 | 4,500 | ADQ | 8,500 | 12,000 |
| | | | | | | | | | | | | |
| | **SR 1100 (Spring Ln.)** | | | | | | | | | | | |
| | Spring Ln. | SR 1325 to Plantation Drive | 0.42 | 22 | 2 | 60 | 35 | 8,500 | 5,800 | ADQ | 8,500 | 17,000 |
| | Spring Ln. | Plantation Drive SR 1328 | 0.75 | 24 | 2 | 60 | 35 | 8,500 | 5,800 | ADQ | 8,500 | 17,000 |

* 2006 AADT

**2005 AADT

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to account for recommended interchange.

| HIGHWAY | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 2003 Existing System | | | | | | 2035 Proposed System | | |
| | | | | Cross-Section | | | | | | | | |
| Local ID | Facility | Section (From - To) | Dist. (mi) | (ft) | lanes | ROW FT | Speed Limit (mph) | Existing Capacity (vpd) | 2003 AADT | Cross-Section | Proposed Capacity (vpd) | PROPOSED 2035 AADT |
| | Spring Ln. | SR 1328 to US 1 | 0.36 | 44 | 2 | 100 | 35 | 8,500 | 11,000 | ADQ | 8,500 | 33,000 |
| | Spring Ln. | US 1 to US 421 | 0.72 | 44 | 2 | 60 | 35 | 8,500 | 11,000 | ADQ | 8,500 | 33,000 |
| | | | | | | | | | | | | |
| | **SR 1107 (Fields Dr.)** | | | | | | | | | | | |
| | Fields Dr. | SR 1237 to SR 1108 | 0.61 | 24 | 2 | 60 | 35 | 8,500 | 8,100 | ADQ | 8,500 | 21,000 |
| | Fields Dr. | SR 1108 to US 421 | 0.40 | 24 | 2 | 60 | 35 | 8,500 | 10,200 | ADQ | 8,500 | 26,000 |
| | | | | | | | | | | | | |
| | **SR 1108 (Washington Ave.)** | | | | | | | | | | | |
| | Washington Ave. | SR 1107 to SR 1232 | 0.20 | 48 | 2 | 60 | 35 | 8,500 | 1,700 | ADQ | 8,500 | 4,400 |
| | Washington Ave. | SR 1232 to SR 1117 | 0.30 | 22 | 2 | 60 | 35 | 8,500 | 1,700 | ADQ | 8,500 | 4,400 |
| | | | | | | | | | | | | |
| | **SR 1117 (Garden St., Harkey St.)** | | | | | | | | | | | |
| | Garden St. | SR 1152 to SR 1288 | 0.98 | 20 | 2 | 60 | 35 | 8,500 | 2,600 | ADQ | 8,500 | 9,100 |
| | Harkey St. | SR 1288 to SR 1122 | 0.36 | 20 | 2 | 60 | 35 | 8,500 | 2,600 | ADQ | 8,500 | 9,100 |
| | | | | | | | | | | | | |
| | **SR 1119 (Woodland Ave., W. Rose St.)** | | | | | | | | | | | |
| | W Rose St. | US 421 to Woodland Ave. | 0.17 | 48 | 4 | 60 | 35 | 36,000 | 4,500 | ADQ | 36,000 | 12,000 |
| | Woodland Ave. | Rose St. to SR 1122 | 0.30 | 44 | 2 | 60 | 35 | 8,500 | 12,000 | ADQ | 8,500 | 31,000 |
| | | | | | | | | | | | | |
| | **SR 1122 (Courtland Dr.)** | | | | | | | | | | | |
| | Courtland Dr. | SR 1515 to SR 1119 | 0.30 | 24 | 2 | 60 | 45 | 8,500 | 4,700 | ADQ | 8,500 | 14,000 |
| | Courtland Dr. | SR 1119 to WCL Sanford | 0.66 | 20 | 2 | 60 | 45 | 8,500 | 4,700 | ADQ | 8,500 | 14,000 |
| | Courtland Dr. | WCL Sanford to NC 78 | 0.90 | 24 | 2 | 60 | 35 | 8,500 | 4,700 | ADQ | 8,500 | 14,000 |
| | | | | | | | | | | | | |
| | **SR 1133 (Lee Ave.)** | | | | | | | | | | | |
| | Lee Ave. | US 421 to NC 78 | 0.73 | 30 | 2 | 60 | 35 | 8,500 | 10,000 | ADQ | 8,500 | 14,000 |
| | Lee Ave. | NC 78 to Williams St. | 0.36 | 44 | 4 | 60 | 35 | 8,500 | 10,000 | ADQ | 8,500 | 14,000 |
| | Lee Ave. | Williams St. to Rand St. | 0.17 | 44 | 2 | 60 | 35 | 8,500 | 9,300 | ADQ | 8,500 | 20,000 |
| | Lee Ave. | Rand St. to SCL Sanford | 0.84 | 36 | 3 | 60 | 35 | 13,500 | 4,300 | ADQ | 13,500 | 9,500 |
| | Lee Ave. | SCL Sanford to SR 1146 | 2.04 | 22 | 2 | 60 | 55 | 9,300 | 4,300 | ADQ | 9,300 | 9,500 |
| | | | | | | | | | | | | |
| | **SR 1136 (Wilson Rd.)** | | | | | | | | | | | |
| | Wilson Rd. | SR 1133 to NC 87 | 0.61 | 22 | 2 | 60 | 35 | 8,500 | 7,100 | ADQ | 8,500 | 18,000 |
| | | | | | | | | | | | | |

* 2006 AADT

**2005 AADT

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to account for recommended interchange.

| HIGHWAY | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 2003 Existing System | | | | | | 2035 Proposed System | | |
| | | | | Cross-Section | | | | | | | | |
| Local ID | Facility | Section (From - To) | Dist. (mi) | (ft) | lanes | ROW FT | Speed Limit (mph) | Existing Capacity (vpd) | 2003 AADT | Cross-Section | Proposed Capacity (vpd) | PROPOSED 2035 AADT |
| | **SR 1143 (Pickett Rd.)** | | | | | | | | | | | |
| | Pickett Rd. | NC 87 to Harnett Co. | 0.70 | 18 | 2 | 60 | 55 | 7,700 | 1,000 | ADQ | 7,700 | 2,600 |
| | | | | | | | | | | | | |
| | **SR 1144 (Swann's Station Rd., Greenwood Rd.)** | | | | | | | | | | | |
| | Swann's Station Rd. | Harnett Co. to SR 1216 | 1.66 | 24 | 2 | 60 | 55 | 9,500 | 4,600 | 2A | 14,600 | 14,000 |
| | Swann's Station Rd. | SR 1216 to SR 1001 | 2.12 | 24 | 2 | 60 | 55 | 9,500 | 3,700 | 2A | 14,600 | 11,000 |
| | Greenwood Rd. | SR 1001 to SR 1179 | 2.38 | 22 | 2 | 60 | 55 | 9,500 | 6,500 | 2A | 14,600 | 20,000 |
| | | | | | | | | | | | | |
| | **SR 1146 (Saint Andrews Church Rd.)** | | | | | | | | | | | |
| | Saint Andrews Ch. Rd. | NC 78 to SR 1149 | 0.71 | 22 | 2 | 60 | 45 | 9,500 | 4,600 | ADQ | 9,500 | 12,000 |
| | Saint Andrews Ch. Rd. | SR 1149 to SR 1001 | 0.15 | 22 | 2 | 60 | 45 | 9,500 | 3,700 | ADQ | 9,500 | 11,000 |
| | Saint Andrews Ch. Rd. | SR 1001 to SR 1164 | 2.28 | 18 | 2 | 60 | 55 | 7,700 | 2,600 | ADQ | 7,700 | 7,800 |
| | Saint Andrews Ch. Rd. | SR 1164 to SR 1144 | 1.00 | 18 | 2 | 60 | 55 | 7,700 | 920 | ADQ | 7700 | 2,800 |
| | | | | | | | | | | | | |
| | **SR 1149 (Minter School Rd.)** | | | | | | | | | | | |
| | Minter School Rd | SR 1146 to SR 1156 | 2.17 | 18 | 2 | 60 | 55 | 7,700 | 1,600 | ADQ | 7700 | 4,100 |
| | | | | | | | | | | | | |
| | **SR 1152 (Fire Tower Rd.)** | | | | | | | | | | | |
| | Fire Tower Rd. | SR 1237 to SR 1117 | 0.25 | 20 | 2 | 60 | 55 | 9,300 | 2,900 | ADQ | 9,300 | 8,700 |
| | Fire Tower Rd. | SR 1117 to NC 78 | 1.46 | 20 | 2 | 60 | 55 | 9,300 | 2,300 | ADQ | 9,300 | 8,100 |
| | | | | | | | | | | | | |
| | **SR 1156 (Minter School Rd.)** | | | | | | | | | | | |
| | Minter School Rd. | SR 1160 to SR 1149 | 1.14 | 22 | 2 | 60 | 55 | 9,500 | 1,600 | ADQ | 9,500 | 4,100 |
| | | | | | | | | | | | | |
| | **SR 1157 (Hickory House Rd.)** | | | | | | | | | | | |
| LEE0010-H | Hickory House Rd. | NC 78 to SR 1293 | 0.84 | 18 | 2 | 60 | 55 | 7,700 | 2,200 | 4C | 45,200 | 4,800 |
| LEE0010-H | Hickory House Rd. | SR 1293 to US 1 | 1.86 | 18 | 2 | 60 | 55 | 7,700 | 1,700 | 4C | 45,200 | 4,400 |
| | | | | | | | | | | | | |
| | **SR 1158 (Willett Rd.)** | | | | | | | | | | | |
| | Willet Rd. | SR 1157 to SR 1199 | 1.26 | 22 | 2 | 60 | 55 | 9,500 | 3,800 | ADQ | 9,500 | 9,800 |
| | Willet Rd. | SR 1199 to SR 1144 | 1.46 | 22 | 2 | 60 | 55 | 9,500 | 1,700 | ADQ | 9,500 | 10,800 |
| | | | | | | | | | | | | |
| | **SR 1160 (Lemon Springs Rd.)** | | | | | | | | | | | |
| | Lemon Springs Rd. | SR 1144 to SR 1001 | 1.76 | 20 | 2 | 60 | 55 | 9,300 | 3,300 | ADQ | 9,300 | 8,500 |

* 2006 AADT

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to account for recommended interchange.

| HIGHWAY | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 2003 Existing System | | | | | | 2035 Proposed System | | |
| | | | | Cross-Section | | | | | | | | |
| Local ID | Facility | Section (From - To) | Dist. (mi) | (ft) | lanes | ROW FT | Speed Limit (mph) | Existing Capacity (vpd) | 2003 AADT | Cross-Section | Proposed Capacity (vpd) | PROPOSED 2035 AADT |
| | | | | | | | | | | | | |
| | **SR 1166 (Nicholson Rd.)** | | | | | | | | | | | |
| | Nicholson Rd. | Moore Co. to SR 1173 | 0.45 | 18 | 2 | 60 | 55 | 7,700 | 1,300 | ADQ | 7,700 | 4,600 |
| | Nicholson Rd. | SR 1173 to SR 1175 | 1.37 | 18 | 2 | 60 | 55 | 7,700 | 1,200 | ADQ | 7,700 | 4,200 |
| | Nicholson Rd. | SR 1175 to SR 1001 | 1.88 | 18 | 2 | 60 | 55 | 7,700 | 1,200 | ADQ | 7,700 | 4,200 |
| | | | | | | | | | | | | |
| | **SR 1179 (Rocky Fork Church Rd.)** | | | | | | | | | | | |
| | Rocky Fork Church Rd. | US 1 to SR 1144 | 2.91 | 20 | 2 | 60 | 55 | 9,300 | 2,000 | 2A | 14,600 | 9,500 |
| | | | | | | | | | | | | |
| | **SR 1180 (Wildlife Rd.)** | | | | | | | | | | | |
| | Wildlife Rd. | US 1 to SR 1179 | 1.10 | 18 | 2 | 60 | 55 | 7,700 | 290 | ADQ | 7,700 | 870 |
| | | | | | | | | | | | | |
| | **SR 1199 (Peach Orchard Rd)** | | | | | | | | | | | |
| | Peach Orchard Rd. | SR 1179 to SR 1158 | 1.16 | 20 | 2 | 60 | 55 | 9,300 | 1,200 | ADQ | 9,300 | 3,100 |
| | | | | | | | | | | | | |
| | **SR 1237 (Carthage St.)** | | | | | | | | | | | |
| | Carthage St. | US 1 to SR 1107 | 2.30 | 22 | 2 | 60 | 55 | 7,700 | 4,600 | ADQ | 7,700 | 10,000 |
| | Carthage St. | SR 1107 to US 1 Bus/NC 42 | 0.45 | 35 | 3 | 60 | 35 | 12,700 | 11,000 | ADQ | 11,000 | 21,000 |
| | | | | | | | | | | | | |
| | **SR 1239 (Industrial Dr.)** | | | | | | | | | | | |
| | Industrial Dr. | SR 1133 to W. Williams St. | 0.07 | 44 | 4 | 80 | 35 | 36,000 | 2,500 | ADQ | 36,000 | 4,000 |
| | Industrial Dr. | W Williams St. to SR 1240 | 0.86 | 24 | 2 | 80 | 35 | 7,300 | 2,500 | ADQ | 7,300 | 4,000 |
| | | | | | | | | | | | | |
| | **SR 1293 (Liberty Rd.)** | | | | | | | | | | | |
| LEE0010-H | Liberty Rd. | SR 1157 to SR 1149 | 0.56 | 24 | 2 | 60 | 55 | 9,500 | 1,600 | 4C | 45,200 | 4,800 |
| | | | | | | | | | | | | |
| | **SR 1300 (Chris Cole Rd.)** | | | | | | | | | | | |
| | Chris Cole Rd. | SR 1007 to SR 1301 | 1.40 | 20 | 2 | 60 | 55 | 9,300 | 1,200 | ADQ | 9,300 | 4,200 |
| | Chris Cole Rd. | SR 1301 to US 1-15-501 | 4.08 | 20 | 2 | 60 | 55 | 9,300 | 1,500 | ADQ | 9,300 | 5,300 |
| | | | | | | | | | | | | |
| | **SR 1303 (Center Church Rd.)** | | | | | | | | | | | |
| | Center Church Rd. | US 1 to SR 1311 | 3.44 | 20 | 2 | 60 | 55 | 9,300 | 6,600 | ADQ | 9,300 | 23,000 |
| | Center Church Rd. | SR 1311 | 1.78 | 20 | 2 | 60 | 55 | 9,300 | 1,200 | ADQ | 9,300 | 4,200 |
| | | | | | | | | | | | | |

* 2006 AADT

**2005 AADT

***Traffic from McNeil Rd. was added to Burns Dr.
to account for recommended interchange.

| HIGHWAY | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 2003 Existing System | | | | | | 2035 Proposed System | | |
| | | | | Cross-Section | | | | | | | | |
| Local ID | Facility | Section (From - To) | Dist. (mi) | (ft) | lanes | ROW FT | Speed Limit (mph) | Existing Capacity (vpd) | 2003 AADT | Cross-Section | Proposed Capacity (vpd) | PROPOSED 2035 AADT |
| | **SR 1305 (Henley Rd.)** | | | | | | | | | | | |
| | Henley Rd. | SR 1303 to SR 1309 | 1.80 | 18 | 2 | 60 | 55 | 7,700 | 700 | ADQ | 7,700 | 2,500 |
| | Henley Rd. | SR 1309 to SR 1303 | 2.34 | 18 | 2 | 60 | 55 | 7,700 | 2,700 | ADQ | 7,700 | 9,500 |
| | | | | | | | | | | | | |
| | **SR 1313 (Blackstone Rd.)** | | | | | | | | | | | |
| | Blackstone Rd. | SR 1303 to SR 1314 | 1.72 | 18 | 2 | 60 | 55 | 7,700 | 370 | ADQ | 7,700 | 1,100 |
| | Blackstone Rd. | SR 1314 to SR 1318 | 1.98 | 18 | 2 | 60 | 55 | 7,700 | 640 | ADQ | 7,700 | 1,900 |
| | | | | | | | | | | | | |
| | **SR 1318 (Steel Bridge Rd.)** | | | | | | | | | | | |
| | Steel Bridge Rd. | NC 42 to SR 1319 | 3.57 | 20 | 2 | 60 | 55 | 9,300 | 1,500 | ADQ | 9,300 | 4,500 |
| | Steel Bridge Rd. | SR 1319 to SR 1007 | 1.92 | 18 | 2 | 60 | 55 | 7,700 | 880 | ADQ | 7,700 | 3,100 |
| | Steel Bridge Rd. | SR 1007 to Moore Co. | 8.01 | 20 | 2 | 60 | 55 | 9,300 | 880 | ADQ | 9,300 | 3,100 |
| | | | | | | | | | | | | |
| | **SR 1319 (Pickard Rd.)** | | | | | | | | | | | |
| | Pickard Rd. | SR 1318 to NC 42 | 3.39 | 18 | 2 | 60 | 55 | 7,700 | 410 | ADQ | 7,700 | 1,400 |
| | | | | | | | | | | | | |
| | **SR 1325 (Cool Springs Rd., Valley Rd.)** | | | | | | | | | | | |
| LEE0013-H | Cool Springs Rd. | SR 1332 to SR 1009 | 0.63 | 18 | 2 | 60 | 35 | 7,300 | 3,100 | 3B | 12,700 | 8,000 |
| LEE0013-H | Cool Springs Rd. | SR 1009 to SR 1100 | 0.31 | 20 | 2 | 60 | 35 | 8,500 | 3,100 | 3B | 12,700 | 8,000 |
| LEE0013-H | Cool Springs Rd. | SR 1100 to SR 1326 | 1.48 | 20 | 2 | 60 | 35 | 8,500 | 1,700 | 3B | 12,700 | 4,400 |
| | Valley Rd. | SR 1326 to SR 1384 | 2.29 | 18 | 2 | 60 | 55 | 7,300 | 310 | ADQ | 7,300 | 580 |
| | | | | | | | | | | | | |
| | **SR 1326 (Cool Springs Rd.)** | | | | | | | | | | | |
| LEE0013-H | Cool Springs Rd. | US 421 to SR 1325 | 1.01 | 20 | 2 | 60 | 35 | 8,500 | 1,800 | 3B | 12,700 | 4,600 |
| | | | | | | | | | | | | |
| | **SR 1328 (Wilkins Dr.)** | | | | | | | | | | | |
| | Wilkins Dr. | US 421 to SR 1100 | 1.39 | 22 | 2 | 60 | 35 | 8,500 | 2,900 | ADQ | 8,500 | 7,500 |
| | Wilkins Dr. | SR 1100 to SR 1329 | 0.48 | 22 | 2 | 80 | 35 | 8,500 | 2,900 | ADQ | 8,500 | 7,500 |
| | | | | | | | | | | | | |
| | **SR 1329 (Old Carbonton Rd.)** | | | | | | | | | | | |
| | Old Carbonton Rd. | SR 1009 to SR 1328 | 0.13 | 18 | 2 | 80 | 35 | 7,700 | 2,900 | ADQ | 7,700 | 7,500 |
| | | | | | | | | | | | | |
| | **SR 1332 (Franklin Dr.)** | | | | | | | | | | | |

* 2006 AADT

**2005 AADT

***Traffic from McNeil Rd. was added to Burns Dr.
to account for recommended interchange.

| HIGHWAY | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 2003 Existing System | | | | | | 2035 Proposed System | | |
| | | | | Cross-Section | | | | | | | | |
| Local ID | Facility | Section (From - To) | Dist. (mi) | (ft) | lanes | ROW FT | Speed Limit (mph) | Existing Capacity (vpd) | 2003 AADT | Cross-Section | Proposed Capacity (vpd) | PROPOSED 2035 AADT |
| | Franklin Dr. | SR 1009 to NC 42 | 1.00 | 18 | 2 | 60 | 55 | 7,700 | 600 | ADQ | 7,700 | 2,600 |
| | Franklin Dr. | NC 42 to SR 1334 | 0.94 | 18 | 2 | 60 | 45 | 7,700 | 2,100 | ADQ | 7,700 | 7,400 |
| | Franklin Dr. | SR 1334 to SR 1335 | 0.83 | 18 | 2 | 60 | 45 | 7,700 | 1,100 | ADQ | 7,700 | 5,200 |
| | Franklin Dr. | SR 1335 to SR 1305 | 0.63 | 18 | 2 | 60 | 45 | 7,700 | 1,600 | ADQ | 7,700 | 7,600 |
| | | | | | | | | | | | | |
| | **SR 1334 (Pendergrass Rd.)** | | | | | | | | | | | |
| LEE0012-H | Pendergrass Rd. | SR 1318 to SR 1332 | 0.99 | 18 | 2 | 60 | 55 | 7,700 | 870 | 4C | 40,500 | 3,100 |
| LEE0012-H | Pendergrass Rd. | SR 1332 to US 1 | 1.48 | 18 | 2 | 60 | 55 | 7,700 | 2,600 | 4C | 40,500 | 7,800 |
| | | | | | | | | | | | | |
| | **SR 1384 (Forestwood Park)** | | | | | | | | | | | |
| LEE0012-H | Forestwood Park | US 421 to SR 1325 | 0.58 | 20 | 2 | N/A | 55 | 8,500 | 310 | 4C | 40,500 | 800 |
| | | | | | | | | | | | | |
| | **SR 1400 (Cumnock Rd.)** | | | | | | | | | | | |
| | Cumnock Rd. | US 421 to Chatham Co. | 2.21 | 20 | 2 | 60 | 45 | 9,300 | 3,000 | ADQ | 9,300 | 7,700 |
| | | | | | | | | | | | | |
| | **SR 1403 (Cotton Rd.)** | | | | | | | | | | | |
| | Cotton Rd. | SR 1444 to Bridge | 3.05 | 20 | 2 | 60 | 55 | 8,500 | 1,500 | ADQ | 8,500 | 4,500 |
| | Cotton Rd. | Bridge to SR 1400 | 0.80 | 20 | 2 | 60 | 55 | 8,500 | 340 | ADQ | 8,500 | 1,000 |
| | | | | | | | | | | | | |
| | **SR 1405 (McNeill Rd.)** | | | | | | | | | | | |
| | McNeill Rd. | US 421 to US 1 | 1.48 | 20 | 2 | 60 | 35 | 9,300 | 3,100 | ADQ | 9,300 | 5,800 |
| | McNeill Rd. | US 1 to US 1 Business | 0.55 | 20 | 2 | 60 | 35 | 9,300 | 3,200 | ADQ | 9,300 | 3,000 |
| | | | | | | | | | | | | |
| | **SR 1406 (Burns Dr.)*** ** | | | | | | | | | | | |
| | Burns Dr. | US 1 Business to Hearthstone | 0.49 | 18 | 2 | 60 | 35 | 7,700 | 1,600 | 4B | 40,000 | 5,600 |
| | Burns Dr. | Hearthstone to Pathway Dr. | 0.05 | 18 | 2 | 100 | 35 | 7,700 | 1,600 | 4B | 40,000 | 5,600 |
| | Burns Dr. | Pathway Dr. to US 1 | 0.14 | 24 | 2 | 100 | 35 | 8,500 | 1,600 | 4B | 40,000 | 5,600 |
| | | | | | | | | | | | | |
| | **SR 1415 (Colon Rd., Seventh St.)** | | | | | | | | | | | |
| | Colon Rd. | SR 1466 to US 1 | 0.80 | 18 | 2 | 60 | 55 | 8,500 | 3,700 | 4B | 40,500 | 13,000 |
| LEE0006-H | Colon Rd. | US 1 to SR 1422 | 1.09 | 22 | 2 | 60 | 55 | 8,500 | 3,700 | 4B | 40,500 | 13,000 |
| LEE0006-H | Colon Rd. | SR 1422 to US 421 BYP (FUTURE) | 3.06 | 24 | 2 | 60 | 55 | 8,500 | 5,100 | 4B | 40,500 | 18,000 |

* 2006 AADT

**2005 AADT

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to account for recommended interchange.

| HIGHWAY | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 2003 Existing System | | | | | | 2035 Proposed System | | |
| | | | | Cross-Section | | | | | | | | |
| Local ID | Facility | Section (From - To) | Dist. (mi) | (ft) | lanes | ROW FT | Speed Limit (mph) | Existing Capacity (vpd) | 2003 AADT | Cross-Section | Proposed Capacity (vpd) | PROPOSED 2035 AADT |
| LEE0006-H | Colon Rd. | US 421 BYP (FUTURE) to SR 1560 | 1.33 | 24 | 2 | 60 | 55 | 8,500 | 5,100 | 4B | 40,500 | 18,000 |
| | N Seventh St. | SR 1560 to SR 1002 | 0.36 | 48 | 4 | 60 | 35 | 36,000 | 5,700 | ADQ | 36,000 | 23,000 |
| | S Seventh St. | SR 1002 to SR 1516 | 0.65 | 48 | 4 | 60 | 35 | 36,000 | 12,000 | ADQ | 36,000 | 31,000 |
| | S Seventh St. | SR 1516 to SR 1514 | 0.38 | 48 | 4 | 60 | 35 | 36,000 | 11,000 | ADQ | 36,000 | 28,000 |
| | | | | | | | | | | | | |
| | **SR 1416 (Riddle Rd.)** | | | | | | | | | | | |
| | Riddle Rd. | SR 1415 to SR 1002 | 2.51 | 20 | 2 | 60 | 55 | 9,300 | 770 | ADQ | 9,300 | 2,000 |
| | | | | | | | | | | | | |
| | **SR 1418 (Post Office Rd.)** | | | | | | | | | | | |
| | Post Office Rd. | SR 1415 to SR 1002 | 2.54 | 18 | 2 | 60 | 55 | 7,700 | 1,100 | ADQ | 7,700 | 3,900 |
| | | | | | | | | | | | | |
| | **SR 1423 (Farrell Rd.)** | | | | | | | | | | | |
| | Farrell Rd. | SR 1002 to SR 1422 | 1.51 | 20 | 2 | 60 | 55 | 9,300 | 560 | ADQ | 9,300 | 1,400 |
| | Farrell Rd. | SR 1422 to US 1 | 2.44 | 20 | 2 | 60 | 55 | 9,300 | 720 | ADQ | 9,300 | 1,900 |
| | Farrell Rd. | US 1 to Allen Farms Rd. | 0.42 | 48 | 4 | 60 | 55 | 36,000 | 750 | 2B | 14,600 | 2,600 |
| | Farrell Rd. | Allen Farms Rd. to SR 1466 | 1.16 | 20 | 2 | 60 | 55 | 9,300 | 520 | 2B | 14,600 | 1,800 |
| | | | | | | | | | | | | |
| | **SR 1466 (Deep River Rd.)** | | | | | | | | | | | |
| LEE0007-H | Deep River Rd. | US 15-501 to SR 1415 | 1.74 | 22 | 2 | 100 | 55 | 9,500 | 6,700 | 4C | 40,500 | |
| | Deep River Rd. | US 15-501 to SR 1433 | 2.42 | 22 | 2 | 100 | 55 | 9,500 | 6,700 | ADQ | 9,500 | 17,000 |
| | Deep River Rd. | SR 1433 to US 1 | 3.06 | 22 | 2 | 100 | 55 | 9,500 | 1,700 | ADQ | 9,500 | 4,400 |
| | Deep River Rd. | US 1 to Chatham Co. | 0.44 | 20 | 2 | 100 | 55 | 9,300 | 2,500 | ADQ | 9,500 | 6,400 |
| | | | | | | | | | | | | |
| | **SR 1483 (Rod Sullivan Rd.)** | | | | | | | | | | | |
| | Rod Sullivan Rd. | SR 1423 to SR 1424 | 0.70 | 20 | 2 | 60 | 45 | 9,300 | 290 | 2B | 12,200 | 1,000 |
| | | | | | | | | | | | | |
| | **SR 1500 (Lower River Rd.)** | | | | | | | | | | | |
| | Lower River Rd. | SR 1002 to NC 42 | 6.07 | 20 | 2 | 60 | 55 | 9,300 | 480 | ADQ | 9,300 | 1,700 |
| | | | | | | | | | | | | |
| | **SR 1508 (Lick Creek Rd.)** | | | | | | | | | | | |
| | Lick Creek Rd. | SR 1537 to SR 1002 | 1.06 | 18 | 2 | 60 | 55 | 7,700 | 990 | ADQ | 7,700 | 3,500 |
| | | | | | | | | | | | | |
| | **SR 1509 (San Lee Dr.)** | | | | | | | | | | | |
| | San Lee Dr. | SR 1537 to SR 1510 | 1.48 | 20 | 2 | 60 | 55 | 8,500 | 440 | ADQ | 8,500 | 1,100 |

* 2006 AADT

**2005 AADT

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to account for recommended interchange.

| HIGHWAY | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 2003 Existing System | | | | | | 2035 Proposed System | | |
| | | | | Cross-Section | | | | | | | | |
| Local ID | Facility | Section (From - To) | Dist. (mi) | (ft) | lanes | ROW FT | Speed Limit (mph) | Existing Capacity (vpd) | 2003 AADT | Cross-Section | Proposed Capacity (vpd) | PROPOSED 2035 AADT |
| | San Lee Dr. | SR 1510 to US 421 BYP (FUTURE) | 0.62 | 20 | 2 | 60 | 55 | 8,500 | 2,400 | ADQ | 8,500 | 7,200 |
| | San Lee Dr. | US 421 BYP (FUTURE) to SR 1002 | 1.47 | 20 | 2 | 60 | 35 | 9,500 | 2,400 | ADQ | 9,500 | 7,200 |
| | | | | | | | | | | | | |
| | **SR 1510 (Pumping Station Rd.)** | | | | | | | | | | | |
| | Pumping Station Rd. | SR 1537 to SR 1509 | 2.04 | 18 | 2 | 60 | 55 | 7,700 | 800 | ADQ | 7,700 | 2,800 |
| | | | | | | | | | | | | |
| | **SR 1514 (Bragg St.)** | | | | | | | | | | | |
| | Bragg St. | US 421 to SR 1519 | 0.29 | 54 | 5 | 60 | 35 | 37,100 | 12,000 | ADQ | 37,100 | 23,000 |
| | Bragg St. | SR 1519 to SR 1558 | 0.88 | 46 | 4 | 60 | 35 | 36,000 | 15,000 | ADQ | 36,000 | 28,000 |
| | | | | | | | | | | | | |
| | **SR 1515 (Third St.)** | | | | | | | | | | | |
| | Third St. | SR 1560 to SR 1002 | 0.42 | 48 | 4 | 60 | 35 | 36,000 | 3,600 | ADQ | 36,000 | 5,000 |
| | Third St. | SR 1002 to US 421 | 1.48 | 48 | 4 | 60 | 35 | 36,000 | 4,700 | ADQ | 36,000 | 6,500 |
| | | | | | | | | | | | | |
| | **SR 1516 (Rose St.)** | | | | | | | | | | | |
| | Rose St. | US 421 to SR 1415 | 0.41 | 44 | 4 | 60 | 35 | 36,000 | 5,100 | ADQ | 36,000 | 8,200 |
| | | | | | | | | | | | | |
| | **SR 1519 (Nash St.)** | | | | | | | | | | | |
| | Nash St. | SR 1514 to SR 1521 | 0.34 | 52 | 3 | 60 | 35 | 14,500 | 13,000 | ADQ | 14,500 | 33,000 |
| | Nash St. | SR 1514 to NC 42 | 0.56 | 36 | 2 | 60 | 35 | 9,500 | 13,000 | 4C | 31,600 | 33,000 |
| | | | | | | | | | | | | |
| | **SR 1521 (Kelly Dr.)** | | | | | | | | | | | |
| | Kelly Dr. | SR 1519 to Winslow Drive | 0.47 | 36 | 3 | 60 | 35 | 12,300 | 7,300 | 2I | 15,600 | 26,000 |
| | Kelly Dr. | Winslow Drive to US 421 BYP. (FUTURE) | 0.87 | 18 | 2 | 60 | 55 | 7,300 | 7,300 | 4C | 31,600 | 26,000 |
| | Kelly Dr. | US 421 BYP. (FUTURE) to SR 1510 | 0.44 | 18 | 2 | 60 | | 7,300 | 7,300 | ADQ | 7,300 | 26,000 |
| | | | | | | | | | | | | |
| | **SR 1529 (Cox Mill Rd.)** | | | | | | | | | | | |
| | Cox Mill Rd. | Harnett Co. to US 421 | 2.97 | 22 | 2 | 60 | 55 | 9,500 | 2,200 | 2B | 14,600 | 7,700 |
| | Cox Mill Rd. | US 421 to NC 42 | 1.54 | 24 | 2 | 60 | 55 | 9,500 | 2,200 | ADQ | 9,500 | 7,700 |
| | | | | | | | | | | | | |
| | **SR 1531 (Swanns Station Rd.)** | | | | | | | | | | | |
| | Swanns Station Rd. | Harnett Co. to US 421 | 1.10 | 18 | 2 | 60 | 55 | 7,700 | 1,500 | 2B | 14,600 | 4,500 |

* 2006 AADT

**2005 AADT

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to account for recommended interchange.

| HIGHWAY | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 2003 Existing System | | | | | | 2035 Proposed System | | |
| | | | | Cross-Section | | | | | | | | |
| Local ID | Facility | Section (From - To) | Dist. (mi) | (ft) | lanes | ROW FT | Speed Limit (mph) | Existing Capacity (vpd) | 2003 AADT | Cross-Section | Proposed Capacity (vpd) | PROPOSED 2035 AADT |
| | Swanns Station Rd. | US 421 to SR 1579 | 1.38 | 22 | 2 | 60 | 55 | 9,500 | 1,500 | ADQ | 9,500 | 4,500 |
| | | | | | | | | | | | | |
| | **SR 1535 (Berke Thomas Rd., Hunter Dr.)** | | | | | | | | | | | |
| | Berke Thomas Rd. | NC 42 to WCL Broadway | 1.32 | 18 | 2 | 60 | 55 | 7,700 | 290 | ADQ | 7,700 | 470 |
| | Hunter Dr. | WCL Broadway to SR 1579 | 0.45 | 22 | 2 | 60 | 55 | 9,500 | 970 | ADQ | 9,500 | 1,600 |
| | | | | | | | | | | | | |
| | **SR 1537 (Poplar Springs Church Rd.)** | | | | | | | | | | | |
| | Poplar Springs Ch. Rd. | NC 42 to SR 1508 | 4.86 | 18 | 2 | 60 | 55 | 7,700 | 500 | ADQ | 7,700 | 1,300 |
| | Poplar Springs Ch. Rd. | SR 1508 to NC 42 | 2.90 | 20 | 2 | 60 | 55 | 9,300 | 1,500 | ADQ | 9,300 | 5,300 |
| | | | | | | | | | | | | |
| | **SR 1538 (Buckhorn Rd., Harrington Ave.)** | | | | | | | | | | | |
| | Buckhorn Rd. | SR 1547 to NCL Broadway | 0.30 | 20 | 2 | 60 | 55 | 9,300 | 2,600 | ADQ | 9,300 | 6,700 |
| | Harrington Ave. | NCL Broadway to SR 1579 | 0.61 | 22 | 2 | 60 | 25 | 9,500 | 2,600 | 2B | 14,600 | 6,700 |
| | | | | | | | | | | | | |
| | **SR 1547 (Salem Church Rd.)** | | | | | | | | | | | |
| | Salem Church Rd. | SR 1538 to SR 1545 | 0.91 | 18 | 2 | 60 | 55 | 7,700 | 1,600 | 2B | 7,700 | 4,800 |
| | Salem Church Rd. | SR 1545 to NC 42 | 1.40 | 18 | 2 | 60 | 55 | 7,700 | 1,400 | 2B | 7,700 | 4,900 |
| | | | | | | | | | | | | |
| | **SR 1560 (Weatherspoon St.)** | | | | | | | | | | | |
| | Weatherspoon St. | US 421 to US 1 Business | 0.35 | 44 | 2 | 60 | 35 | 8,500 | 5,600 | ADQ | 8,500 | 7,700 |
| | Weatherspoon St. | US 1 Business to Railroad tracks | 0.35 | 24 | 2 | 80 | 35 | 8,500 | 11,000 | ADQ | 8,500 | 18,000 |
| | Weatherspoon St. | Railroad tracks to SR 1515 | 0.15 | 24 | 2 | 80 | 35 | 8,500 | 11,000 | ADQ | 8,500 | 18,000 |
| | Weatherspoon St. | SR 1515 to SR 1415 | 0.21 | 24 | 2 | 80 | 35 | 8,500 | 9,200 | ADQ | 8,500 | 20,000 |
| | | | | | | | | | | | | |
| | **SR 1579 (Main St., Broadway St.)** | | | | | | | | | | | |
| | S. Main St. | Harnett Co. to Stephens Avenue | 0.35 | 24 | 2 | 60 | 35 | 9,500 | 5,100 | 3A | 12,700 | 9,600 |
| | S. Main St. | Stephens Avenue to SR 1538 | 0.63 | 44 | 2 | 60 | 35 | 9,500 | 7,000 | 3B | 12,700 | 13,000 |
| | N. Main St. | SR 1538 to WCL Broadway | 0.97 | 24 | 2 | 60 | 35 | 9,500 | 7,000 | 3A | 12,700 | 13,000 |
| | Broadway St. | WCL Broadway to NC 42 | 1.69 | 24 | 2 | 60 | 55 | 9,500 | 6,600 | 3A | 15,900 | 12,000 |
| | | | | | | | | | | | | |
| | **8th St.*** | | | | | | | | | | | |
| | 8th St. | McIver St. to Midland Ave. | 0.17 | 44 | 4 | 60 | 35 | 36,000 | 460 | ADQ | 36,000 | 820 |

* 2006 AADT

**2005 AADT

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| HIGHWAY | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 2003 Existing System | | | | | | 2035 Proposed System | | |
| | | | | Cross-Section | | | | | | | | |
| Local ID | Facility | Section (From - To) | Dist. (mi) | (ft) | lanes | ROW FT | Speed Limit (mph) | Existing Capacity (vpd) | 2003 AADT | Cross-Section | Proposed Capacity (vpd) | PROPOSED 2035 AADT |
| | | | | | | | | | | | | |
| | **Bragg St.*** | | | | | | | | | | | |
| | Bragg St. | SR 1558 to Oakwood Ave. | 0.48 | 42 | 2 | 60 | 35 | 9,500 | 5,600 | ADQ | 9,500 | 9,900 |
| | Bragg St. | Oakwood Ave. to McIver St. | 0.17 | 42 | 2 | 60 | 35 | 9,500 | 1,300 | ADQ | 9,500 | 2,300 |
| | | | | | | | | | | | | |
| | **Canterbury Rd.*** | | | | | | | | | | | |
| | Canterbury Rd. | US 1 to Nob Hill Dr. | 0.19 | 20 | 2 | 100 | 35 | 8,500 | 680 | ADQ | 8,500 | 1,200 |
| | Canterbury Rd. | Nob Hill Dr. to Dead End | 0.27 | 20 | 2 | 60 | 35 | 8,500 | 680 | ADQ | 8,500 | 1,200 |
| | | | | | | | | | | | | |
| | **N. Currie Dr.** | | | | | | | | | | | |
| | N. Currie Dr. | SR 1009 to NC 42 | 0.75 | 21 | 2 | 60 | 30 | 8,500 | 2,000 | ADQ | 8,500 | 3,600 |
| | | | | | | | | | | | | |
| | **Dalrymple St.*** | | | | | | | | | | | |
| | Dalrymple St. | US 421 to NC 78 | 0.88 | 34 | 2 | 60 | 30 | 8,500 | 6,900 | ADQ | 8,500 | 12,000 |
| | Dalrymple St. | NC 78 to Grimm St. | 0.47 | 34 | 2 | 60 | 30 | 8,500 | 4,600 | ADQ | 8,500 | 8,200 |
| | | | | | | | | | | | | |
| | **Evergreen Ln.*** | | | | | | | | | | | |
| | Evergreen Ln. | Woodland Ave. to SR 1107 | 0.23 | 22 | 2 | 60 | 30 | 8,500 | 7,100 | ADQ | 8,500 | 13,000 |
| | | | | | | | | | | | | |
| | **Forestwood Park Rd.** | | | | | | | | | | | |
| | Forestwood Park Rd. | SR 1325 to US 421 | 0.58 | N/A | 2 | 60 | 55 | 8,500 | 310 | ADQ | 8,500 | 580 |
| | | | | | | | | | | | | |
| | **Grimm St.*** | | | | | | | | | | | |
| | Grimm St. | US 421 to Dairymaple St. | 0.1 | 24 | 2 | 60 | 30 | 8,500 | 3,700 | ADQ | 8,500 | 6,600 |
| | | | | | | | | | | | | |
| | **Gulf St.** | | | | | | | | | | | |
| | Gulf St. | SR 1560 to Wicker St. | 0.59 | N/A | 2 | 50 | 30 | 8,500 | 6,000 | ADQ | 8,500 | 11,000 |
| | | | | | | | | | | | | |
| | **Harkey Rd.*** | | | | | | | | | | | |
| | Harkey Rd. | Woodland Ave. to SR 1122 | 0.49 | 20 | 2 | 60 | 35 | 8,500 | 2,600 | ADQ | 8,500 | 4,600 |
| | | | | | | | | | | | | |
| | **Hill Ave.*** | | | | | | | | | | | |
| | Hill Ave. | US 421 to US 1 Bus. | 0.48 | 32 | 2 | 60 | 30 | 8,500 | 2,400 | ADQ | 8,500 | 4,300 |
| | | | | | | | | | | | | |

* 2006 AADT

**2005 AADT

***Traffic from McNeil Rd. was added to Burns Dr.
to account for recommended interchange.

| HIGHWAY | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 2003 Existing System | | | | | | 2035 Proposed System | | |
| | | | | Cross-Section | | | | | | | | |
| Local ID | Facility | Section (From - To) | Dist. (mi) | (ft) | lanes | ROW FT | Speed Limit (mph) | Existing Capacity (vpd) | 2003 AADT | Cross-Section | Proposed Capacity (vpd) | PROPOSED 2035 AADT |
| | **McIver St.*** | | | | | | | | | | | |
| | McIver St. | Wicker St. to Bragg St. | 0.71 | 35 | 5 | 60 | 30 | 37,100 | 3,500 | ADQ | 37,100 | 6,200 |
| | | | | | | | | | | | | |
| | **Old US 1**** | | | | | | | | | | | |
| | Old US 1 | US 1 to Moore Co. | 1.4 | 22 | 2 | 100 | 55 | 9,500 | 910 | ADQ | 9,500 | 1,600 |
| | | | | | | | | | | | | |
| | **Vance St.*** | | | | | | | | | | | |
| | Vance St. | US 1 Bus. To Wall St. | 0.19 | 24 | 2 | 50 | 30 | 8,500 | 920 | ADQ | 8,500 | 1,600 |
| | Vance St. | Wall St. to SR 1107 | 0.54 | 44 | 2 | 60 | 30 | 8,500 | 2,100 | ADQ | 8,500 | 3,700 |
| | | | | | | | | | | | | |
| | **Weatherspoon St.*** | | | | | | | | | | | |
| | Weatherspoon St. | SR 1100 to US 421 | 0.26 | 30 | 2 | 60 | 35 | 8,500 | 880 | ADQ | 8,500 | 1,600 |
| | Weatherspoon St. | US 421 to US 1 Bus. | 0.35 | 40 | 2 | 60 | 35 | 8,500 | 880 | ADQ | 8,500 | 1,600 |
| | Weatherspoon St. | US 1 Bus. to 7th Str. | 0.72 | 24 | 2 | 60 | 35 | 8,500 | 880 | ADQ | 8,500 | 1,600 |
| | | | | | | | | | | | | |
| | **Wicker St.*** | | | | | | | | | | | |
| | Wicker St. | US 1 Bus. to McIver St. | 0.76 | 47 | 2 | 80 | 30 | 8,500 | 6,300 | ADQ | 8,500 | 11,000 |
| | | | | | | | | | | | | |
| | **Woodland Ave.*** | | | | | | | | | | | |
| | Woodland Ave. | NC 78 to SR 1122 | 0.89 | 40 | 2 | 60 | 30 | 8,500 | 7,000 | ADQ | 8,500 | 12,000 |
| | Woodland Ave. | SR 1119 to Evergreen St. | 0.16 | 40 | 2 | 60 | 30 | 8,500 | 11,000 | ADQ | 8,500 | 20,000 |

* 2006 AADT

**2005 AADT

***Traffic from McNeil Rd. was added to Burns Dr.
to account for recommended interchange.

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# 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 typical cross sections were updated on December 7, 2010 to support the Department's "Complete Streets" policy that was adopted in July 2009. This guidance established design elements that emphasize safety, mobility, and accessibility for multiple modes of travel. These "typical" cross sections should be used as preliminary 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 (NEPA) documentation and through final plan 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:

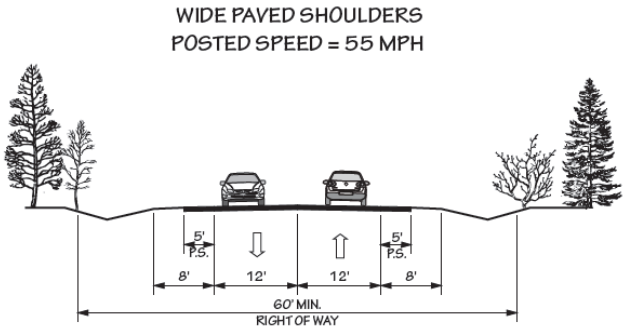
- roadways which may require widening after the current planning period,
- roadways which are borderline adequate and accelerated traffic growth could render them deficient, and
- roadways where an urban curb and gutter cross section may be locally desirable because of urban development or redevelopment.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

Figure 8

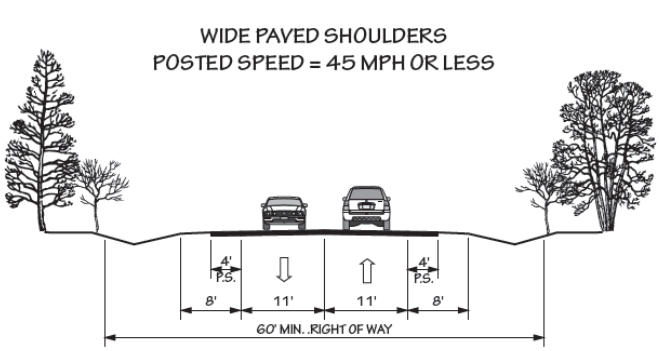
# TYPICAL HIGHWAY CROSS SECTIONS

## 2 LANES

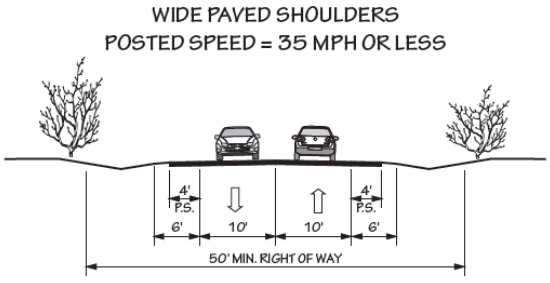
2 A




2 B




2 C

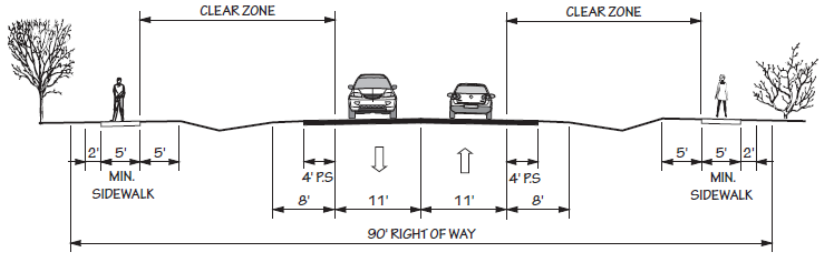


# TYPICAL HIGHWAY CROSS SECTIONS

## 2 LANES

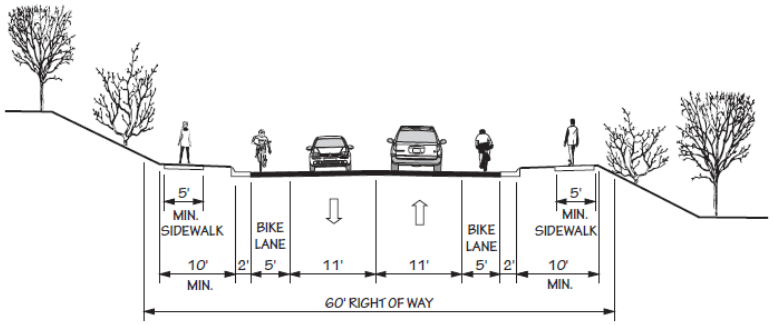
### 2 D

SIDEWALK PLACEMENT BEHIND A ROADWAY DITCH



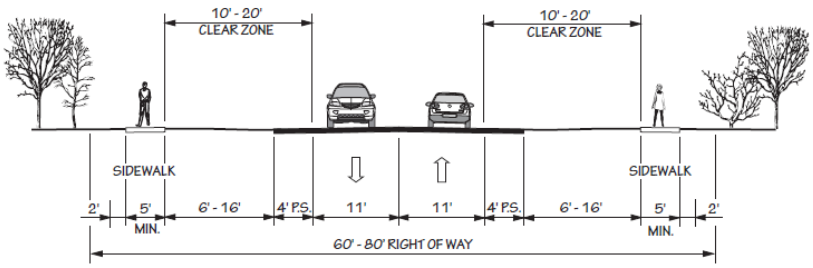

### 2 E

CURB AND GUTTER
WITH BIKE LANES AND SIDEWALKS




### 2 F

BUFFERS AND SIDEWALKS WITHOUT A ROADWAY DITCH
(20 MPH TO 45 MPH)
(TYPICALLY COASTAL AREA MANAGEMENT ACT COUNTIES)

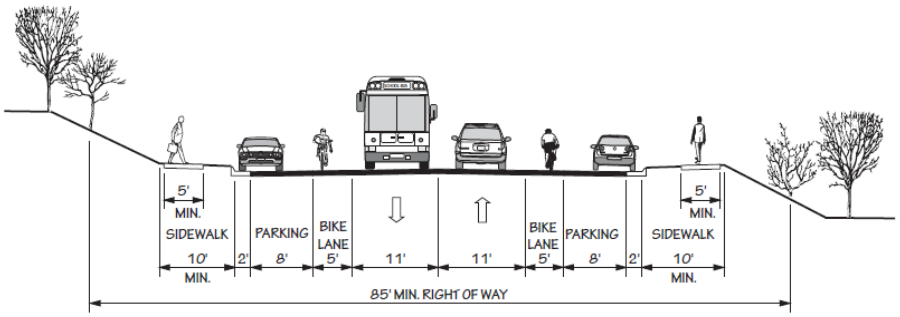


# TYPICAL HIGHWAY CROSS SECTIONS

## 2 LANES

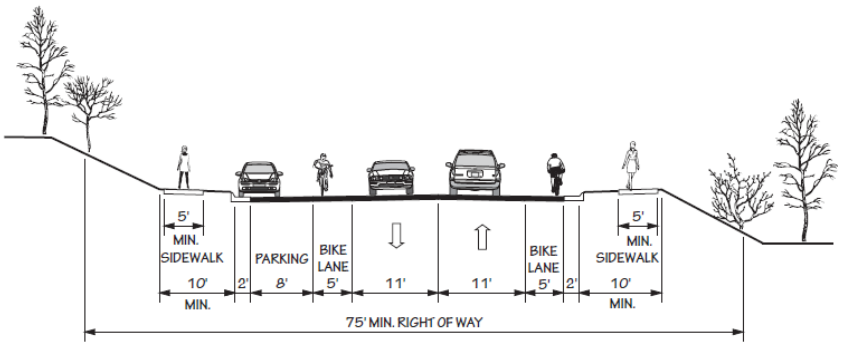
## 2 G

CURB & GUTTER - PARKING ON EACH SIDE



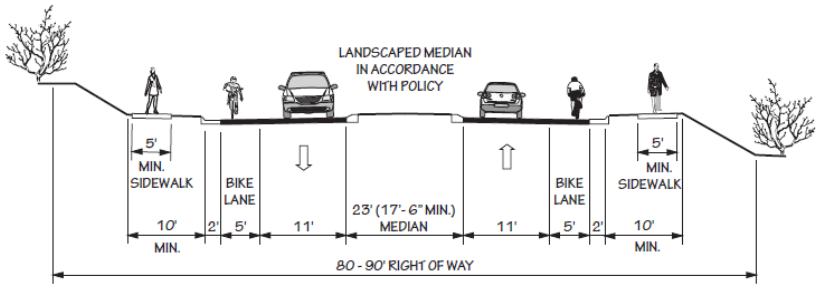

## 2 H

CURB & GUTTER - PARKING ON ONE SIDE




## 2 I

RAISED MEDIAN WITH CURB & GUTTER

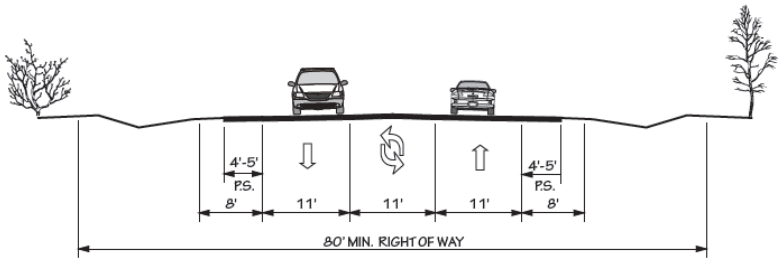


# TYPICAL HIGHWAY CROSS SECTIONS

## 3 LANES

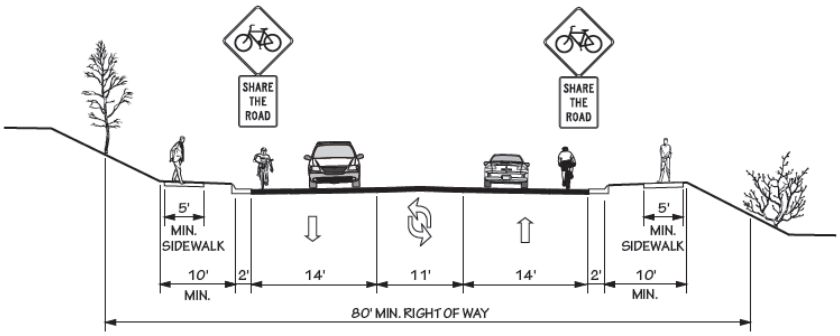
## 3 A

WIDE PAVED SHOULDERS




## 3 B

CURB & GUTTER WITH WIDE OUTSIDE LANES AND SIDEWALKS

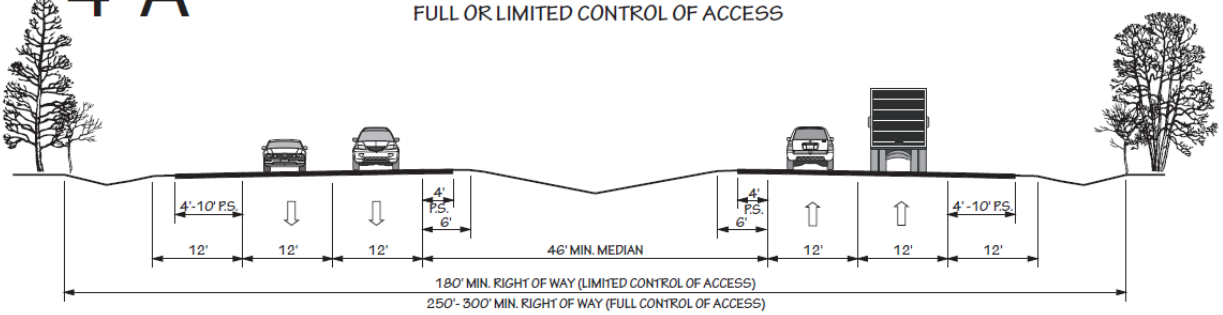


# TYPICAL HIGHWAY CROSS SECTIONS

## 4 LANES

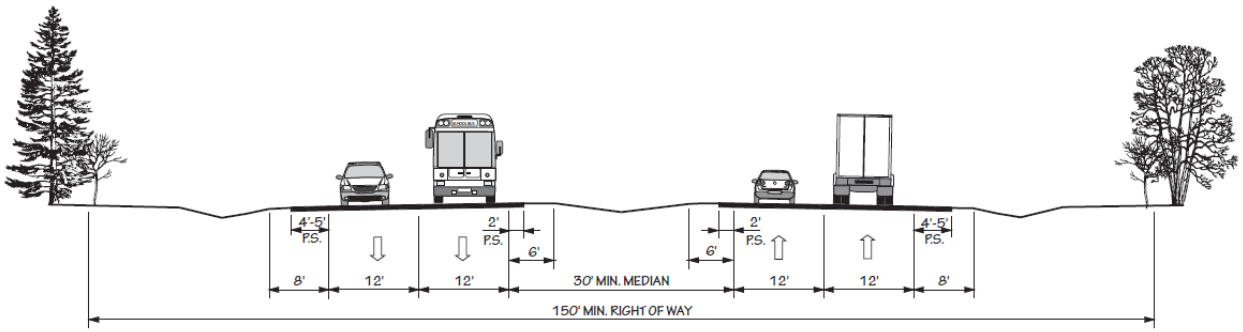
### 4 A

DIVIDED WITH MEDIAN
FULL OR LIMITED CONTROL OF ACCESS



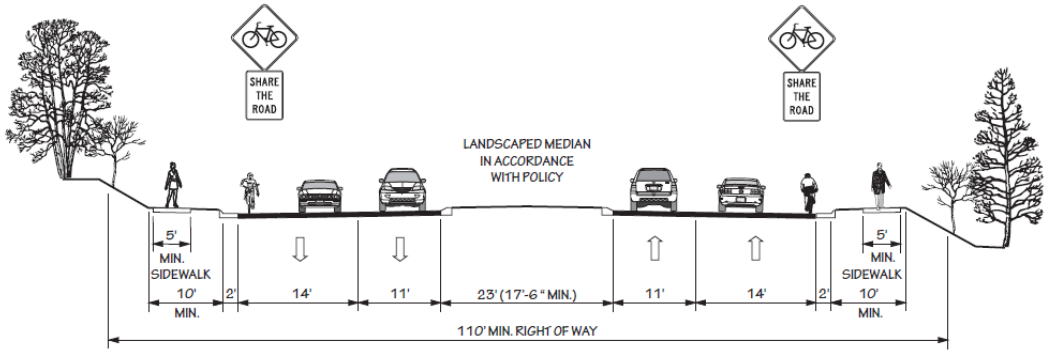

### 4 B

DIVIDED WITH MEDIAN - NO CURB & GUTTER
PARTIAL CONTROL OF ACCESS




### 4 C

RAISED MEDIAN WITH WIDE OUTSIDE LANES AND SIDEWALKS

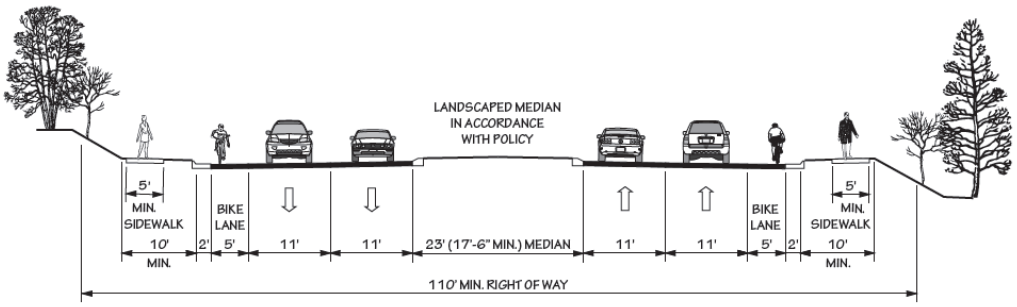


# TYPICAL HIGHWAY CROSS SECTIONS

## 4 LANES

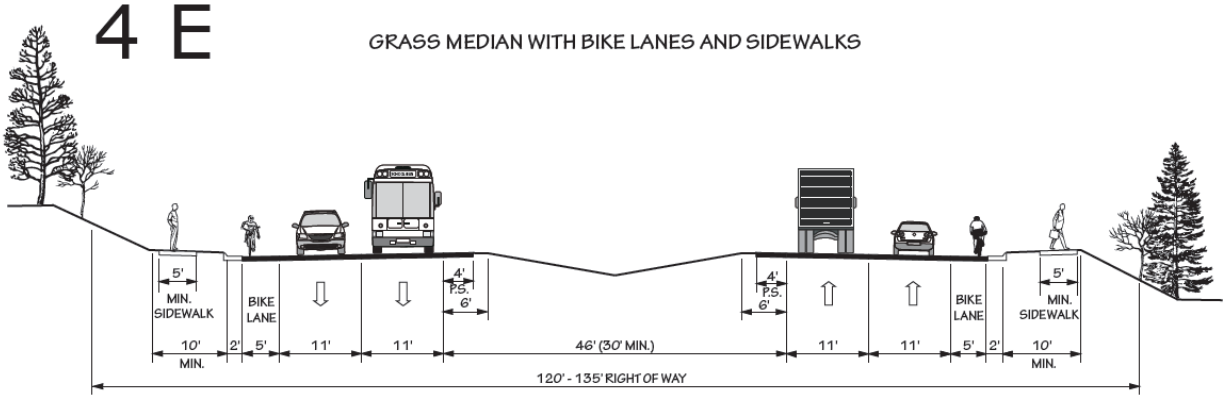
### 4 D

RAISED MEDIAN - CURB & GUTTER WITH BIKE LANES AND SIDEWALKS




### 4 E

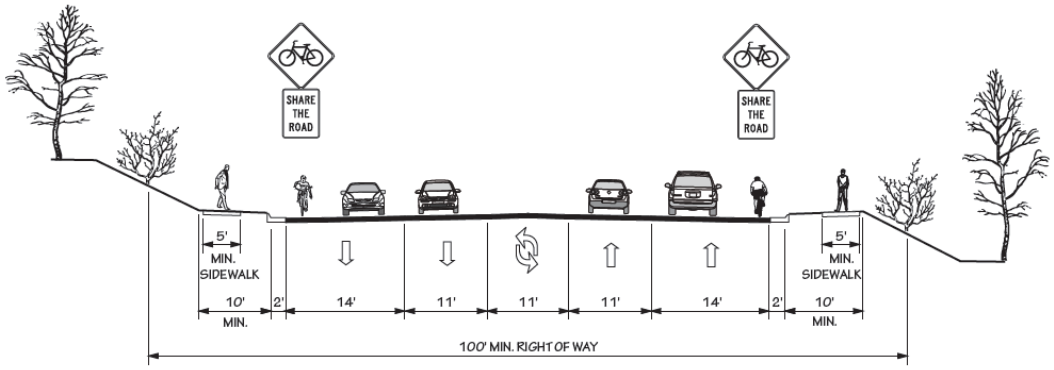
GRASS MEDIAN WITH BIKE LANES AND SIDEWALKS




## 5 LANES

### 5 A

WIDE OUTSIDE LANES

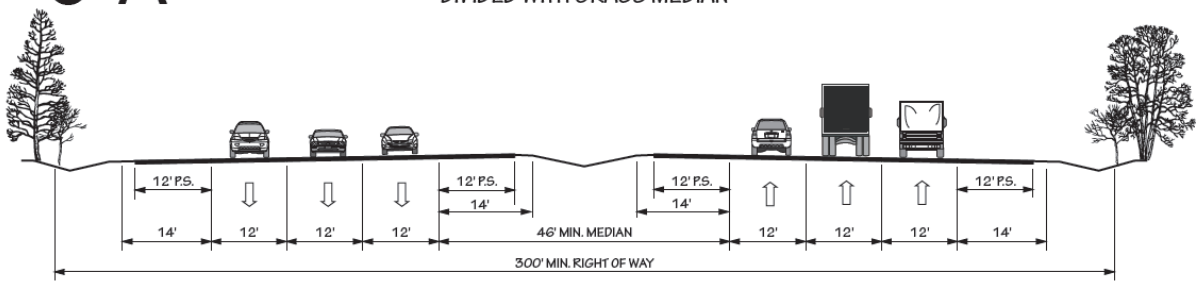


# TYPICAL HIGHWAY CROSS SECTIONS

## 6 LANES

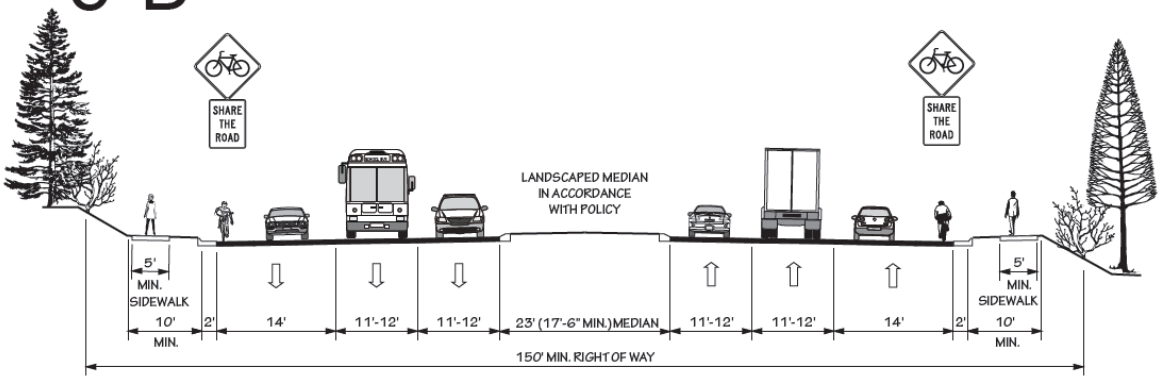
### 6 A

DIVIDED WITH GRASS MEDIAN




### 6 B

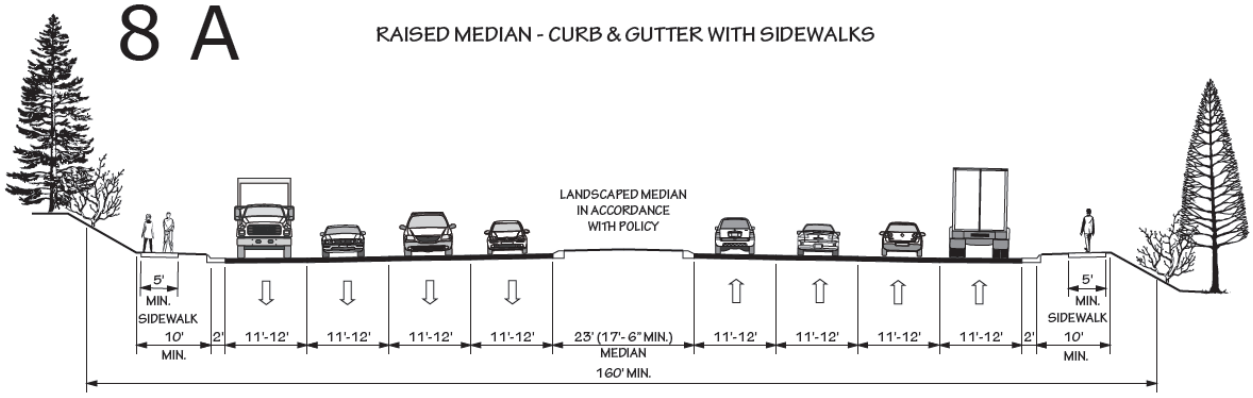
RAISED MEDIAN - CURB & GUTTER WITH WIDE OUTSIDE LANES AND SIDEWALKS




## 8 LANES

### 8 A

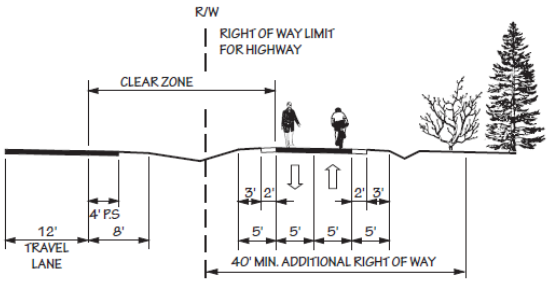
RAISED MEDIAN - CURB & GUTTER WITH SIDEWALKS



# TYPICAL MULTI - USE PATH

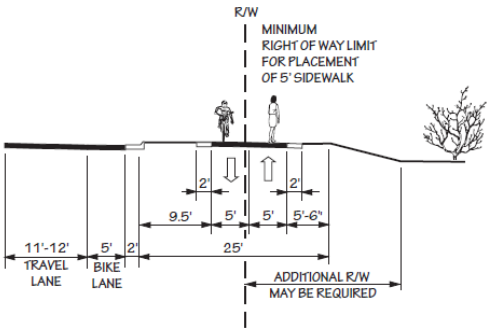
MULTI - USE PATH
ADJACENT TO RIGHT OF WAY OR SEPARATE PATHWAY

M A




MULTI - USE PATH ADJACENT TO CURB AND GUTTER

M B



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# 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 10.

- **LOS A**: Describes primarily free flow conditions. The motorist experiences a high level of physical and psychological comfort. The effects of minor incidents of breakdown are easily absorbed. Even at the maximum density, the average spacing between vehicles is about 528 ft, or 26 car lengths.
- **LOS B**: Represents reasonably free flow conditions. The ability to maneuver within the traffic stream is only slightly restricted. The lowest average spacing between vehicles is about 330 ft, or 18 car lengths.
- **LOS C**: Provides for stable operations, but flows approach the range in which small increases will cause substantial deterioration in service. Freedom to maneuver is noticeably restricted. Minor incidents may still be absorbed, but the local decline in service will be great. Queues may be expected to form behind any significant blockage. Minimum average spacing is in the range of 220 ft, or 11 car lengths.
- **LOS D**: Borders on unstable flow. Density begins to deteriorate somewhat more quickly with increasing flow. Small increases in flow can cause substantial deterioration in service. Freedom to maneuver is severely limited, and the driver experiences drastically reduced comfort levels. Minor incidents can be expected to create substantial queuing. At the limit, vehicles are spaced at about 165 ft, or 9 car lengths.
- **LOS E**: Describes operation at capacity. Operations at this level are extremely unstable, because there are virtually no usable gaps in the traffic stream. Any disruption to the traffic stream, such as a vehicle entering from a ramp, or changing lanes, requires the following vehicles to give way to admit the vehicle. This can establish a disruption wave that propagates through the upstream traffic flow. At capacity, the traffic stream has no ability to dissipate any disruption. Any incident can be expected to produce a serious breakdown with extensive queuing. Vehicles are spaced at approximately 6 car lengths, leaving little room to maneuver.

- **LOS F**: Describes forced or breakdown flow. Such conditions generally exist within queues forming behind breakdown points.

---

Figure 9 - Level of Service Illustrations

---

**Level of Service A**

**Driver Comfort:** High

**Maximum Density:**

12 passenger cars per mile per lane

**Level of Service B**

**Driver Comfort:** High

**Maximum Density:**

20 passenger cars per mile per lane

**Level of Service C**

**Driver Comfort:** Some Tension

**Maximum Density:**

30 passenger cars per mile per lane

**Level of Service D**

**Driver Comfort:** Poor

**Maximum Density:**

42 passenger cars per mile per lane

**Level of Service E**

**Driver Comfort:** Extremely Poor

**Maximum Density:**

67 passenger cars per mile per lane

**Level of Service F**

**Driver Comfort:**The lowest

**Maximum Density:**

More than 67 passenger cars per mile per lane

Source: 2000 Highway Capacity Manual

# Appendix F
# Traffic Crash Analysis

A crash analysis performed for the Lee County CTP factored crash frequency and crash type. Crash frequency is the total number of reported crashes and contributes to the ranking of the most problematic intersections. Crash type provides a general description of the crash and allows the identification of any trends that may be correctable through roadway or intersection improvements.

Table 4 depicts a summary of the crashes occurring in the planning area between January 1, 2003 and December 31, 2005. The data represents locations with 10 or more crashes. The "Total" column indicates the total number of crashes reported within 150-ft of the intersection during the study period.

**Table 4 - Crash Locations**

| Map Index | Intersection | Total Crashes |
|---|---|---|
| 1 | Horner and Main | 70 |
| 2 | Bragg and Horner | 67 |
| 3 | Horner and Wicker | 35 |
| 4 | Lee and Main | 33 |
| 5 | Charlotte and Seventh | 32 |
| 6 | Horner and Third | 31 |
| 7 | Horner and Seawall | 31 |
| 8 | Carthage and Horner | 31 |
| 9 | Horner and Rosser | 29 |
| 10 | Mciver and Seventh | 27 |
| 11 | Lee and Raleigh | 26 |
| 12 | Main and Nash | 24 |
| 13 | US 1 and Hawkins | 24 |
| 14 | NC 87 and Wilson | 23 |
| 15 | Rose and Third | 22 |
| 16 | US 1 and SR 1334 | 22 |
| 17 | US 1 and SR 1157 | 22 |
| 18 | Chisholm and Horner | 21 |
| 19 | Horner and Wall | 21 |
| 20 | SR 1001 and SR 1146 | 21 |

| Map Index | Intersection | Total Crashes |
|---|---|---|
| 21 | US 1 and US 15 | 21 |
| 22 | Horner and Lee | 19 |
| 23 | US 1 and Spring | 19 |
| 24 | US 1 and Wicker | 19 |
| 25 | US 1 and NC 78 | 19 |
| 26 | Fields and Horner | 18 |
| 27 | Gordon and Horner | 18 |
| 28 | Main and Woodland | 18 |
| 29 | US 1 and Horner | 18 |
| 30 | Rose and Woodland | 17 |
| 31 | Horner and Rose | 17 |
| 32 | Horner and Washington | 16 |
| 33 | Horner and Weatherspoon | 15 |
| 34 | Third and Weatherspoon | 15 |
| 35 | Horner and Simmons | 15 |
| 36 | Bragg and Nash | 14 |
| 37 | Charlotte and Third | 14 |
| 38 | Fields and Washington | 14 |
| 39 | Globe and Horner | 14 |
| 40 | Horner and Woodland | 14 |
| 41 | NC 78 and SR 1157 | 14 |
| 42 | Courtland and Horner | 13 |
| 43 | Bragg and Seventh | 13 |
| 44 | US 421 and NC 87 | 13 |
| 45 | Carthage and Wicker | 12 |
| 46 | NC 87 and Cox Maddox | 12 |
| 47 | Lee and William | 12 |
| 48 | Industrial and William | 12 |
| 49 | Hill and Horner | 12 |
| 50 | US 421 and SR 1529 | 12 |
| 51 | US 1 and McNeal | 11 |
| 52 | NC 78 and SR 1152 | 11 |
| 53 | Cole and Horner | 11 |
| 54 | Dalrymple and Horner | 11 |
| 55 | Vance and Wicker | 11 |
| 56 | US 1 and SR 1303 | 11 |
| 57 | Broadway and Cox Mill | 10 |
| 58 | NC 87 and SR 1140 | 10 |
| 59 | Carthage and Steele | 10 |
| 60 | Carthage and Gulf | 10 |
| 61 | Horner and Saint Clair | 10 |
| 62 | US 421 and Mount Pisgah Church | 10 |

The NCDOT is actively involved with investigating and improving many of these locations. To request a more detailed analysis for any of the locations listed in Table 4, or other intersections of concern, contact the Division Traffic Engineer. Contact information for the Division Traffic Engineer is included in Appendix A.

# Appendix G
# 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 or functionally obsolete. 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 quality 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 within the planning area are listed in Table 5.

## Table 5 - Deficient Bridges

| Bridge # | Facility | Feature | Structurally Def. | Functionally Def. |
|---|---|---|---|---|
| 5 | US 1 | US1 Bus., NC 42 | No | Yes |
| 8 | US 1 | US1 Bus., NC 42 | No | Yes |
| 10 | 15/501 | Deep River | Yes | No |
| 16 | SR 1509 | Lick Creek | No | Yes |
| 31 | US 1 | US 1 Bus., US 15/501, NC 87 | No | Yes |
| 47 | SR 1303 | Pocket Creek | No | Yes |
| 50 | SR 1305 | Pocket Creek | Yes | No |
| 70 | SR 1400 | Southern RR | No | Yes |
| 87 | SR 1133 | Gasters Creek | No | Yes |
| 98 | SR 1500 | Wombles Creek | Yes | No |
| 99 | SR 1560 | Seabord Coastlin | No | Yes |
| 113 | US 1 | SR 1415 | Yes | No |
| 115 | US 421 | US 1 | No | Yes |
| 116 | US 421 | US 1 | No | Yes |
| 118 | US 421 | US 1 | No | Yes |

# Appendix H
# Public Involvement

The Lee County Comprehensive Transportation Plan Committee members included:

Ellen Beckmann, NCDOT, Transportation Planning Branch
Scott Walston, NCDOT, Transportation Planning Branch
Sara Sherman, NCDOT, Transportation Planning Branch
Liz Whitmore, Sanford/Lee County Planning
Bob Bridwell, Sanford/Lee County Planning
Don Kovasckitz, Sanford/Lee County Planning
Victor Czar, Sanford/Lee County Engineer
Pat Strong, Triangle RPO
John Hodges-Copple, Triangle RPO
Ronnie Turner, Sanford Planning Board
Jaime Teel, Lee County Planning Board
Donald Andrews, Broadway Town Commissioner

A public Survey was conducted during the planning process. The survey and results are shown on the following pages.

# City of Sanford / Town of Broadway / Lee County
# Transportation Survey

The Transportation Planning Branch of the North Carolina Department of Transportation, in cooperation with the City of Sanford, Town of Broadway, and Lee County, is developing a transportation plan for all of Lee County. The transportation plan is a long-range plan that identifies major transportation improvements that will be needed over the next 25 to 30 years. This survey is a means of identifying transportation issues that are important to the citizens and businesses of Lee County.

1. The goals for the new transportation plan should be:
(Please **rank** the following **1 through 6**, with 1 being the most important, 6 being the least important. **Use each number only once**.)

_____ **Better Accessibility for Residents**
*Increased ability to walk and bike to destinations; closer proximity of homes, business, schools, and shopping areas*

_____ **Faster Automobile Travel Times**
*Higher-speed roads; more connector roads*

_____ **Community Preservation**
*Keeping businesses downtown; preservation of existing buildings*

_____ **Environmental Protection**
*Minimizing the impact on streams and wildlife areas; reducing air pollution*

_____ **Economic Growth**
*Building roads and railways to attract new businesses and to allow existing businesses to expand*

_____ **Service of Special Needs**
*Better transportation services for poor, elderly, and disabled residents*

2. A road's ability to carry traffic should be increased by:
(Please **rank** the following **1 through 5**, with 1 being the most important, 5 being the least important. **Use each number only once**.)

_____ Building additional traffic lanes
_____ Controlling development along the road
_____ Encouraging carpooling
_____ Making improvements to intersections, better traffic signal timing
_____ Providing alternative modes of travel, such as bicycle and pedestrian facilities and mass transit

3. Three schools will soon be open on Tramway Rd. (NC 78). What strategies would you recommend for addressing the increased traffic in this area?
(Please **rank** the following **1 through 5**, with 1 being the most important, 5 being the least important. **Use each number only once**.)

_____ Improve bus service so that more students take the bus to school
_____ Include site design elements to handle more traffic in school parking lots
_____ Widen Tramway and improve intersections to accommodate more traffic
_____ Build a new road that will provide additional access to the schools.
_____ Improve pedestrian and bicycle facilities so that more students can safely walk or bike to school

4. What do you feel are the key transportation issues in your area?

5. Are you concerned with safety or crash problems at any specific locations?

☐ Yes ☐ No

If yes, please give a detailed description of the location.

6. When travelling in your area, do you find that you often have to go out of your way to get to your destination because:

A) A direct route does not exist?

☐ Yes ☐ No

B) If yes, please give examples

C) The most direct route is too congested?

☐ Yes ☐ No

D) If yes, please give examples

7. Is truck traffic a problem in the area?

☐ Yes ☐ No

If yes, please give examples

8. What areas or roads would you like to see improved access to?

| | |
|---|---|
| _____Raleigh | _____I-40 |
| _____Fayetteville | _____I-95 |
| _____Southern Pines | _____I-74 |
| _____US 64 | _____Other: |

9. The new transportation plan may include recommendations for pedestrian, bicycle, and mass transit facilities.

A) How would you rate Lee County's (please circle):

| | | | |
|---|---|---|---|
| Pedestrian Facilities? | Good | Fair | Poor |
| Bicycle Facilities? | Good | Fair | Poor |

B) What existing facilities do you feel need to be improved in order to accommodate bicycle and pedestrian use?

C) Are you interested in bus service:

| | | |
|---|---|---|
| Around Lee County? | ☐ Yes | ☐ No |
| To Raleigh? | ☐ Yes | ☐ No |

To Another Destination:

D) Do you have any suggestions to improve COLTS (County of Lee Transit System)?

10. Please list any other concerns or comments that you would like the Transportation plan to address.

Thank you for completing this survey. Your input is vital in developing a plan that meets the needs of the citizens of Lee County. Please return this survey to the address below.

*Community Development Department*
*Attention: Liz Whitmore, PlannerII*
*P. O. Box 3729*
*Sanford, NC 27330*

# City of Sanford / Town of Broadway / Lee County
# Transportation Survey Results

1. The goals for the new transportation plan should be:

A **Better Accessibility for Residents**
*Increased ability to walk and bike to destinations; closer proximity of homes, business, schools, and shopping areas*

B **Faster Automobile Travel Times**
*Higher-speed roads; more connector roads*

C **Community Preservation**
*Keeping businesses downtown; preservation of existing buildings*

D **Environmental Protection**
*Minimizing the impact on streams and wildlife areas; reducing air pollution*

E **Economic Growth**
*Building roads and railways to attract new businesses and to allow existing businesses to expand*

F **Service of Special Needs**
*Better transportation services for poor, elderly, and disabled residents*

| | A | B | C | D | E | F |
|---|---|---|---|---|---|---|
| #1 Rank | 38 | 24 | 13 | 28 | 34 | 42 |
| #2 Rank | 35 | 24 | 28 | 26 | 37 | 29 |
| #3 Rank | 31 | 10 | 44 | 41 | 27 | 27 |
| #4 Rank | 27 | 16 | 40 | 31 | 32 | 32 |
| #5 Rank | 30 | 26 | 27 | 35 | 34 | 27 |
| #6 Rank | 18 | 79 | 27 | 18 | 15 | 22 |
| % #1 | 21% | 13% | 7% | 16% | 19% | 23% |
| average rank | 3.2 | 4.3 | 3.7 | 3.4 | 3.2 | 3.2 |

2. A road's ability to carry traffic should be increased by:

A Building additional traffic lanes
B Controlling development along the road
C Encouraging carpooling
D Making improvements to intersections, better traffic signal timing
E Providing alternative modes of travel, such as bicycle and pedestrian facilities and mass transit

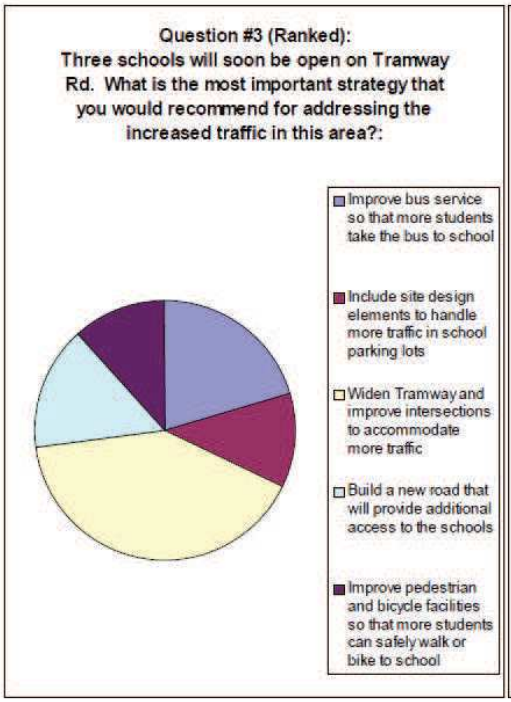
| | A | B | C | D | E |
|---|---|---|---|---|---|
| #1 Rank | 40 | 25 | 8 | 69 | 40 |
| #2 Rank | 46 | 25 | 19 | 68 | 24 |
| #3 Rank | 32 | 58 | 36 | 29 | 27 |
| #4 Rank | 25 | 49 | 48 | 14 | 45 |
| #5 Rank | 38 | 25 | 71 | 2 | 46 |
| % #1 | 22% | 14% | 4% | 38% | 22% |
| average rank | 2.9 | 3.1 | 3.9 | 2.0 | 3.2 |

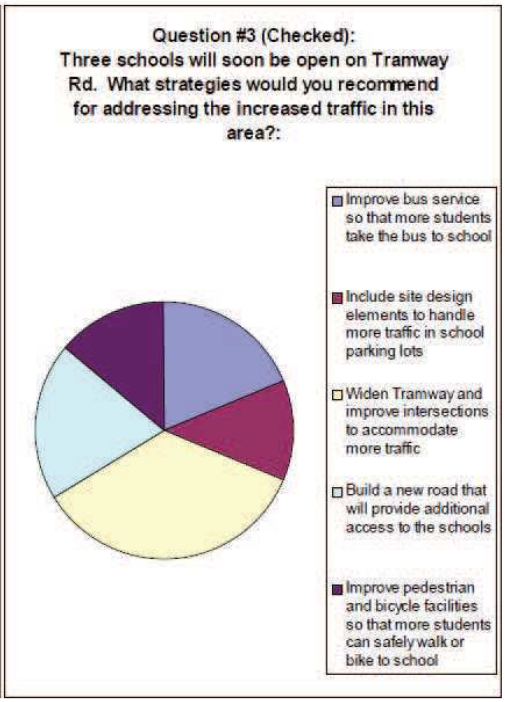
**% of Respondents Ranking Strategy as the Most Important**

3. Three schools will soon be open on Tramway Rd. (NC 78). What strategies would you recommend for addressing the increased traffic in this area?

A Improve bus service so that more students take the bus to school
B Include site design elements to handle more traffic in school parking lots
C Widen Tramway and improve intersections to accommodate more traffic
D Build a new road that will provide additional access to the schools.
E Improve pedestrian and bicycle facilities so that more students can safely walk or bike to school

| Ranking Results | A | B | C | D | E |
|---|---|---|---|---|---|
| #1 Rank | 25 | 14 | 49 | 19 | 14 |
| #2 Rank | 25 | 19 | 26 | 38 | 13 |
| #3 Rank | 21 | 42 | 16 | 25 | 17 |
| #4 Rank | 39 | 28 | 20 | 22 | 12 |
| #5 Rank | 11 | 18 | 10 | 17 | 65 |
| % #1 | 21% | 12% | 40% | 16% | 12% |
| average rank | 3.3 | 3.6 | 2.6 | 3.2 | 4.3 |
| | | | | | |
| **Checked Results** | **A** | **B** | **C** | **D** | **E** |
| Checks | 27 | 18 | 50 | 29 | 20 |



4. What do you feel are the key transportation issues in your area?

| Responses | Concern |
|---|---|
| 25 | Traffic signal timing |
| 25 | Need or improve mass transit |
| 21 | Traffic/congestion |
| 12 | Speeding |
| 12 | Bypass needed |
| 9 | Poor road maintenance |
| 9 | Better pedestrian/bike facilities |
| 8 | Need more traffic signals |
| 4 | Safety |
| 4 | Too many or speeding trucks |
| 4 | Bad drivers |
| 3 | Sprawl/control development |
| 3 | Turn lanes needed |
| 2 | Better traffic law enforcement |
| 2 | More roads |
| 2 | Eliminate center turn lanes |
| 1 | Through traffic |
| 1 | Appearance |
| 1 | Need paved roads |
| 1 | Slow farm equipment |
| 1 | Too many low-occupancy vehicles |
| 1 | Too much high-density housing |
| 1 | Accessibility |

| Responses | Problem Roadways or Intersections |
|---|---|
| 20 | Horner Blvd. |
| 7 | Tramway Rd. (school area) |
| 5 | US 1 & Tramway Rd. |
| 3 | Kelly Dr. & Nash (school & college) |
| 2 | US 1 south |
| 2 | Carolina Trace entrance |
| 1 | 4th & Weatherspoon |
| 1 | US 421 south |
| 1 | Broadway |
| 1 | Main & Lee |
| 1 | Lemon Springs/Swann Station |
| 1 | Spring Ln. (Office Max & Lowe's) |
| 1 | US 15/501 between Sanford and Pittsboro |

5. Are you concerned with safety or crash problems at any specific locations?

| | | |
|---|---|---|
| Yes | 146 | 64% |
| No | 82 | 36% |
| Total | 228 | |

If yes, please give a detailed description of the location.

| Responses | Location | Responses | Location |
|---|---|---|---|
| 19 | Horner Blvd. | 1 | Buckhorn Rd. |
| 9 | Nash St. & Kelly Dr. (Lee High School) | 1 | Carbonton Rd. & Cool Springs |
| 9 | US 1 & Tramway intersection | 1 | Courtland Dr. & Harkey |
| 8 | Tramway Rd. | 1 | Carbonton Rd. & Wicker St. |
| 7 | Carolina Trace entrance & NC 87 | 1 | Center Church Rd. |
| 7 | Horner Blvd. & Bragg St. | 1 | Edwards Rd. |
| 5 | All roads/intersections | 1 | Fields Dr. & Evergreen |
| 5 | Horner Blvd. (Wal-Mart area) | 1 | Gulf St. |
| 4 | US 1 (Spring Ln./Horner Blvd. ramps) | 1 | Harkey & Courtland |
| 3 | 7th St. & McIver | 1 | Horner Blvd. & Carthage |
| 3 | Lemon Springs & St. Andrews Church | 1 | Horner Blvd. & Hill |
| 3 | Tramway Rd. & Firetower Rd. | 1 | Horner Blvd. & Pearl |
| 3 | Tramway Rd. & Hickory House Rd. | 1 | Lee Ave. |
| 3 | US 1 & NC 42 (Wicker Rd.) | 1 | Lemon Springs Rd. & Deerfield Dr. |
| 3 | US 1 & Spring Ln. | 1 | McIver |
| 3 | US 421 north & Wilkins | 1 | NC 87 |
| 3 | Wicker St. | 1 | Spring Ln. & Douglas Dr. |
| 3 | 3rd & Weatherspoon | 1 | St. Andrews Church & Swann Station |
| 2 | 7th St. & Charlotte | 1 | Steel Bridge & Pocket Church |
| 2 | Carthage St. | 1 | Tramway & Courtland |
| 2 | Courtland Dr. | 1 | US 1 & Hickory House Rd. |
| 2 | Fields Dr. | 1 | US 1 & Rocky Fork Church |
| 2 | Horner Blvd. & Wall St. | 1 | US 1 at Grace Christian School |
| 2 | NC 42 & Steel Bridge | 1 | US 1 South |
| 2 | NC 87 & Wilson Rd. | 1 | US 15/501 & Deep River Rd. |
| 2 | Spring Ln. & Spottswood Dr. | 1 | US 421 & Cumnock Rd. |
| 2 | US 1 & US 15/501 (Hawkins) | 1 | US 421 & Swann Station |
| 2 | US 1 & Carthage | 1 | US 421 (between Wall & Wicker) |
| 2 | Woodland & Main St. | 1 | US 421 north |
| 1 | Bragg St. | 1 | Vance St. & Saunders St. |
| 1 | Bragg St. & McIver | 1 | Wicker St. & Franklin Dr. |
| 1 | Broadway | 1 | Woodland & McIntosh |

6. When traveling in your area, do you find that you often have to go out of your way to get to your destination because:

A) A direct route does not exist?
B) If yes, please give examples

| Responses | Comment |
|---|---|
| 2 | Southeast Sanford to Tramway |
| 2 | To hospital |
| 2 | Carolina Trace to US 1 North |
| 2 | Carolina Trace to US 1 South |
| 1 | Clearwater Dr. to Courtland Dr. |
| 1 | Deep River to CCCC |
| 1 | Hawkins to Horner Blvd. |
| 1 | Jonesboro to Hawkins |
| 1 | South Sanford to Spring Lake |
| 1 | Harkey to Riverbirch |
| 1 | To west side of town |
| 1 | Southeast Sanford to US 1 |
| 1 | Broadway to US 1 |
| 1 | NC 42 to US 1 |
| 1 | Carolina Trace to Lemon Springs |
| 1 | West Sanford to Wal-Mart |
| 1 | Northwest Sanford to Carbonton |

| | |
|---|---|
| Yes | 47 |
| No | 175 |
| Total | 222 |

C) The most direct route is too congested?
D) If yes, please give examples

| Responses | Comment |
|---|---|
| 68 | Horner Blvd. |
| 18 | Tramway Rd. |
| 4 | Nash & Kelly Dr. |
| 3 | Broadway Rd. |
| 2 | Center Church Rd. |
| 2 | NC 42 |
| 2 | US 1 |
| 2 | 7th St. |
| 1 | Lemon Springs |
| 1 | Near Wyeth Vaccines |
| 1 | Steel Bridge & NC 42 |
| 1 | US 1 & Spring Ln. |
| 1 | Weatherspoon St. |
| 1 | Downtown Sanford |

| | |
|---|---|
| Yes | 117 |
| No | 100 |
| Total | 217 |

7. Is truck traffic a problem in the area?
If yes, please give examples

| | |
|---|---|
| Yes | 137 |
| No | 91 |
| Total | 228 |

| Responses | Comment |
|---|---|
| 77 | Horner Blvd. |
| 8 | Tramway Rd. |
| 7 | Speeding or not obeying traffic signals |
| 2 | Colon Rd. |
| 2 | NC 87 |
| 2 | Pro-truck |
| 2 | US 1 |
| 2 | Willitt Rd. |
| 1 | Air pollution |
| 1 | Carthage St. |
| 1 | Center Church Rd. |
| 1 | Fields Dr. |
| 1 | Greenwood Rd. from US 1 to US 87 |
| 1 | Henley Rd. |
| 1 | Kelly Dr. & Nash St. |
| 1 | Lee Ave. |
| 1 | Lemon Springs Rd. |
| 1 | McNeill Rd. |
| 1 | Odors |
| 1 | Too many trucks |

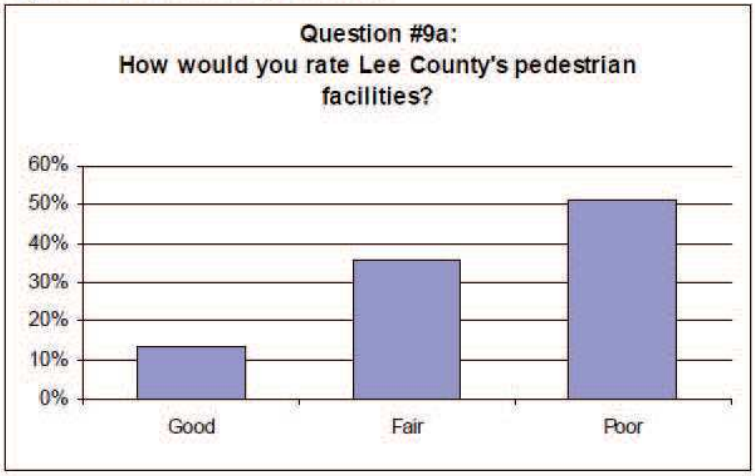
8. What areas or roads would you like to see improved access to?

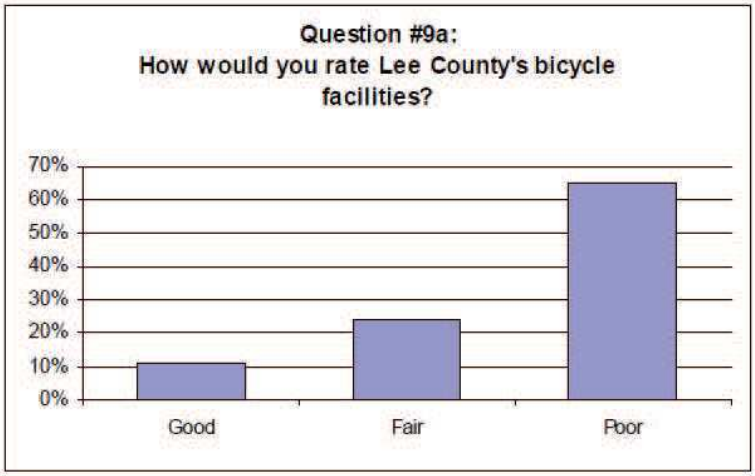
| Raleigh | Fayetteville | Southern Pines | US 64 | I-40 | I-95 | I-74 | Other |
|---|---|---|---|---|---|---|---|
| 45 | 35 | 18 | 36 | 47 | 65 | 14 | 18 |

154 responded
86 did not respond

| Responses | Comment |
|---|---|
| 3 | Greensboro |
| 3 | Lillington |
| 2 | Chapel Hill |
| 1 | NC 55 |
| 1 | Carthage |
| 1 | Charlotte |
| 1 | I-540 |
| 1 | Pittsboro |

9. The new transportation plan may include recommendations for pedestrian, bicycle, and mass transit facilities.




B) What existing facilities do you feel need to be improved in order to accommodate bicycle and pedestrian use?

| Responses | Comment |
|---|---|
| 7 | Wider sidewalks |
| 6 | Pedestrian crossings needed |
| 5 | Anti-walking/bicycling |
| 5 | On Horner Blvd. |
| 4 | At city hall, recreation facilities, schools |
| 3 | In downtown Sanford |
| 3 | On Carbonton Rd. |
| 2 | On Spring Ln. |
| 2 | In outlying areas |
| 1 | Better lighting |
| 1 | Bike parking |
| 1 | In Broadway |
| 1 | Complete existing sidewalks |
| 1 | More security |
| 1 | NC 42 east |

C) Are you interested in bus service:

**Question #9c:**
**Are you interested in bus service around Lee County?**

**Question #9c:**
**Are you interested in bus service to Raleigh?**

| | Around Lee County | To Raleigh |
|---|---|---|
| Yes | 137 | 79 |
| No | 89 | 122 |
| Total | 226 | 201 |

| Responses | Comment |
|---|---|
| 14 | Fayetteville |
| 8 | Southern Pines |
| 7 | Chapel Hill |
| 3 | Pittsboro or Siler City |
| 3 | Greensboro |
| 3 | Durham |
| 2 | VA hospitals |
| 2 | RDU Airport |
| 1 | RTP |
| 1 | Lillington |

D) Do you have any suggestions to improve COLTS (County of Lee Transit System)?

| Responses | Comment |
|---|---|
| 15 | Expand hours |
| 10 | Add fixed routes |
| 8 | Advertise more |
| 6 | Expand days |
| 6 | Service is great |
| 5 | Need better drivers/staff |
| 4 | Better service for low-wage workers |
| 4 | Add more vans |
| 4 | More on-time service |
| 2 | More service to other cities |
| 2 | More flexible reservation requirements |
| 2 | Better service for disabled |
| 2 | Enlarge service area |
| 1 | Provide service to all people |
| 1 | Add park-n-ride lots |
| 1 | Add Spanish interpreters |
| 1 | Add more drivers |
| 1 | Provide free service |
| 1 | Improve payment system |
| 1 | Use larger vehicles |
| 1 | Add bike racks |
| 1 | Start over |

10. Please list any other concerns or comments that you would like the Transportation plan to address.

| Response | Comment |
|---|---|
| 10 | Need or improve public transportation |
| 8 | Improve Tramway Rd. |
| 7 | Repair roads |
| 5 | Improve Horner Blvd. |
| 5 | Enforce traffic laws/speeding |
| 4 | Build or improve sidewalks |
| 3 | Control bypass effects |
| 3 | Need better planning |
| 3 | Improve traffic signals |
| 2 | Improve safety |
| 2 | Build more bypasses |
| 1 | Need a greenway plan |
| 1 | Increase density |
| 1 | Repair roads late at night |
| 1 | Add stoplights |
| 1 | Against bicycle or moped traffic |
| 1 | Speed completion of US 421 bypass |
| 1 | Lee County needs a highway commissioner |
| 1 | Control truck traffic |
| 1 | Need traffic signal at NC 42 & Steel Bridge |
| 1 | Replace bridge on Steel Bridge |
| 1 | Need sidewalks on Harkey and Woodland |
| 1 | Need traffic signal at Kelly & Nash |
| 1 | Need wider lanes on Carthage St. (from Moore to Horner) |
| 1 | Gulf St. is not a thoroughfare |
| 1 | 4-lane US 421 to Lillington |
| 1 | Improve Broadway Rd. |
| 1 | Prohibit truck parking near Grace Christian School on US 1 |
| 1 | Buckhorn Rd. is dangerous |
| 1 | Add sidewalks and bike lanes to the hospital (Fields Dr. & Wicker St.) |
| 1 | Add bikelanes to Wicker, Carbonton, and to all parks |
| 1 | Money |
| 1 | Develop a bike path system |
| 1 | Beautification |
| 1 | More informative signage, repair fallen signs |

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