Comprehensive Transportation Plan

Bertie County

October 2012

Comprehensive Transportation Plan

Bertie County

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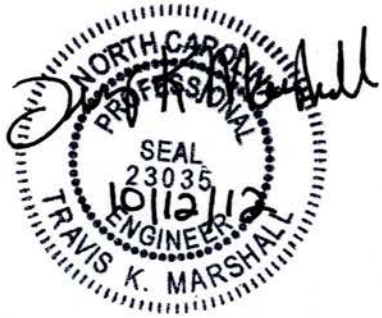
Transportation Planning Branch
N.C. Department of Transportation

In Cooperation with: Bertie County
Askewville
Aulander
Colerain
Kelford
Lewiston Woodville
Powellsville
Roxobel
Windsor
Peanut Belt Rural Planning Organization

October 2012



Travis K. Marshall, PE
Eastern Planning Unit Head

Table of Contents

Appendices

List of Figures

List of Tables

Executive Summary

In May of 2006, the Transportation Planning Branch of the North Carolina Department of Transportation and Bertie County initiated a study to cooperatively develop the Bertie County Comprehensive Transportation Plan (CTP), which includes the towns of Askewville, Aulander, Colerain, Kelford, Lewiston-Woodville, Powellsville, Roxobel, and Windsor. The study was put on hold then reinitiated in August 2009. This is a long range multi-modal transportation plan that covers transportation needs through the year 2035. Modes of transportation evaluated as part of this plan include: highway, public transportation, rail, bicycle, and pedestrian. This plan does not cover standard bridge replacements, routine maintenance, or minor operations issues. Refer to Appendix A for contact information on these types of issues.

Findings of this CTP study were based on an analysis of the transportation system, environmental screening, and public input. Refer to Figure 1 for the CTP maps, which were mutually endorsed/adopted in 2012. Implementation of the plan is the responsibility of Bertie County, its municipalities, and NCDOT. Refer to Chapter 1 for information on the implementation process.

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

- **US 13 (R-2205):** upgrade the existing facility to a 4-lane divided expressway from NC 42 to Hertford County Line.
- **US 13 (R-2506):** upgrade the existing facility to a 4-lane divided expressway north of Windsor to NC 42.
- **NC 11/42 (R-2900):** construct a new 4-lane divided freeway connecting Bertie County with Martin County and Hertford County.
- **US 13/17 (BERT0001-H):** upgrade existing 4-lane major thoroughfare to a 4-lane divided freeway with a median from the Martin County Line to the town limits of Windsor.
- **US 17 (BERT0002-H):** upgrade the existing 4-lane major thoroughfare to a 4-lane divided freeway with a median from US 17A east of Windsor to the Chowan River Bridge.
- **NC 45 (BERT0003-H):** widen this road to 24 feet with paved shoulders and turn lanes where necessary throughout Bertie County.

- **Wakelon Road (SR 1001), (BERT0004-H):** upgrade the existing facility to 24 feet with paved shoulders, including turn lanes at all major intersections.

- **Hexlena Road (SR 1200), (BERT0005-H):** upgrade the existing facility to 24 feet with paved shoulders, including turn lanes at all major intersections.

- **Connaritsa Road (SR 1200), (BERT0006-H):** upgrade the existing facility to 24 feet with paved shoulders, including turn lanes at all major intersections.

Adopted by:

Town of Windsor
Date: 12-8-2011

Town of Lewiston Woodville
Date: 1-9-2012

Town of Colerain
Date: 1-9-2012

Town of Powellsville
Date: 12-6-2011

Town of Askewville
Date: 1-2-2012

Town of Aulander
Date: 12-19-2011

Town of Roxobel
Date: 12-13-2011

Town of Kelford
Date: 1-9-2012

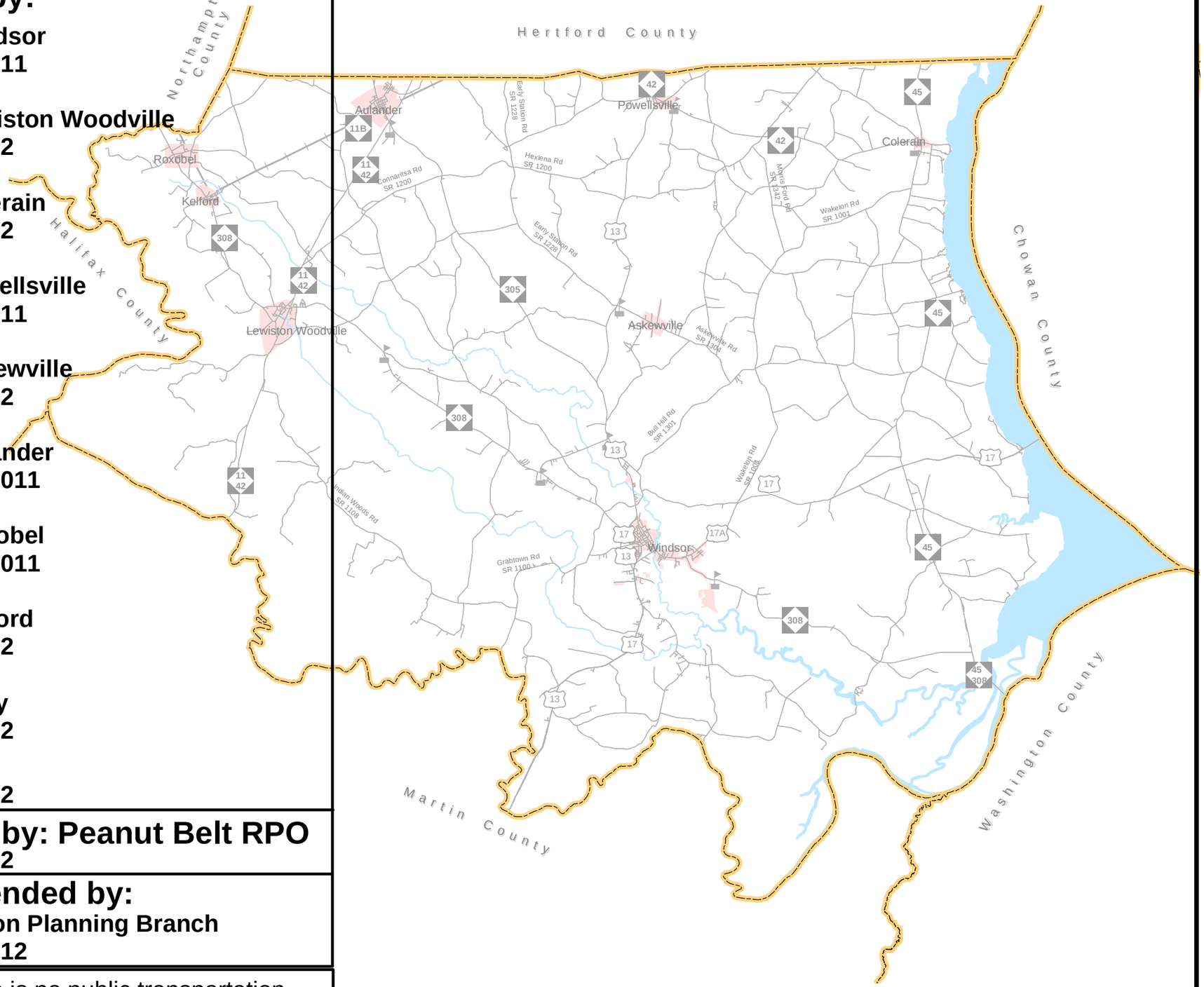
Bertie County
Date: 2-6-2012

NCDOT
Date: 4-5-2012

Endorsed by: Peanut Belt RPO
Date: 2-9-2012

Recommended by:
Transportation Planning Branch
Date: 3-14-2012

NOTES: There is no public transportation and rail map included in this plan



Bertie County

Comprehensive Transportation Plan

Plan date: 11-28-2011

Roads
Rivers and Streams
Lakes
Schools
Railroads
Municipal Boundaries
County Boundary

0 1 2 4 6 Miles

N W E S

Figure 1, Sheet 1 of 5

Base map date: 5-26-2010

Refer to CTP document for more details

Highway Map

Bertie County
Comprehensive Transportation Plan

Plan date: 11-28-2011

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
- Ferry

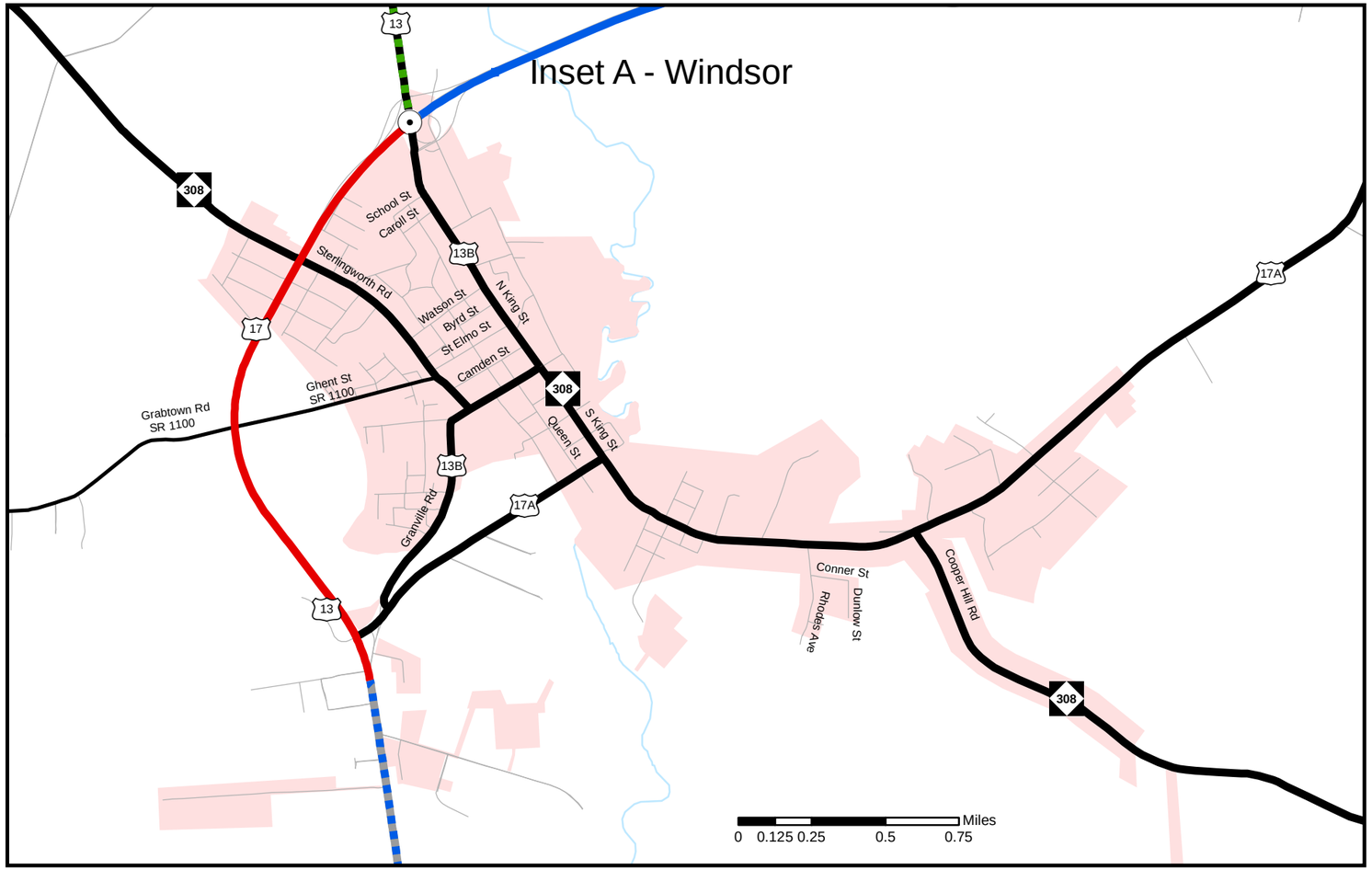
0 1 2 4 6 Miles

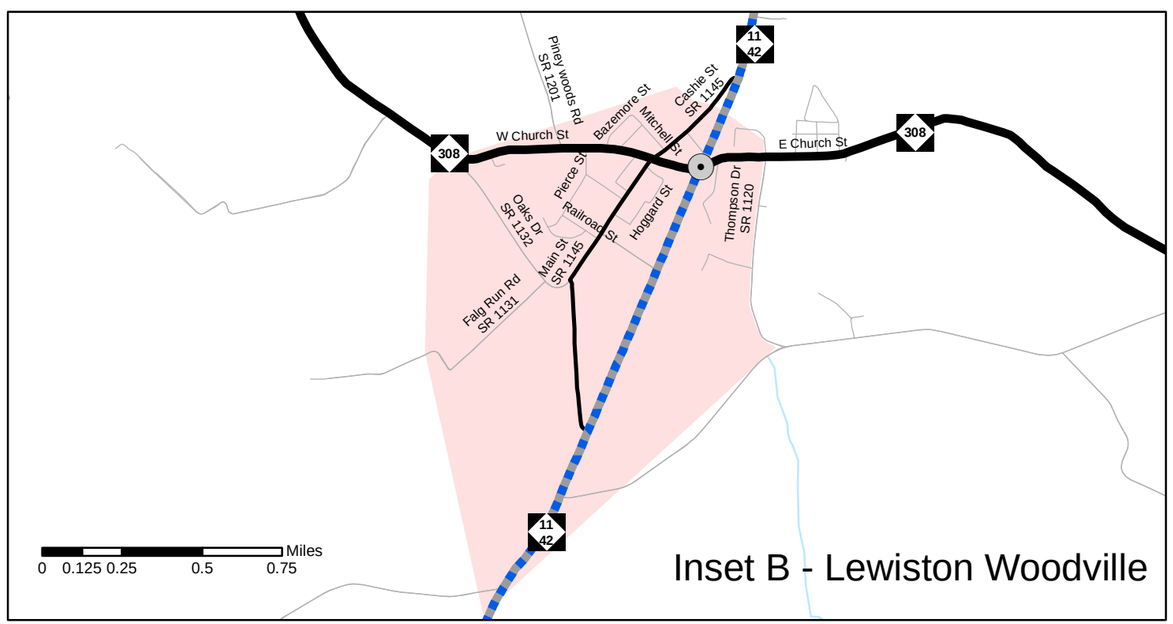
N W E S

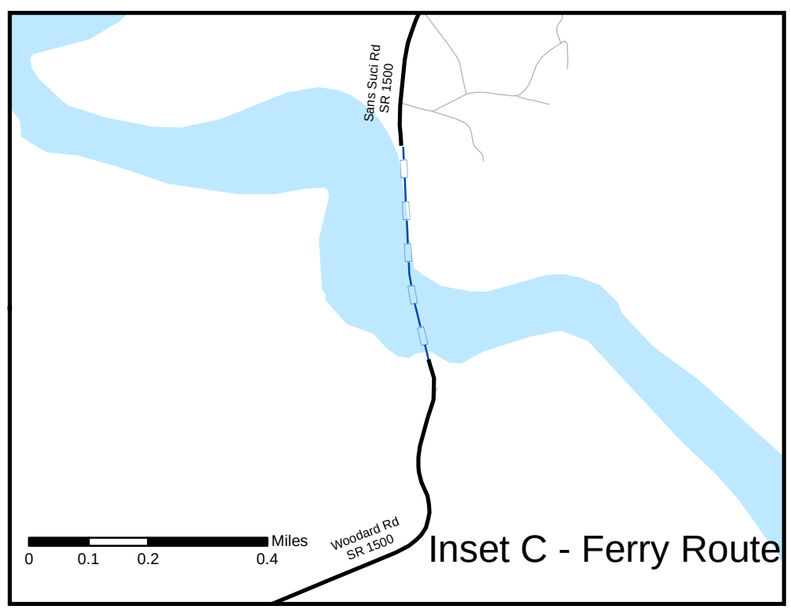
Figure 1, Sheet 2 of 5

Base map date: 5-26-2010

Refer to CTP document for more details







Highway Map
Insets A, B, C

Bertie County
Comprehensive
Transportation Plan

Plan date: 11-28-2011

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
- Ferry

N W E S

Figure 1, Sheet 2A of 5

Base map date: 5-26-2010

Refer to CTP document for more details

Bicycle Map

Bertie County

Comprehensive Transportation Plan

Plan date: 11-28-2011

Hertford County
Northampton County
Halifax County
Martin County
Chowan County
Washington County

Aulander
Powellsville
Colerain
Roxobel
Kelford
Lewiston Woodville
Askewville
Windsor
Cooper Hill Rd
Woodard Rd SR 1500
Cashie River
Sans Souci Rd SR 1500

11B
11 42
42
45
308
305
13
17
17A
NC 3

On-road
- Existing
- Needs Improvement
- Recommended

Off-road
- Existing
- Needs Improvement
- Recommended

Multi-Use Paths
- Existing
- Needs Improvement
- Recommended

- Existing Grade Separation
- Proposed Grade Separation

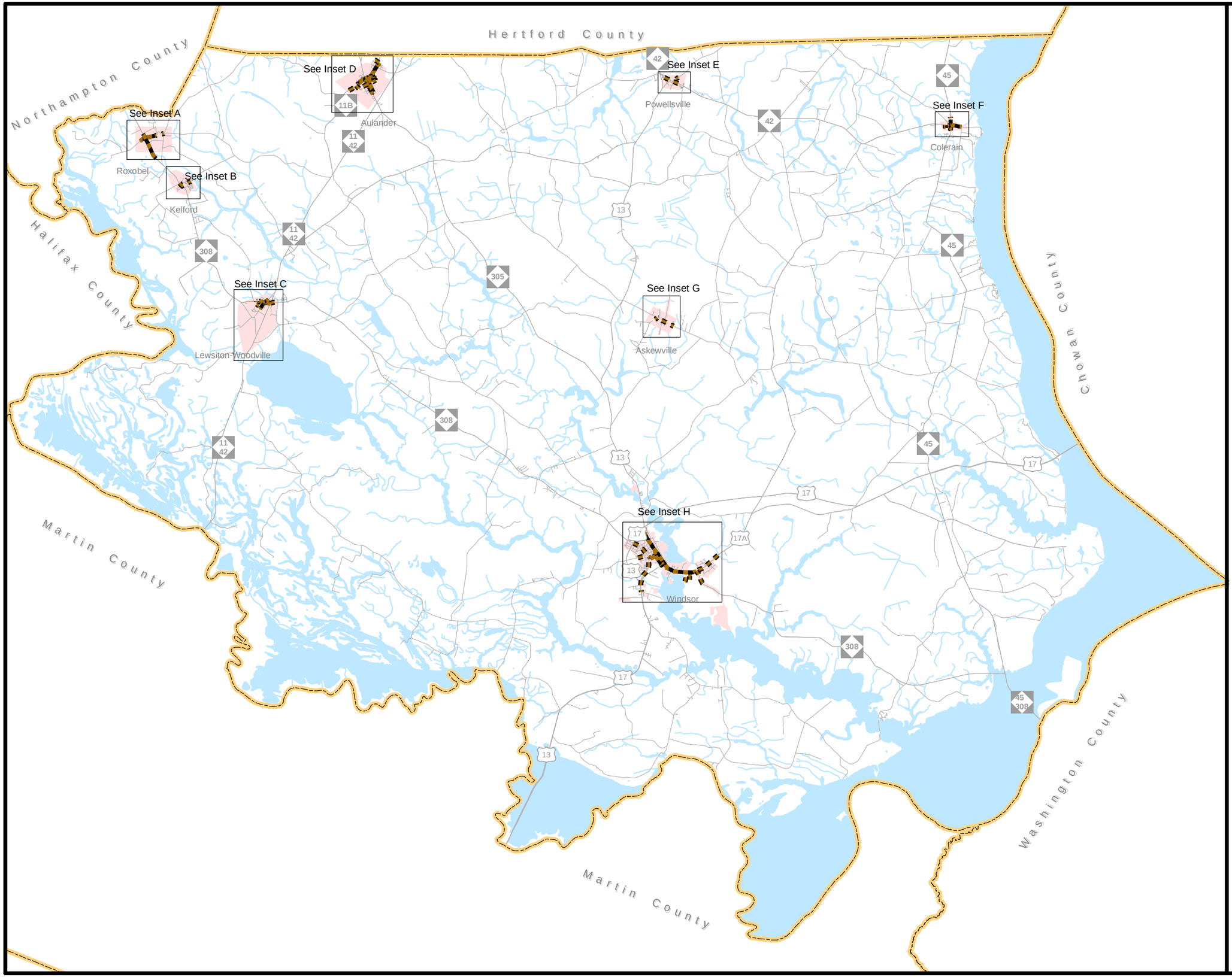
0 1 2 4 6 Miles

N W E S

Figure 1, Sheet 4 of 5

Base map date: 8-25-2010

Refer to CTP document for more details



Pedestrian Map

Bertie County

Comprehensive Transportation Plan

Plan date: 11-28-2011

Sidewalks
- Existing
- Needs Improvement
- Recommended

Off-road
- Existing
- Needs Improvement
- Recommended

Multi-Use Paths
- Existing
- Needs Improvement
- Recommended

- Existing Grade Separation
- Proposed Grade Separation

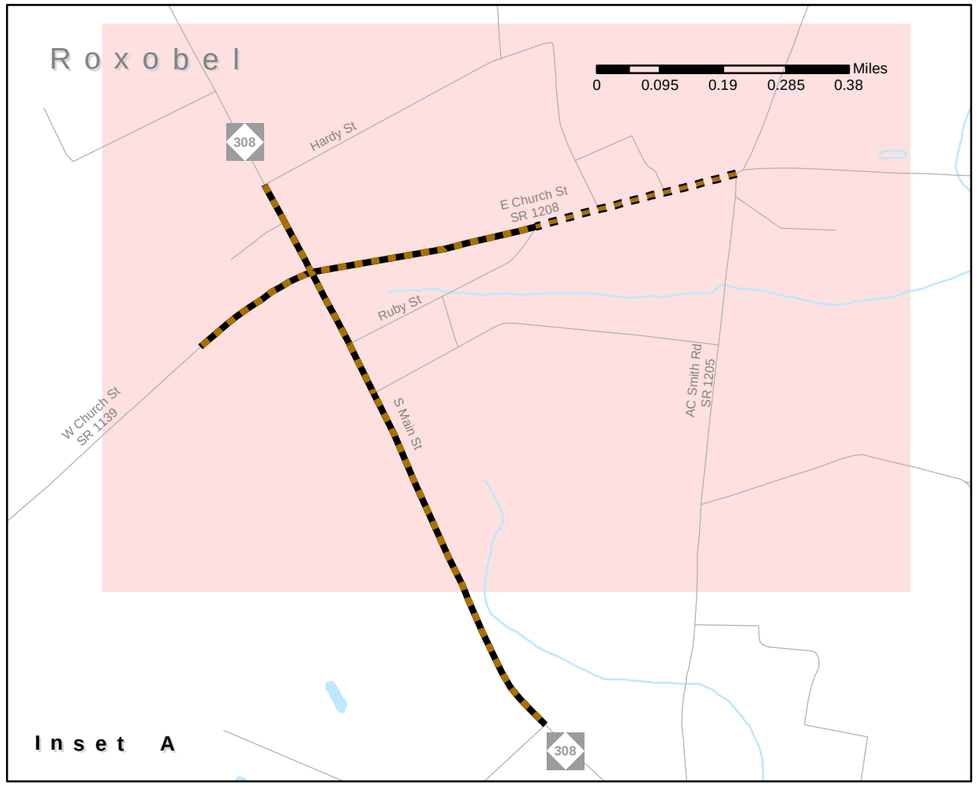
Miles
0 1 2 4 6

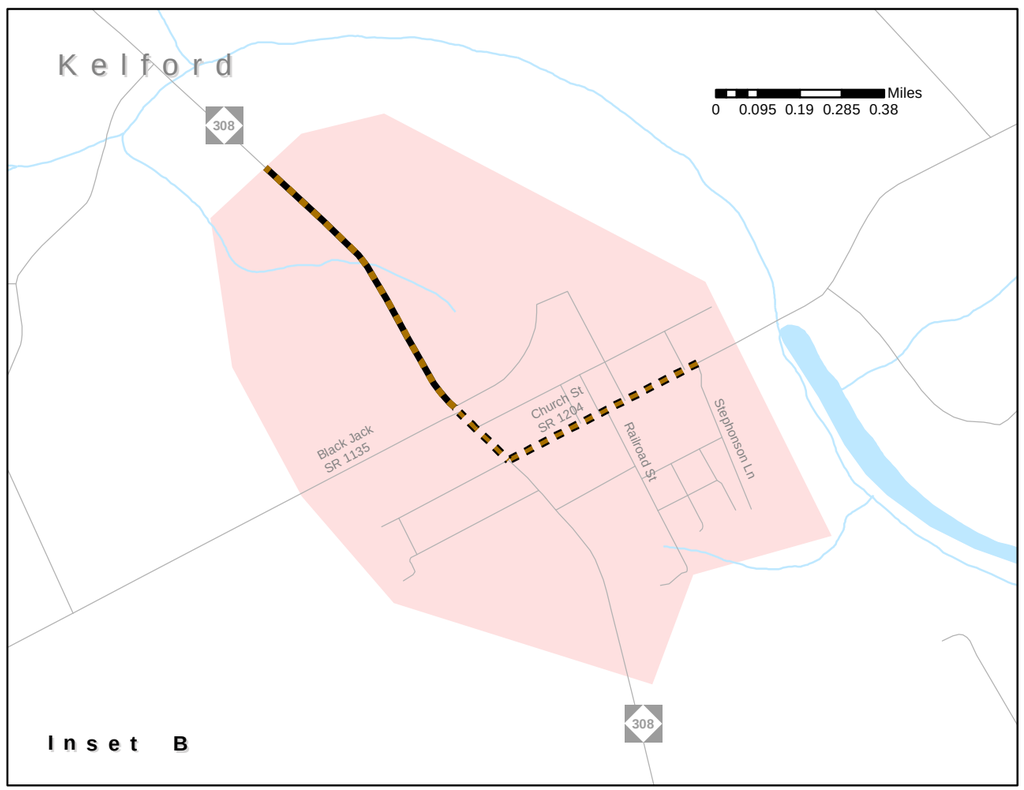
N W E S

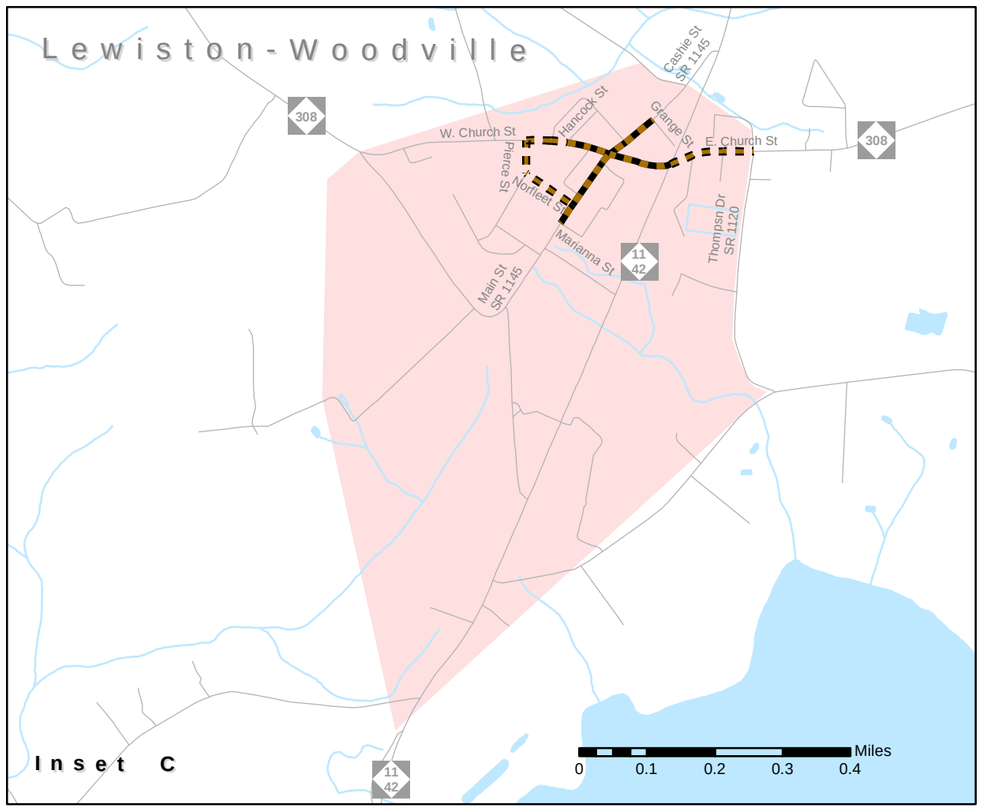
Figure 1, Sheet 5 of 5

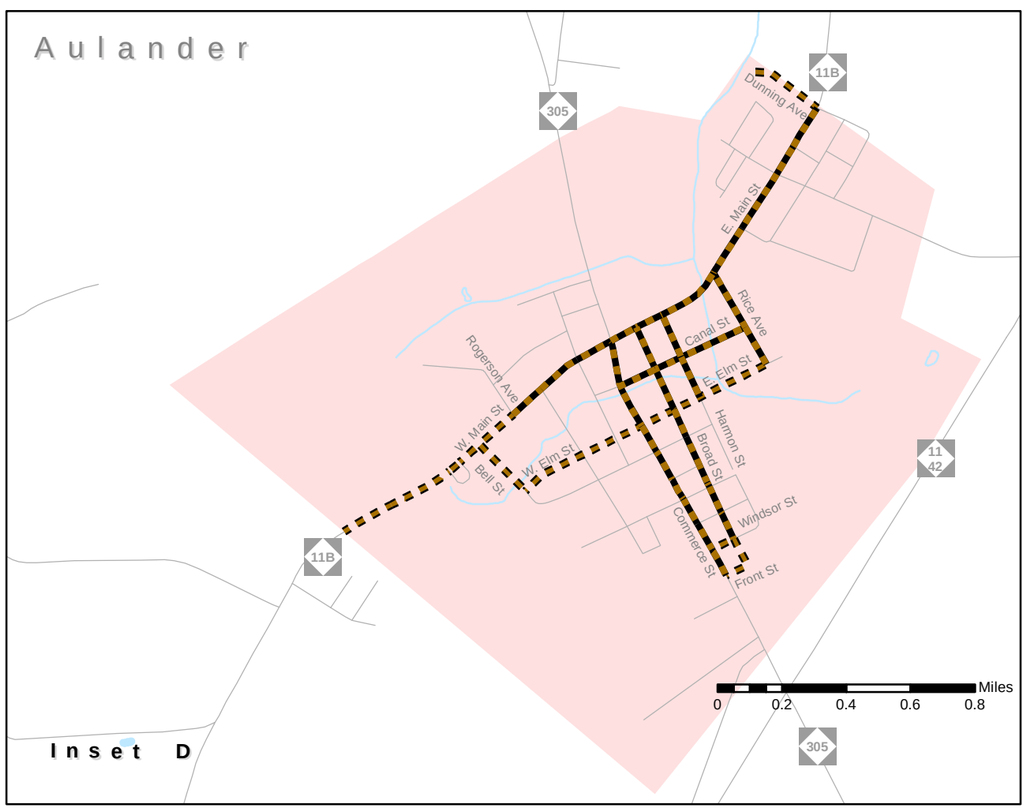
Base map date: 8-25-2010

Refer to CTP document for more details









Pedestrian Map
Insets A,B, C, D

Bertie County
Comprehensive Transportation Plan

Plan date: 11-28-2011

Sidewalks
- Existing
- Needs Improvement
- Recommended

Off-road
- Existing
- Needs Improvement
- Recommended

Multi-Use Paths
- Existing
- Needs Improvement
- Recommended

- Existing Grade Separation
- Proposed Grade Separation

N W E S

Figure 1, Sheet 5A of 5

Base map date: 8-25-2010

Refer to CTP document for more details

Pedestrian Map
Insets E,F,G,H

Bertie County
Comprehensive Transportation Plan

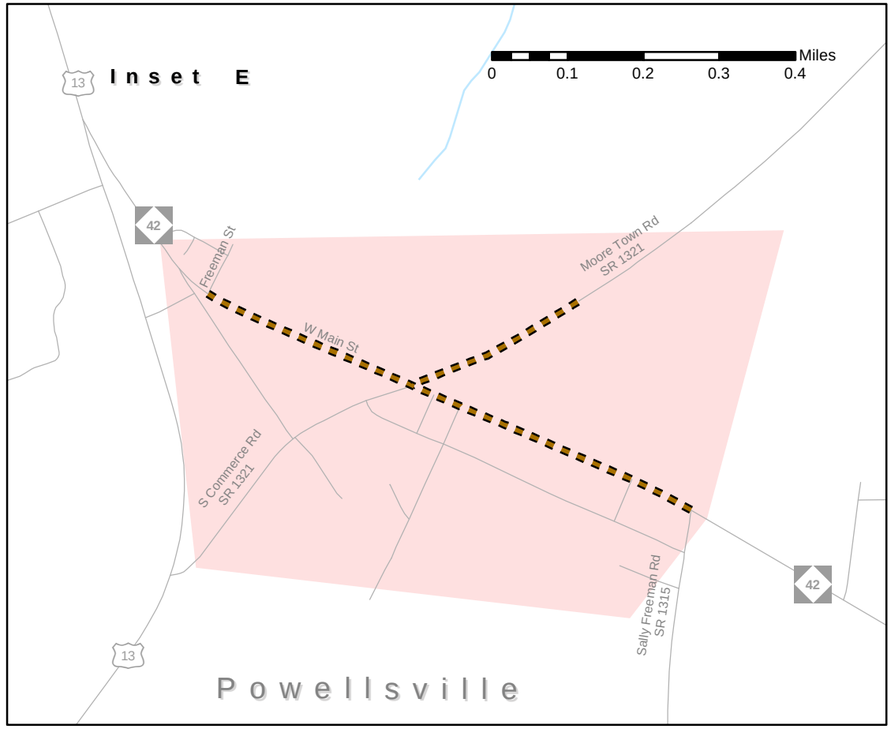
Plan date: 11-28-2011

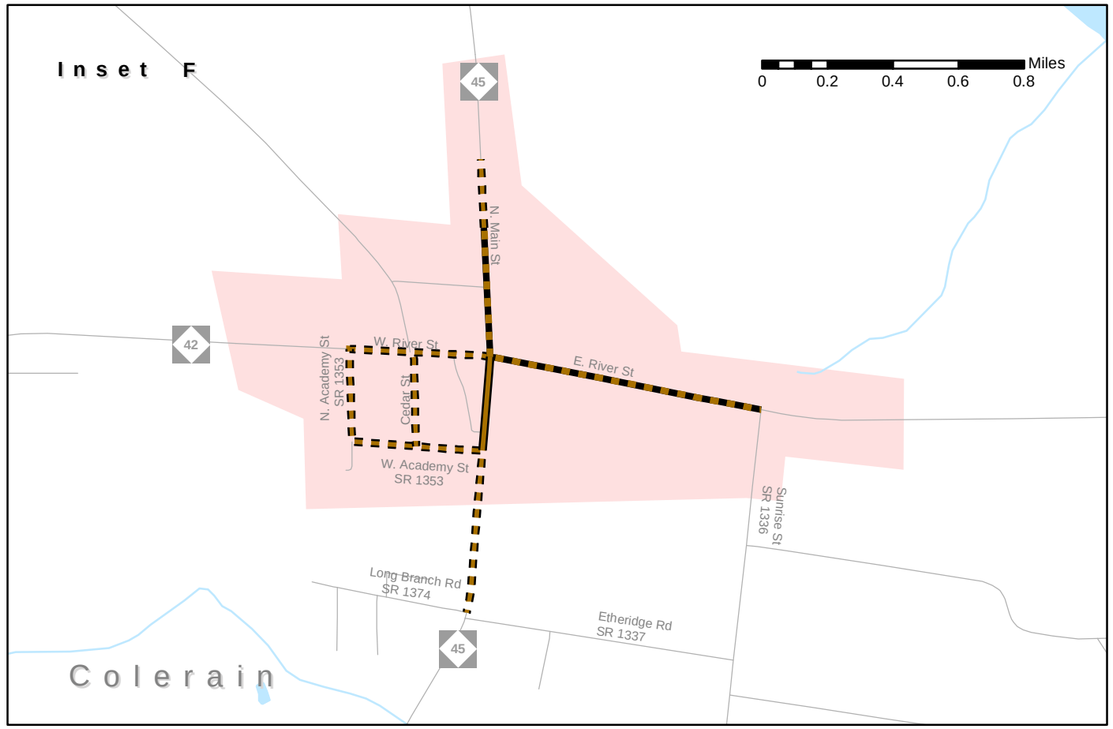
Sidewalks
- Existing
- Needs Improvement
- Recommended

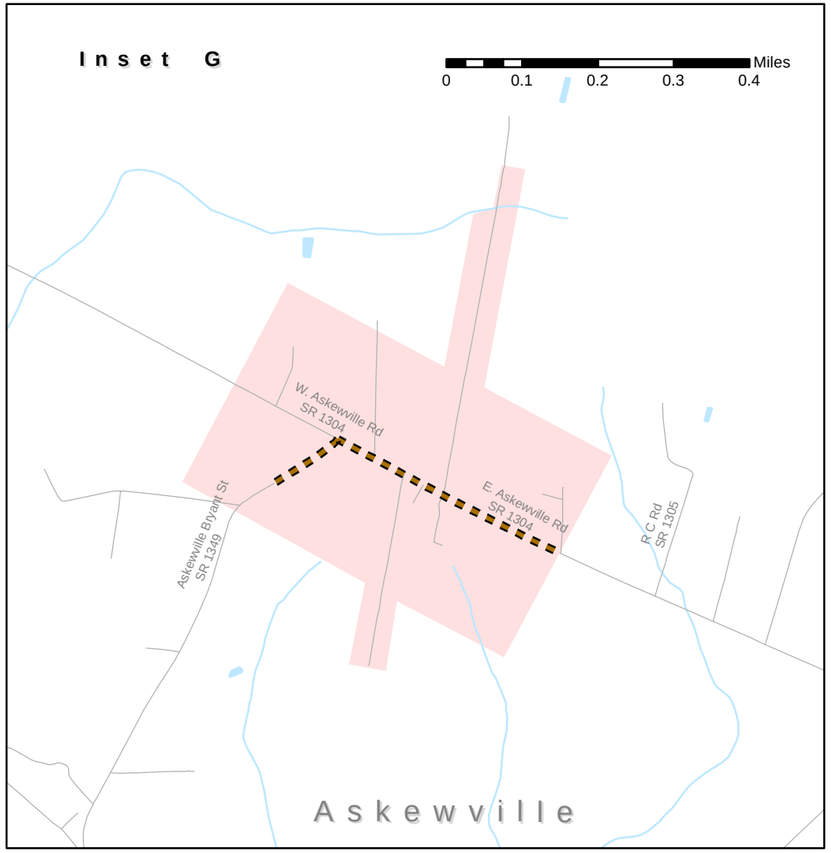
Off-road
- Existing
- Needs Improvement
- Recommended

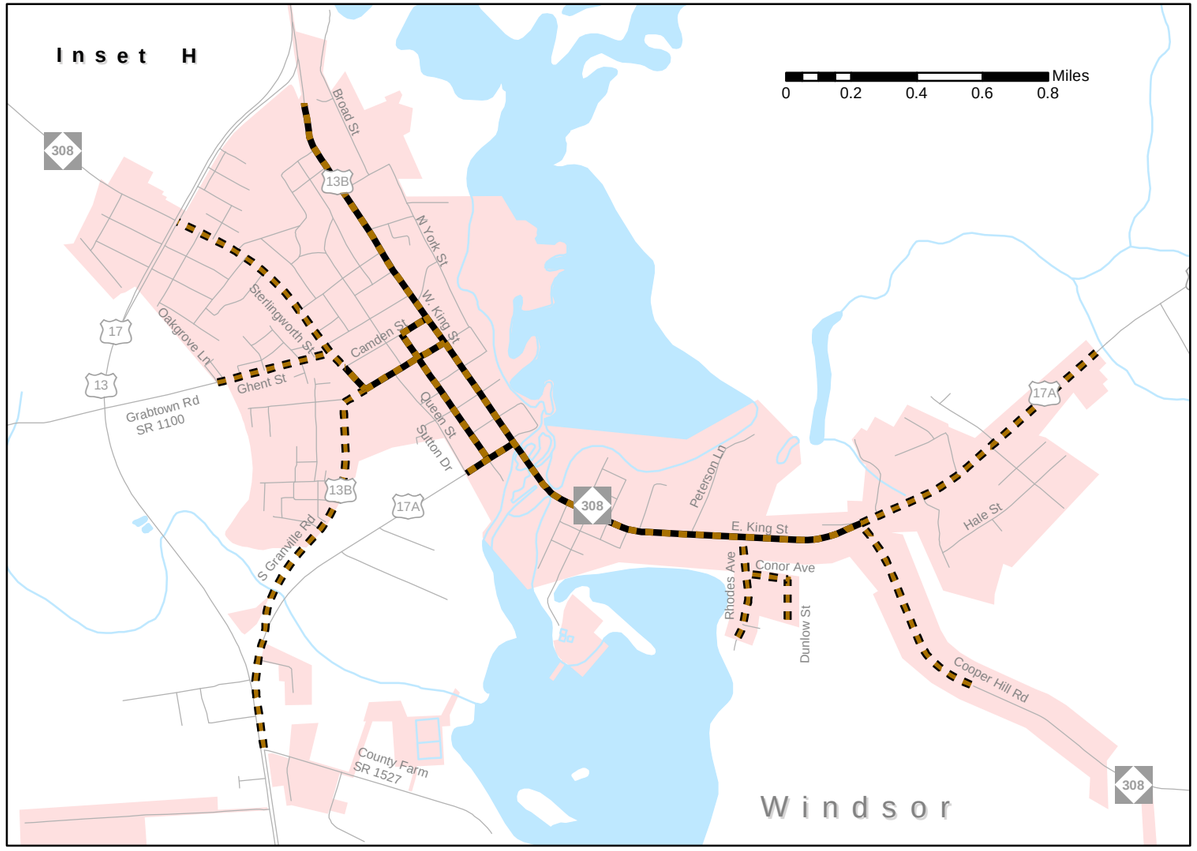
Multi-Use Paths
- Existing
- Needs Improvement
- Recommended

- Existing Grade Separation
- Proposed Grade Separation









N
W E
S

Figure 1, Sheet 5B of 5

Base map date: 8-25-2010

Refer to CTP document for more details

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 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 the Board of Transportation 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 2010 to 2035 using a trend line analysis based on Annual Average Daily Traffic (AADT) from 1993 to 2010. 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 Bertie County Commissioners on February 6, 2012.

Existing and future travel demand is compared to existing roadway capacities. Capacity deficiencies occur when the traffic volume of a roadway exceeds the roadway's capacity. Roadways are considered near capacity when the traffic volume is at least eighty percent of the capacity. Refer to Figures 2 and 3 for existing and future capacity deficiencies.

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 using the NC Level of Service (NCLOS) developed by the Institute of Transportation Research and Education (ITRE). 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 Bertie County CTP for crashes occurring in the planning area between January 1, 2008 and December 31, 2010. During this period, a total of 5 intersections were identified as having a high number of crashes as illustrated in Figure 4. Refer to Appendix F for a detailed crash analysis.

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. Twenty two deficient bridges were identified within the planning area and are illustrated in Figure 5. Refer to Appendix G for more detailed information.

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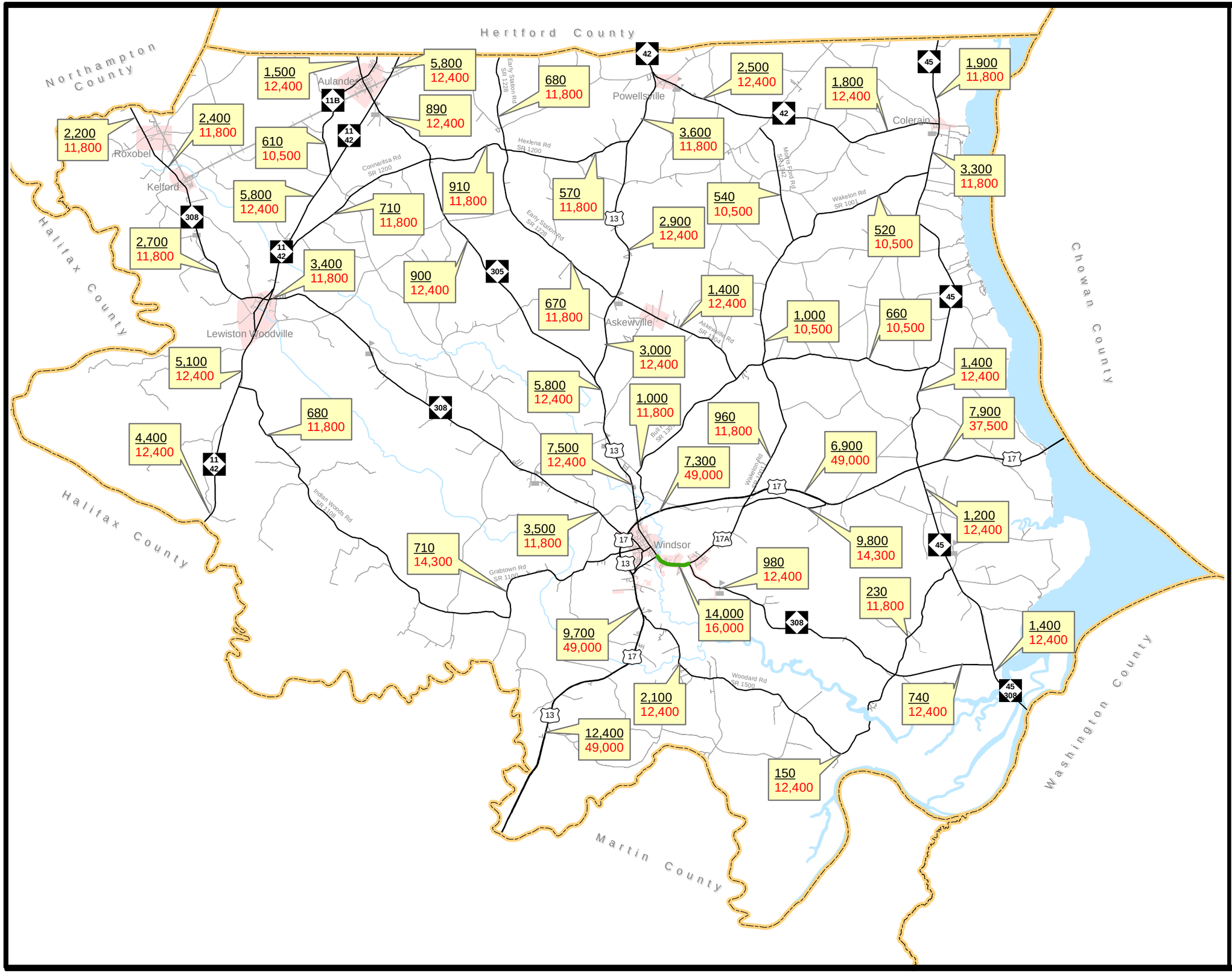


BERTIE COUNTY NORTH CAROLINA

2010 Volumes and Capacity Deficiencies

Bertie County

Comprehensive Transportation Plan

Plan date: 11-28-2011

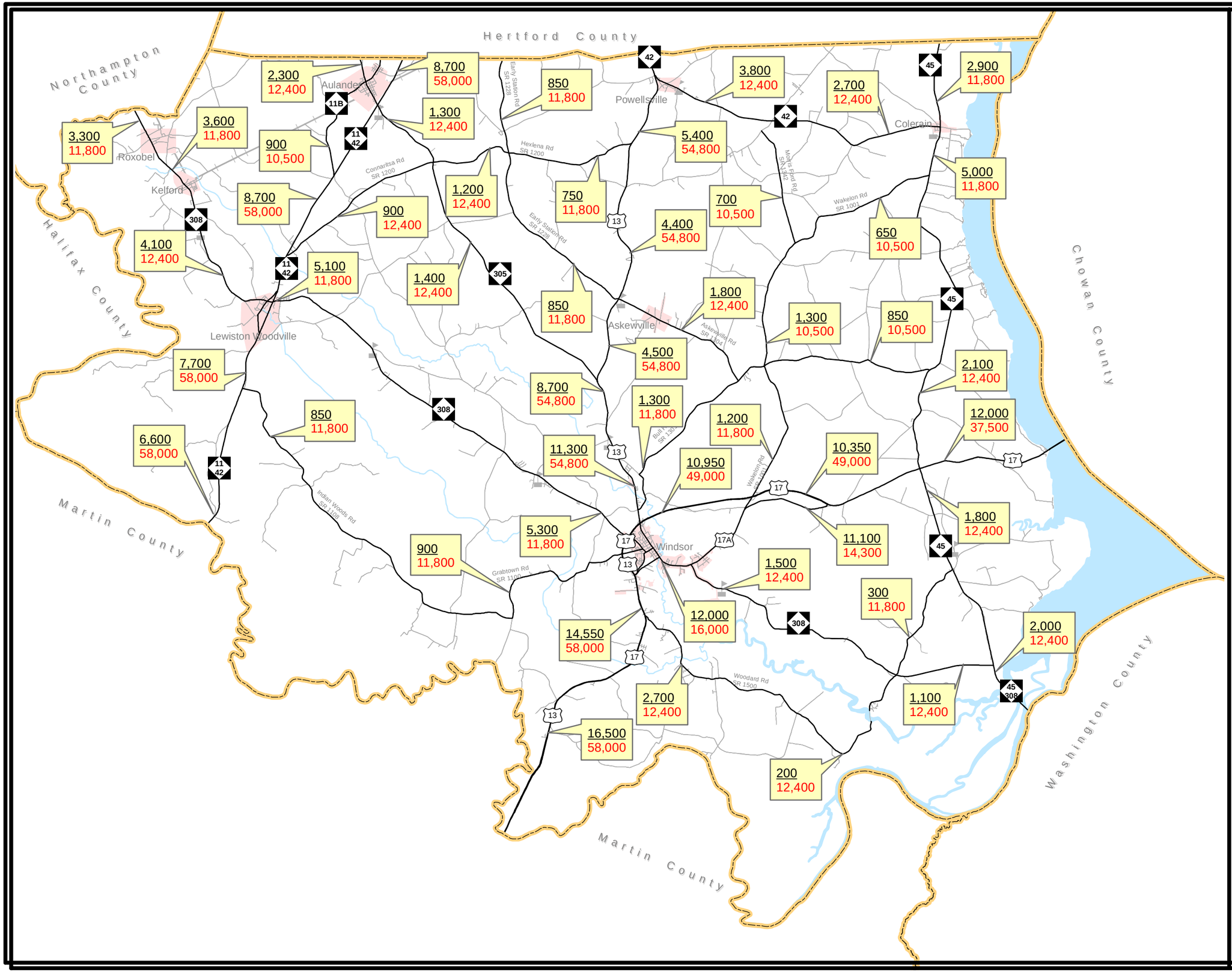
- Near Capacity (0.8-0.99)
- Over Capacity (1.00-1.49)
- #### 2010 Volumes (AADT)
- #### 2010 Capacity
- Study Roads
- Schools
- Railroads
- Rivers and Streams
- Lakes
- Municipal Boundaries
- County Boundary

0 1 2 4 6 Miles

N W E S

Figure 2

Base map date: 5-26-2010



BERTIE COUNTY NORTH CAROLINA

2035 Volumes and Capacity Deficiencies

Bertie County

Comprehensive Transportation Plan

Plan date: 11-28-2011

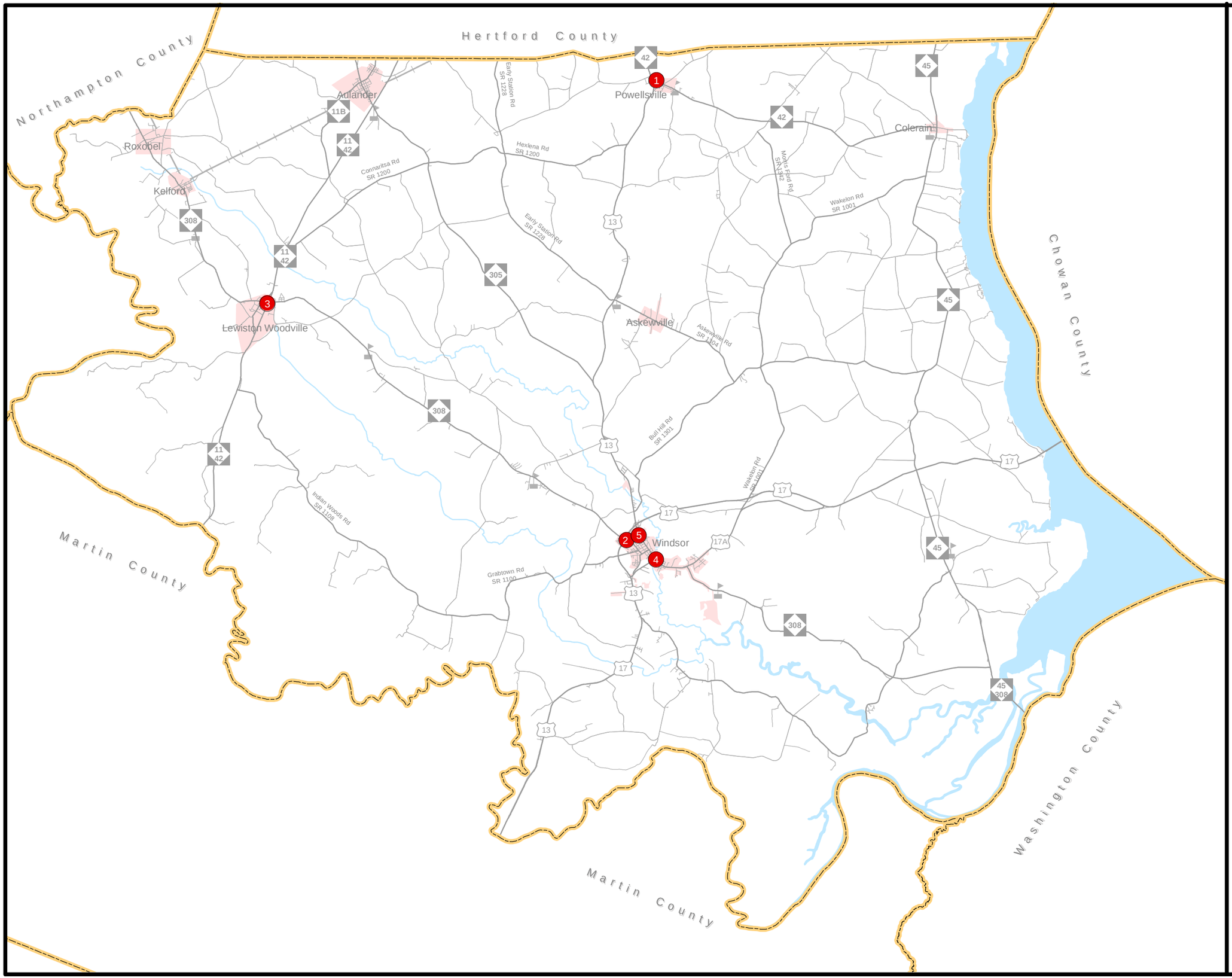
- Near Capacity (0.8-0.99)
- Over Capacity (1.00-1.49)
- #### 2035 Volumes (AADT)
- #### 2035 Capacity
- Study Roads
- Schools
- Railroads
- Rivers and Streams
- Lakes
- Municipal Boundaries
- County Boundary

0 1 2 4 6 Miles

N W E S

Figure 3

Base map date: 5-26-2010



Bertie County

Comprehensive Transportation Plan

Crash Locations

January 1, 2008 to December 31, 2010

Map date: 12-5-2011

- # Crash Locations
- Roads
- Railroads
- Rivers and Streams
- Lakes
- Schools
- Municipal Boundaries
- County Boundary

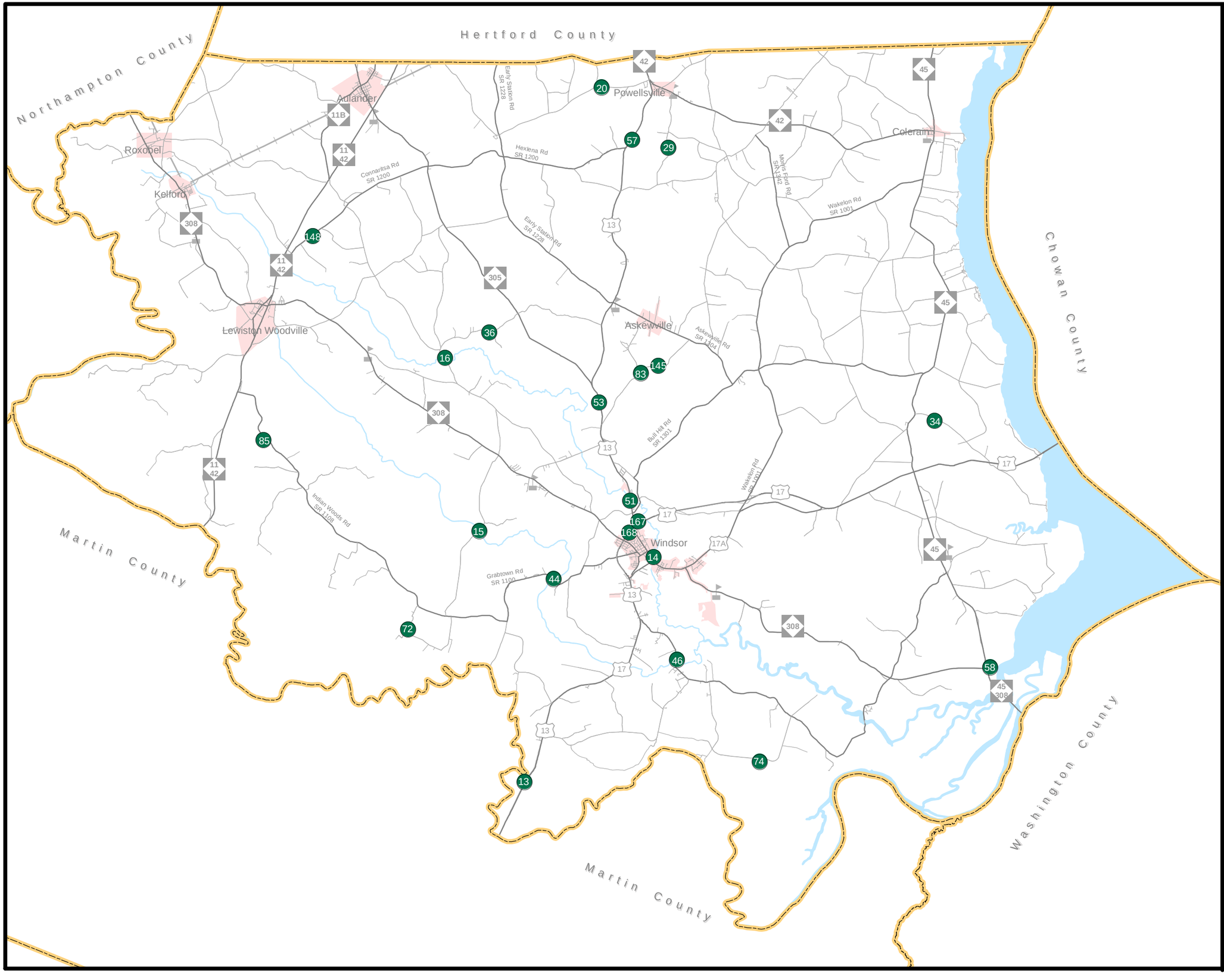
0 1 2 4 6 Miles

N W E S

Figure 4

Base map date: 5-26-2010

Refer to CTP document - Appendix F



Bertie County

Comprehensive Transportation Plan

Deficient Bridges

January 1, 2008 to December 31, 2010

Map date: 12-5-2011

- # Deficient Bridges
- Roads
- Rivers and Streams
- Lakes
- Schools
- Railroads
- Municipal Boundary
- County Boundary

0 1 2 4 6 Miles

N W E S

Figure 5

Base map date: 5-26-2010

Refer to CTP document - Appendix F

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.

Currently, no fixed route system exists in Bertie County. 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.

Intercity passenger service is provided by a partnership between the North Carolina Department of Transportation (NCDOT) and Amtrak. Amtrak currently operates six passenger services daily in or through North Carolina serving 16 cities across the State. Five of the services are interstate (Crescent, Palmetto, Silver Meteor, Silver Star, and Carolinian passenger trains) and one service (Piedmont passenger train) operates exclusively within North Carolina. In addition to the six passenger services mentioned, Amtrak also operates its Auto Train service which passes through North Carolina but does not make any stops. Amtrak ridership demand has been on a rise in the State. In 2010 ridership was 840,000 and increased to 893,000 passengers in 2011.

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 everyday. 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.

Due to the inexistence of any recommendations or changes to the existing transit and rail inventory, Sheet 3 of Figure 1 was removed. The North Carolina Virginia (NCVA) railroad has a total length of 52 miles. Two of those miles are in Virginia between the NCVA connection with CSX Transportation at Boykins, VA, and the VA/NC state line. Thus 50 miles of the NCVA are in North Carolina. Of those 50 NC miles, 26 miles are in Northampton County, 11 miles are in Bertie County, and 13 miles are in Hertford County. There is no passenger train traffic on the NCVA, only freight trains. The track is rated as Class I track which means the maximum speed for freight trains is 10mph. There are currently 12 industries located on the line and the railroad averages 20,000 freight car loads per year. The car loads are made up of steel plate, steel scrap, soybeans, chemicals and fertilizer. The railroad operates one roundtrip from Boykins, VA to Tunis, NC usually five days a week, sometimes seven days a week depending on customer needs. 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 and pedestrian facilities for the planning area are presented on Sheets 4 and 5 of Figure 1. The 2035 Bertie County Bicycle Plan and the 2035 Pedestrian Plan were utilized in the development of these elements of the CTP. Briefly describe any regional or statewide facilities that go through the area. State Bicycle Route #3 passes through the south eastern part of the county from Washington County to Chowan County. Bicyclists share the road with vehicles and do not have their own bicycle lanes on this route. Due to the upgrade of US 17 portion to a freeway, this bicycle route may have to be rerouted. It is recommended that a paved shoulder is added to the entire route to accommodate for a bicycle lane and improve safety for the bicyclists. All recommendations for bicycle and pedestrian facilities were coordinated with the local governments and the NCDOT Division of Bicycle and Pedestrian Transportation. Refer to Appendix A for contact information.

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 1998 CAMA Land Use Plan Update was used to meet this requirement and is illustrated in Figures 6 and 7, respectively. The plan has been in the update process for years now and awaiting final review and recommendations for Coastal Resources Commission.

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.

Bertie County primarily anticipates growth in areas designated as “New growth” areas, as depicted in Figures 7, encompass residential, commercial and public land uses. These areas tend to be established populated areas and are located on the eastern side of the county, along US 17 and NC 45. Substantial residential and commercial growth is expected in the southern eastern part of the County.

Figure 6
Bertie County
CAMA LUP Update
Generalized Land Use Map

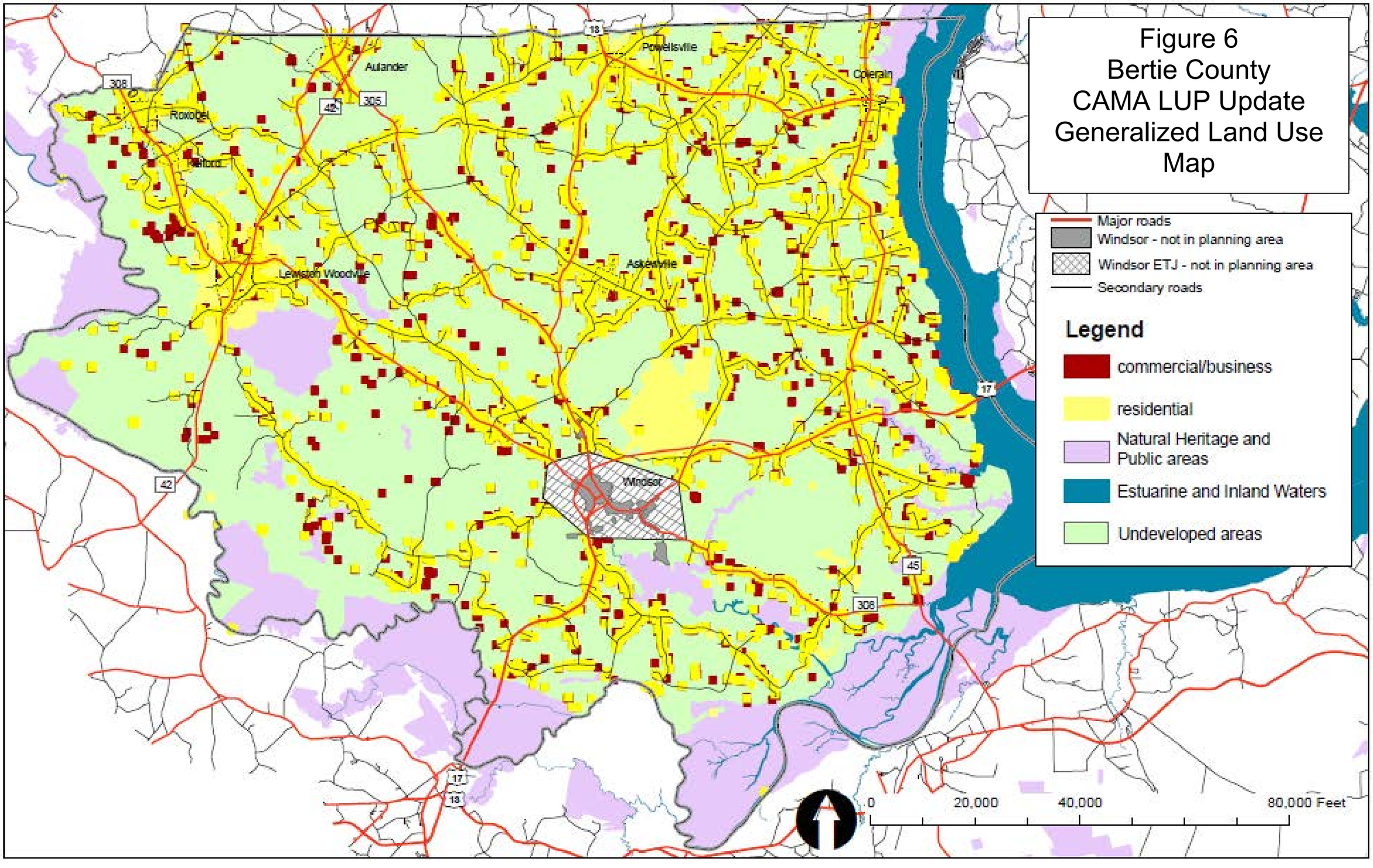


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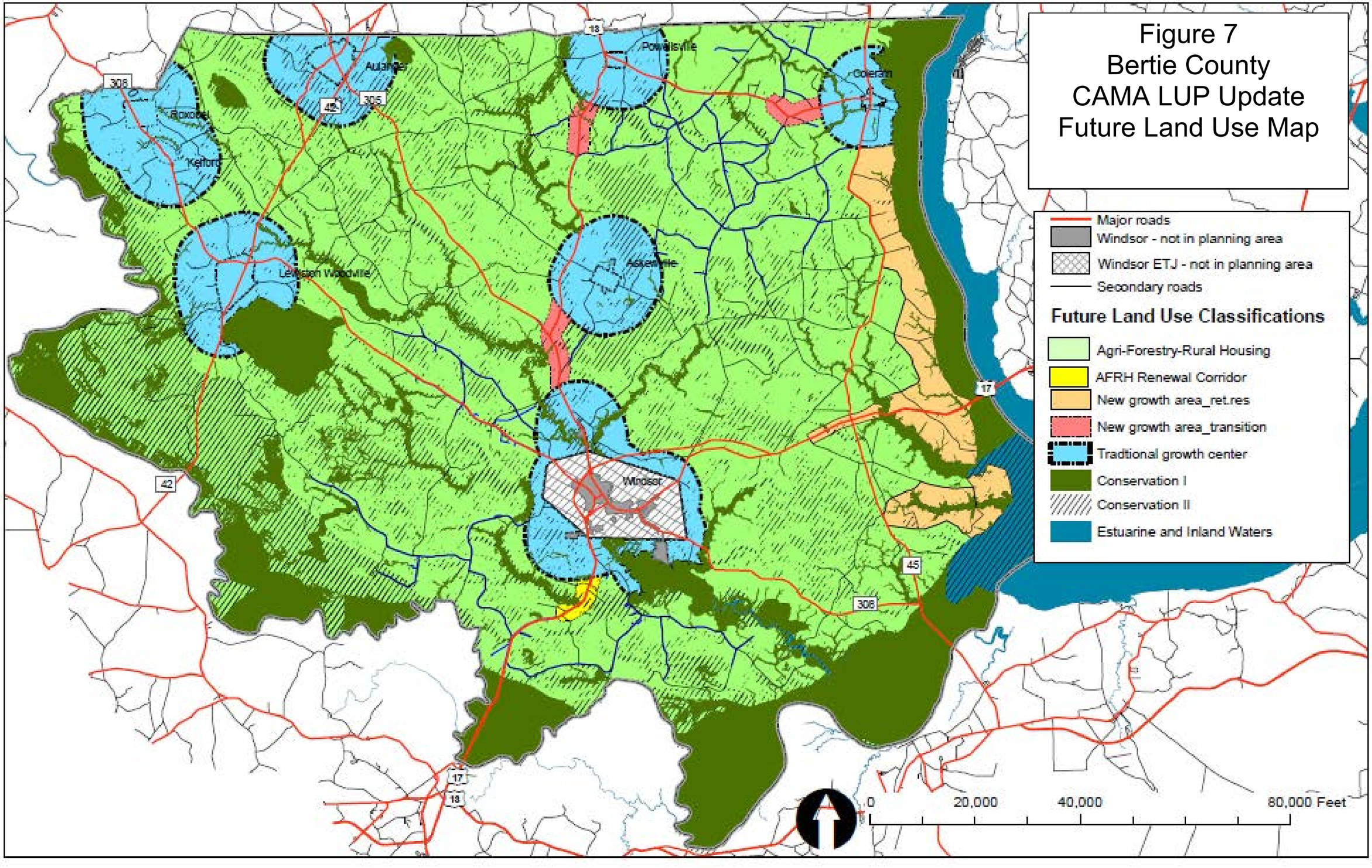
Figure 7
Bertie County
CAMA LUP Update
Future Land Use Map



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Consideration of Natural and Human Environment

Environmental features are a key consideration in the transportation planning process. Section 102 of the National Environmental Policy Act (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 Bertie County are shown in Figure 8.

Table 1 – Environmental Features

- Bike Routes (NCDOT)
- Coastal Marinas
- Colleges and Universities
- Emergency Operation Centers
- Federal Land Ownership
- Hazardous Substance Disposal Sites
- Hazardous Waste Facilities
- Hospital Locations
- Hydrography (1:24,000 scale)
- 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
- Target Local Watersheds - EEP
- Water Distribution Systems – Pipes, Pumps, Tanks, Treatment Plants, and Wells
- Water Supply Watersheds

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

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Bertie County

Comprehensive Transportation Plan

Environmental Map

Plan date: 8-3-2011

- Hospital
- Sanitation Discharge
- Rail
- Roads
- Schools
- Natural Heritage Area
- Natural Wetland Inventory
- Watersheds
- Lakes
- Rivers and Streams
- Municipal Boundary
- County Boundary

Miles
0 1 2 4 6

N W E S

Figure 8

Base map date: 5-26-2010

Refer to CTP document for more details

Public Involvement

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

A meeting was held with the Bertie County Board of Commissioners in August 2009 to formally initiate the study, provide an overview of the transportation planning process, and to gather input on area transportation needs.

Throughout the course of the study, the Transportation Planning Branch cooperatively worked with the County Transportation Committee, which included a representative from each municipality, county staff, the 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. Refer to Appendix H for detailed information on the vision statement, the goals and objectives survey and a listing of committee members.

The public involvement process included holding one public drop-in sessions in Windsor to present the proposed CTP to the public and solicit comments. The meeting was held on May 18, 2011 at the County Administrative Building Commissioner's Meeting Room in Windsor.

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

- December 6, 2011 during the Powellsville Town Council Meeting
- December 8, 2011 during the Windsor Town Council Meeting
- December 13, 2011 during the Roxobel Town Council Meeting
- December 19, 2011 during the Aulander Town Council Meeting
- January 2, 2012 during the Askewville Town Council Meeting
- January 9, 2012 during the Colerain Town Council Meeting
- January 9, 2011 during the Kelford Town Council Meeting
- January 9, 2012 during the Lewiston-Woodville Town Council Meeting

A public hearing was held on February 6, 2012 during the Bertie County Commissioners meeting. The purpose of this meeting was to discuss the plan recommendations and to solicit further input from the public. The CTP was adopted during this meeting.

The Peanut Belt RPO endorsed the CTP on February 9, 2012. The North Carolina Board of Transportation voted to mutually adopt the Bertie County CTP on April 5, 2012.

II. Recommendations

This report documents the development of the 2035 Bertie County CTP as shown in Figure 1. This chapter presents recommendations for each mode of transportation in the County. Refer to Appendix I for documentation of project alternatives and scenarios that were studied, but are not included in the adopted CTP.

Unaddressed Deficiencies

There were no unaddressed deficiencies identified during the development of the 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 CTP should be consistent with the other elements.

Initiative for implementing the CTP rests predominately with the policy boards and citizens of the Bertie County and its town. 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 Peanut Belt 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.

Problem Statements

HIGHWAY

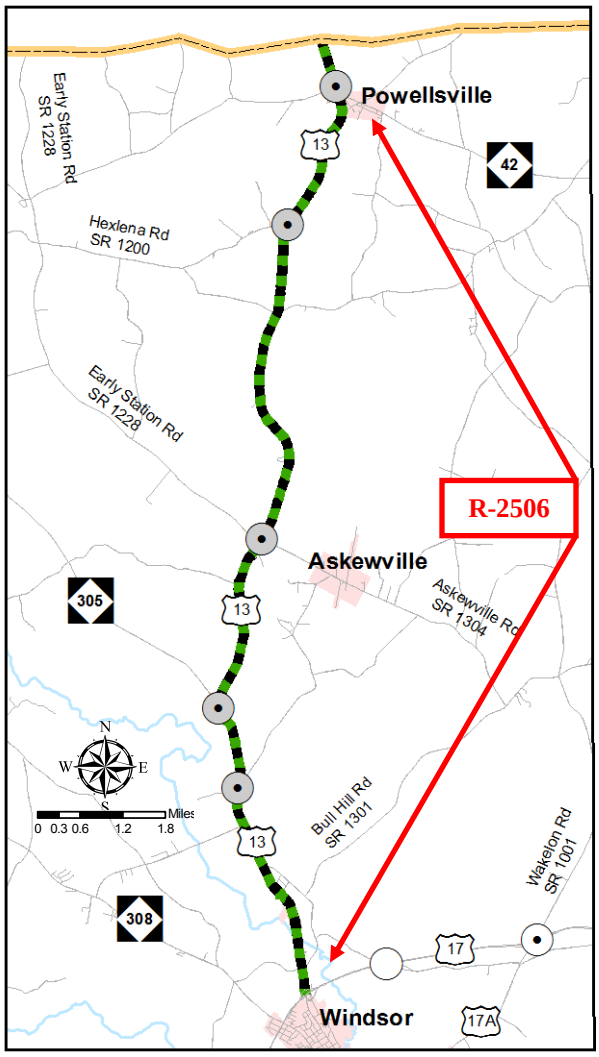
US 13, Local ID: R-2205

US 13 is a major north-south connector within Bertie County and throughout northeastern North Carolina. This corridor connects the northeast region with the State of Virginia in the north and I-95 near Fayetteville in the south. US 13 is currently a 2-lane facility from Martin County to the Hertford County Line. As part of the Strategic Highway Corridor (SHC) initiative, the facility's main purpose is to safely improve regional and statewide mobility and connectivity.

The proposed CTP project (R-2205) is to upgrade the existing facility to a 4-lane divided expressway from NC 42 to a new location. For additional information about this project, including the Purpose and Need, contact NCDOT Project Development and Environmental Analysis (PDEA).

Identified Problem

US 13 is currently a two-lane facility, and is listed in the current TIP as a widening project to be upgraded to a future expressway in order to improve mobility and safety.



Justification of Need

US 13 is a major two-lane highway throughout Bertie County. It connects Bertie County with Hertford County in the north and Martin County in the south. The current capacity of this facility is 12,700 vehicles per day (vpd) and it is forecast to carry 7,000 vpd in 2035. By improving the current major thoroughfare to an expressway, the project is intended to improve mobility, connectivity, as well as encouraging economic development. In conjunction with these improvements, the safety along the corridor

should increase as access is more appropriately managed. The recommended improvements are expected to increase the capacity to 56,000 vpd.

Community Vision and Problem History

Bertie County wishes to provide a safer facility for commuters along US 13, particularly with regard to trucks.

CTP Project Proposal

Project Description and Overview

The proposed CTP project (R-2506) is intended to be a new 4-lane divided expressway north of Windsor and up to Hertford County. The CTP project proposal for US 13 will provide a safer and more efficient facility for through traffic.

Linkages to Other Plans and Proposed Project History

This recommendation connects with the US 13 bypass in Ahoskie (R-2205) in Hertford County. This project is identified in the 2012-2018 TIP as project R-2506.

Land Use Patterns

Currently, the area along the existing corridor is mostly rural. This project may promote urbanized development in the areas that are currently rural, although there will be no access directly on this facility.

Natural & Human Environmental Context

The proposed project will have a minimal impact on the natural and human environment. There will be minimal impacts to houses and businesses. Some impacts to businesses will occur due to limiting access along the facility.

Multi-modal Considerations

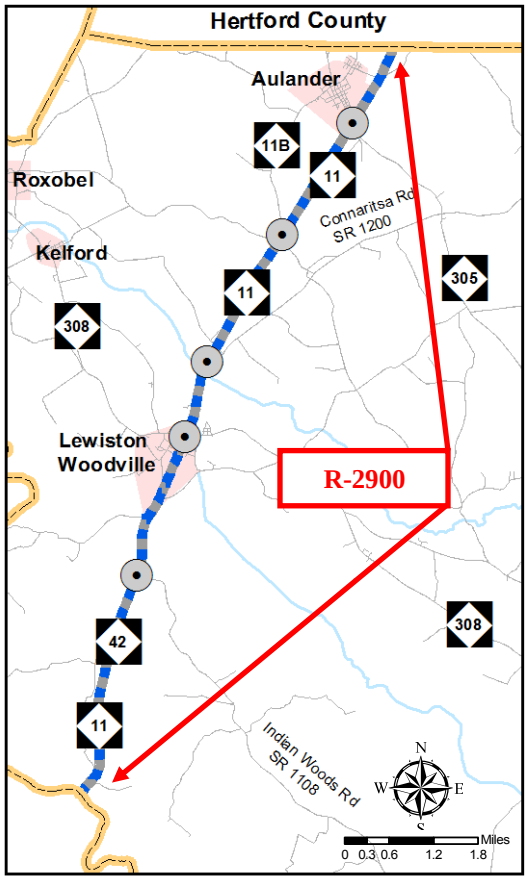
The proposed project does not accommodate any multi-modal facilities. Since the proposed project is classified as a expressway, it cannot carry any bicycle or pedestrian travel. No fixed route public transportation routes are planned along this facility either.

Public/ Stakeholder Involvement

No significant issues associated with this project were identified during the public/stakeholder involvement process.

Identified Problem

Existing NC 11/42 is designated as a freeway in the Strategic highway Corridor (SHC) initiative in order to improve mobility and safety. Currently NC 11/42 is a two-lane facility, and is in the current TIP as a widening project to a future freeway. In a "no-build" scenario and according to the NCLOS software, delays are expected on this road due to the increase in traffic volume, and as a result, traffic on this road will be moving at a level of service D.



Justification of Need

NC 11/42 is a major thoroughfare within Bertie County and throughout northeastern North Carolina. The current capacity along this corridor is 12,400 vehicles per day (vpd) according to the latest level of Service D standards for system level planning. Future level demands on this corridor are forecasted to be from 5,100 to 7,500 vpd. The purpose of the proposed action is to improve mobility, connectivity, as well as encouraging economic development. In conjunction with these improvements, the safety along the corridor should improve as access is more appropriately managed. The recommended improvements are expected to increase the capacity to 64,700 vpd.

Community Vision and Problem History

Bertie County wishes to provide a safer facility for commuters along NC 11/42, particularly with regard to trucks. Another goal of the community is to encourage residential and commercial development along the corridor and in the surrounding areas.

CTP Project Proposal

Project Description

The proposed CTP project (R-2900) is intended to construct a new 4-lane divided freeway connecting Bertie County with Martin County and Hertford County. The CTP project proposal for NC 11/42 will reduce congestion and provide a safer and more efficient facility for through traffic.

Linkages to Other Plans and Proposed Project History

This project is identified in the 2012-2018 TIP as project R-2900, which extends north into Hertford County and south into Martin County.

Land Use Patterns

Currently, the area along the existing corridor is mostly rural. This project may promote urbanized development in the areas that are currently rural, although there will be no access directly on this facility.

Natural & Human Environmental Context

The proposed project will have a minimal impact on the natural and human environment. There will be minimal impacts to houses and businesses. Some impacts to businesses will occur due to limiting access along the facility.

Multi-modal Considerations

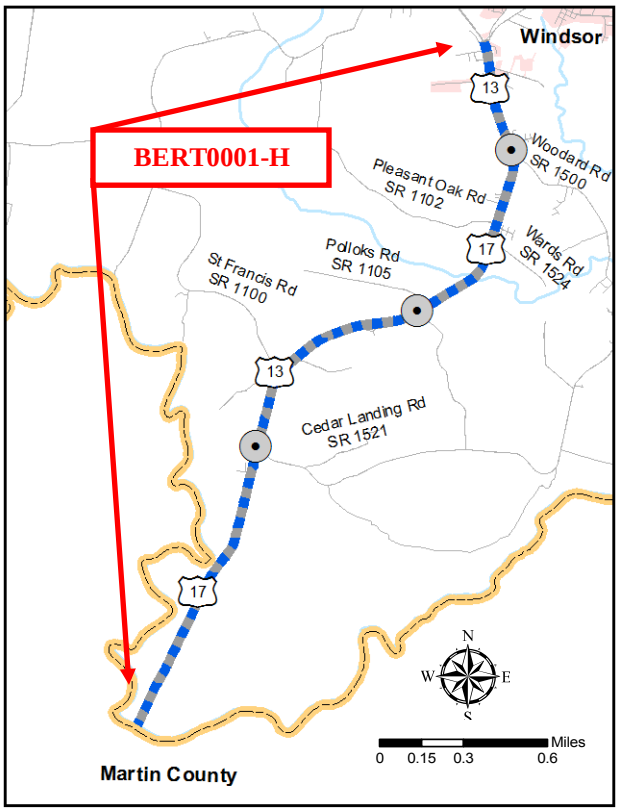
The proposed project does not accommodate any multi-modal facilities. Since the proposed project is classified as a freeway, it cannot carry any bicycle or pedestrian travel. No fixed public transportation routes are planned along this facility either.

Public/ Stakeholder Involvement

No significant issues associated with this project were identified during the public/stakeholder involvement process.

Identified Problem

US 13/17 is designated as a freeway in the Strategic highway Corridor (SHC) initiative from Windsor to Martin County in order to improve mobility and safety. Currently this section of US 13/17 is a four-lane divided boulevard facility, and is in the current TIP as a widening project to a future freeway. In a "no-build" scenario and according to the NCLOS software, delays are expected on this road.



Justification of Need

US 13/17 is a major corridor throughout Bertie County. US 13 connects Bertie County with Hertford County and Martin County, while US 17 connects Bertie County with Chowan County and Martin County. The current capacity along this corridor is 49,000 vehicles per day (vpd) according to the latest level of Service D standards for system level planning. Future level demands on this along this corridor are forecasted to be 17,200 vpd. By improving the current major thoroughfare to a freeway, the project is intended to improve mobility, connectivity, as well as encouraging economic development. In conjunction with these improvements, the safety along the corridor should increase as access is more appropriately managed. The recommended improvements are expected to increase the capacity to 64,700 vpd.

Community Vision and Problem History

The community's vision for this corridor is to improve the area within the town of Windsor and Bertie County by encouraging residential, commercial, and industrial development. The US 13/17 is considered an important regional corridor and upgrading it to a freeway would better provide mobility throughout Bertie County to neighboring counties and regions.

CTP Project Proposal

Project Description and Overview

The 2011 Bertie County CTP's project proposal for US 13/17 as a freeway recommends that the existing 4-lane major thoroughfare be upgraded to a 4-lane divided freeway with a median from the Martin County Line to the town limits of Windsor.

Linkages to Other Plans and Proposed Project History

This project is currently recognized by SHC initiative as a strategic corridor and will connect with the recently finished boulevard section on the western side of Windsor and the US 17 freeway bypass north of Windsor.

Land Use Patterns

Currently, the area along the existing corridor is mostly rural consisting of residential and agricultural developments. This project may promote urbanized development in the areas, although there will be no access directly to this facility and the expected mild growth adjacent to the corridor will have no new major impact on other land use types.

Natural & Human Environmental Context

The proposed project will have a minimal impact on the natural and human environment. There will be minimal impacts to houses and businesses. Some impacts to businesses will occur due to limiting access along the facility.

Multi-modal Considerations

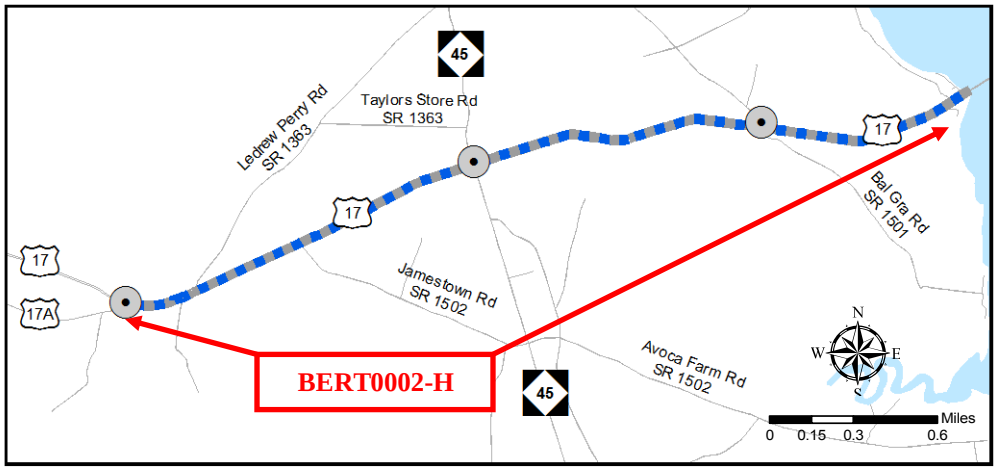
The proposed project does not accommodate any multi-modal facilities. Since the proposed project is classified as a freeway, it cannot carry any bicycle or pedestrian travel. No fixed route public transportation routes are planned along this facility either.

Public/ Stakeholder Involvement

No significant issues associated with this project were identified during the public/stakeholder involvement process.

Identified Problem

US 17 is designated as a freeway in the Strategic highway Corridor (SHC) initiative in order to improve mobility and safety. Currently this section of US 17 is a four-lane divided boulevard facility with a two-way left turning lane (TWLTL) in some sections.



Justification of Need

US 17 is a major corridor throughout Bertie County. It connects Bertie County with Chowan County and Martin County. The current capacity along this corridor is 49,000 vehicles per day (vpd) according to the latest level of Service D standards for system level planning. Future level demands on this along this corridor are forecasted to be 11,500 vpd. By improving the current major thoroughfare to a freeway, the project is intended to increase mobility, connectivity, as well as encouraging economic development. In conjunction with these improvements, the safety along the corridor should increase as access is more appropriately managed. The recommended improvements are expected to increase the capacity to 64,700 vpd.

Community Vision and Problem History

The community's vision for this corridor is to improve the area within the town of Windsor and Bertie County by encouraging residential, commercial, and industrial development. The US 13/17 is considered an important regional corridor and upgrading it to a freeway would better provide mobility throughout Bertie County to neighboring counties and regions.

CTP Project Proposal

Project Description and Overview

The 2011 Bertie County CTP's project proposal for US 17 as a freeway recommends that the existing 4-lane major thoroughfare be upgraded to a 4-lane divided freeway with a median from US 17A east of Windsor to the Chowan River Bridge.

Linkages to Other Plans and Proposed Project History

This project is currently recognized by SHC initiative as a strategic corridor and will connect with the recently finished freeway section on the eastern side of Windsor and Chowan County.

Land Use Patterns

Currently, the area along the existing corridor is mostly rural consisting of residential and agricultural developments. This project may promote urbanized development in the areas, although there will be no access directly to this facility and the expected mild growth adjacent to the corridor will have no new major emphases on other land use types.

Natural & Human Environmental Context

The proposed project will have a minimal impact on the natural and human environment. There will be minimal impacts to houses and businesses. Some impacts to businesses will occur due to limiting access along the facility.

Multi-modal Considerations

The proposed project does not accommodate any multi-modal facilities. Since the proposed project is classified as a freeway, it cannot carry any bicycle or pedestrian travel. No fixed route public transportation routes are planned along this facility either.

Public/ Stakeholder Involvement

No significant issues associated with this project were identified during the public/stakeholder involvement process.

NC 45, Local ID: BERT0003-H

NC 45 is a north-south connector that runs south from Washington County to north in Hertford County. This facility is currently a 2-lane major thoroughfare that has a high truck percentage. It is recommended that this road be widened to 24 feet with paved shoulders and turn lanes where necessary throughout Bertie County. The primary purpose of this improvement is to provide safety and mobility for truck traffic that moves on this facility.

Wakelon Road (SR 1001), Local ID: BERT0004-H

Wakelon Road (SR 1001) is an important two lane minor thoroughfare in Bertie County as it is used as a shortcut from Colerain to Windsor and as another alternative from Powellsville to Windsor using NC 42 and Morris Ford Road (SR 1342). The road has some sharp curves that need to be modified along with narrow lanes that need to be widened to 12-foot lanes with paved shoulders. It is recommended to upgrade the existing facility to 24 feet with paved shoulders, including turn lanes at all major intersections. It is also recommended that the sharp horizontal curves be modified in some areas. The primary purpose of improving Wakelon Road (SR 1001) is to improve mobility between the towns of Colerain, Powellsville, and Windsor. Improving this road will improve connectivity between the towns and other parts of the county.

Hexlena Road (SR 1200), Local ID: BERT0005-H

Hexlena Road (SR 1200) is a 2-lane minor thoroughfare that connects US 13 to NC 305, which connects to NC 11 in Aulander. Hexlena Road (SR 1200) also is used to connect Powellsville to Lewiston-Woodville through Connaritsa Road (SR 1200) and NC 11. The road has some sharp curves that need to be modified, along with narrow lanes that need to be widened to 12-foot lanes with paved shoulders. It is recommended to upgrade the existing facility to 24 feet with paved shoulders, including turn lanes at all major intersections. It is also recommended that the sharp horizontal curves be modified in some areas. The primary purpose of improving Hexlena Road (SR 1200) is to improve mobility between the towns of Aulander, Powellsville, and Lewiston-Woodville. Improving this road will improve connectivity between the towns and other parts of the county.

Connaritsa Road (SR 1200), Local ID: BERT0006-H

Connaritsa Road (SR 1200) is a 2-lane minor thoroughfare that connects NC 11 to NC 305. It serves as a major connector in the area between Lewiston-Woodville and Powellsville. The road has some sharp curves that need to be modified, along with narrow lanes that need to be widened to 12-foot lanes with paved shoulders. It is recommended to upgrade the existing facility to 24 feet with paved shoulders, including turn lanes at all major intersections. It is also recommended that the sharp horizontal curves be modified in some areas. The primary purpose of improving Connaritsa Road (SR 1200) is to improve mobility between the towns of Lewiston-Woodville and Powellsville. Improving this road will improve connectivity between the towns and other parts of the county.

PUBLIC TRANSPORTATION AND RAIL

There are no Public Transportation and Rail recommendations at this time.

BICYCLE

In accordance with American Association of State Highway and Transportation Officials (AASHTO), roadways identified as bicycle routes should incorporate the following standards as roadway improvements are made and funding is available:

- Curb & gutter sections require at minimum 4-ft bike lanes or 14-ft wide outside lanes.
- Shoulder sections require a minimum 4-ft paved shoulder.
- All bridges along roadways where bike facilities are recommended shall be equipped with 54" railings.

Identified Problem

Currently, there is a designated bicycle route that runs from Chowan County to Washington County. The primary purpose of recommending additional bicycle route improvements is to better connect Chowan County, Washington County, and Northampton Counties with Bertie County through the existing designated bicycle route and the recommended route and maintaining connectivity with the town of Windsor, as more bicycle activity groups are riding through the area throughout the year.

CTP Project Proposal

Project Description

The following on-road bicycle facilities have been recommended for improvements in the Bertie County CTP

NC 308, Local ID: BERT0003-B: from Northampton County to NC 45.

South Granville Street (US 13 B), Local ID: BERT0004-B: from NC 308 to Woodard Road (SR 1500).

Woodard Road (SR 1500) Local ID: BERT0005-B: from South Granville Street to Cashie River.

Sans Souci Road (SR 1500) Local ID: BERT0006-B: from Cashie River to NC 308.

PEDESTRIAN

Identified Problem

Currently, there are a few limited pedestrian accommodations within the town limits of each municipality in Bertie County. These sidewalks are old or abandoned and do not adhere to the current design standards. The primary purpose of recommending new and improved pedestrian accommodations is to provide a safe alternative mode of transportation within each community in Bertie County.

CTP Project Proposal

Project Description

The following facilities are recommended to have new sidewalks for pedestrians.

Askewville:

Askewville Bryant Street (SR 1349), Local ID: BERT0001-P: from Askewville Road to approximately 0.25 miles north of Askewville Road.

Askewville Road (SR 1304), Local ID: BERT0002-P: from Askewville Bryant Street (SR 1349) to the eastern town limits.

Aulander:

Bell Street, Local ID: BERT0003-P: from West Main Street to Elm Street.

Elm Street, Local ID: BERT0004-P: from Bell Street to Rice Avenue.

Windsor Road, Local ID: BERT0005-P: from Commerce Street (NC 305) to Broad Street.

Broad Street, Local ID: BERT0006-P: from Windsor Road to Main Street (NC 11 B).

West Main Street, Local ID: BERT0007-P: from Rogerson Avenue to the western town limits.

Dunning Avenue, Local ID: BERT0008-P: from East Main Street to the end of the road.

Colerain:

North Main Street (NC 45), Local ID: BERT0009-P: from end of existing sidewalks to extend to the existing houses north of the town.

South Main Street (NC 45), Local ID: BERT0010-P: from West Academy Street (SR 1353) to Long Branch Road (SR 1374.

West Academy Street (SR 1353), Local ID: BERT0011-P: from North Academy Street (SR 1353) to South Main Street (NC 45).

North Academy Street (SR 1353), Local ID: BERT0012-P: from West River Street (NC 42) to West Academy Street (SR 1353).

Cedar Street, Local ID: BERT0013-P: from West River Street (NC 42) to West Academy Street (SR 1353).

Kelford:

South Main Street (NC 308), Local ID: BERT0014-P: from Black Jack Road (SR 1135) to Church Street (SR 1204).

Church Street, Local ID: BERT0015-P: from South Main Street (NC 308) to Stephonson Lane.

Lewiston-Woodville:

West Church Street (NC 308), Local ID: BERT0016-P: from Pierce Street to Hancock Street.

East Church Street (NC 308), Local ID: BERT0017-P: from Lewiston Road (NC 11) to Thompson Drive (SR 1120).

Pierce Street, Local ID: BERT0018-P: from West Church Street (NC 308) to Norfleet Street.

Norfleet Street, Local ID: BERT0019-P: from Pierce Street to Main Street.

Powellsville:

West Main Street (NC 42), Local ID: BERT0020-P: from Freeman Street to Sally Freeman Road (SR 1315).

Moore Town Road (SR 1321), Local ID: BERT0021-P: from NC 42 to the main post office.

Roxobel:

East Church Street (SR 1208), Local ID: BERT0022-P: from Ruby Street to Cemetery Road (SR 1205).

Windsor:

Sterlingworth Street (NC 308), Local ID: BERT0023-P: from US 13 to Camden Street.

Ghent Street (SR 1100), Local ID: BERT0024-P: from Oakgrove Lane to Sterlingworth Street (NC 308).

King Street, Local ID: BERT0025-P: from Cooper Hill Road (NC 308) to eastern Windsor town limits.

Rhodes Avenue, Local ID: BERT0026-P: from King Street (US 17A/NC 308) to the end of Rhodes Avenue.

Conor Avenue, Local ID: BERT0027-P: from Rhodes Avenue to Dunlow Street.

Dunlow Street, Local ID: BERT0028-P: from Conor Avenue to end of Dunlow Street.

Cooper Hill Road (NC 308), Local ID: BERT0029-P: from King Street (US 17A) to Windsor Elementary School.

South Granville Road (US 13 B), Local ID: BERT0043-P: from Sterlingworth Road (NC 308) to Country Farm Rd (SR 1527).

The following facilities are recommended to improve the existing sidewalks for pedestrians.

Aulander:

Main Street (NC 11B), Local ID: BERT0030-P: from Rogerson Street to Dunning Avenue.

Commerce Street (NC 305), Local ID: BERT0031-P: from East Main Street (NC 11B) to Front Street.

Broad Street, Local ID: BERT0032-P: from East Main Street (NC 11B) to Windsor Road.

Canal Street, Local ID: BERT0033-P: from Commerce Street (NC 305) to Rice Avenue.

Harmon Street, Local ID: BERT0034-P: from East Main Street (NC 11B) to Elm Street.

Colerain:

East River Street (NC 42), Local ID: BERT0035-P: from South Main Street (NC 45) to Sunrise Street (SR 1336).

North Main Street (NC 45), Local ID: BERT0036-P: from River Street to the end of the existing sidewalk.

Kelford:

North Main Street (NC 308), Local ID: BERT0037-P: from the northern town limits to Black Jack Road (SR 1135).

Lewiston-Woodville:

West Church Street (NC 308), Local ID: BERT0038-P: from Hancock Street to Main Street (SR 1145).

East Church Street (NC 308), Local ID: BERT0039-P: from Main Street (SR 1145) to Lewiston Road (NC 11).

Main Street, Local ID: BERT0040-P: from Marianna Street to Grange Street.

Roxobel:

Main Street (NC 308), Local ID: BERT0041-P: from Hardy Street to the end of the housing area outside the town limits.

Church Street (SR 1139), Local ID: BERT0042-P: from the end of existing sidewalks to Ruby Street.

Windsor:

King Street (US 13B), Local ID: BERT0044-P: from US 13 to Cooper Hill Road (NC 308).

Sterlingworth Street, Local ID: BERT0045-P: from Camden Street to Granville Street (US 13B).

West Granville Street, Local ID: BERT0046-P: from Sterlingworth Street to King Street (US 13B).

Camden Street, Local ID: BERT0047-P: from Queen Street to King Street (US 13B).

Queen Street, Local ID: BERT0048-P: from Camden Street to Water Street (US 17A) in Windsor.

Water Street (US 17A), Local ID: BERT0049-P: from Sutton Drive to King Street (US 13B) in Windsor.

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APPENDICES

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

1501 Mail Service Center
Raleigh, NC 27699-1501
(919) 733-2520
http://www.ncdot.org/about/leadership/secretary.html

Board of Transportation Member

1501 Mail Service Center
Raleigh, NC 27699
919-707-2820
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.

113 Airport Drive, Suite 100
Edenton, NC 27932
(252) 482-7977
http://www.ncdot.gov/doh/operations/division1/

Division Project Manager

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

113 Airport Drive, Suite 100
Edenton, NC 27932
(252) 482-7977

Division Construction Engineer

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

113 Airport Drive, Suite 100
Edenton, NC 27932
(252) 482-7977

Division Traffic Engineer

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

113 Airport Drive, Suite 100
Edenton, NC 27932
(252) 482-7977

Division Operations Engineer

Contact the Division Operations Engineer for information concerning facility operations.

113 Airport Drive, Suite 100
Edenton, NC 27932
(252) 482-7977

Division Maintenance Engineer

Contact the Division Maintenance Engineer 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.

113 Airport Drive, Suite 100
Edenton, NC 27932
(252) 482-7977

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.

230 NC 42 West
Ahoskie, 27910
(252) 332-4021

Transportation Planning Branch (TPB)

Contact the Transportation Planning Branch for information on long-range multi-modal planning services.

1554 Mail Service Center
Raleigh, NC 27699-1554
(919) 733-4705
http://www.ncdot.gov/doh/preconstruct/tpb/

Peanut Belt Rural Planning Organization (RPO)

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

1385 John Small Avenue
Washington, NC 27889
(252) 974-1843
http://www.peanutbeltrpo.com/

Strategic Planning Office

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

1501 Mail Service Center
Raleigh, NC 27699-1501
(919) 715-0951
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) 733-3141
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) 807-0777
http://www.ncdot.gov/transit/bicycle/

Structure Management Unit

Contact the Structure Management 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/

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.

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.

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 Road Characteristics shapefile. 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 NCLOS Program, 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, where committed is defined as projects programmed for construction in the Transportation Improvement Program (TIP). The '2035 AADT with 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 II.

- **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).

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Table 3 - CTP INVENTORY AND RECOMMENDATIONS

HIGHWAY																		
					2010 Existing System						2035 Proposed System							
Local ID	Facility	Section (From - To)	Jurisdiction	Dist. (mi)	Cross-Section (ft)	Cross-Section lanes	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd)	2010 AADT	2035 AADT E+C	2035 AADT with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)	CTP Classification	Tier	Other Modes
BERT0001-H	US 13/ US 17	Martin County - Woodard Rd (SR 1500)	Bertie Co.	8.9	24	2	60	55	49,000	11,000	16,500	16,500	58,000	4-B	150	Maj	Sta	
BERT0001-H	US 13/ US 17	Woodard Rd (SR 1500) - US 17A	Bertie Co.	2.8	24	2	60	55	49,000	9,700	14,600	14,600	58,000	4-B	150	Maj	Sta	B
R-2506	US 13	US 17 - Early Station Rd (SR 1228)	Bertie Co.	12.6	22	2	100	55	12,400	7,500	11,300	11,300	54,800	4-B	150	Maj	Sta	
R-2506	US 13	Early Station Rd (SR 1228) - Hertford County	Bertie Co.	8.9	22	2	100	55	12,400	2,900	4,400	4,400	54,800	4-B	150	Maj	Sta	
	US 13 BUS	US 13/ US 17 - US 17	Windsor	2.3	22	2	100	55	12,400	1,600	2,400	2,400	12,400	ADQ.	ADQ.	Maj	Sta	B
	US 17 Bypass	US 13 - Wakelon Rd (SR 1001)	Windsor	6.6	100	4	125	65	49,000	7,300	11,000	11,000	49,000	ADQ.	ADQ.	Maj	Sta	
	US 17A	US 13 BUS - NC 308	Windsor	1.0	24	2	60	35	12,400	1,400	2,100	2,100	12,400	ADQ.	ADQ.	Maj	Sta	
	US 17A/ NC 308	NC 308 - NC 308 (Cooper Hill Rd)	Windsor	1.3	24	2	60	35	16,000	14,000	12,000	12,000	16,000	ADQ.	ADQ.	Maj	Sta	
	US 17A	NC 308 Cooper Hill Rd - Wakelon Rd (SR 1001)	Windsor	3.1	44	3	60	35	14,300	9,800	11,100	11,100	14,300	ADQ.	ADQ.	Maj	Sta	
	US 17A	Wakelon Rd (SR 1001) - US 17	Windsor	3.0	24	2	60	35	14,300	9,800	11,100	11,100	14,300	ADQ.	ADQ.	Maj	Sta	
BERT0002-H	US 17	Davis Rd (SR 1503) - NC 45	Bertie Co.	2.8	60	5	100	55	37,500	6,800	10,200	10,200	58,000	ADQ.	ADQ.	Maj	Sta	
BERT0002-H	US 17	NC 45 - Chowan County	Bertie Co.	7.7	60	5	100	55	37,500	7,900	12,000	12,000	58,000	ADQ.	ADQ.	Maj	Sta	B
R-2900	NC 11/ NC 42	Martin County - Moore Rd (SR 1203)	Bertie Co.	10.1	24	2	60	55	12,400	4,400	6,600	6,600	58,000	4-B	150	Maj	Reg	
R-2900	NC 11/ NC 42	Moore Rd (SR 1203) - Hertford	Bertie Co.	9.3	24	2	60	55	12,400	4,800	7,200	7,200	58,000	4-B	150	Maj	Reg	
	NC 11 BUS	WCL Aulander - NC 305	Aulander	0.7	22	2	60	35	10,500	610	900	900	10,500	ADQ.	ADQ.	Maj	Reg	P
	NC 11 BUS	NC 305 - Hertford County	Aulander	1.0	33	2	60	35	12,400	730	1,100	1,100	12,400	ADQ.	ADQ.	Maj	Reg	P
	NC 42	US 13 - ECL Powellsville	Bertie Co.	0.9	20	2	60	55	11,800	4,000	6,000	6,000	11,800	ADQ.	ADQ.	Maj	Reg	
	NC 42	ECL Powellsville - WCL Colerain	Bertie Co.	9.2	26	2	60	55	12,400	2,500	3,800	3,800	12,400	ADQ.	ADQ.	Maj	Reg	
	NC 42	WCL Colerain - NC 45	Colerain	0.3	36	2	60	55	12,400	1,800	2,700	2,700	12,400	ADQ.	ADQ.	Maj	Reg	P
BERT0003-H	NC 45/ NC 308	Washington County - Bull Hill Rd (SR 1301)	Bertie Co.	13.6	22	2	60	55	12,400	1,400	2,100	2,100	12,400	ADQ.	ADQ.	Maj	Reg	B
BERT0003-H	NC 45	Bull Hill Rd (SR 1301) - Hertford County	Bertie Co.	11.2	22	2	60	55	12,400	1,600	2,400	2,400	12,400	ADQ.	ADQ.	Maj	Reg	
	NC 305	US 13 - Connaritsa Rd (SR 1200)	Bertie Co.	9.7	22	2	60	55	12,400	900	1,400	1,400	12,400	ADQ.	ADQ.	Maj	Reg	
	NC 305	Connaritsa Rd (SR 1200) - Hertford County	Bertie Co.	4.5	22	2	60	55	12,400	890	1,300	1,300	12,400	ADQ.	ADQ.	Maj	Reg	
	NC 308	NC 45 - WCL Windsor	Bertie Co.	13.2	24	2	60	55	12,400	740	1,100	1,100	12,400	ADQ.	ADQ.	Maj	Reg	B
	NC 308	WCL Windsor - West Rd (SR 1149)	Bertie Co.	6.9	20	2	60	55	11,800	3,500	5,300	5,300	11,800	ADQ.	ADQ.	Maj	Reg	B
	NC 308	West Rd (SR 1149) - ECL Lewiston Woodville	Bertie Co.	7.6	20	2	60	55	11,800	2,500	3,800	3,800	11,800	ADQ.	ADQ.	Maj	Reg	BP
	NC 308	ECL Lewiston Woodville - Northampton County	Bertie Co.	9.0	20	2	60	35	11,800	3,400	5,100	5,100	11,800	ADQ.	ADQ.	Maj	Reg	B

HIGHWAY																			
					2010 Existing System						2035 Proposed System								
Local ID	Facility	Section (From - To)	Jurisdiction	Dist. (mi)	Cross-Section (ft)	Cross-Section lanes	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd)	2010 AADT	2035 AADT E+C	2035 AADT with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)	CTP Classification	Tier	Other Modes
	Askewville Rd (SR 1304	Bull Hill Rd (SR 1301) - ECL Askewville	Askewville	3.4	20	2	60	45	11,800	1,300	1,600	1,600	11,800	ADQ.	ADQ.	Min	Sub	
	Askewville Rd (SR 1304)	ECL Askewville - Evans St	Askewville	0.5	42	2	60	35	12,400	1,400	1,800	1,800	12,400	ADQ.	ADQ.	Min	Sub	
	Askewville Rd (SR 1304)	Evans St - US 13	Askewville	1.3	40	2	60	35	12,400	1,900	2,400	2,400	12,400	ADQ.	ADQ.	Min	Sub	
	Bull Hill Rd (SR 1301)	US 13 - Askewville Rd (SR 1304)	Bertie Co.	6.2	20	2	60	55	11,800	1,000	1,300	1,300	11,800	ADQ.	ADQ.	Min	Sub	
	Bull Hill Rd (SR 1301)	Askewville Rd (SR 1304) - Wakelon Rd (SR 1001)	Bertie Co.	1.1	18	2	60	55	10,500	730	900	900	10,500	ADQ.	ADQ.	Min	Sub	
	Pine Ridge Rd (SR 1301)	Wakelon Rd (SR 1001) - NC 45	Bertie Co.	5.5	18	2	60	55	10,500	660	850	850	10,500	ADQ.	ADQ.	Min	Sub	
BERT0006-H	Connarista Rd (SR 1200)	NC 305 - Charles Taylor Rd (SR 1221)	Bertie Co.	2.0	20	2	60	55	11,800	910	1,200	1,200	12,400	ADQ.	ADQ.	Min	Sub	
BERT0006-H	Connarista Rd (SR 1200)	Charles Taylor Rd (SR 1221) - Dead End	Bertie Co.	2.9	20	2	60	55	11,800	710	900	900	12,400	ADQ.	ADQ.	Min	Sub	
	Early Station Rd (SR 1228)	US 13 - Burden Fire Ln (SR 1229)	Bertie Co.	4.7	20	2	60	55	11,800	670	850	850	11,800	ADQ.	ADQ.	Min	Sub	
	Early Station Rd (SR 1228)	Burden Fire Ln (SR 1229) - Hertford County	Bertie Co.	5.4	20	2	60	55	11,800	680	850	850	11,800	ADQ.	ADQ.	Min	Sub	
	Grabtown Rd (SR 1100)	St Francis Rd (SR 1106) - WCL Windsor	Bertie Co.	6.3	20	2	60	55	11,800	710	900	900	11,800	ADQ.	ADQ.	Min	Sub	
	Grabtown Rd (SR 1100)	WCL Windsor - NC 308	Windsor	0.3	36	2	60	45	12,400	1,300	1,600	1,600	12,400	ADQ.	ADQ.	Min	Sub	
BERT0005-H	Hexlena Rd (SR 1200)	US 13 - Early Station Rd (SR 1228)	Bertie Co.	4.4	20	2	60	55	11,800	570	750	750	12,400	ADQ.	ADQ.	Min	Sub	
BERT0005-H	Hexlena Rd (SR 1200)	Early Station Rd (SR 1228) - NC 305	Bertie Co.	2.8	20	2	60	55	11,800	1,200	1,500	1,500	12,400	ADQ.	ADQ.	Min	Sub	
	Indinan Woods Rd (SR 1108)	NC 11 - Green Pond Rd (SR 1124)	Bertie Co.	4.5	20	2	60	45	11,800	680	850	850	11,800	ADQ.	ADQ.	Min	Sub	
	Indinan Woods Rd (SR 1108)	Green Pond Rd (SR 1124) - Rascoe Club House Rd (SR 1121)	Bertie Co.	4.2	20	2	60	45	11,800	560	700	700	11,800	ADQ.	ADQ.	Min	Sub	
	Indinan Woods Rd (SR 1108)	Rascoe Club House Rd (SR 1121) - Grabtown Rd (SR 1100)	Bertie Co.	4.7	20	2	60	45	11,800	650	850	850	11,800	ADQ.	ADQ.	Min	Sub	
	Morris Ford Rd (SR 1342)	Wakelon Rd (SR 1001) - Meadow Rd (SR 1312)	Bertie Co.	4.0	18	2	60	45	10,500	540	700	700	10,500	ADQ.	ADQ.	Min	Sub	
	San Souci Rd (SR 1500)	Ferry - NC 45	Bertie Co.	4.0	20	2	60	45	11,800	230	300	300	11,800	ADQ.	ADQ.	Min	Sub	
BERT0004-H	Wakelon Rd (SR 1001)	US 17 - Bull Hill Rd (SR 1301)	Bertie Co.	5.4	20	2	60	55	11,800	960	1,200	1,200	12,400	ADQ.	ADQ.	Min	Sub	

HIGHWAY																			
					2010 Existing System						2035 Proposed System								
Local ID	Facility	Section (From - To)	Jurisdiction	Dist. (mi)	Cross-Section (ft)	Cross-Section lanes	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd)	2010 AADT	2035 AADT E+C	2035 AADT with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)	CTP Classification	Tier	Other Modes
BERT0004-H	Wakelon Rd (SR 1001)	Bull Hill Rd (SR 1301) - Perrys School Rd (SR 1341)	Bertie Co.	5.8	18	2	60	55	10,500	1,000	1,300	1,300	12,400	ADQ.	ADQ.	Min	Sub	
BERT0004-H	Wakelon Rd (SR 1001)	Perrys School Rd (SR 1341) - NC 45	Bertie Co.	4.0	18	2	60	55	10,500	520	650	650	12,400	ADQ.	ADQ.	Min	Sub	
	Woodard Rd (SR 1500)	US 13 - Blanchards Rd (SR 1518)	Bertie Co.	6.9	22	2	60	55	12,400	2,100	2,700	2,700	12,400	ADQ.	ADQ.	Min	Sub	B
	Woodard Rd (SR 1500)	Blanchards Rd (SR 1518) - Ferry	Bertie Co.	3.8	22	2	60	55	12,400	150	200	200	12,400	ADQ.	ADQ.	Min	Sub	B

RAIL

RAIL													
						Existing System			Proposed System				
Local ID	Facility/ Route	Section (From - To)	Track Class	Speed Limit (mph)	Distance (mi)	Type	ROW (ft)	Trains per day	Type	ROW (ft)	Trains per day	Other Modes
	NCVA	Boykins, VA - Kelford, NC	I	10	11	Freight	60	2	Freight	NA	--	--
	NCVA	Kelford, NC - Tunis, NC	I	10	11	Freight	60	2	Freight	NA	--	--

BICYCLE AND PEDESTRIAN [1]

BICYCLE								
				Existing System		Proposed System		
				Cross-Section				Other
Local ID	Facility/ Route	Section (From - To)	Distance (mi)	(ft)	lanes	Type	Cross-Section	Modes
BERT0001-B	NC 45	Washington County - US 17	9.0	Concurrent with NC 45				HP
BERT0002-B	US 17	NC 45 - Chowan County	5.0	Concurrent with US 17				H
BERT0003-B	NC 308	Northampton County - NC 45	37.0	Concurrent with NC 308				
BERT0004-B	South Granville Street	NC 308 - Woodard Rd (SR 1500)	2.4	Concurrent with South Granville St				
BERT0005-B	Woodard Rd (SR 1500)	South Granville Street - Cashie River	9.8	Concurrent with Woodard Rd (SR 1500)				
BERT0006-B	Sans Souci Rd (SR 1500)	Cashie River - NC 308	1.5	Concurrent with Sans Souci Rd (SR 1500)				

PEDESTRIAN								
				Existing System		Proposed System		Other
Local ID	Facility/ Route	Section (From - To)	Distance (mi)	Type	Side of Street	Type	Side of Street	Modes
	Town of Askewville							
BERT0001-P	Askewville Bryant St (SR 1349)	Askewville Rd - 0.22 miles North of NC 42	0.2	Concurrent with Askewville bryant Rd (SR 1349)				
BERT0002-P	Askewville Rd (SR 1304)	Askewville ECL - 0.75 miles East of ECL	0.8	Concurrent with Askewville Rd (SR1304)				
	Town of Aulander							
BERT0003-P	Bell St	W Main Street - Elm Street	0.1	N/A	N/A	Sidewalk	Both	
BERT0004-P	Elm Street	Bell Street - Rice Avenue	0.4	N/A	N/A	Sidewalk	Both	
BERT0005-P	Windsor Rd	Commerce St (NC 305) - Broad St	0.0	N/A	N/A	Sidewalk	Both	
BERT0006-P	Broad St	Windsor Rd - Commerce St (NC 305)	0.1	N/A	N/A	Sidewalk	North	
BERT0007-P	W Main St	Rogerson ave - Aulander WCL	0.3	N/A	N/A	Sidewalk	Both	
BERT0008-P	Dunning Ave	E Main St - 0.1 miles NW of E Main St	0.1	N/A	N/A	Sidewalk	West	
BERT0030-P	Main St (NC 11 B)	Rogerson St - Dunning Ave	0.7	Sidewalk	Both			
BERT0031-P	Commerce St (NC 305)	E Main St (NC 11 B) - Broad St	0.4	Sidewalk	Both			
BERT0032-P	Broad St	E Main St (NC 11 B) - Windsor Rd	0.4	Sidewalk	Both			
BERT0033-P	Canal St	Commerce St (NC 305) - Rice Ave	0.2	Sidewalk	Both			
BERT0034-P	Hammon Rd	E Main St (NC 11 B) - Elm St	0.1	Sidewalk	Both			
	Town of Colerain							
BERT0009-P	N Main St (NC 45)	End of existing sidewalks - 0.15 miles north of existing sidewalk	0.2	N/A	N/A	Sidewalk	Both	H
BERT0010-P	S Main St (NC 45)	W Academy St (SR 1353) - Long Branch Rd (SR 1374)	0.5	N/A	N/A	Sidewalk	Both	H
BERT0011-P	W Academy St (SR 1353)	N Academy St (SR 1353) - S Main St (NC 45)	0.4	N/A	N/A	Sidewalk	Both	
BERT0012-P	N Academy St (SR 1353)	W River St (NC 42) - W Academy St (SR 1353)	0.3	N/A	N/A	Sidewalk	Both	
BERT0013-P	Cedar St	W River St (NC 42) - W Academy St (SR 1353)	0.3	N/A	N/A	Sidewalk	Both	
BERT0035-P	E River St (NC 42)	S Main St (NC 45) - Sunrise St (SR 1336)	0.8	Sidewalk	South			
BERT0036-P	N Main St (NC 45)	River St - 0.4 miles north of E River St (NC 42)	0.4	Sidewalk	East			
	Town of Kelford							
BERT0014-P	S Main St (NC 308)	Black Jack Rd (SR 1135) - Church St (SR 1204)	0.1	N/A	N/A	Sidewalk	Both	
BERT0015-P	Church St	S Main St (NC 308) - Stephonson Ln	0.3	N/A	N/A	Sidewalk	Both	

PEDESTRIAN								
				Existing System		Proposed System		Other
Local ID	Facility/ Route	Section (From - To)	Distance (mi)	Type	Side of Street	Type	Side of Street	Modes
BERT0037-P	N Main St (NC 308)	NCL Kelford - Black Jack Rd (SR 1135)	0.5	Sidewalk	Both			
	Town of Lewiston-Woodville							
BERT0016-P	W Church St (NC 308)	Hancock St - Pierce St	0.1	N/A	N/A	Sidewalk	Both	
BERT0017-P	E Church St (NC 308)	Main St (SR 1145) - Lewiston Rd (NC 11)	0.1	N/A	N/A	Sidewalk	North	
BERT0018-P	Pierce St	W Church St (NC 308) - Norfleet St	0.0	N/A	N/A	Sidewalk	Both	
BERT0019-P	Norfleet St	Pierce St - Main St	0.1	N/A	N/A	Sidewalk	North	
BERT0038-P	W Church St (NC 308)	Hancock St - Main St (SR 1145)	0.1	Sidewalk	Both			
BERT0039-P	E Church St (NC 308)	Main St (SR 1145) - Lewiston Rd (NC 11)	0.1	Sidewalk	Both			
BERT0040-P	Main St (SR 1145)	Marianna St - Grange St	0.2	Sidewalk	Both			
	Town of Powellsville							
BERT0020-P	W Main St (NC 42)	Freeman St - Sally Freeman Rd (SR 1315)	0.2	N/A	N/A	Sidewalk	Both	
BERT0021-P	Moore Town Rd (SR 1321)	NC 42 - Main Post Office	0.7	N/A	N/A	Sidewalk	Both	
	Town of Roxobel							
BERT0022-P	E Church St (SR 1208)	Ruby St - Cemetery Rd (SR 1205)	0.3	N/A	N/A	Sidewalk	Both	
BERT0041-P	Main St (NC 308)	Hardy St - 0.25 miles outside the SCL	0.9	Sidewalk	Both			
BERT0042-P	Church St (SR 1139)	End of existing sidewalk - Ruby St	0.5	Sidewalk	Both			
	Town of Windsor							
BERT0023-P	Sterlingworth St (NC 308)	US 13 - Camden St	0.3	N/A	N/A	Sidewalk	Both	
BERT0024-P	Ghent St (SR 1100)	Windsor WCL - Sterlingworth St (NC 308)	0.1	N/A	N/A	Sidewalk	Both	
BERT0025-P	S King St	Cooper Hill Rd (US 17A) - Windsor ECL	0.4	N/A	N/A	Sidewalk	Both	
BERT0026-P	Rhodes Ave	King St (US 17A) - End of Rhodes Ave	0.1	N/A	N/A	Sidewalk	Both	
BERT0027-P	Conor Ave	Rhodes Ave - Dunlow St	0.1	N/A	N/A	Sidewalk	Both	
BERT0028-P	Dunlow St	Conor Ave - End of Dunlow St	0.1	N/A	N/A	Sidewalk	Both	
BERT0029-P	Cooper Hill Rd (NC 308)	King St (US 17A) - Windsor Elementary School	0.3	N/A	N/A	Sidewalk	Both	
BERT0043-P	S Granville Rd	Country Farm Rd (SR 1527) - Sterlingworth St (NC 308)	0.5	N/A	N/A	Sidewalk	Both	
BERT0044-P	King St (US 13 B)	US 13 - Cooper hill Rd (NC 308)	1.1	Sidewalk	Both			
BERT0045-P	Sterlingworth ST	Camden St - Granville St (US 13 B)	0.1	Sidewalk	Both			
BERT0046-P	W Granville St	Sterlingworth St - King St (US 13 B)	0.1	Sidewalk	Both			
BERT0047-P	Camden St	Queen St - King St (US 13 B)	0.0	Sidewalk	North			
BERT0048-P	Queen St	Camden St - Water St (US 17 A)	0.2	Sidewalk	Both			
BERT0049-P	Water St	Sutton Dr - King St (US 13 B)	0.1	Sidewalk	Both			

[1] Only major routes and proposals are shown here. For further documentation of bicycle and pedestrian facilities and proposals, refer to *[insert name of document(s)]*.

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 rights-of-way (ROW). 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 rights-of-way, special cross sections should be developed that meet the needs of the project.

The typical cross sections, illustrated in Figure 9, 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.

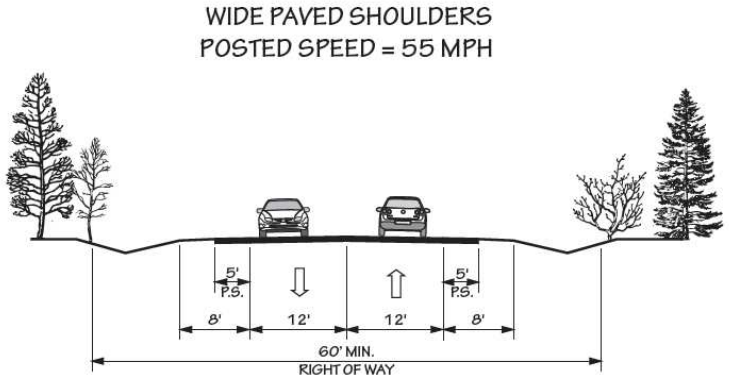
On all existing and proposed roadways delineated on the CTP, adequate rights-of-way should be protected or acquired for the recommended cross sections. In addition to cross section and right-of-way recommendations for improvements, Appendix C may recommend ultimate needed rights-of-way for the following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

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

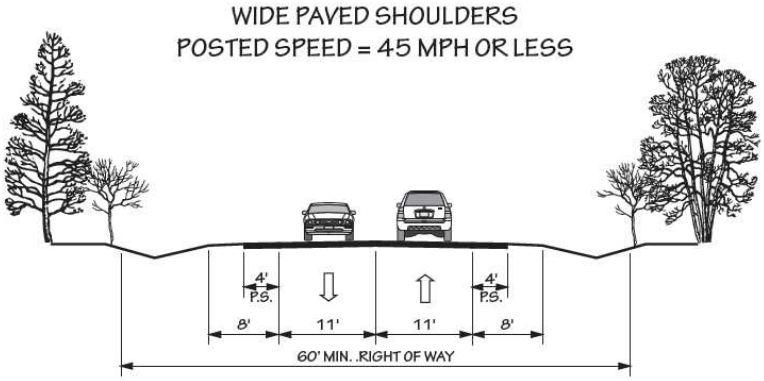
Figure 9 – Typical Cross Sections

2 LANES

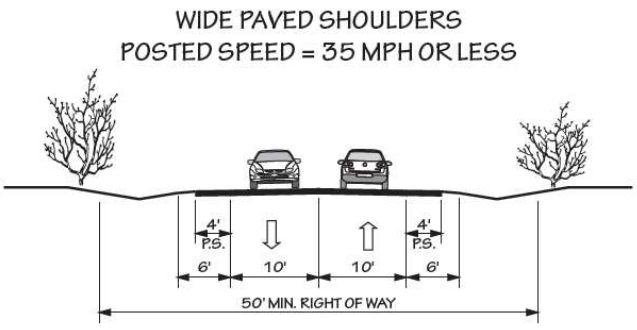
2 A



2 B



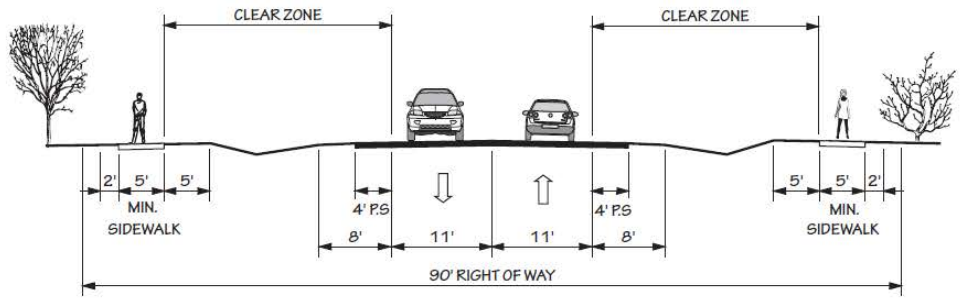
2 C



2 LANES

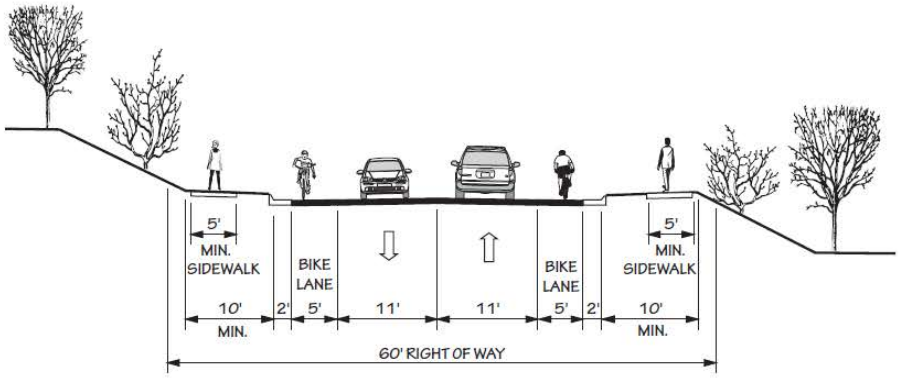
2 D

SIDEWALK PLACEMENT BEHIND A ROADWAY DITCH



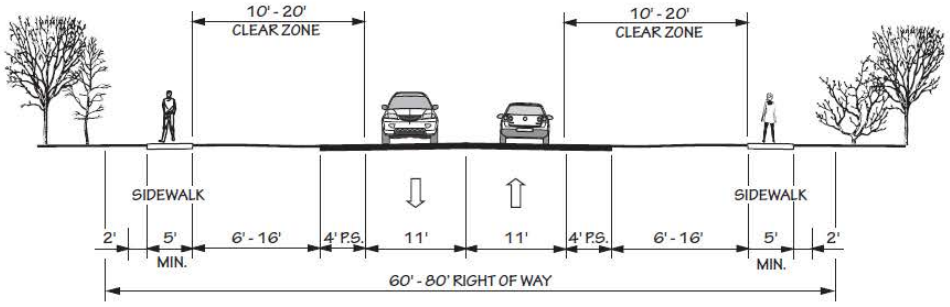
2 E

CURB AND GUTTER
WITH BIKE LANES AND SIDEWALKS



2 F

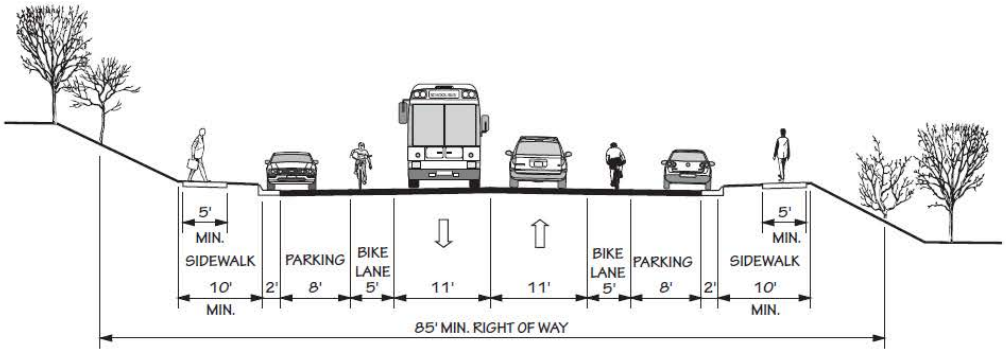
BUFFERS AND SIDEWALKS WITHOUT A ROADWAY DITCH
(20 MPH TO 45 MPH)
(TYPICALLY COASTAL AREA MANAGEMENT ACT COUNTIES)



2 LANES

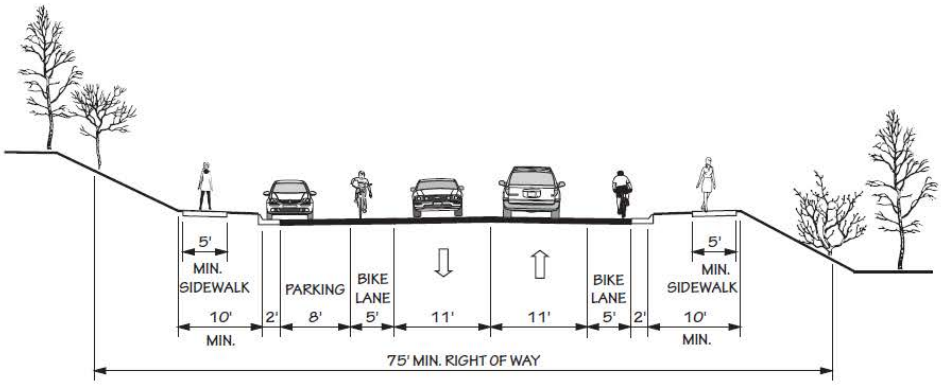
2 G

CURB & GUTTER - PARKING ON EACH SIDE



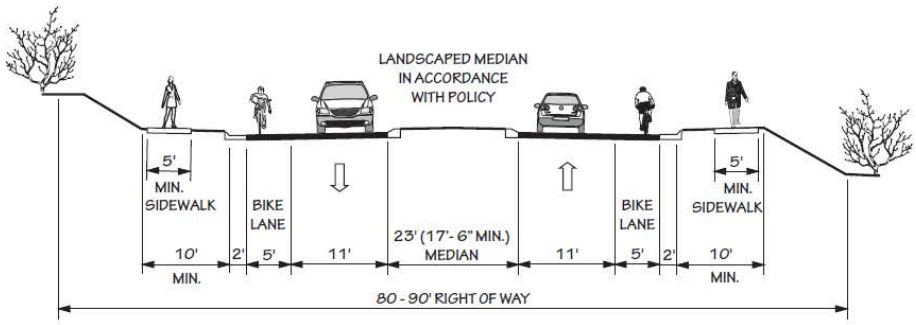
2 H

CURB & GUTTER - PARKING ON ONE SIDE



2 I

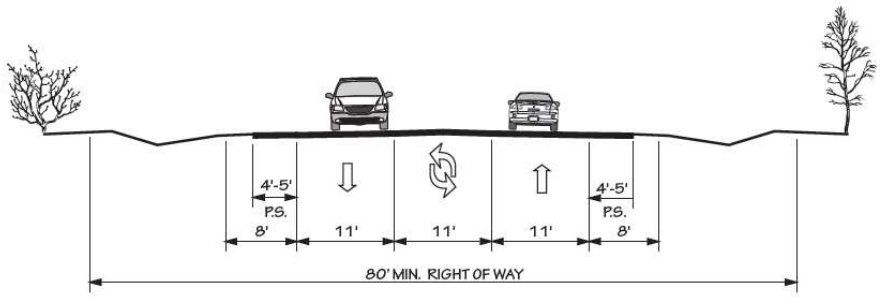
RAISED MEDIAN WITH CURB & GUTTER



3 LANES

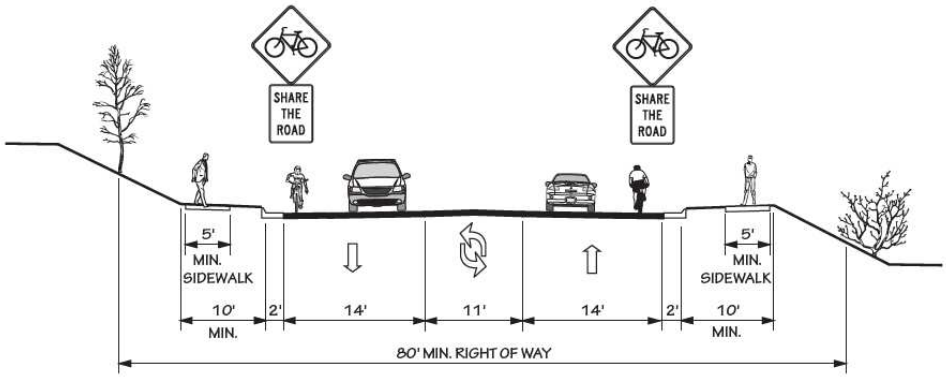
3 A

WIDE PAVED SHOULDERS



3 B

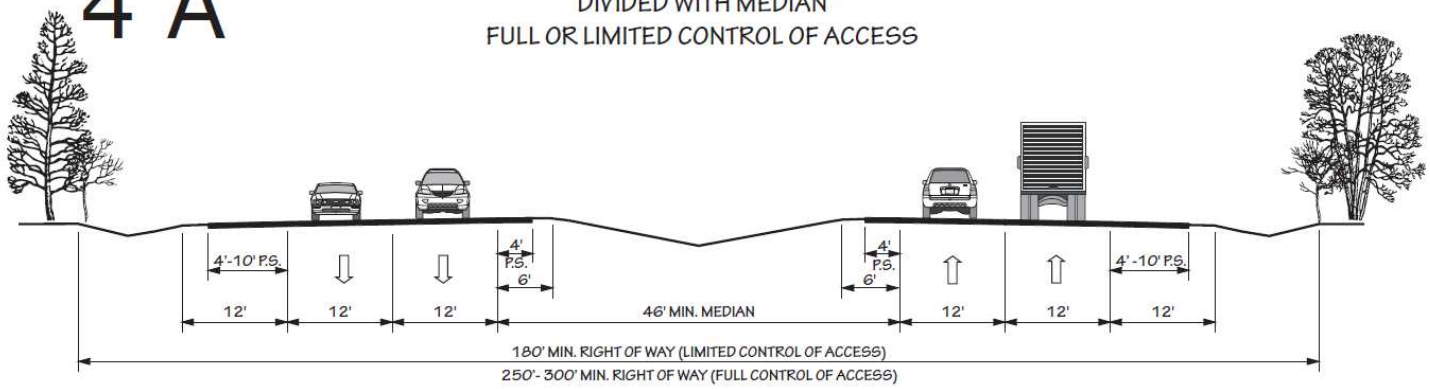
CURB & GUTTER WITH WIDE OUTSIDE LANES AND SIDEWALKS



4 LANES

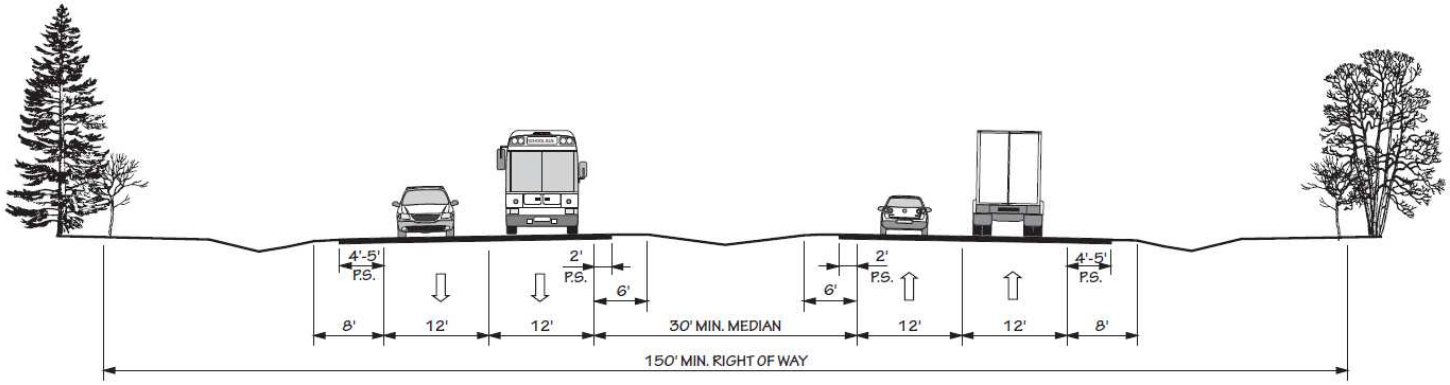
4 A

DIVIDED WITH MEDIAN
FULL OR LIMITED CONTROL OF ACCESS



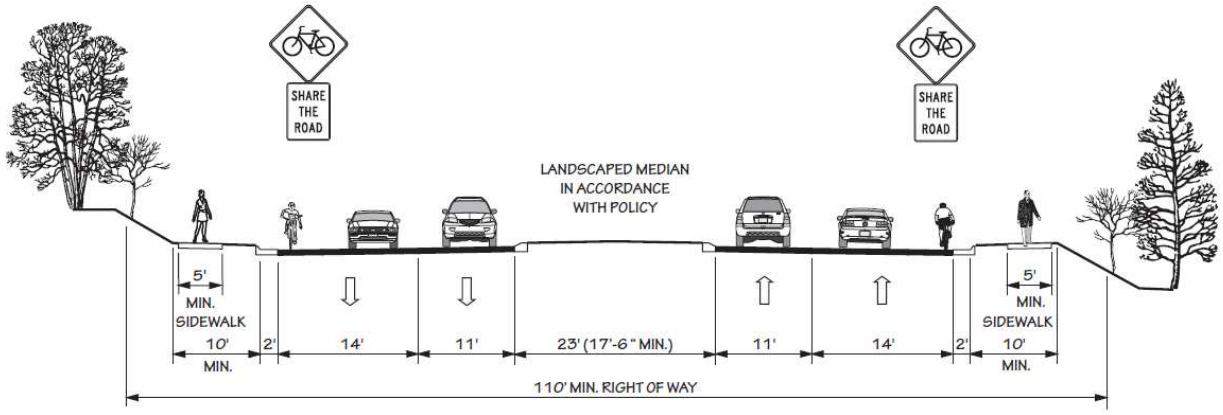
4 B

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



4 C

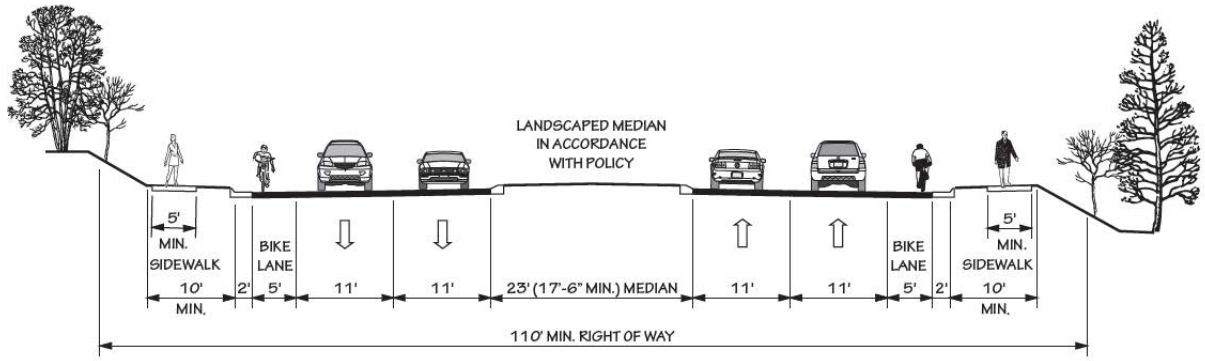
RAISED MEDIAN WITH WIDE OUTSIDE LANES AND SIDEWALKS



4 LANES

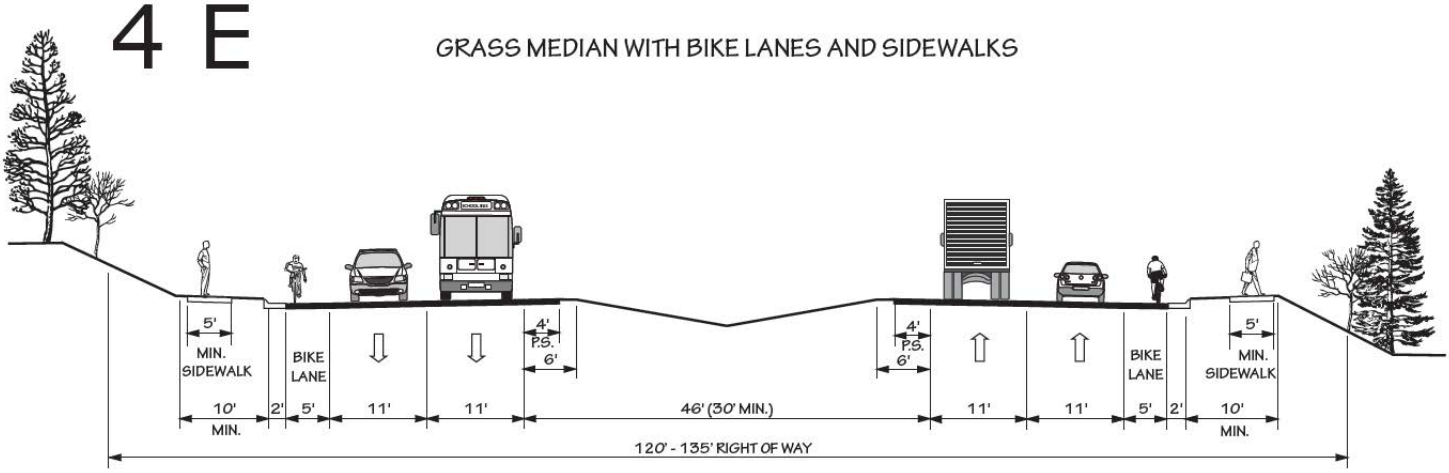
4 D

RAISED MEDIAN - CURB & GUTTER WITH BIKE LANES AND SIDEWALKS



4 E

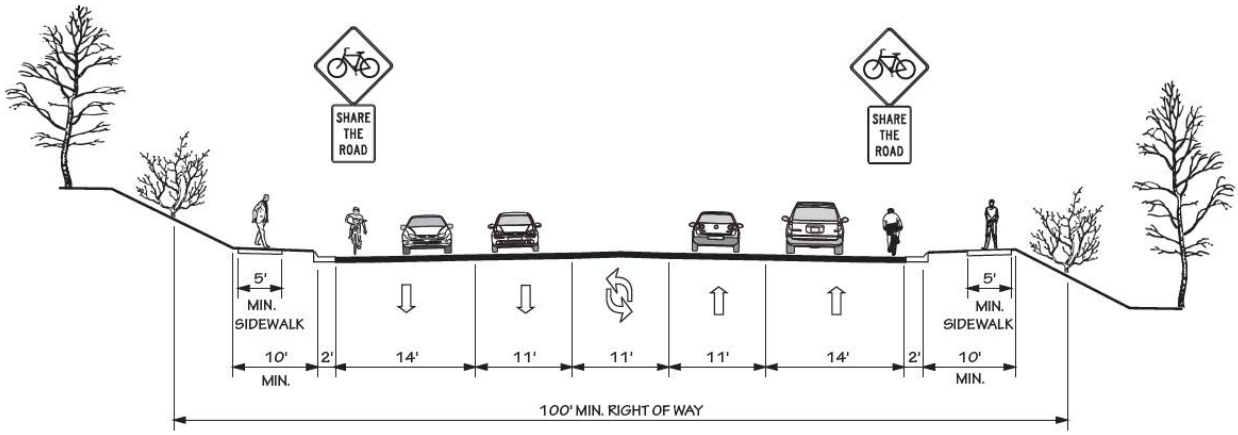
GRASS MEDIAN WITH BIKE LANES AND SIDEWALKS



5 LANES

5 A

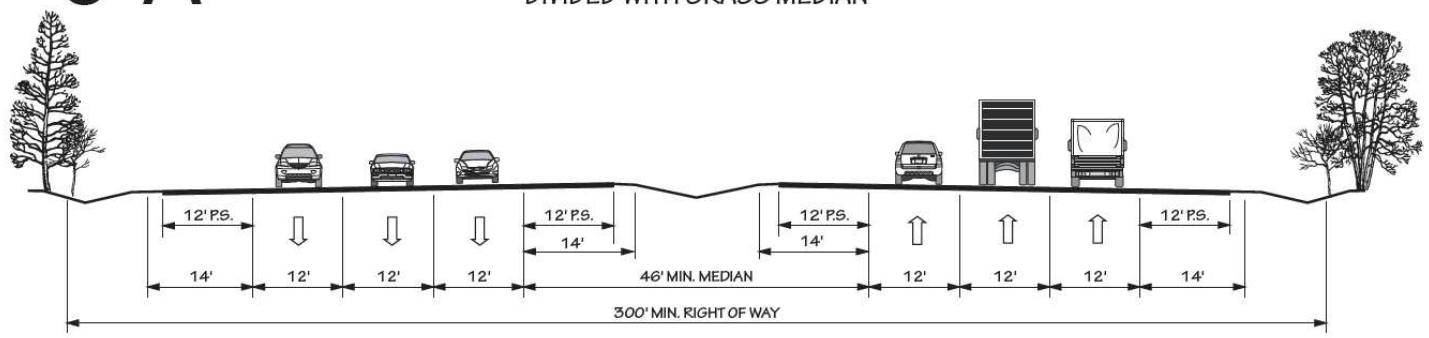
WIDE OUTSIDE LANES



6 LANES

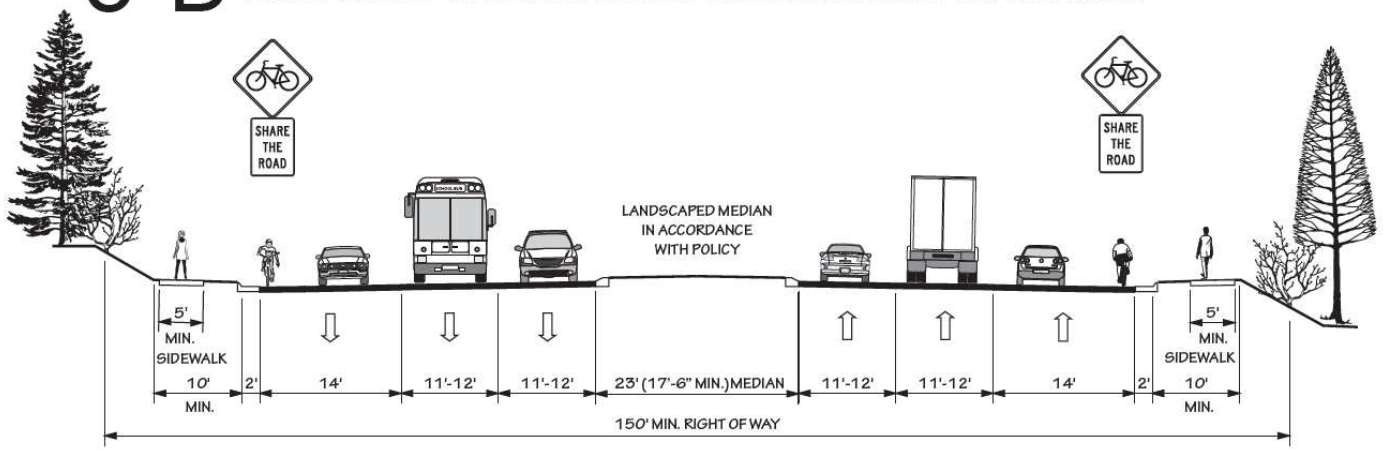
6 A

DIVIDED WITH GRASS MEDIAN



6 B

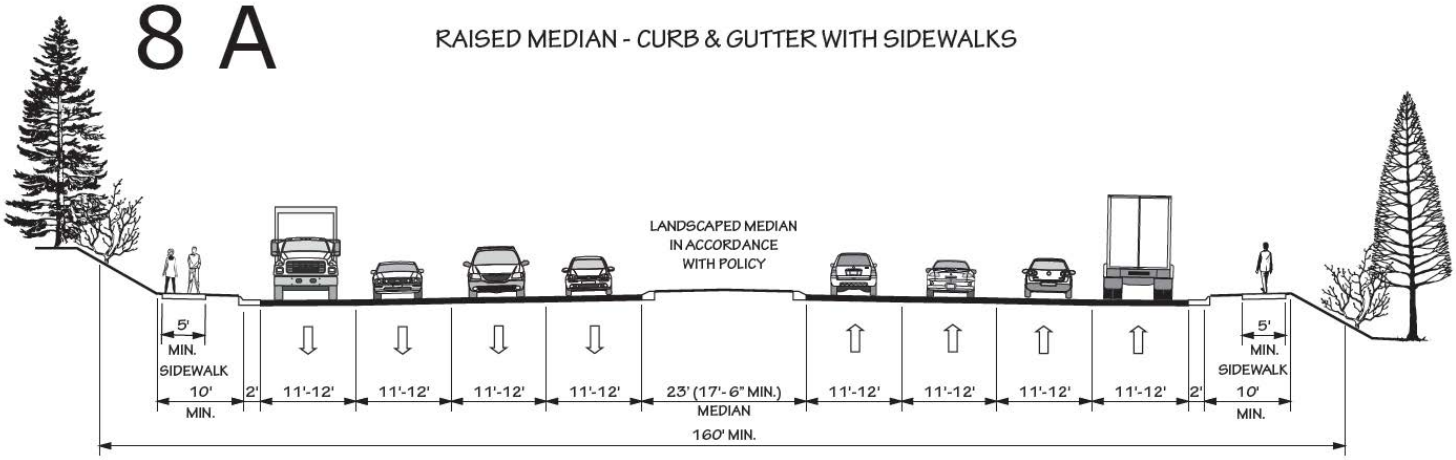
RAISED MEDIAN - CURB & GUTTER WITH WIDE OUTSIDE LANES AND SIDEWALKS



8 LANES

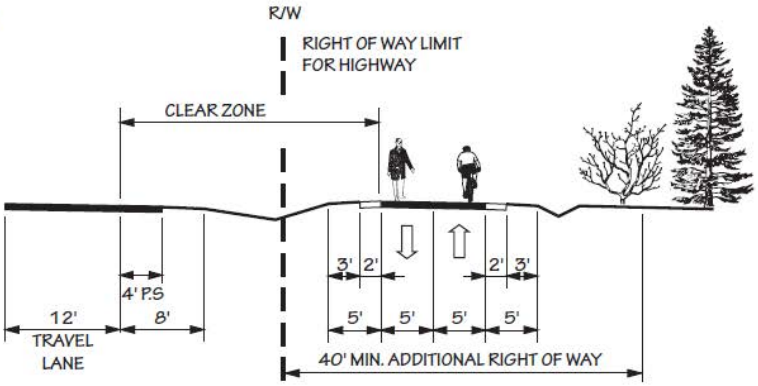
8 A

RAISED MEDIAN - CURB & GUTTER WITH SIDEWALKS



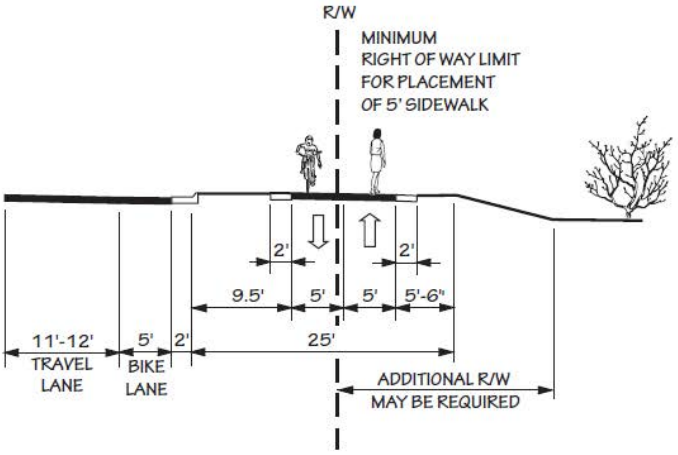
MULTI - USE PATH
ADJACENT TO RIGHT OF WAY OR SEPARATE PATHWAY

M A



MULTI - USE PATH ADJACENT TO CURB AND GUTTER

M B



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 10 - 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 Bertie County CTP factored crash frequency, crash type, and crash severity. Crash frequency is the total number of reported collisions 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. Crash severity is the crash rate based upon injuries and property damage incurred.

The severity of every crash is measured with a series of weighting factors developed by the NCDOT Division of Highways (DOH). These factors define a fatal or incapacitating crash as 47.7 times more severe than one involving only property damage and a crash resulting in minor injury is 11.8 times more severe than one with only property damage. In general, a higher severity index indicates more severe accidents. Listed below are levels of severity for various severity index ranges.

Severity	Severity Index
low	< 6.0
average	6.0 to 7.0
moderate	7.0 to 14.0
high	14.0 to 20.0
very high	> 20.0

Table 4 depicts a summary of the crashes occurring in the planning area between January 1, 2008 and December 31, 2010. The data represents locations with 10 or more crashes and/or a severity average greater than that of the state's 4.56 index. The "Total" column indicates the total number of accidents reported within 150-ft of the intersection during the study period. The severity listed is the average crash severity for that location.

Table 4 - Crash Locations

Map Index	Intersection	Average Severity	Total Collisions
1	US 13 and NC 42	16.1	6
2	US 13 and Sterlingworth Street	6.55	8
3	NC 11 and NC 308	4.36	11
4	King Street and Water Street Road	2.23	6
5	Carson Street and King Street	2.06	7

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 Structure 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 Number	Facility	Feature	Condition	CTP Project
13	US 13 SBL	Roanoke River	Structurally Deficient	
14	US 17	Cashie River	Structurally Deficient	B-4434
15	SR 1112	Roquist Creek	Functionally Obsolete	
20	SR 1235	Stoney Creek	Structurally Deficient	
29	SR 1315	Quioccoson Swamp	Structurally Deficient	
38	US 17	Chowan River	Structurally Deficient	
43	SR 1260	Chiska Creek	Functionally Obsolete	
46	SR 1500	Roouist Creek	Functionally Obsolete	B-4915
51	US 13	Cashie River	Structurally Deficient	B-5122
53	US 13	White Oak Swamp	Structurally Deficient	B-5141
57	US 13	Quioccoson Swamp	Structurally Deficient	B-4916
58	NC 45	Cashhoke Creek	Structurally Deficient	
66	SR 1500	Branch of Roquist Creek	Structurally Deficient	
72	SR 1110	Branch of Coniatt Creek	Structurally Deficient	
83	SR 1349	Branch White Oak Swamp	Structurally Deficient	
84	SR 1122	Swamp	Structurally Deficient	
85	SR 1108	Indian Creek	Structurally Deficient	
87	SR 1354	Eastmost Swamp	Structurally Deficient	
145	SR 1343	Branch White Oak	Functionally Obsolete	
148	SR 1200	Wahton Swamp	Structurally Deficient	B-5106
167	US17 (NBL)	US13 Business	Functionally Obsolete	
168	US17 (SBL)	US13 Business	Functionally Obsolete	

Appendix H
Public Involvement

This appendix includes a listing of CTP committee members, the Goals and Objectives and Vision Statement, the Goals and Objectives Survey and results, and a summary of the public involvement opportunities.

CTP Committee Members:

- Traci White – Bertie County Planning Director
- Dayle Vaughn – Lewiston-Woodville Commissioner/Bertie Planning Board
- Thomas Asbell – Mayor of Powellsville
- John Pierce – Mayor of Askewville
- Jerry Jennings – NCDOT Division 1 Engineer
- Jason Morris – North Carolina Department of Transportation Assistant District Engineer
- Ann Whitley – Peanut Belt RPO
- Hoyt Cooper – Windsor Commissioner
- Saeed Mohamed – NCDOT

Goals & Objectives & Vision Statement:

Purpose:

To work with Bertie County and the towns of Askewville, Aulander, Colerain, Kelford, Lewiston-Woodville, Powellsville, Roxobel, and Windsor to analyze all forms of transportation utilized within these areas and develop a Comprehensive Transportation Plan to act as a guide for all future modal travel needs and recommendations.

Vision:

Enhance the connectivity of Bertie County through the development of a transportation network which promotes and supports economic development compatible with the existing and future environmental and land use patterns.

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

Goals:

1. Insure the integrity of the existing system by encouraging planning and strategic development.

2. Encourage right of way preservation to ensure expansion of the existing system and future roadway projects.

3. Coordinate transportation and improvement needs between multiple jurisdictions.

4. Provide means to identifying and prioritizing transportation system needs on a local and regional scale.

5. Enhance and expand services for alternative modes of transportation including but not limited to transit, walking, and bicycling through increased funding and cooperative regional planning.

6. Acknowledge ways to improve safety and congestion as well as programs to educate the public on traffic safety.

7. Recognize a sustainable transportation infrastructure linking Bertie County with surrounding metropolitan areas including Rocky Mount, Greenville, and other areas in the Eastern United States.

8. Review existing access management and provide recommendations to improve safety and efficiency of the transportation system while enhancing development.

9. Educate the public on general transportation issues as well as alternative forms of transportation.

How important are the following goals?

(Please check the box that describes the importance of the following goals.)

	Very Important	Important	Not Important	
Increased Transportation Choices:	95	58	29	182
More and safer opportunities to walk and bike to destinations	100	60	32	192
Increased Public Transportation Options:	89	59	34	182
Bus service to destinations; Park-n-ride lots to facilitate carpooling, vanpooling, and transit service	95	63	34	192
Faster Automobile Travel Times:	67	65	49	181
Higher-speed roads with more lanes and fewer intersections; more connector roads; less congestion	71	70	50	191
Community and Rural Culture Preservation:	100	63	18	181
Keeping businesses in downtown areas; preservation of existing buildings and neighborhoods; maintaining the rural culture and landscape	107	65	20	192
Environmental Protection:	112	62	6	180
Minimizing the impact on wetlands, streams, and wildlife areas; reducing air pollution	120	65	6	191
Economic Growth:	139	38	4	181
Building or improving roads and railways to attract new businesses and to allow existing businesses to expand	149	39	4	192
Service of Special Needs:	137	40	4	181
Better transportation services for poor, elderly, and disabled residents	143	46	4	193
Access:	126	51	2	179
Better connection to employment, medical facilities, and higher education facilities.	132	57	3	192

A road's ability to carry traffic should be increased by: **(Please check the box that describes the importance of the following strategies.)**				
	Very Important	**Important**	**Not Important**	
Building additional traffic lanes	73	92	25	190
Controlling the frequency and locations of driveways and cross streets that access the road	69	102	17	188
Improvements to intersections, better traffic signal timing	129	55	4	188
Widening Lanes and/or Shoulders	122	60	9	191
Straightening Curves	98	71	19	188
Pavement Maintenance	148	44	1	193

Are you concerned with safety or crash problems at any specific locations?		
yes	60.99%	111
no	39.01%	71
If yes, please give a detailed description of the location including the road name or intersection.		91

When traveling in your area, do you find that you often have to go out of your way to get to your destination because the most direct route is too congested?		
yes	9.90%	19
no	90.10%	173
If yes, please give examples.		16

Is truck traffic a problem in the area?		
yes	36.98%	71
no	63.02%	121
If yes, please give examples.		60

What areas or roads would you like to have improved connection to? (Please check all that apply.)		
Raleigh	15.71%	22
Greenville	35.71%	50
Rocky Mount	13.57%	19
Ahoskie	45.00%	63
Washington	24.29%	34
Edenton	10.00%	14
Elizabeth City	10.00%	14
Williamston	15.71%	22
Tarboro	6.43%	9
US 13	35.00%	49
US 17	27.14%	38
US 64	17.14%	24
US 158	10.71%	15
US 258	11.43%	16
NC 11-42	24.29%	34
I-95	20.71%	29
Virginia	19.29%	27
Other	8.57%	12
If Virginia or Other, please give town or highway location.		30

What are the key transportation issues in your area?	
	78

Sidewalks?		
yes	60.18%	68
no	39.82%	45
If yes, where?		28

Off-road trails or greenways for walking and biking:		
yes	55.83%	91
no	44.17%	72
If yes, where?		33

On-road bicycle facilities such as bike lanes and wide shoulders:		
yes	50.30%	84
no	49.70%	83
If yes, where?		32

Park-n-ride lots (parking areas to facilitate the use of public transportation and carpooling)		
yes	46.30%	75
no	53.70%	87
If yes, where?		34

Bus service around Windsor		
yes	50.29%	88
no	49.71%	87

Bus service to Greenville		
yes	62.50%	110
no	37.50%	66

Commuter rail		
yes	35.33%	53
no	64.67%	97

What is your age?		
under 18	0.52%	1
18-24	0.00%	0
25-34	8.76%	17
35-44	12.37%	24
45-54	22.16%	43
55-64	24.74%	48
65-74	17.53%	34
over 74	13.92%	27

What is your Ethnic Group?		
White	50.26%	96
Black	46.07%	88
Native American	0.52%	1
Hispanic	0.52%	1
Asian	1.05%	2
Other	1.57%	3

How many people live in your household, including yourself?		
1	21.69%	41
2	43.92%	83
3	12.70%	24
4	17.46%	33
5	1.59%	3
6	1.06%	2
7	0.00%	0
8 and above	1.59%	3

How many people live in your household, including yourself?		
1	16.67%	2
2	58.33%	7
3	8.33%	1
4	16.67%	2
5	0.00%	0
6	0.00%	0
7	0.00%	0
8 and above	0.00%	0

What was your household income last year?		
Below $15,000	17.51%	31
$15,000-$29,999	21.47%	38
$30,000-$39,999	9.04%	16
$40,000-$53,799	15.25%	27
$53,800-$70,000	8.47%	15
Above $70,000	18.64%	33
Don't know	9.60%	17

Do you own a vehicle?		
yes	92.19%	177
no	7.81%	15

Do you use CPTA (Choanoke Public Transportation Authority) Transportation?		
yes	4.62%	9
no	95.38%	186

What is your zip code?	
	198

In what community of Bertie County do you live? (Please check only one box. If you live in a municipality, check a municipality. If you live in an unincorporated area, please check a township. The numbers correspond to the townships displayed on the map.)		
Askewville	0.51%	1
Aulander	8.59%	17
Colerain	10.10%	20
Kelford	1.52%	3
Lewiston-Woodville	6.06%	12
Powellsville	3.03%	6
Roxobel	2.53%	5
Windsor	21.72%	43
1. Roxobel	1.52%	3
2. Mitchells	4.55%	9
3. Colerain	3.54%	7
4. Woodville	0.00%	0
5. Snake Bite	4.04%	8
6. Windsor	11.62%	23
7. Whites	3.54%	7
8. Indian Woods	2.02%	4
9. Merry Hill	12.12%	24
I don't live in Bertie County	3.03%	6