Comprehensive Transportation Plan

Town of Mount Olive

December 2014

2014 Mount Olive
Comprehensive Transportation Plan

Prepared by: Carlos E. Moya-Astudillo, EI, Project Engineer
Behshad M. Norowzi, Northeast Planning Group Supervisor
Travis K. Marshall, PE, Eastern Unit Head
Transportation Planning Branch
N.C. Department of Transportation

In Cooperation with: Town of Mount Olive
Town of Calypso
Wayne County
Duplin County
Eastern Carolina Rural Planning Organization

Published: December 2014

Travis K. Marshall, PE
Eastern Unit Head

Table of Contents

Executive Summary i

Chapter 1: Analysis of the Existing and Future Transportation System

1.1 Analysis Methodology and Data Requirements 1-1
- a) Roadway System Analysis 1-1
  - i. Traffic Crash Assessment 1-3
  - ii. Bridge Deficiency Assessment 1-4
- b) Public Transportation and Rail 1-13
  - i. Public Transportation 1-13
  - ii. Rail 1-14
- c) Bicycles and Pedestrians 1-15
- d) Land Use 1-16

1.2 Consideration of the Natural and Human Environment 1-17

1.3 Public Involvement 1-19

Chapter 2: Recommendations

2.1 Implementation 2-1

2.2 Problem Statements 2-2
- a) Highway 2-3
- b) Public Transportation and Rail 2-31
- c) Bicycle 2-33
- d) Pedestrian 2-35

Appendices

Appendix A: Resources and Contacts A-1
Appendix B: Comprehensive Transportation Plan Definitions B-1
Appendix C: CTP Inventory and Recommendations C-1
Appendix D: Typical Cross-Sections D-1
Appendix E: Level of Service Definitions E-1
Appendix F: Bridge Deficiency Assessment F-1
Appendix G: Socio-Economic Data Forecasting Methodology G-1
Appendix H: Public Involvement H-1

List of Figures

Figure 1: Comprehensive Transportation Plan iii
Figure 2: 2010 Volumes and Capacity Deficiencies 1-5
Figure 3: 2040 Volumes and Capacity Deficiencies 1-7
Figure 4: High Frequency / Crash Location.....1-9
Figure 5: Deficient Bridges 1-11
Figure 6: Environmental Features 1-21
Figure 7: Typical Cross Sections D-2
Figure 8: Level of Service Illustrations E-2
Figure 9: Existing Land Development Plan G-3
Figure 10:Future Land Development Plan G-5

List of Tables

Table 1: Crash Locations 1-4
Table 2: Environmental Features 1-18
Table 3: CTP Inventory and Recommendations C-3
Table 4: Deficient Bridges F-2
Table 5: Population Data.....G-1

Executive Summary

In December of 2010, the Transportation Planning Branch of the North Carolina Department of Transportation (NCDOT) and the Town of Mount Olive initiated a study to cooperatively develop the Mount Olive Comprehensive Transportation Plan (CTP). This is a long-range multi-modal transportation plan that covers transportation needs through future year. Modes of transportation evaluated as part of this plan include: highway, public transportation and rail, bicycle, and pedestrian. This plan does not cover routine maintenance or minor operations issues. Refer to Appendix A for contact information on these types of issues.

Findings of this CTP study were based on an analysis of the transportation system, environmental screening and public input, which are detailed in Chapter 1. Figure 1 shows the CTP maps, which were mutually adopted by NCDOT in May of 2014. Descriptive information and definitions for designations depicted on the CTP maps can be found in Appendix B. Implementation of the plan is the responsibility of the Town of Mount Olive, and NCDOT. Refer to Chapter 2 for information on the implementation process.

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

- **US 117 A:**

  Widen US 117A to 12-foot lanes from Calypso town limits to the southern Mount Olive city limits. It is also recommended to improve the signal timing within Mount Olive city limits. In addition, it is recommended 12-foot lane from the northern of Mount Olive city limits to the planning area boundary.

- **US 117:**

  Grade Separation at US 117 and West Main Street (SR 1141);
  Grade Separation at US 117 and Baker Chapel Church Road (SR 1138) and McKee Oil Company Road (SR 1170);
  Grade-separated Interchange at US 117 and Country Club Road (SR 1135);
  Closing the at-grade intersection at US 117 and Lee's Country Club Road (SR 1144); and
  Closing the at-grade intersection at US 117 and Old Smith Chapel Road (SR 1147).

- **NC 55:**

  The proposed project is to widen the existing 2-lane facility from Country Club Road (SR 1135) to the intersection with US 117 to a 4-lane divided Boulevard.

  NC 55 at NW Center Street is currently grade-separated. The primary purpose of this project is to create connectivity and improve mobility between NC 55 and Northwest Center Street (SR 1938) by converting the grade separation to an interchange.

- **New Road:**

  New Road from Daughtery Field Road (SR 1143) crossing US 117 to Lee's Country Club Road (SR 1144).
  New Interchange at US 117.

- **Country Club Road extension:**

  The primary purpose of this project is to create more connectivity between US 117A and Old Mount Olive Highway and improve mobility, as well as improving access to the Industrial Park.

Adopted by:

Town of Mount Olive
Date: March 3, 2014

Town of Calypso
Date: March 10, 2014

Wayne County
Date: April 15, 2014

Duplin County
Date: March 17, 2014

NCDOT
Date: May 1, 2014

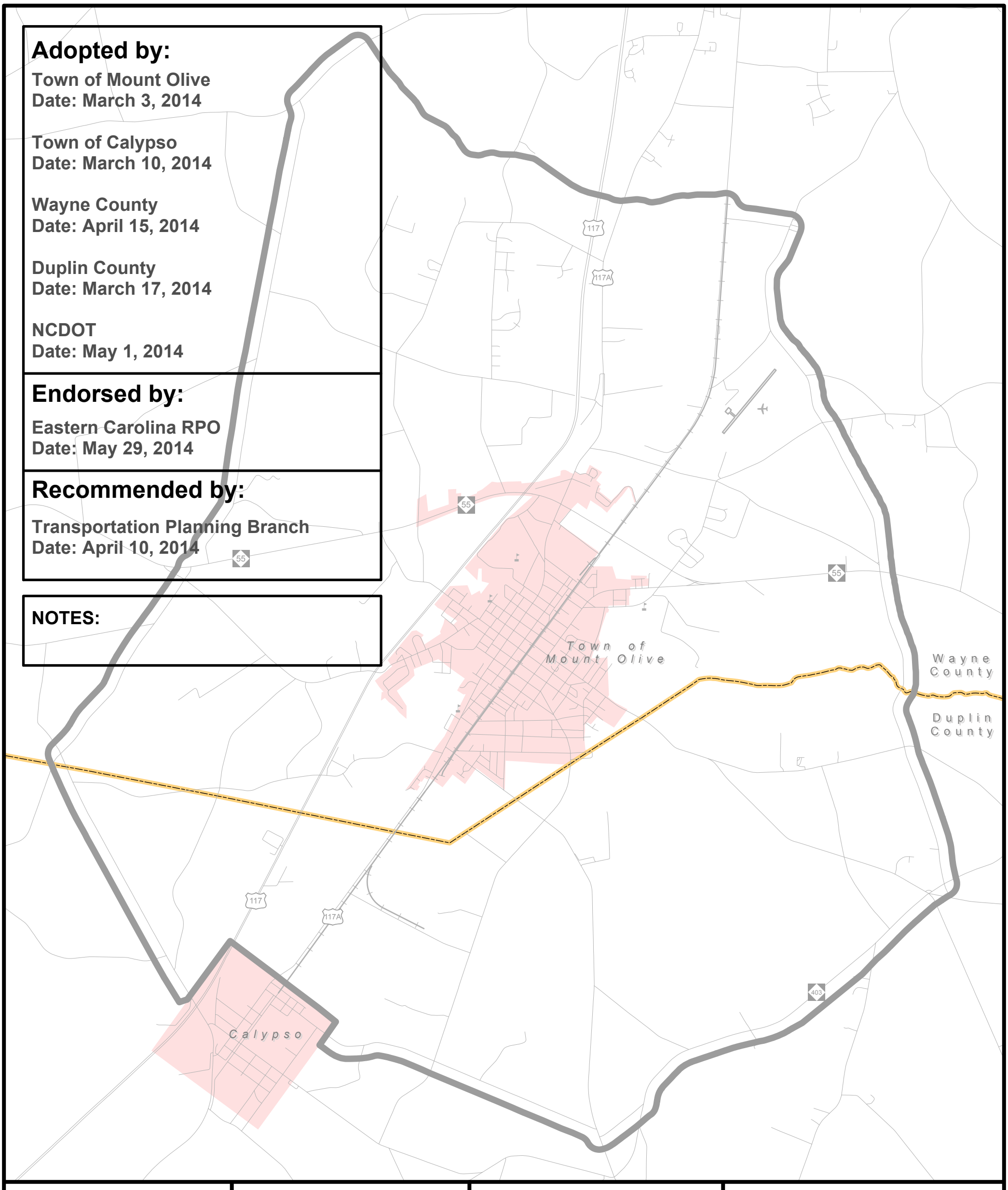
Endorsed by:

Eastern Carolina RPO
Date: May 29, 2014

Recommended by:

Transportation Planning Branch
Date: April 10, 2014

NOTES:



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

Legend

- Roads
- Railroads
- Schools
- Airports
- County Boundary
- Planning Area Boundary
- Municipal Boundary

Miles
0 0.25 0.5 1 1.5

N W E S

Figure 1 -- Sheet 1 of 5

Base map date: July 31, 2012

Refer to CTP document for more details

Adoption Sheet

Mount Olive

North Carolina

Comprehensive Transportation Plan

Plan date: January 14, 2014

Oberry Rd (SR 1243)
Country Club Rd (SR 1135)
117
117A
Baker Chapel Church Rd (SR 1138)
McKee Oil Company Rd (SR 1170)
N Breazeale Ave
Old Mount Olive Hwy
Country Club Rd (SR 1135)
Bert Martin Rd
NE Church Rd (SR 1941)
Indian Springs Rd (SR 1744)
Kelly Springs Rd (SR 1937)
NW Center St (SR 1938)
55
Harrell's Hill Rd (SR 1140)
W Main St (SR 1141)
Henderson St (SR 1174)
Park Ave
E Church St (SR 1969)
Old 7 Springs Rd (SR 1744)
W James St
Main St
NE Center St
Smith Chapel Hwy
Thunder Swamp Rd (SR 1183)
Old Smith Chapel Rd (SR 1147)
S Breazeale Ave
SW Center St
SE Center St
S Church St
E James St
Daughtery Field Rd
Franklin St
Rones Chapel Rd
Wayne County
Duplin County
Jones-Turner Rd SR (1559)
Lees Country Club Rd (SR 1144)
Ralph Dail Rd (SR 1309)
County Rd (SR 1947)
Graham Rd (SR 1558)
Inset
W Trade Rd (SR 1006)
Beautancus Rd (SR 1306)
Rones Chapel Rd (SR 1004)
403
Calypso

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

0 0.25 0.5 1 1.5 Miles

N W E S

Figure 1 -- Sheet 2 of 5

Base map date: July 31, 2012

Refer to CTP document for more details

Highway Map

Mount Olive

North Carolina

Comprehensive Transportation Plan

Plan date: January 14, 2014

Country Club Rd
Bert Martin Rd
117
117A
NE Church Rd
N Breazeale Ave
NW Center St
55
Michael Martin Rd
Old Mt Olive Hwy
Henderson St
W Main St
Country Club Rd
NE Center St
W Park Ave
E Park Ave
N Church St
Old 7 Springs Rd
N Martin St
W Station St
Wooten St
W College St
W Main St
W James St
N Church St
S Southerland St
Smith Chapel Hwy
E College St
S Breazeale Av
S Chestnut St
SW Center St
SE Center St
E Main St
E James St
E Williamson St
E Maple St
Old Smith Chapel Rd
E Hillsboro St
Rones Chapel Rd
Daughtery Field Rd
Lees Country Club Rd
S Church St
SW Center St
SE Center St
Franklin St
Lees Country Club Rd
County Rd
Oliver St
Beautancus Rd
Wayne County
Duplin County
Farrior Rd

Freeways
- Existing
- Needs Improvement
- Recommended

Expressways
- Existing
- Needs Improvement
- Recommended

Boulevards
- Existing
- Needs Improvement
- Recommended

Other Major Thoroughfares
- Existing
- Needs Improvement
- Recommended

Minor Thoroughfares
- Existing
- Needs Improvement
- Recommended

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

Miles
0 0.125 0.25 0.5

N W E S

Figure 1 -- Sheet 2A of 5

Base map date: July 31, 2012

Refer to CTP document for more details

Highway Map (Inset)

Mount Olive

North Carolina

Comprehensive Transportation Plan

Plan date: January 14, 2014

Inset

Bus Routes
- Existing
- Needs Improvement
- Recommended

Fixed Guideway
- Existing
- Needs Improvement
- Recommended

Operational Strategies
- Existing
- Needs Improvement
- Recommended

Rail Corridor
- Active
- Inactive
- Recommended

High Speed Rail Corridor
- Existing
- Recommended

Park and Ride Lot
- Existing
- Recommended

Intermodal Connector
- Existing
- Recommended

Rail Stops
- Existing
- Recommended

Bus Stops
- Existing
- Recommended

Miles
0 0.3 0.6 1.2

N W E S

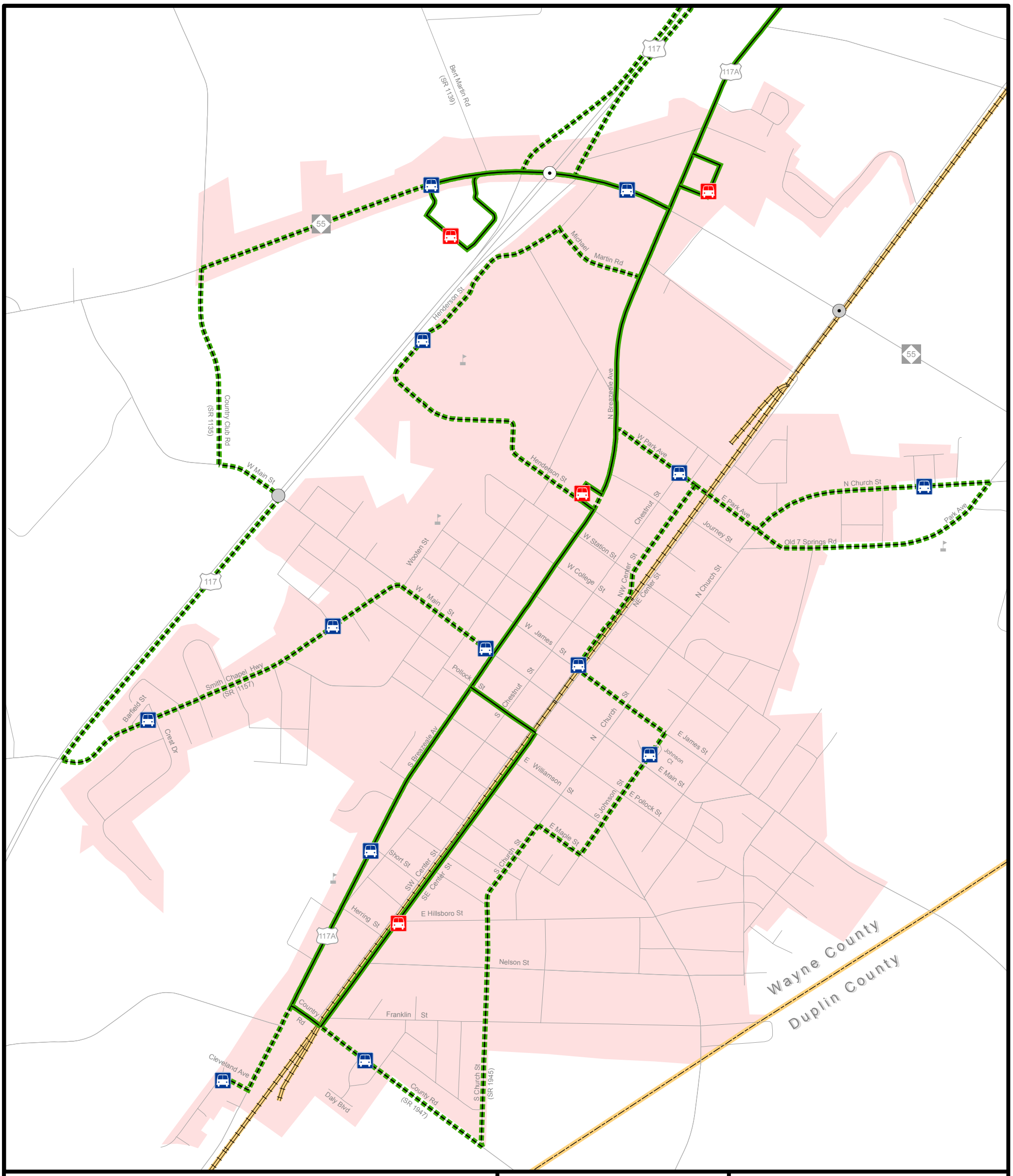
Figure 1 -- Sheet 3 of 5
Base map date: July 31, 2012
Refer to CTP document for more details

Public Transportation and Rail Map

Mount Olive

Comprehensive Transportation Plan

Plan date: January 14, 2014



Bus Routes
- Existing
- Needs Improvement
- Recommended

Rail Corridor
- Active
- Inactive
- Recommended

Intermodal Connector
- Existing
- Recommended

Fixed Guideway
- Existing
- Needs Improvement
- Recommended

High Speed Rail Corridor
- Existing
- Recommended

Rail Stops
- Existing
- Recommended

Operational Strategies
- Existing
- Needs Improvement
- Recommended

Park and Ride Lot
- Existing
- Recommended

Bus Stops
- Existing
- Recommended

Miles
0 0.1 0.2 0.4

N
W E
S

Figure 1 -- Sheet 3A of 5

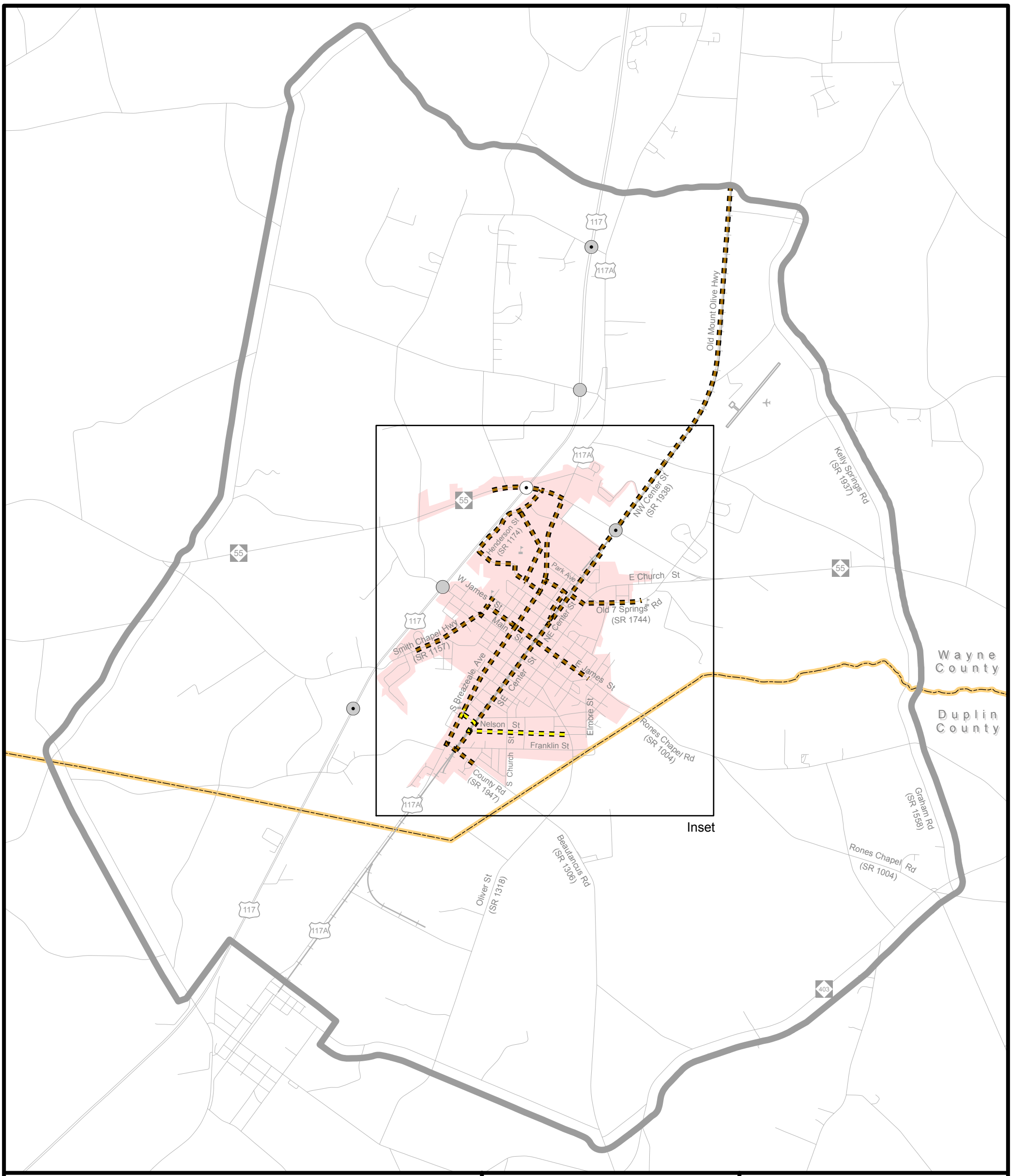
Base map date: July 31, 2012

Refer to CTP document for more details

Public Transportation and Rail Map (Inset)

Mount Olive
Comprehensive Transportation Plan

Plan date: January 14, 2014



Legend

On-road
- Existing
- Needs Improvement
- Recommended

Off-road
- Existing
- Needs Improvement
- Recommended

Multi-Use Paths
- Existing
- Needs Improvement
- Recommended

- County Boundary
- Planning Area Boundary
- Municipal Boundary

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

0 0.4 0.8 1.6 Miles

N W E S

Figure 1 -- Sheet 4 of 5

Base map date: July 31, 2012

Refer to CTP document for more details

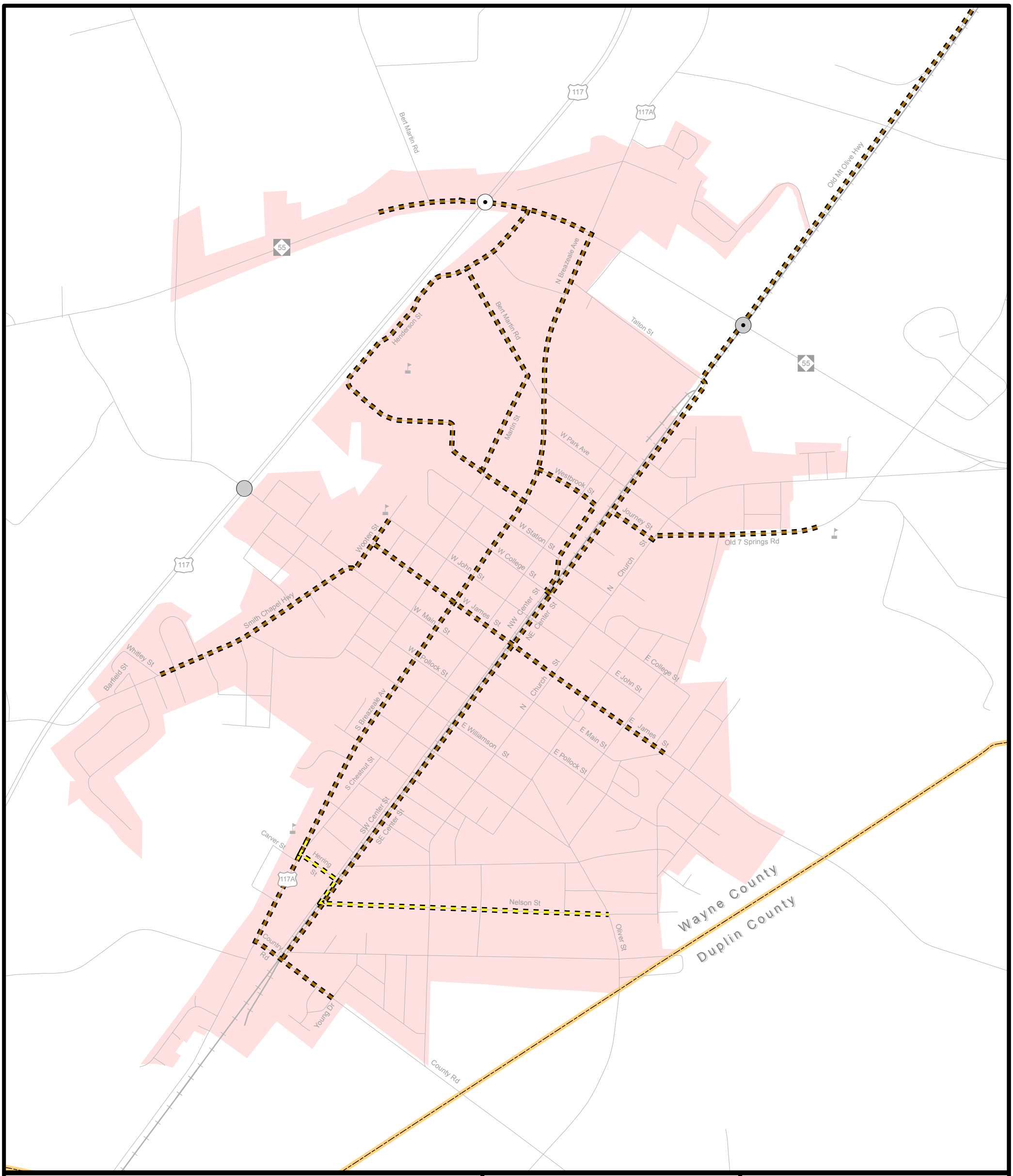
Bicycle Map

Mount Olive

North Carolina

Comprehensive Transportation Plan

Plan date: January 14, 2014



Legend

On-road
- Existing
- Needs Improvement
- Recommended

Off-road
- Existing
- Needs Improvement
- Recommended

Multi-Use Paths
- Existing
- Needs Improvement
- Recommended

- Roads
- Railroads
- Schools
- Airports

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

0 0.125 0.25 0.5 Miles

N W E S

Figure 1 -- Sheet 4A of 5

Base map date: July 31, 2012

Refer to CTP document for more details

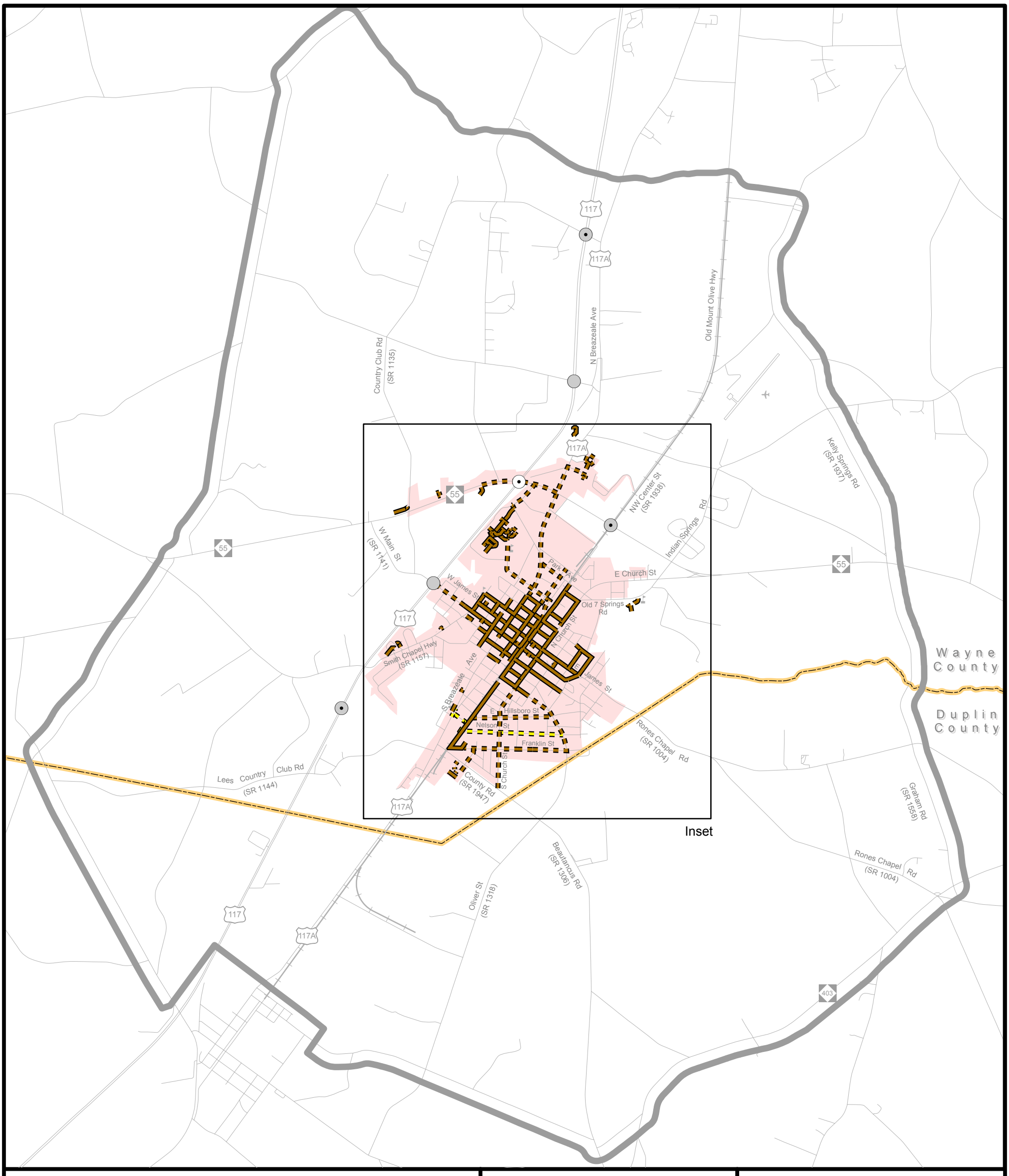
Bicycle Map (Inset)

Mount Olive

North Carolina

Comprehensive Transportation Plan

Plan date: January 14, 2014



Legend

Sidewalks
- Existing
- Needs Improvement
- Recommended

Off-Road
- Existing
- Needs Improvement
- Recommended

Multi-Use Paths
- Existing
- Needs Improvement
- Recommended

- County Boundary
- Planning Area Boundary
- Municipal Boundary

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

Miles
0 0.25 0.5 1 1.5

N W E S

Figure 1 -- Sheet 5 of 5

Base map date: July 31, 2012

Refer to CTP document for more details

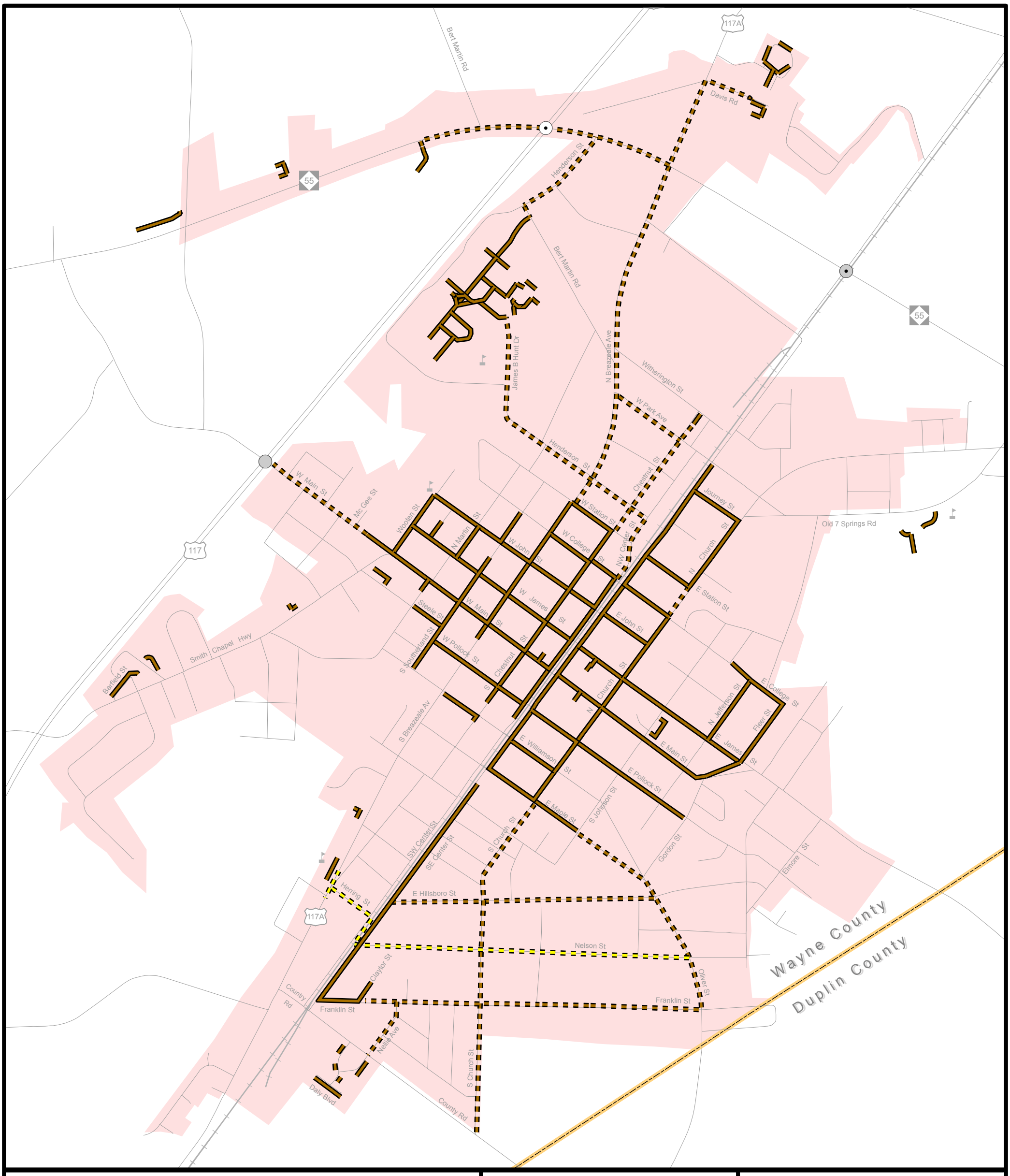
Pedestrian Map

Mount Olive

North Carolina

Comprehensive Transportation Plan

Plan date: January 14, 2014



Legend

Sidewalks
- Existing
- Needs Improvement
- Recommended

Off-Road
- Existing
- Needs Improvement
- Recommended

Multi-Use Paths
- Existing
- Needs Improvement
- Recommended

- Roads
- Railroads
- Schools
- Airports

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

0 0.1 0.2 0.4 Miles

N W E S

Figure 1 -- Sheet 5A of 5

Base map date: July 31, 2012

Refer to CTP document for more details

Pedestrian Map (Inset)

Mount Olive

North Carolina

Comprehensive Transportation Plan

Plan date: January 14, 2014

1. Analysis of the Existing and Future Transportation System

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

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

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

1.1 Analysis Methodology and Data Requirements

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

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

Roadway System Analysis

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

One of those statewide initiatives is the Strategic Highway Corridor (SHC) Vision Plan[1] adopted by the Board of Transportation on September 2, 2004. The SHC Vision Plan is

[1] *For more information on the SHC Vision Plan, go to:* https://connect.ncdot.gov/projects/planning/Pages/StrategicHighwayCorridors.aspx.

an initiative to protect and maximize the mobility and connectivity on a core set of transportation 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 CTPs shall incorporate the long-term vision of each corridor. Refer to Appendix A for contact information for the SHC Vision Plan.

In the development of this plan, travel demand was projected from 2010 to 2040 using a trend line analysis based on Annual Average Daily Traffic (AADT) from 1990 to 2010. In addition, local land use plans and growth expectations were used to further refine future growth rates and patterns. The CTP Steering Committee endorsed the established future growth rates on April 1, 2013. Refer to Appendix G for more detailed information on growth expectations and the socio-economic data forecasting methodology.

Existing and future travel demand is compared to existing roadway capacities. Capacity deficiencies occur when the traffic volume of a roadway exceeds the roadway's capacity. Roadways are considered near capacity when the traffic volume is at least eighty percent of the capacity. Refer to Figures 2 and 3 for existing and future capacity deficiencies. The 2040 traffic volume in Figure 3 is an estimate of the traffic volume in 2040 with only existing plus committed projects assumed to be in place, where committed is defined as projects programmed for construction in the 2013 – 2023 Transportation Improvement Program[2] (TIP).

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

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

[2] *For more information on the TIP, go to:* https://connect.ncdot.gov/projects/planning/Pages/default.aspx

- Development along the road, including residential, commercial, agricultural, and industrial developments;
- Number of traffic signals along the route;
- Peaking characteristics of the traffic on the road;
- Characteristics of side-roads feeding into the road; and
- Directional split of traffic or the percentages of vehicles traveling in each direction along a road at any given time.

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

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

Traffic Crash Assessment

Traffic crashes are often used as an indicator for locating congestion and roadway problems. Crash patterns obtained from an analysis of crash data can lead to the identification of improvements that will reduce the number of crashes. The Traffic Safety Unit of NCDOT's Transportation Mobility and Safety Division identifies high frequency crashes at intersections and along roadway sections during a five-year period. The high frequency crash locations examined during the development of the Mount Olive CTP occurred between January 1, 2009 and December 31, 2013. During this period, a total of thirteen intersections and thirty-four roadway sections were identified as having a high frequency of crashes as illustrated in Figure 4. Contact information for the Transportation Mobility and Safety Division can be found in Appendix A.

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

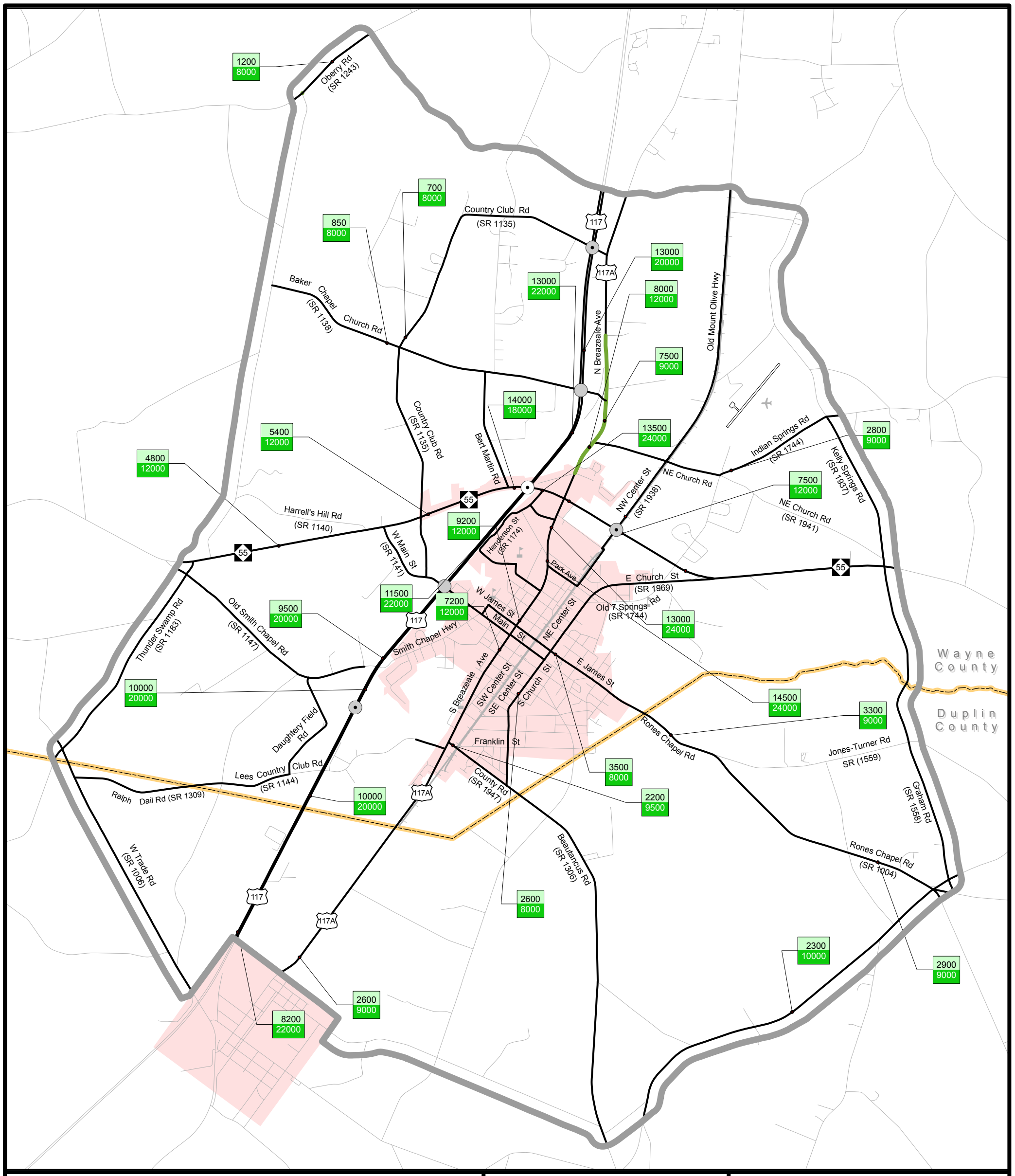
Table 1 – Crash Locations

Intersection		Total Collisions (No. of Crashes)
Road A	*Road B*	
NC 55	BREAZEALE AVENUE	25
NC 55	WALMART	13
US 117	NC 55	13
BREAZEALE AVENUE	HENDERSON STREET	12
NC 55	HENDERSON STREET	11
CHURCH STREET	MAIN STREET	9
NC 55	BERT MARTIN ROAD	7
CENTER STREET	PARK AVENUE	7
BREAZEALE AVENUE	JAMES STREET	7
CHURCH STREET	JAMES STREET	5
BREAZEALE AVENUE	MAIN STREET	3

Bridge Deficiency Assessment

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

The NCDOT Structures Management Unit inspects all bridges in North Carolina at least once every two years. Bridges having the highest priority are replaced as federal and state funds become available. Three deficient bridges were identified on roads evaluated as part of the CTP and are illustrated in Figure 5. As deficient bridges are replaced, every consideration should be given to proposed CTP recommendation and cross section associated with the recommendation. Table 3 in Appendix F gives a listing of the deficient bridges identified in the CTP and the ID number associated with CTP project proposal. Refer to Appendix F for more detailed bridge deficiency information.



Legend

- Over Capacity
- Near Capacity
- Network Road
- Railroads
- Airports
- Schools
- County Boundaries
- Municipal Boundaries
- Planning Boundary

2010 Volumes (AADT)
2010 Capacity

- Existing Interchange
- Proposed Interchange
- Existing Grade Separation
- Proposed Grade Separation
- Study Roads
- Roads

Mount Olive

North Carolina

Comprehensive Transportation Plan

N W E S

0 0.25 0.5 1 1.5 Miles

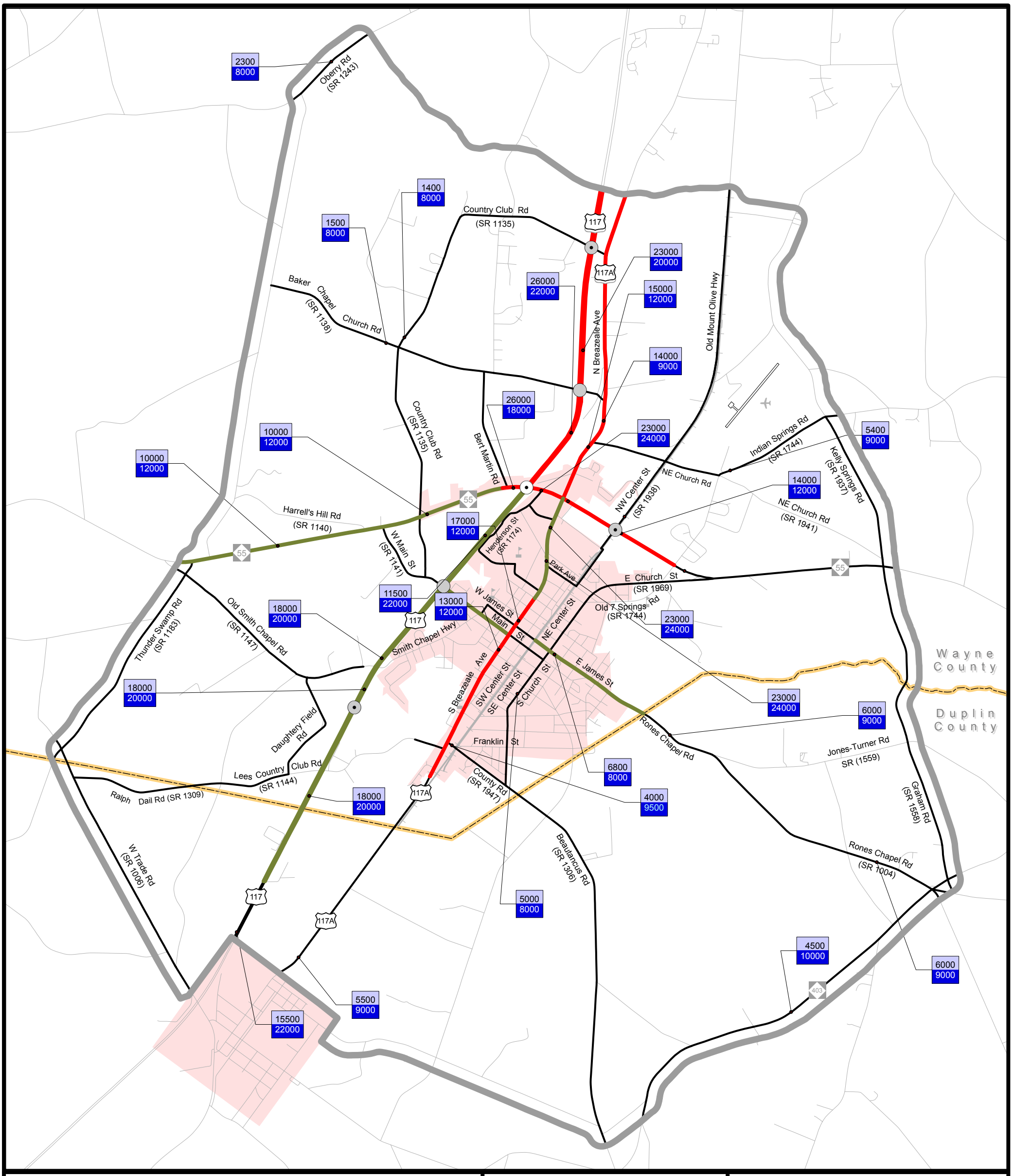
Base map date: July 31, 2012

Refer to CTP document for more details

Figure 2

2010 Volumes and Capacity Deficiencies

Plan date: January 14, 2014



Legend

- Over Capacity
- Near Capacity
- Network Road

2040 Volumes (AADT)
2010 Capacity

- Railroads
- Airports
- Schools
- County Boundaries
- Municipal Boundaries
- Planning Boundary

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

- Study Roads
- Roads

Mount Olive
North Carolina
Comprehensive Transportation Plan

N W E S

0 0.25 0.5 1 1.5 Miles

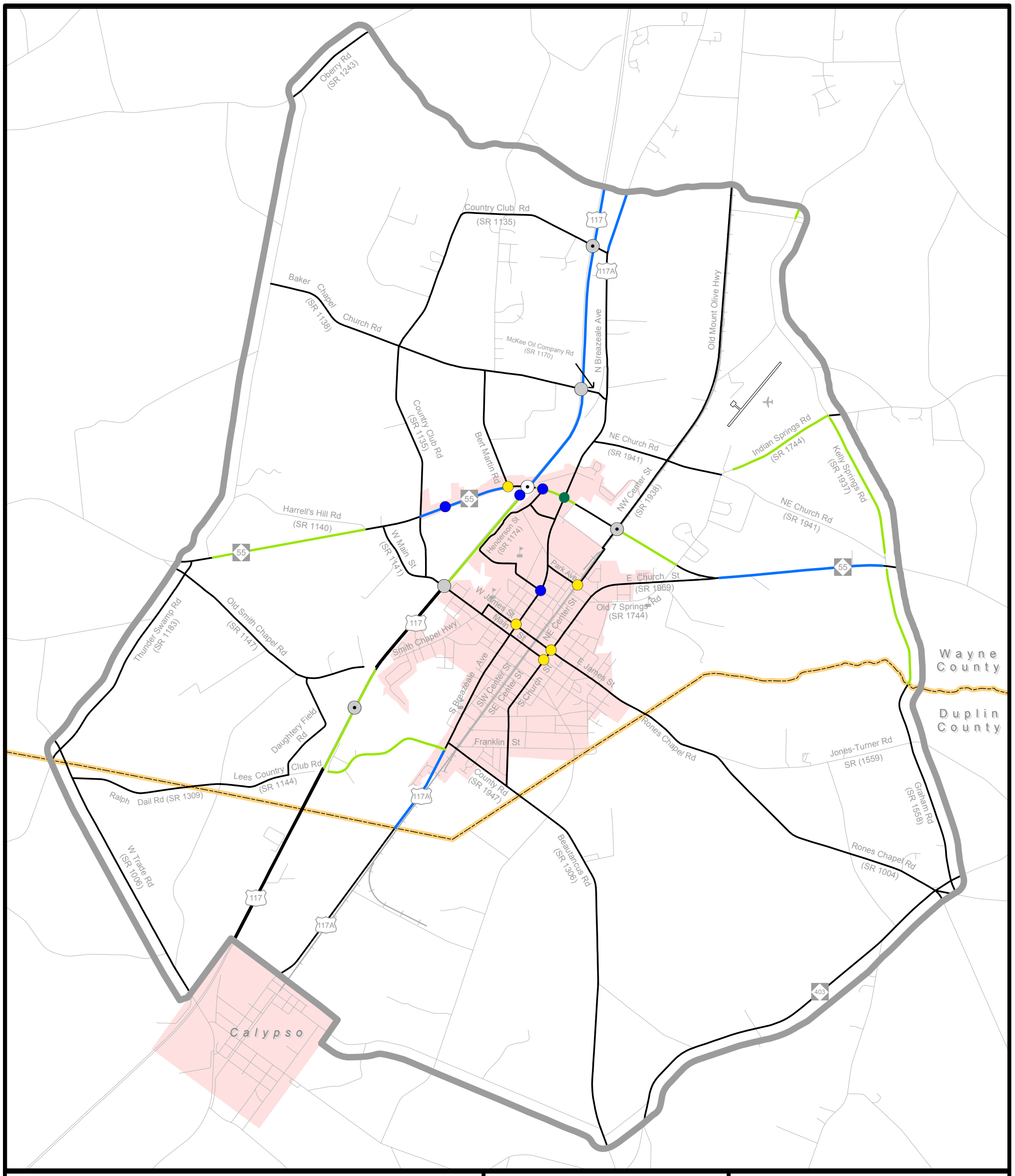
Base map date: July 31, 2012

Refer to CTP document for more details

Figure 3

2040 Volumes and Capacity Deficiencies

Plan date: January 14, 2014



Crash Intersections

- 50 and above
- 40 to 49
- 30 to 39
- 20 to 29
- 10 to 19
- 04 to 09

Crash Sections

- 50 and above
- 40 to 49
- 30 to 39
- 20 to 29
- 10 to 19
- 04 to 09

- Network Road
- Roads
- Railroads
- County Boundaries
- Municipal Boundaries
- Planning Area
- Existing Interchange
- Proposed Interchange
- Existing Grade Separation
- Proposed Grade Separation

Mount Olive

North Carolina

Comprehensive Transportation Plan

N W E S

0 0.25 0.5 1 1.5 Miles

Base map date: July 31, 2012

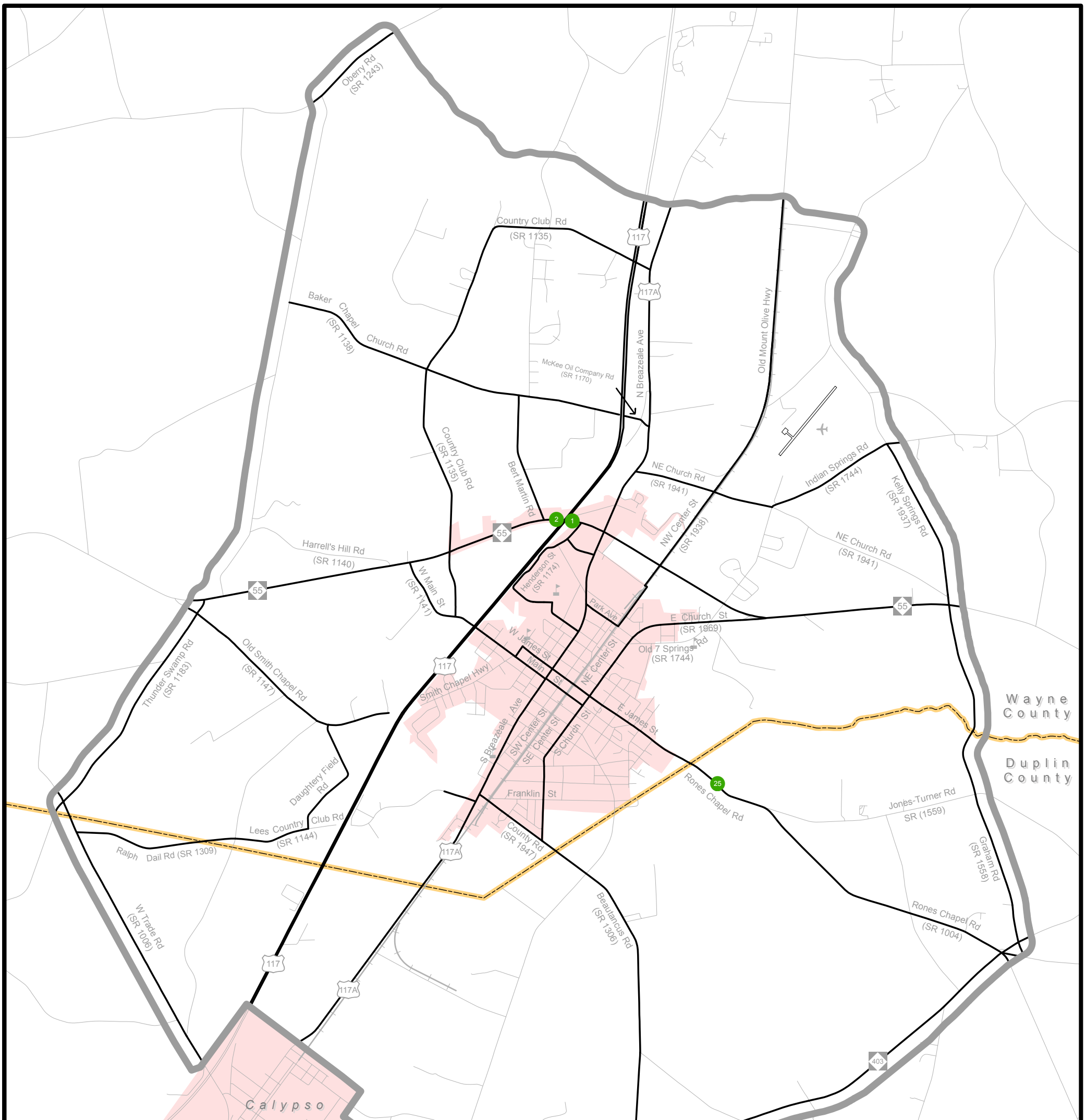
Refer to CTP document for more details

Figure 4

HIGH FREQUENCY CRASH LOCATIONS

January 1, 2009 to December 31, 2013

Plan date: January 14, 2014



Legend

- Network Road
- Roads
- Railroads
- Airports
- Schools
- Deficient Bridge (# indicates "Bridge Number")
- County Boundaries
- Municipal Boundaries
- Planning Area

Mount Olive

North Carolina Comprehensive Transportation Plan

N W E S

0 0.225 0.45 0.9 1.35 Miles

Base map date: July 31, 2012

Refer to CTP document for more details

Figure 5

DEFICIENT BRIDGES

Plan date: January 14, 2014

Public Transportation and Rail

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

Public Transportation

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

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

An inventory of existing and planned fixed public transportation routes for the planning area is presented on Sheet 3 of Figure 1.

The public transportation system in Mount Olive is operating under Goldsboro-Wayne Transportation Authority Consolidated urban-community system – GATEWAY Goldsboro-Wayne Transportation Authority.

Regular service destinations are Mount Olive and Dudley areas, providing fixed route services three times daily.

The community system serves human service agencies and the public through subscription, deviated fixed and dial-a-ride routes.

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 for the Public Transportation Division.

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 for the Public Transportation Division.

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 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 every day. Combined, the Carolinian and Piedmont carry more than 200,000 passengers each year.

There are two major freight railroad companies that operate in North Carolina, CSX Transportation and Norfolk Southern Corporation. Also, there are more than 20 smaller freight railroads, known as shortlines.

An inventory of existing and planned rail facilities for the planning area is presented on Sheet 3 of Figure 1.

The coming of the railroad brought about Mount Olive. In 1840, the Wilmington and Raleigh Railroad began operation between Wilmington (on the Atlantic Ocean) and Weldon (on the Roanoke River, near Virginia).

The railroad was a major supply route for the Confederacy during the War Between the States. This made Mount Olive and Goldsboro military objectives for the Federal armies. Two major battles were fought in the area, at Wyse Fork, and at Bentonville.

Today, CSX Transportation owns and operates the railroad through Mount Olive. The line is used for local and through freight.

All recommendations for rail were coordinated with the local governments and the Rail Division of NCDOT. Refer to Appendix A for contact information for the Rail Division.

All recommendations for rail were coordinated with the local governments and the Rail Division of NCDOT. Refer to Appendix A for contact information for the Rail Division.

Bicycles & Pedestrians

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

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

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

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

Inventories of existing and planned bicycle and pedestrian facilities for the planning area are presented on Sheets 4 and 5 of Figure 1.

All recommendations for bicycle and pedestrian facilities were coordinated with the local governments and the NCDOT Division of Bicycle and Pedestrian Transportation. Refer to Appendix A for contact information for the Division of Bicycle and Pedestrian Transportation.

Land Use

G.S. §136-66.2 requires that local areas have a current (less than five years old) land development plan prior to adoption of the CTP. For this CTP, the 2030 Mount Olive Comprehensive Land Use Plan, adopted by Mount Olive Board of Commissioners on January 9, 2012 (refer to Appendix G) was used to meet this requirement.

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

US 117 corridor to the Town of Mount Olive limits is recommended for development as a retail and service use corridor. Primary uses include highway oriented retail stores, restaurants, offices and service uses.

NC 55 corridor is recommended for a mixture of land uses from Harrell's Hill Road on the east to its junction with North Church Street on the west. Primary uses include mixed use residential on the eastern segment, regional, and community scaled commercial in the central segment and mixed use residential development on the western end of the corridor. This corridor serves an important through route transportation function around downtown Mount Olive. As one of Mount Olive's newly developed areas, special emphasis should be placed on landscaping and high quality design along the length of the corridor.

North Breazeale Avenue is primarily a business corridor until Station Street then residential until West Main Street then South Breazeale Avenue is a mix of business and residential. This arterial corridor serves to flow traffic through town.

Main Street is a primarily residential corridor on the east from US 117 to Elmore Street on the west lined with historic homes and mature trees. Important development considerations include maintaining the residential and historic character of the corridor. Some limited commercial uses such as bed and breakfast lodging may be appropriate for the corridor to preserve viability of large historic homes.

Center Street is an important corridor connecting downtown with outlining residential and institutional uses. North of downtown, the corridor starts at the intersection of Mount Olive College property and Chestnut Street running south to Henderson Street, east to Center Street and through downtown until Lee's Country Club Road to the south.

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

1.2 Consideration of Natural and Human Environment

Environmental features are a key consideration in the transportation planning process. Section 102 of the National Environmental Policy Act[3] (NEPA) requires consideration of impacts on wetlands, wildlife, water quality, historic properties, and public lands. While a full NEPA evaluation was not conducted as part of the CTP, every effort was made to minimize potential impacts to these features utilizing the best available data. Any potential impacts to these resources were identified as a part of the project recommendations in Chapter 2 of this report. Prior to implementing transportation recommendations of the CTP, a more detailed environmental study would need to be completed in cooperation with the appropriate environmental resource agencies.

A full listing of environmental features that are typically examined as a part of a CTP study is shown in the following table. Environmental features occurring within Mount Olive CTP are shown in Figure 6 and are shown in bold text in Table 2.

[3] *For more information on NEPA, go to: http://ceq.hss.doe.gov/.*

Table 2 – Environmental Features

- **24k Hydro Lines**
- 303D Streams
- **Airport Boundaries**
- Anadromous Fish Spawning Areas
- **APNEP - Submerged Aquatic Vegetation**
- Beach and Waterfront Access
- Benthic Habitat
- Bicycle Routes
- Boating Access
- Churches and Cemeteries
- **Colleges and Universities (Points)**
- Conservation Tax Credit Properties
- Critical Habitat for Threatened and Endangered Species
- Emergency Operation Centers
- Fish Nursery Areas
- Hazard Substance Disposal Sites (points & polygons)
- **Hazardous Waste Facilities**
- High Quality Waters and Outstanding Resource Water Management
- Historic Resources – National Register and Determined Eligible (points and polygons)
- Hospitals
- **Hydrography - 1:24,000-scale (polygons)Landscape Habitat Indicator Guilds (LHIGs)Managed Areas**
- **National Wetlands Inventory (polygons)**
- Natural Heritage Element Occurrences
- **NC-CREWS: N.C. Coastal Region Evaluation of Wetland Significance**
- NCDOT Maintained Mitigation Sites
- **Railroads (1:24,000)**
- **Recreation Projects - Land and Water Conservation Fund**
- Regional Trails
- Sanitary Sewer Systems - Treatment Plants
- **Schools (Public & Non-Public)**
- Significant Natural Heritage Areas
- State Natural and Scenic Rivers
- State Parks
- Target Local Watersheds - EEP
- Trout Streams (DWQ)
- Trout Waters WRC (arcs & polygons)
- **Unique Wetlands**
- Water Distribution Systems – Tanks & Treatment Plants
- Water Supply Watersheds

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

1.3 Public Involvement

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

A meeting was held with the CTP Working Steering Committee on December 8, 2010 in the Town Board Room to formally initiate the study, provide an overview of the transportation planning process, and to gather input on area transportation needs.

Throughout the course of the study, the NCDOT Transportation Planning Branch (TPB) cooperatively worked with the Mount Olive CTP Steering Committee, which included at least one representative from the Town Board of Commissioners, town staff, the Eastern Carolina Rural Planning Organization (ECRPO), NCDOT Division 4, NCDOT Rail Division, GATEWAY Transit (Goldsboro-Wayne Transportation Authority). The committee provided information on current local plans, developed transportation vision and goals, discussed population and employment projections, and developed proposed CTP recommendations. Refer to Appendix H for detailed information on the vision statement, the goals and objectives survey and a listing of committee members.

One drop-in session was held on March 5, 2013 from 4:00 to 7:00 p.m. at:

- Train Depot (110 West Main Street, Town of Mount Olive)

The following Mount Olive CTP presentations were held:

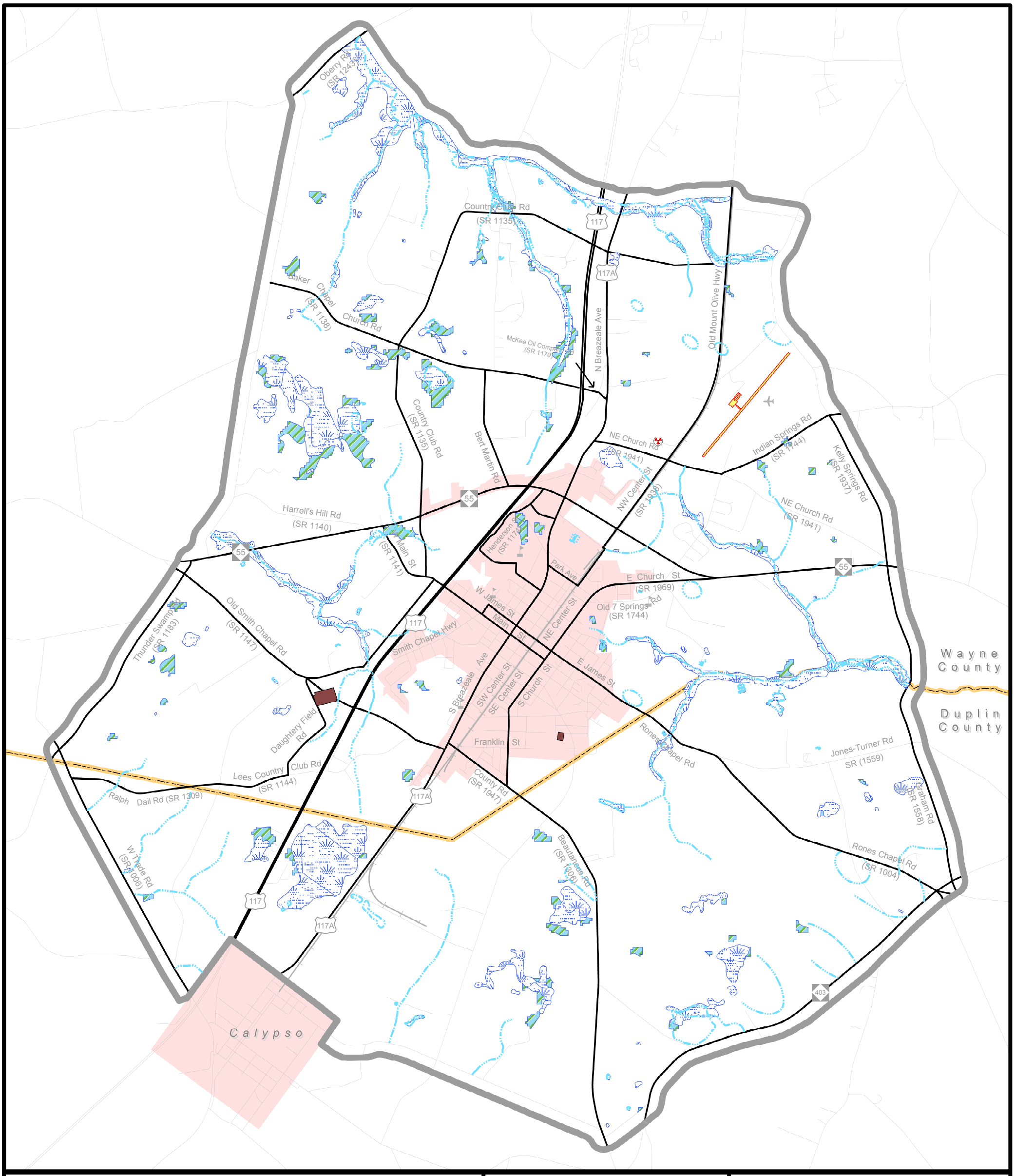
January 30, 2013 - 10:00 am. --	Mount Olive CTP Steering Committee
February 4, 2013 - 7:00 pm. --	Mount Olive Town Board of Commissioners
February 5, 2013 - 9:00 am. --	Wayne County Board of Commissioners
February 18, 2013 - 9:00 am. --	Duplin County Board of Commissioners

A public hearing was held on February 4, 2014 during the Mount Olive Town Board of 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, the following month, on March 3, 2014 during Mount Olive Town Board of Commissioners meeting.

The Town of Calypso adopted this CTP on March 10, 2014. Wayne and Duplin Counties adopted this CTP on April 15, 2014 and March 17, 2014, respectively.

The Eastern Carolina Rural Planning Organization (ECRPO) endorsed the CTP on May 29, 2014.

The North Carolina Department of Transportation mutually adopted the Mount Olive CTP on May 1, 2014.



Legend

- Network Road
- Roads
- Railroads
- County Boundaries
- Municipal Boundaries
- Planning Area
- 24k Hydro Lines
- Hazardous Waste Facilities
- Airports Boundary
- APNEP - Submersed Aquatic Veg.
- Hydrography Areas
- Land & Water Conservation Funds
- Landscape Habitat Indicator Guilds
- National Wetland Inventory
- NC - CREWS
- Unique Wetlands

Mount Olive
North Carolina
Comprehensive Transportation Plan

N W E S

0 0.25 0.5 1 1.5 Miles

Base map date: July 31, 2012

Refer to CTP document for more details

Figure 6

ENVIRONMENTAL FEATURES

Plan date: January 14, 2014

2. Recommendations

This chapter presents recommendations for each mode of transportation in the 2013 Mount Olive CTP as shown in Figure 1. More detailed information on each recommendation is tabulated in Appendix C.

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

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

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

2.1 Implementation

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

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

[1] *For more information on Complete Streets, go to: http://www.completestreetsnc.org/*

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

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

2.2 Problem Statements

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

[2] *For more information on SEPA, go to: http://www.doa.nc.gov/clearing/faq.aspx.*

HIGHWAY

US 117A (Breazeale Avenue), Local ID: MOUN0001-H

The primary purpose of project (Local ID: MOUN0001-H) is to widen US 117A to 12-foot lanes from Calypso town limits to the southern Mount Olive city limits. It is also recommended to improve the signal timing within Mount Olive city limits. In addition, it is recommended 12-foot lane from the northern of Mount Olive city limits to the planning area boundary. With these improvements, it will meet the future mobility and connectivity needs in Mount Olive.

US 117A is a north-south corridor that goes through the middle of Mount Olive. It is classified as an Other Major Thoroughfare that Needs Improvement. It is a 2-3 lane facility with 10-12 foot lanes and a posted speed limit of 35 mph within the town limits and 45 to 55 mph outside the town limits. It runs parallel with US 117 through the planning area.

US 117A provides access to a number of commercial properties, municipal buildings, and residential areas. Traffic on US 117A north of NC 55 was 8,000 vehicles per day (vpd) in 2010. The Level of Service (LOS) D for this facility is 12,000 vpd. Traffic on US 117A is projected to increase to 15,000 vpd in 2040. Traffic on US 117A south of NC 55 was 14,500 vehicles per day (vpd) in 2010. The Level of Service D for this facility is 24,000 vpd. Traffic on US 117A is projected to increase to 23,000 vpd in 2040.

US 117A is part of the regional tier of the NC Multimodal Investment Network (NCMIN).

Based on a planning level environmental assessment using available GIS data, the natural and human environmental features examined as a part of this study that were identified in the immediate vicinity of the project included: a Water Supply Watershed, Freshwater Forested / Shrub Wetland, a Freshwater Pond, and three houses that are on the Historic National Register.

US 117 from the Southern Planning Area Boundary to the North Planning Area Boundary	Local ID: MOUN0002-H Last Updated: 05/03/14

Identified Problem

Existing US 117 is projected to be near capacity by 2040 from Duplin County to NC 55 in the town of Mount Olive. US 117 is currently classified as an Expressway. The primary purpose of this project (Local ID: MOUN0002-H) is to improve the facility by upgrading it to a Freeway with complete control of access from the Southern Planning Area Boundary line to the North Planning Area Boundary. This upgrade will require the following changes:

- *Grade Separation at US 117 and West Main Street (SR 1141);*
- *Grade Separation at US 117 and Baker Chapel Church Road (SR 1138) and McKee Oil Company Road (SR 1170);*
- *Grade-separated Interchange at US 117 and Country Club Road (SR 1135);*
- *Closing the at-grade intersection at US 117 and Lee's Country Club Road (SR 1144); and*
- *Closing the at-grade intersection at US 117 and Old Smith Chapel Road (SR 1147)*

With these improvements, it will meet the future mobility and connectivity needs in Mount Olive.

Justification of Need

US 117 is a major north-south corridor that goes through the western side of Mount Olive. It is classified as a Freeway that Needs Improvement. It is a 4-lane facility with 12-foot lanes and a posted speed limit of 55 mph. It runs parallel with US 117A through the planning area. US 117 provides access to a number of commercial properties, municipal buildings, and residential areas. Walmart™ is located at the intersection of US 117 and NC 55.

US 117 is a major north-south corridor in Wayne County, connecting Duplin County to Wilson County. It passes through Mount Olive, Goldsboro, Pikeville, Fremont, and other rural parts of the county. The facility is a vital artery in moving people and goods through southeast North Carolina, connecting Wilmington, Goldsboro, and Wilson.

Traffic on US 117 north of NC 55 is projected to increase from 13,000 vehicles per day (vpd) in 2010 to 26,000 vpd in 2040, compared to a Level of Service (LOS) D capacity of 22,000 vpd. Traffic on US 117 south of NC 55 is projected increase from 11,500 vpd in 2010 to 20,000 vpd in 2040, compared to a LOS D of 22,000 vpd.

West Main Street (SR 1141) is classified as a Minor Thoroughfare connecting NC 55 to US 117, US 117A, and providing access to central Mount Olive. Traffic on West Main Street west of US 117 is projected to increase from 450 vpd in 2010 to 900 vpd in 2040, compared to a LOS D capacity of 8,000 vpd. Traffic on West Main Street east of US 117 is projected to increase from 4,500 vpd in 2010 to 8,500 vpd in 2040, compared to a LOS D capacity of 9,000 vpd.

The proposed grade separations and the closing of two at-grade intersections on US 117 (see page 2-4) will impact the following side streets:

- West Main Street is a 2-lane facility with 9-foot lanes and a posted speed limit of 55 mph west of US 117. It is a 2-lane facility with 12-foot lanes and a posted speed limit of 35 mph east of US 117.

- Baker Chapel Church Road (SR 1138) is classified as a collector connecting to Thunder Swamp Road (SR 1183), to Country Club Road (SR 1135), to Bert Martin Road (SR 1146), and to Cricket Ridge Road (SR 1136). It provides access to residential, rural and agricultural areas.

  Traffic on Baker Chapel Church Road west of Country Club Road is projected to increase from 700 vpd in 2010 to 1,500 vpd in 2040, compared to a LOS D capacity of 8,000 vpd. Baker Chapel Church Road is a 2-lane facility with 9-foot lanes and a posted speed limit of 55 mph.

- Traffic on McKee Oil Company Road (SR 1170) east of US 117 is projected to increase from 200 vpd in 2010 to 400 vpd in 2040, compared to a LOS D capacity of 8,000 vpd. It is a 2-lane facility with 9-foot lanes and a posted speed limit of 55 mph. McKee Oil Company Road is a local road that provides access to a church and a business.

- Country Club Road is classified as a Minor Thoroughfare connecting NC 55, Baker Chapel Church Road (SR 1138), US 117, and US 117A. It provides access to residential, rural and agricultural areas. Traffic on Country Club Road is projected to increase from 700 vpd in 2010 to 1,400 vpd in 2040, compared to a LOS D capacity of 8,000 vpd. Country Club Road is a 2-lane facility with 9-foot lanes and a posted speed limit of 55 mph.

- Traffic on Lee's Country Club Road east of US 117 is projected to increase from 800 vehicles per day (vpd) in 2010 to 1,800 vpd in 2040, compared to a LOS D capacity of 9,000 vpd. Lee's Country Club Road is a 2-lane facility with 10-foot lanes and a posted speed limit of 45 mph east of US 117 and 55 mph west of US 117. Lee's Country Club Road provides access to rural, agricultural, and residential areas.

- Traffic on Old Smith Chapel Road (SR 1147) west of US 117 is projected to increase from 900 vpd in 2010 to 2,600 vpd in 2040, compared to a LOS D capacity of 9,000 vpd. Old Smith Chapel Road is a 2-lane facility with 10-foot lanes and a posted speed limit of 55 mph. Old Smith Chapel Road provides access to rural, agricultural, and residential areas.

Community Vision and Problem History

US 117 and US 117A are the only major north-south routes that pass through Mount Olive. Walmart™ is located at the intersection of US 117 and NC 55. Amenities and services not available in Mount Olive can be found in Goldsboro. US 117 provides direct access between Mount Olive and Goldsboro.

This is the first time this deficiency has been identified on a transportation plan.

CTP Project Proposal

Project Description

The proposed project is to improve the facility by upgrading it to a freeway from the Southern Planning Area Boundary line to the North Planning Area Boundary. This upgrade will require the following changes: Grade Separation at US 117 and West Main Street (SR 1141); Grade Separation at US 117 and Baker Chapel Church Road (SR 1138) and McKee Oil Company Road (SR 1170); Grade-separated Interchange at US 117 and Country Club Road; closing the at-grade intersection at US 117 and Lee's Country Club Road (SR 1144); and closing the at-grade intersection at US 117 and Old Smith Chapel Road (SR 1147). The proposed improvements will provide connectivity and improve mobility in this area of Wayne County.

Relationship to Land Use Plans

The 2012 Mount Olive Land Use Plan indicates this area as a primary growth area. This area is primarily residential with small commercial properties near US 117. West Main Street provides access to many small businesses, the library, and churches in central Mount Olive. The area around Baker Church Road is primarily rural and residential with a small business and a church near US 117. The area around Country Club Road is primarily rural and residential with some small businesses near US 117. The area around Lee's Country Club Road is primarily rural and residential. The area around Old Smith Chapel Road is primarily rural and residential.

Linkages to Other Plans and Proposed Project History

US 117 is part of the statewide tier of the NC Multimodal Investment Network (NCMIN). In addition, US 117 is part of the NC Strategic Highway Corridor System (SHC).

The NC Strategic Highway Corridors (SHC) Plan indicated that this corridor, Corridor 50 (from Wilmington in the south to Wilson in the north utilizing I-40, NC 403, US 117, and US 264), should be designated as a Freeway. The aim of this project is to extend current I-795 from Goldsboro south through the existing US 117 corridor which goes through Mount Olive to I-40 in the vicinity of Faison, Duplin County.

Natural & Human Environmental Context

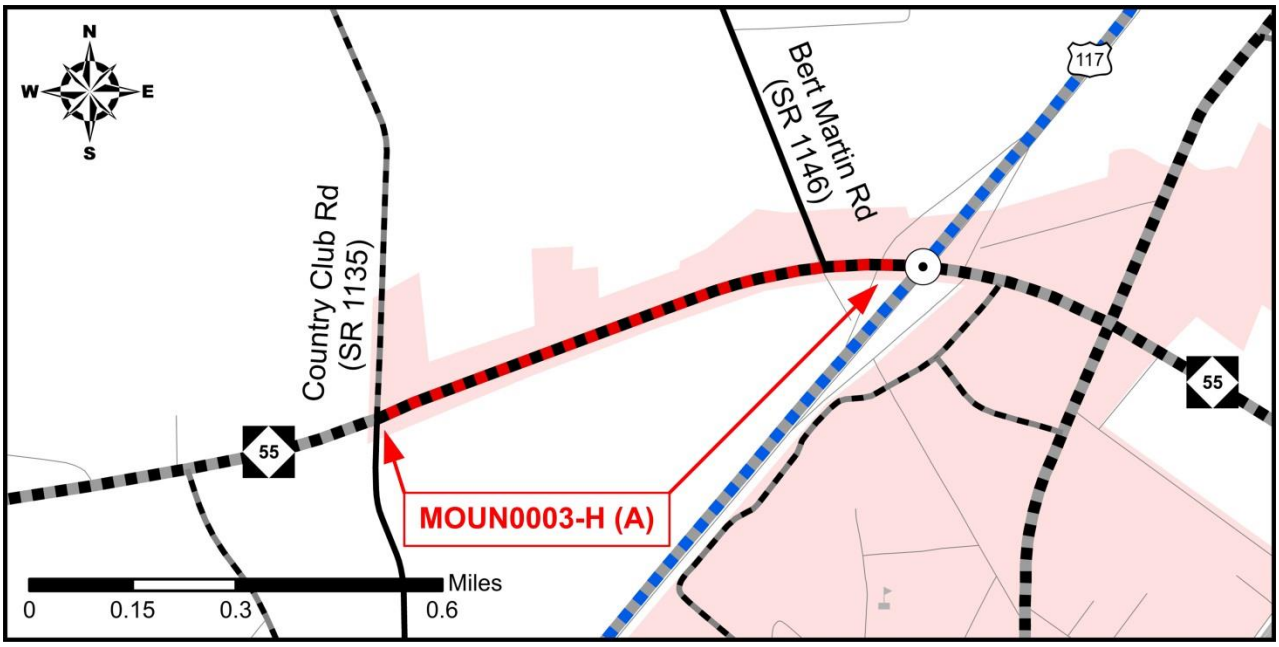
Based on a planning level environmental assessment using available GIS data, the natural and human environmental features examined as a part of this study that were identified in the immediate vicinity of the project included: a Water Supply Watershed and a Freshwater Forested / Shrub Wetland.

Multi-modal Considerations

There are no existing sidewalks or bike lanes on US 117. Portions of US 117 have a proposed transit route in the future.

Public / Stakeholder Involvement

Respondents to the survey indicated that US 117 through Mount Olive was one of the most driven routes for travelers going to Goldsboro.



Identified Problem

Existing NC 55 is projected to be near capacity by 2040 from Country Club Road (SR 1135) to Bert Martin Road (SR 1146) in the town of Mount Olive. The primary purpose of this project is to relieve congestion on the existing facility such that a minimum of Level of Service (LOS) D can be achieved.

Justification of Need

NC 55 is a major east-west corridor in Wayne County connecting Sampson County to Lenoir County through the town of Mount Olive. NC 55 is classified as a Major Thoroughfare. This project is located in an area of high commercial growth.

Traffic on NC 55 east of Country Club Road is projected to increase from 5,400 vehicles per day (vpd) in 2010 to 10,000 vpd in 2040, compared to a Level of Service (LOS) D capacity of 12,000 vpd. This portion of NC 55 is a 2-lane facility with 12-foot lanes and a posted speed limit of 45 mph. NC 55 is part of the regional tier of the NC Multimodal Investment Network (NCMIN).

Community Vision and Problem History

NC 55 is the only major east-west route that passes through Mount Olive. Walmart™ is located at the intersection of US 117 and NC 55. Amenities and services not available

in Mount Olive can be found in Goldsboro. US 117 provides direct access between Mount Olive and Goldsboro.

This is the first time this deficiency has been identified on a transportation plan.

CTP Project Proposal

Project Description

The proposed project is to widen the existing 2-lane facility from Country Club Road (SR 1135) to the intersection with US 117 to a 4-lane divided Boulevard. The proposed improvements will increase capacity to 18,000 vpd and improve mobility in this area of Wayne County.

Relationship to Land Use Plans

The 2012 Mount Olive Land Use Plan indicates this area as a primary growth area. This area is primarily commercial with Walmart™ located at the intersection of NC 55 and US 117 and a small residential area south of NC 55.

Linkages to Other Plans and Proposed Project History

NC 55 will be the primary east-west route that provides access to US 117, which is being upgraded to a Freeway. Residents desiring to travel to Goldsboro will use this facility. Upgrades of NC 55 to Boulevard will provide better access and relieve congestion in commercial property area.

Natural & Human Environmental Context

Based on a planning level environmental assessment using available GIS data, there were no natural and human environmental features examined as a part of this study that were identified in the immediate vicinity of the project.

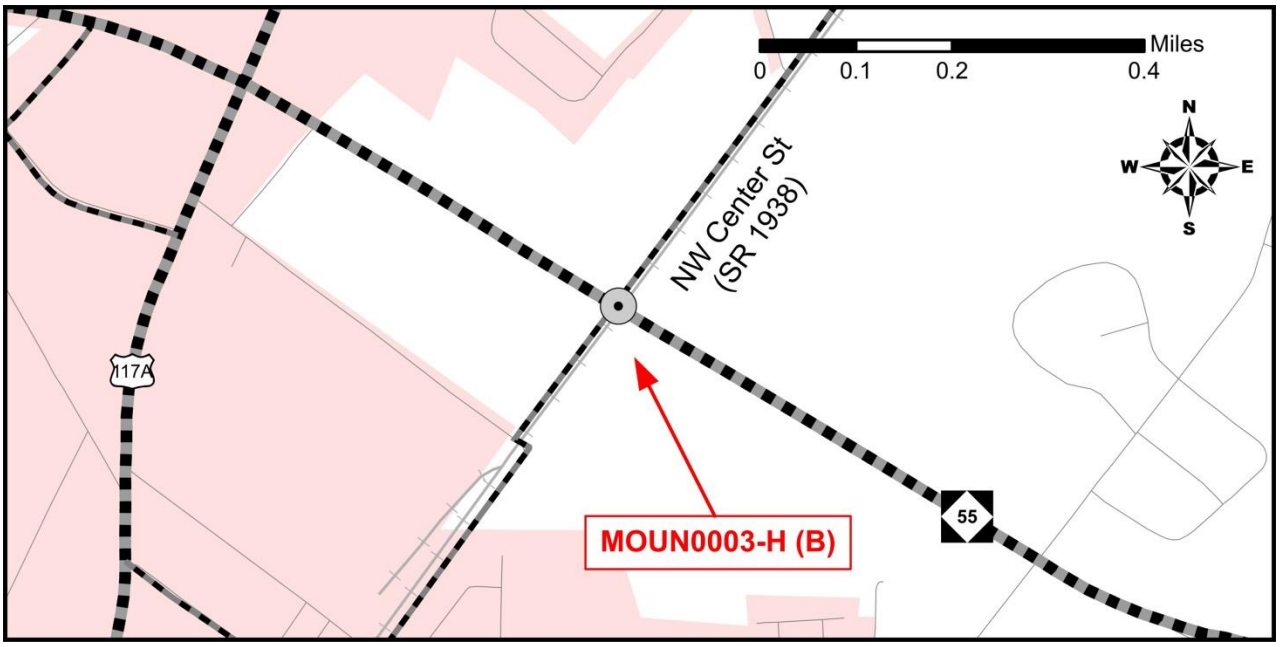
Multi-modal Considerations

There are no existing sidewalks or bike lanes in the project area. There are no proposed sidewalks recommended for this project. A bike lane is recommended.

Public / Stakeholder Involvement

Respondents to the survey indicated that they use NC 55 to connect to US 117. They also use NC 55 to access Walmart™.

New Interchange at NC 55 and NW Center Street (SR 1938)	Local ID: MOUN0003-H (B) Last Updated: 05/03/14



Identified Problem

NC 55 at NW Center Street is currently grade-separated. The primary purpose of this project is to create connectivity and improve mobility between NC 55 and Northwest Center Street (SR 1938) by converting the grade separation to an interchange.

Justification of Need

NC 55 is a major east-west corridor in Wayne County connecting Sampson County to Lenoir County through the town of Mount Olive. NC 55 is classified as a Major Thoroughfare. This project is located in a rural area just north of Mount Olive.

Traffic on NC 55 east of Northwest Center Street (SR 1938) is projected to increase from 7,500 vehicles per day (vpd) in 2010 to 14,000 vpd in 2040, compared to a Level of Service (LOS) D capacity of 12,000 vpd. This portion of NC 55 is a 2-lane facility with 12-foot lanes and a posted speed limit of 55 mph. NC 55 is part of the regional tier of the NC Multimodal Investment Network (NCMIN).

Traffic on Northwest Center Street north of NC 55 is projected to increase from 2,000 vpd in 2010 to 3,800 vpd in 2040, compared to a LOS D capacity of 8,000 vpd. Northwest Center Street is a 2-lane facility with 9-to-10-foot lanes and a posted speed limit of 55 mph. Northwest Center Street runs parallel with a railroad track.

Community Vision and Problem History

US 117 and US 117A are the only major north-south routes that pass through Mount Olive. NC 55 is the only east-west route that passes through town. Walmart™ is located at the intersection of US 117 and NC 55. Amenities and services not available in Mount Olive can be found in Goldsboro. US 117 provides direct access between Mount Olive and Goldsboro. NC 55 provides access to Sampson County and Lenoir County. The Mount Olive Pickle Plant is just south of the intersection of NC 55 and Northwest Center Street.

This is the first time this deficiency has been identified on a transportation plan.

CTP Project Proposal

Project Description

The proposed project is to construct a grade-separated interchange at NC 55 and Northwest Center Street (SR 1938). The proposed improvements will provide connectivity and improve mobility in this area of Wayne County.

Relationship to Land Use Plans

The 2012 Mount Olive Land Use Plan indicates this area as a primary growth area. This area is primarily rural with small agricultural and residential properties near Northwest Center Street. The Mount Olive Pickle Plant is 0.3 miles to the south.

Linkages to Other Plans and Proposed Project History

The proposed interchange directly connects to the NC 55 improvements (Needs Improvement, Other Major Thoroughfare), and the improvements to Northwest Center Street (Needs Improvement, Minor Thoroughfare).

Natural & Human Environmental Context

Based on a planning level environmental assessment using available GIS data, the only natural and human environmental feature examined as a part of this study that was identified in the immediate vicinity of the project was a freshwater pond approximately 800 feet to the south of NC 55.

Multi-modal Considerations

There are no existing sidewalks or bike lanes in the project area. There are no proposed sidewalks recommended for this project. A bike lane on NC 55 is recommended.

Public / Stakeholder Involvement

Respondents to the survey indicated that US 117 through Mount Olive was the route they use the most to travel to Goldsboro.

NC 55, Local ID: MOUN0003-H

The primary purpose of project (Local ID: MOUN0003-H) is to improve portions of the facility that are substandard by widening the lanes to 12 feet with 2-foot shoulders from Thunder Swamp Road (SR 1183) to Country Club Road (SR 1135), and from the intersection with US 117 to Kelly Springs Road (SR 1937). With these improvements, it will meet the future mobility and connectivity needs in Mount Olive.

NC 55 is an east-west corridor that goes through Mount Olive. It is classified as an Other Major Thoroughfare that Needs Improvement. It is a 2-lane facility with 11-to-12-foot lanes and a posted speed limit of 55 mph outside town limits, and a 4-to-5-lane facility with 45 mph inside town limits. NC 55 provides access to a number of commercial properties, municipal buildings, and residential areas. Walmart™ is located at the intersection of US 117 and NC 55.

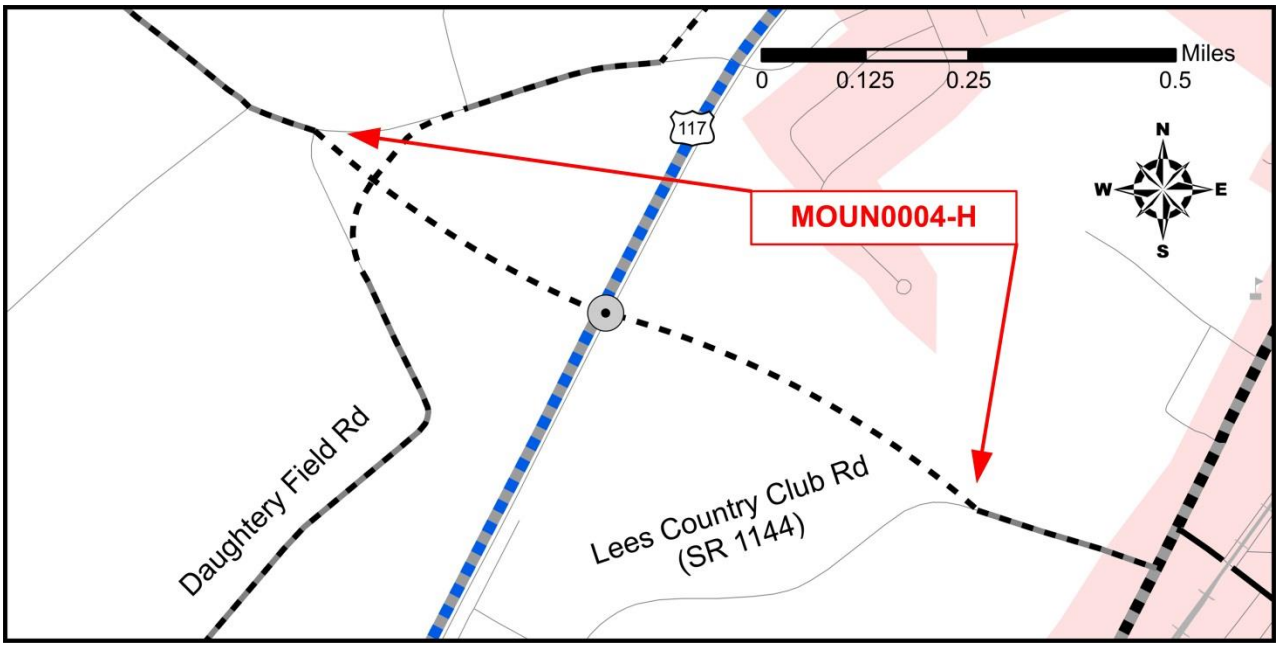
Traffic on NC 55 west of US 117 is projected to increase from 14,000 vehicles per day (vpd) in 2010 to 26,000 vpd in 2040, compared to a Level of Service (LOS) D capacity for this facility of 18,000 vpd. Traffic on NC 55 east of US 117 is projected to increase from 13,500 vehicles per day (vpd) in 2010 to 25,000 vpd in 2040, compared to a LOS D capacity for this facility of 24,000 vpd.

NC 55 is part of the regional tier of the NC Multimodal Investment Network (NCMIN).

Based on a planning level environmental assessment using available GIS data, the only natural and human environmental features examined as a part of this study that were identified in the immediate vicinity of the project included: a Freshwater Pond.

This project ties to the widening of NC 55, Local ID: MOUN0003-H (A). This project also ties to the proposed interchange at Northwest Center Street, Local ID: MOUN0003-H (B), which it will provides on/off access at Northwest Center Street for Industrial Park and Mount Olive Pickle Plant.

New Road from Daughtery Field Road (SR 1143) crossing US 117 to Lee's Country Club Road (SR 1144). New Interchange at US 117	Local ID: MOUN0004-H Last Updated: 05/03/14



Identified Problem

Existing US 117 is projected to be near capacity by 2040 from Duplin County to NC 55 in the town of Mount Olive. US 117 is currently classified as an Expressway. Upgrading US 117 to a Freeway with complete control of access (Local ID: MOUN0002-H) will involve closing the at-grade intersection of US 117 at Lee's Country Club Road (SR 1144), and closing the at-grade intersection of US 117 at Old Smith Chapel Road (SR 1147). The primary purpose of this project is to create connectivity between Daughtery Field Road (SR 1143) and Lee's Country Club Road (SR 1144), increase mobility and connectivity between US 117 and the new road by constructing a grade-separated interchange, and the realignment of Daughtery Field Road to eliminate the skew.

Justification of Need

After the at-grade intersections with US 117 have been eliminated, there will be no east-west connectivity between Old Smith Chapel Road and Lee's Country Club Road.

US 117 is a major north-south corridor in Wayne County, connecting Duplin County to Wilson County. It passes through Mount Olive, Goldsboro, Pikeville, Fremont, and other rural parts of the county. The facility is a vital artery in moving people and goods through southeast North Carolina, connecting Wilmington, Goldsboro, and Wilson.

By 2040, the facility is projected to be near capacity from Duplin County to NC 55 in the town of Mount Olive based on providing a Level of Service (LOS) D. Traffic on US 117 in the project area is projected to increase from 10,000 vehicles per day (vpd) in 2010 to 18,000 vpd in 2040, compared to a LOS D capacity of 20,000 vpd. US 117 is a 4-lane divided facility with 12-foot lanes and a 55 mph speed limit.

US 117 is part of the regional tier of the NC Multimodal Investment Network (NCMIN).

Traffic on Old Smith Chapel Road west of US 117 is projected to increase from 900 vehicles per day (vpd) in 2010 to 2,600 vpd in 2040, compared to a Level of Service (LOS) D capacity of 9,000 vpd. Old Smith Chapel Road is a 2-lane facility with 10-foot lanes and a posted speed limit of 55 mph.

Traffic on Lee's Country Club Road (SR 1144) east of US 117 is projected to increase from 800 vehicles per day (vpd) in 2010 to 1,800 vpd in 2040, compared to a LOS D capacity of 9,000 vpd. Lee's Country Club Road is a 2-lane facility with 10-foot lanes and a posted speed limit of 45 mph east of US 117 and 55 mph west of US 117.

Community Vision and Problem History

US 117 and US 117A are the only major north-south routes that pass through Mount Olive. Walmart™ is located at the intersection of US 117 and NC 55. Amenities and services not available in Mount Olive can be found in Goldsboro. US 117 provides direct access between Mount Olive and Goldsboro.

This is the first time this deficiency has been identified on a transportation plan.

CTP Project Proposal

Project Description

The proposed project (Local ID: MOUN0018-H) is to construct a 2-lane facility on new location from Daughtery Field Road (SR 1143) crossing US 117 with a grade-separated interchange to Lee's Country Club Road. The proposed improvements will provide connectivity and improve mobility in this area of Wayne County.

Relationship to Land Use Plans

The 2012 Mount Olive Land Use Plan indicates this area as a primary growth area. This area is primarily residential with small commercial properties near US 117.

Linkages to Other Plans and Proposed Project History

The proposed new location road directly connects to the US 117 improvements. NCDOT's Strategic Highway Corridor (SHC) Vision Plan designates US 117 as a Freeway through Wayne County.

Natural & Human Environmental Context

Based on a planning level environmental assessment using available GIS data, the only natural and human environmental feature examined as a part of this study that was identified in the immediate vicinity of the project was Daughtery Field Recreational Complex, which has two baseball fields.

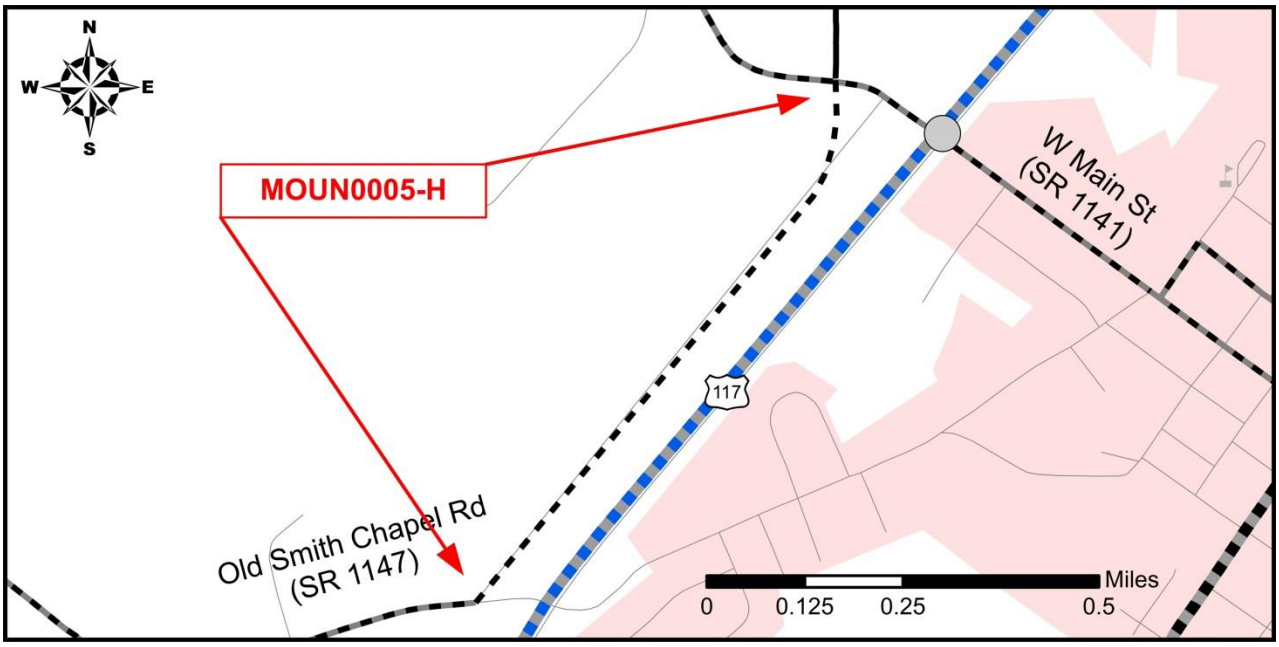
Multi-modal Considerations

There are no existing sidewalks or bike lanes in the project area. There are no proposed sidewalks or bike lanes recommended for this project. There is a proposed transit route on this road in the future.

Public / Stakeholder Involvement

Respondents to the survey indicated that US 117 through Mount Olive was one of the most driven routes for travelers going to Goldsboro.

New Road from Old Smith Chapel Road (SR 1147) to West Main Street (SR 1141)	Local ID: MOUN0005-H Last Updated: 05/03/14



Identified Problem

Existing US 117 is projected to be near capacity by 2040 from Duplin County to NC 55 in the Town of Mount Olive. US 117 is currently classified as an Expressway. Upgrading US 117 to a Freeway with complete control of access (Local ID: MOUN0002-H) will involve closing the at-grade intersection of US 117 at Old Smith Chapel Road (SR 1147) and converting the at-grade intersection of US 117 and West Main Street (SR 1141) to a grade separation.

NC 55 is the only east-west connection between West Main Street (SR 1141) and Old Smith Chapel Road (SR 1147), which is 0.7 miles from the project along West Main Street and 1.8 miles from the project along Old Smith Chapel Road. The primary purpose of this project is to create connectivity and improve mobility between Old Smith Chapel Road, Country Club Road, and West Main Street.

Justification of Need

Traffic on West Main Street (SR 1141) is projected to increase from 450 vehicles per day (vpd) in 2010 to 900 vpd in 2040, compared to a Level of Service (LOS) D capacity of 8,000 vpd. West Main Street is a 2-lane facility with 9-foot lanes and a posted speed limit of 55 mph.

Traffic on Old Smith Chapel Road (SR 1147) west of US 117 is projected to increase from 900 vehicles per day (vpd) in 2010 to 2,600 vpd in 2040, compared to a LOS D capacity of 9,000 vpd. Old Smith Chapel Road is a 2-lane facility with 10-foot lanes and a posted speed limit of 55 mph.

Community Vision and Problem History

US 117 and US 117A are the only major north-south routes that pass through Mount Olive. Walmart™ is located at the intersection of US 117 and NC 55. Amenities and services not available in Mount Olive can be found in Goldsboro. US 117 provides direct access between Mount Olive and Goldsboro.

This is the first time this deficiency has been identified on a transportation plan.

CTP Project Proposal

Project Description

The proposed project is to construct a 2-lane facility on new location from Old Smith Chapel Road to the intersection of Country Club Road and West Main Street. The proposed improvements will provide connectivity and improve mobility in this area of Wayne County.

Relationship to Land Use Plans

The 2012 Mount Olive Land Use Plan indicates this area as a primary growth area. This area is primarily residential with small commercial properties near US 117.

Linkages to Other Plans and Proposed Project History

The proposed new location road directly connects to the US 117 improvements (Needs Improvement Freeway), West Main Street Improvements (Needs Improvement, Minor Thoroughfare), and Old Smith Chapel Road Improvements (Needs Improvement, Minor Thoroughfare). NCDOT's Strategic Highway Corridor (SHC) Vision Plan designates US 117 as a Freeway through Wayne County.

Natural & Human Environmental Context

Based on a planning level environmental assessment using available GIS data, the only natural and human environmental feature examined as a part of this study that was identified in the immediate vicinity of the project was a Freshwater Forested / Shrub Wetland just west of the project area.

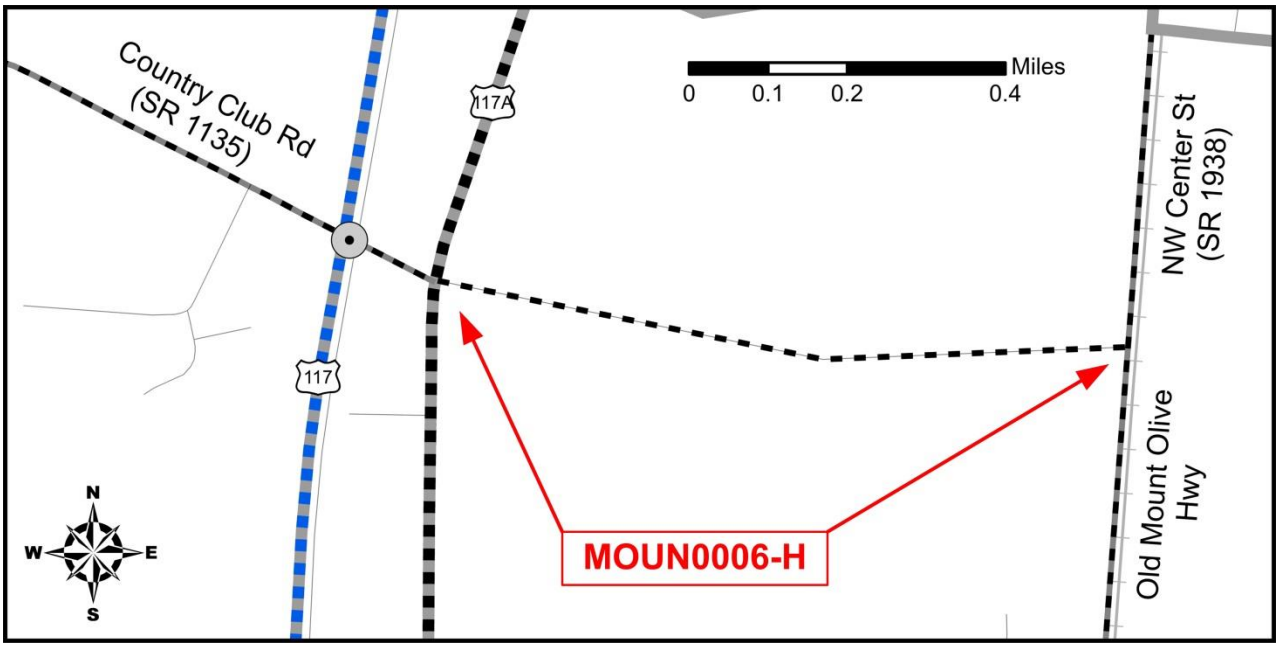
Multi-modal Considerations

There are no existing sidewalks or bike lanes in the project area. There are no proposed sidewalks or bike lanes recommended for this project. There is a proposed transit route on this road in the future.

Public / Stakeholder Involvement

Respondents to the survey indicated that US 117 through Mount Olive was one of the most driven routes for travelers going to Goldsboro.

Country Club Road Extension from US 117A to Northwest Center Street (SR 1938, Old Mount Olive Hwy)	Local ID: MOUN0006-H Last Updated: 05/03/14



Identified Problem

There are few east-west connections between US 117A (Breazeale Avenue) and Northwest Center Street (SR 1938). The existing connections are Northeast Church Road (SR 1941) and Southern Wayne Drive (SR 1979). These two facilities are 2.8 miles apart. The primary purpose of this project is to create more connectivity between US 117A and Northwest Center Street and improve mobility, as well as improving access to the Industrial Park.

Justification of Need

Traffic on US 117A north of Northeast Church Road (SR 1941) is projected to increase from 7,500 vehicles per day (vpd) in 2010 to 14,000 vpd in 2040, compared to a Level of Service (LOS) D capacity of 9,000 vpd. US 117A is a 2-lane facility with 12-foot lanes and a posted speed limit of 55 mph.

Traffic on Northwest Center Street (SR 1938) north of Northeast Church Road (SR 1941) is projected to increase from 2,700 vehicles per day (vpd) in 2010 to 6,000 vpd in 2040, compared to a LOS D capacity of 9,000 vpd. Northwest Center Street is a 2-lane facility with 10-foot lanes and a posted speed limit of 55 mph.

Community Vision and Problem History

US 117 and US 117A are the only major north-south routes that pass through Mount Olive. Walmart™ is located at the intersection of US 117 and NC 55. Amenities and services not available in Mount Olive can be found in Goldsboro. US 117 provides direct access between Mount Olive and Goldsboro.

This is the first time this deficiency has been identified on a transportation plan.

CTP Project Proposal

Project Description

The proposed project, Country Club Road Extension (Local ID: MOUN0019-H) is to construct a 2-lane facility on new location from US 117A to Northwest Center Street. The proposed improvements will provide connectivity and improve mobility in this area of Wayne County.

Relationship to Land Use Plans

The 2012 Mount Olive Land Use Plan indicates this area as rural. This area has some single family homes and small agricultural areas.

Linkages to Other Plans and Proposed Project History

The proposed Country Club Road Extension directly connects to the US 117A improvements (Needs Improvement, Other Major Thoroughfare) and Northwest Center Street (Needs Improvement, Minor Thoroughfare). NCDOT's Strategic Highway Corridor (SHC) Vision Plan designates US 117 as a Freeway through Wayne and Duplin Counties.

Natural & Human Environmental Context

Based on a planning level environmental assessment using available GIS data, the only natural and human environmental features examined as a part of this study that were identified in the immediate vicinity of the project was a Freshwater Pond and a Freshwater Forested / Shrub Wetland just east of the intersection of US 117A and Country Club Road.

Multi-modal Considerations

There are no existing sidewalks or bike lanes in the project area. There are no proposed sidewalks or bike lanes recommended for this project. There is a proposed transit route on this road in the future.

Public / Stakeholder Involvement

Respondents to the survey indicated that US 117 through Mount Olive was one of the most driven routes for travelers going to Goldsboro.

Country Club Road (SR 1135), Local ID: MOUN0007-H

The primary purpose of project (Local ID: MOUN0007-H) is to improve the facility by widening the lanes to 12 feet with 2-foot shoulders from NC 55 to US 117A. With these improvements, it will meet the future mobility and connectivity needs in Mount Olive, and it will make it safer for people biking on this road.

Country Club Road (SR 1135) is a collector road northwest of Mount Olive. It is classified as a Minor Thoroughfare that Needs Improvement. It is a 2-lane facility with 9-foot lanes and a posted speed limit of 55 mph. Country Club Road provides access to a country club with a golf course, a medical center, as well as agricultural, rural, and residential areas.

Traffic on Country Club Road is projected to increase from 700 vehicles per day (vpd) in 2010 to 1,400 vpd in 2040, compared to a Level of Service (LOS) D capacity of 8,000 vpd.

Country Club Road is part of the subregional tier of the NC Multimodal Investment Network (NCMIN).

Based on a planning level environmental assessment using available GIS data, the only natural and human environmental features examined as a part of this study that were identified in the immediate vicinity of the project included: a Water Supply Watershed, a Freshwater Pond, and a Freshwater Forested / Shrub Wetland.

Daughtery Field Road (SR 1143), Local ID: MOUN0008-H

The primary purpose of project (Local ID: MOUN0008-H) is to improve the facility by widening the lanes to 12 feet with 2-foot shoulders from Old Smith Chapel Road (SR 1147) to Lee's Country Club Road (SR 1144). With these improvements, it will meet the future mobility and connectivity needs in Mount Olive, as well as provides connection between Old Smith Chapel Road and Lee's Country Club, which are being closed off.

Daughtery Field Road (SR 1143) is a connector road west of Mount Olive. It is classified as a Minor Thoroughfare that Needs Improvement. It is a 2-lane facility with 10-foot lanes and a posted speed limit of 55 mph. Daughtery Field Road provides access to Daughtery Field Recreational Complex, rural, agricultural, and residential areas.

Traffic on Daughtery Field Road is projected to increase from 300 vehicles per day (vpd) in 2010 to 700 vpd in 2040, compared to a Level of Service (LOS) D capacity of 8,000 vpd.

Daughtery Field Road is part of the subregional tier of the NC Multimodal Investment Network (NCMIN).

Based on a planning level environmental assessment using available GIS data, the only natural and human environmental feature examined as a part of this study that were identified in the immediate vicinity of the project was Daughtery Field Recreational Complex, which has two baseball fields.

East James Street (SR 1004), Local ID: MOUN0009-H

The primary purpose of project (Local ID: MOUN0009-H) is to improve the facility by widening the lanes to 12 feet with 2-foot shoulders and improving traffic flow within the town limits by adjusting signal timing from Rones Chapel Road (SR 1004) to Wooten Street. With these improvements, it will meet the future mobility and connectivity needs in Mount Olive.

East James Street (SR 1004) is an east-west corridor that runs through Mount Olive, and it is classified as a Minor Thoroughfare that Needs Improvement. It is a 2-lane facility with 9-foot lanes and a posted speed limit of 35 mph inside the town limits and 55 mph outside the town limits. East James Street provides access to municipal buildings, commercial properties, and residential areas; also, it is a major commerce route between Duplin and Wayne Counties.

Traffic on East James Street was 3,500 vehicles per day (vpd) in 2010. The Level of Service (LOS) D for this facility is 8,000 vpd. Traffic is projected to increase to 6,800 vpd in 2040.

East James Street is part of the subregional tier of the NC Multimodal Investment Network (NCMIN).

Based on a planning level environmental assessment using available GIS data, the only natural and human environmental features examined as a part of this study that were identified in the immediate vicinity of the project included: three houses that are on the Historic National Register.

Graham Road (SR 1558), Local ID: MOUN0010-H

The primary purpose of project (Local ID: MOUN0010-H) is to improve the facility by widening the lanes to 12 feet with 2-foot shoulders from Kelly Springs Road (SR 1937) to NC 403. With these improvements, it will meet the future mobility and connectivity needs in Mount Olive.

Graham Road (SR 1558) is a north-south corridor east of Mount Olive. It is classified as a Minor Thoroughfare that Needs Improvement. It is a 2-lane facility with 10-foot lanes and a posted speed limit of 55 mph. Graham Road provides access to rural, agricultural, and residential areas.

Traffic on Graham Road is projected to increase from 600 vehicles per day (vpd) in 2010 to 1,200 vpd in 2040, compared to a Level of Service (LOS) D capacity of 9,000 vpd.

Graham Road is part of the subregional tier of the NC Multimodal Investment Network (NCMIN).

Based on a planning level environmental assessment using available GIS data, the only natural and human environmental feature examined as a part of this study identified in the immediate vicinity of the project was a Freshwater Forested / Shrub Wetland.

Henderson Street (SR 1174 and SR 1168), Local ID: MOUN0011-H

The primary purpose of project (Local ID: MOUN0011-H) is to improve the facility by widening the lanes to 12 feet with 2-foot shoulders from North Breazeale Avenue (US 117A) to NC 55. With these improvements, it will meet the future mobility and connectivity needs in Mount Olive.

Henderson Street (SR 1174 and SR 1168) is a collector road in central Mount Olive. It is classified as a Minor Thoroughfare that Needs Improvement. It is a 2-to-3-lane facility with 10-to-12-foot lanes and a posted speed limit of 35 mph. Henderson Street provides access to Mount Olive College, a Post Office, Piggly Wiggly™, a hotel, commercial properties, and residential areas.

Traffic on Henderson Street west of US 117A is projected to increase from 1,700 vehicles per day (vpd) in 2010 to 3,000 vpd in 2040, compared to a Level of Service (LOS) D capacity of 12,000 vpd.

Henderson Street is part of the subregional tier of the NC Multimodal Investment Network (NCMIN).

Based on a planning level environmental assessment using available GIS data, there were no natural and human environmental features examined as a part of this study that were identified in the immediate vicinity of the project.

Indian Springs Road (SR 1744), Local ID: MOUN0012-H

The primary purpose of project (Local ID: MOUN0012-H) is to improve the facility by widening the lanes to 12 feet with 2-foot shoulders from Northeast Church Road (SR 1941) to Kelly Springs Road (SR 1937). With these improvements, it will meet the future mobility and connectivity needs in Mount Olive.

Indian Springs Road (SR 1744) is an east-west corridor northeast of Mount Olive. It is classified as a Minor Thoroughfare that Needs Improvement. It is a 2-lane facility with 10-foot lanes and a posted speed limit of 55 mph. Indian Springs Road provides access to agriculture, rural, and residential areas, as well as access to the Industrial Park, airport, and Mount Olive Pickle Distribution Center.

Traffic on Indian Springs Road is projected to increase from 2,800 vehicles per day (vpd) in 2010 to 5,400 vpd in 2040, compared to a Level of Service (LOS) D capacity of 9,000 vpd.

Indian Springs Road is part of the subregional tier of the NC Multimodal Investment Network (NCMIN).

Based on a planning level environmental assessment using available GIS data, there were no natural and human environmental features examined as a part of this study that were identified in the immediate vicinity of the project.

Kelly Springs Road (SR 1937), Local ID: MOUN0013-H

The primary purpose of project (Local ID: MOUN0013-H) is to improve the facility by widening the lanes to 12 feet with 2-foot shoulders from Indian Springs Road (SR 1744) to Graham Road (SR 1558). With these improvements, it will meet the future mobility and connectivity needs in Mount Olive.

Kelly Springs Road (SR 1937) is a north-south corridor east of Mount Olive. It is classified as a Minor Thoroughfare that Needs Improvement. It is a 2-lane facility with 9- to-10-foot lanes and a posted speed limit of 55 mph. Kelly Springs Road provides access to rural, agricultural, and residential areas.

Traffic on Kelly Springs Road is projected to increase from 600 vehicles per day (vpd) in 2010 to 1,200 vpd in 2040, compared to a Level of Service (LOS) D capacity of 8,000 vpd.

Kelly Springs Road is part of the subregional tier of the NC Multimodal Investment Network (NCMIN).

Based on a planning level environmental assessment using available GIS data, the only natural and human environmental feature examined as a part of this study identified in the immediate vicinity of the project was a Freshwater Forested / Shrub Wetland.

Lee's Country Club Road (SR 1144), Local ID: MOUN0014-H

The primary purpose of project (Local ID: MOUN0014-H) is to improve the facility by widening the lanes to 12 feet with 2-foot shoulders from the intersection of Lee's Country Club Road (SR 1144) and Old Smith Chapel Road Extension (SR 1147) to South Breazeale Avenue (US 117A). With these improvements, it will meet the future mobility and connectivity needs in Mount Olive.

Lee's Country Club Road (SR 1144) is an east-west corridor in southern Mount Olive. It is classified as a Minor Thoroughfare that Needs Improvement. It is a 2-lane facility with 10-foot lanes and a posted speed limit of 45 mph outside and 35 mph inside the town limits. Lee's Country Club Road provides access to rural, agricultural, and residential areas.

Traffic on Lee's Country Club Road is projected to increase from 800 vehicles per day (vpd) in 2010 to 1,800 vpd in 2040, compared to a Level of Service (LOS) D capacity of 9,000 vpd.

Lee's Country Club Road is part of the subregional tier of the NC Multimodal Investment Network (NCMIN).

Based on a planning level environmental assessment using available GIS data, there were no natural and human environmental feature examined as a part of this study identified in the immediate vicinity of the project.

Michael Martin Road Local ID: MOUN0015-H

The primary purpose of project (Local ID: MOUN0015-H) is to improve the facility by widening the lanes to 12 feet with 2-foot shoulders from North Breazeale Avenue (US 117A) to Henderson Street (SR 1174 and SR 1168). With these improvements, it will meet the future mobility and connectivity needs in Mount Olive.

Michael Martin Road is a connector road north of Mount Olive College. It is classified as a Minor Thoroughfare that Needs Improvement. It is a 2-lane facility with 8-foot lanes and a posted speed limit of 35 mph. Michael Martin Road provides access to a hotel, commercial properties, and residential areas, as well as access to Mount Olive College.

Traffic on Michael Martin Road is projected to increase from 1,000 vehicles per day (vpd) in 2010 to 2,000 vpd in 2040, compared to a Level of Service (LOS) D capacity of 8,000 vpd.

Based on a planning level environmental assessment using available GIS data, there were no natural and human environmental features examined as a part of this study that were identified in the immediate vicinity of the project.

Northeast / Northwest Center Street (SR 1938), Local ID: MOUN0016-H

The primary purpose of project (Local ID: MOUN0016-H) is to improve the facility by widening the lanes to 12 feet with 2-foot shoulders from West Park Avenue to 1,000 feet north of Country Club Road (SR 1135). With these improvements, it will meet the future mobility and connectivity needs in Mount Olive.

Northwest Center Street (SR 1938) is a north-south corridor north of Mount Olive that runs parallel with a railroad track. It is classified as a Minor Thoroughfare that Needs Improvement. It is a 2-lane facility with 9-to-10-foot lanes and a posted speed limit of 35 mph in town limits and 55 mph outside town limits. Northwest Center Street provides access to small businesses, the Mount Olive Municipal Airport, the Mount Olive Pickle Company, agriculture, rural, and residential areas.

Traffic on Northwest Center Street north of NC 55 is projected to increase from 2,000 vehicles per day (vpd) in 2010 to 3,800 vpd in 2040, compared to a Level of Service (LOS) D capacity of 8,000 vpd.

Northwest Center Street is part of the subregional tier of the NC Multimodal Investment Network (NCMIN).

Based on a planning level environmental assessment using available GIS data, the only natural and human environmental features examined as a part of this study that were identified in the immediate vicinity of the project were a Water Supply Watershed, and a Freshwater Forested / Shrub Wetland.

Northeast Church Road (SR 1941), Local ID: MOUN0017-H

The primary purpose of project (Local ID: MOUN0017-H) is to improve the facility by widening the lanes to 12 feet with 2-foot shoulders from North Breazeale Avenue (US 117A) to Indian Springs Road (SR 1744). With these improvements, it will meet the future mobility and connectivity needs in Mount Olive.

Northeast Church Road (SR 1941) is an east-west corridor north of Mount Olive. It is classified as a Minor Thoroughfare that Needs Improvement. It is a 2-lane facility with 9-foot lanes and a posted speed limit of 55 mph. Northeast Church Road provides

access to small businesses, furniture manufacturing plant, agriculture, rural, and residential areas as well as access to the Industrial Park, airport, and Mount Olive Pickle Distribution Center.

Traffic on Northeast Church Road is projected to increase from 2,800 vehicles per day (vpd) in 2010 to 5,100 vpd in 2040, compared to a Level of Service (LOS) D capacity of 8,000 vpd.

Northeast Church Road is part of the subregional tier of the NC Multimodal Investment Network (NCMIN).

Based on a planning level environmental assessment using available GIS data, the only natural and human environmental features examined as a part of this study that was identified in the immediate vicinity of the project was a Freshwater Forested / Shrub Wetland.

Old Smith Chapel Road (SR 1147), Local ID: MOUN0018-H

The primary purpose of project (Local ID: MOUN0018-H) is to improve the facility by widening the lanes to 12 feet with 2-foot shoulders from Thunder Swamp Road (SR 1183) to US 117. With these improvements, it will meet the future mobility and connectivity needs in Mount Olive, and it will make it safer for people biking on this road.

Old Smith Chapel Road (SR 1147) is an east-west corridor on the west side of Mount Olive. It is classified as a Minor Thoroughfare that Needs Improvement. It is a 2-lane facility with 9-to-10-foot lanes and a posted speed limit of 55 mph. Old Smith Chapel Road provides access to agricultural, rural, and residential areas.

Traffic on Old Smith Chapel Road west of US 117 is projected to increase from 900 vehicles per day (vpd) in 2010 to 2,600 vpd in 2040, compared to a Level of Service (LOS) D capacity of 9,000 vpd.

Old Smith Chapel Road is part of the subregional tier of the NC Multimodal Investment Network (NCMIN).

Based on a planning level environmental assessment using available GIS data, the only natural and human environmental features examined as a part of this study that were identified in the immediate vicinity of the project included: Daughtery Field Recreational Complex, which has two baseball fields, and a Freshwater Forested / Shrub Wetland.

Rones Chapel Road (SR 1004), Local ID: MOUN0019-H

The primary purpose of project (Local ID: MOUN0019-H) is to improve the facility by widening the lanes to 12 feet with 2-foot shoulders from East James Street (SR 1004) to NC 403. With these improvements, it will meet the future mobility and connectivity needs in Mount Olive, and it will make it safer for people biking on this road.

Rones Chapel Road (SR 1004) is an east-west corridor that connects Mount Olive to NC 403. It is classified as a Minor Thoroughfare that Needs Improvement. It is a 2-lane facility with 10-to-11-foot lanes and a posted speed limit of 55 mph. Rones Chapel Road provides access to agricultural, rural, and residential areas.

Traffic on Rones Chapel Road was 3,300 vehicles per day (vpd) in 2010. The Level of Service (LOS) D for this facility is 9,000 vpd. Traffic is projected to increase to 6,000 vpd in 2040.

Rones Chapel Road is part of the subregional tier of the NC Multimodal Investment Network (NCMIN).

Based on a planning level environmental assessment using available GIS data, the only natural and human environmental features examined as a part of this study that were identified in the immediate vicinity of the project included: a Freshwater Pond and a Freshwater Forested / Shrub Wetland.

West Main Street (SR 1141), Local ID: MOUN0020-H

The primary purpose of project (Local ID: MOUN0020-H) is to improve the facility by widening the lanes to 12 feet with curb and gutter from South Breazeale Avenue (US 117A) to US 117, and widen the lanes to 12 feet with 2-foot shoulders from US 117 to NC 55. With these improvements, it will meet the future mobility and connectivity needs in Mount Olive.

West Main Street (SR 1141) is an east-west corridor that goes through central Mount Olive. It is classified as a Minor Thoroughfare that Needs Improvement. It is a 2-lane facility with 9-foot lanes and a posted speed limit of 55 mph west of US 117, and 12-foot lanes and 35 mph speed limit east of US 117. West Main Street provides access to municipal buildings, churches, commercial properties, and residential areas.

Traffic on West Main Street west of US 117 is projected to increase from 450 vehicles per day (vpd) in 2010 to 900 vpd in 2040, compared to a Level of Service (LOS) D capacity of 8,000 vpd. Traffic on West Main Street east of US 117 is projected to increase from 4,500 vpd in 2010 to 8,500 vpd in 2040, compared to a LOS D capacity of 9,000 vpd.

West Main Street is part of the subregional tier of the NC Multimodal Investment Network (NCMIN).

Based on a planning level environmental assessment using available GIS data, the only natural and human environmental features examined as a part of this study that were identified in the immediate vicinity of the project included: a house on the Historic National Register.

West Park Avenue, Local ID: MOUN0021-H

The primary purpose of project (Local ID: MOUN0021-H) is to improve the facility by widening the lanes to 12 feet with 2-foot shoulders from Northeast Center Street (SR 1938) to North Breazeale Avenue (US 117A). With these improvements, it will meet the future mobility and connectivity needs in Mount Olive.

West Park Avenue is a connector road in central Mount Olive. It is classified as a Minor Thoroughfare that Needs Improvement. It is a 2-lane facility with 10-foot lanes and a posted speed limit of 35 mph in town limits. West Park Avenue provides access to a bank, a used car dealership, and residential areas, as well as access to Mount Olive Pickle Plant.

Traffic on West Park Avenue is projected to increase from 1,000 vehicles per day (vpd) in 2010 to 2,000 vpd in 2040, compared to a Level of Service (LOS) D capacity of 8,000 vpd.

Based on a planning level environmental assessment using available GIS data, there were no natural and human environmental features examined as a part of this study that were identified in the immediate vicinity of the project.

Wooten Street, Local ID: MOUN0022-H

The primary purpose of project (Local ID: MOUN0022-H) is to improve the facility by widening the lanes to 12 feet with 2-foot shoulders from West James Street (SR 1004) to West Main Street (SR 1141). With these improvements, it will meet the future mobility and connectivity needs in Mount Olive.

Wooten Street is a local road in central Mount Olive. It is classified as a Minor Thoroughfare that Needs Improvement. It is a 2-lane facility with 10-to-11-foot lanes and a posted speed limit of 35 mph. Wooten Street provides access to Mount Olive Middle School, Mount Olive Historic Assembly, and residential areas.

Traffic on Wooten Street is projected to increase from 1,000 vehicles per day (vpd) in 2010 to 2,000 vpd in 2040, compared to a Level of Service (LOS) D capacity of 8,000 vpd.

Based on a planning level environmental assessment using available GIS data, there were no natural and human environmental features examined as a part of this study that were identified in the immediate vicinity of the project.

PUBLIC TRANSPORTATION & RAIL

A public transportation and rail assessment was completed during the development of the CTP. At this time, there are no recommended improvements associated with the rail mode; however, there are recommended improvements associated with the public transportation mode.

Public Transportation

There are proposed Fixed Routes Systems. These routes are as follows:

- **US 117, MOUN0001-T:** From the intersection with Smith Chapel Highway traveling northeast to the intersection with West Main Street
- **US 117, MOUN0001-T:** From NC 55 ramp traveling southwest to intersection with NC 55
- **US 117, MOUN0001-T:** From the intersection with NC 55 traveling northeast to NC 55 ramp
- **South Breazeale Avenue (US 117A), MOUN0002-T:** Bus Stop at the Corner of Short Street
- **South Breazeale Avenue (US 117A), MOUN0002-T:** From the intersection with Country Road traveling southwest to the intersection with Cleveland Avenue
- **NC 55, MOUN0003-T:** From the intersection with Country Club Road traveling northeast to the intersection with Walmart™. Bus Stop at the intersection with Walmart™
- **NC 55, MOUN0003-T:** Bus Stop from the intersection of Henderson Street traveling in the east direction
- **Cleveland Avenue, MOUN0004-T:** From the intersection with South Breazeale Avenue traveling west to the intersection with Granger Place. Bus Stop at the intersection on Granger Place and Cleveland Avenue
- **Country Club Road (SR 1135), MOUN0005-T:** From the intersection with West Main Street traveling north to the intersection with NC 55
- **Country Road, MOUN0006-T:** From the intersection with Southeast Center Street traveling east to the intersection with County Road
- **County Road, MOUN0007-T:** From the intersection with Country Road traveling east to the intersection with South Church Street. Bus Stop at the intersection with Daly Boulevard
- **East James Street, MOUN0008-T:** From the intersection with South Johnson Street traveling northwest to the intersection with Northwest Center Street. Bus Stop at the intersection of East James Street and Northwest Center Street

- **East Maple Street, MOUN0009-T:** From the intersection with South Church Street traveling southeast to the intersection with South Johnson Street
- **Henderson Street, MOUN0010-T:** From Piggly Wiggly™ traveling northwest to the intersection with Michael Martin Road. Bus Stop at Mount Olive College
- **Michael Martin Road, MOUN0011-T:** From the intersection with Henderson Street traveling southeast to the intersection with North Breazeale Avenue (US 117A)
- **North Church Street, MOUN0012-T:** From the intersection with East Park Avenue traveling northeast to the intersection with Old 7 Springs Road. Bus Stop at the intersection of Sedberry Lane
- **Northwest Center Street, MOUN0013-T:** From the intersection with West James Street traveling northeast to the intersection with West Park Avenue
- **Old 7 Springs Road, MOUN0014-T:** From the intersection with East Park Avenue traveling east to the intersection with North Church Street
- **Old Smith Chapel Highway, MOUN0015-T:** From the intersection with West Main Street traveling southwest to the intersection with US 117. Bus Stop about 200 feet after College Circle. Bus Stop at the intersection of Crest Drive
- **South Center Street, MOUN0016-T:** From the intersection with West Pollock Street to the intersection with Country Road (SR 1947)
- **South Church Street, MOUN0017-T:** From the intersection with County Road traveling north to the intersection with East Maple Street
- **South Johnson Street, MOUN0018-T**: From the intersection with East Maple Street traveling northeast to the intersection with East James Street. Bus Stop at the intersection of South Johnson Street and Johnson Court
- **West Main Street, MOUN0019-T:** From the intersection with US 117 traveling northwest to the intersection with Country Club Road
- **West Main Street, MOUN0020-T:** From the intersection with South Breazeale Avenue (US 117A) traveling northwest to the intersection with Smith Chapel Highway. Bus Stop at the intersection of South Breazeale Avenue
- **West Park Avenue, MOUN0021-T:** From the intersection with North Breazeale Avenue traveling southeast to the intersection with Old 7 Springs Road. Bus Stop at the intersection of West Park Avenue and Chestnut Street
- **West Pollock Street, MOUNT0022-T:** From the intersection with South Breazeale Avenue (US 117A) - South Center Street

BICYCLE

During the development of the CTP, the following facilities were identified as recommended bicycle routes and will need improvement. 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 5-foot bike lanes or 14-foot wide shoulder lanes.
- Shoulder sections require a minimum of 4-foot paved shoulder.
- All bridges along the roadways where bike facilities are recommended shall be equipped with 54-inch railings.

Recommended

- **South Breazeale Avenue, MOUN0001-B:** From the intersection with Country Road traveling northeast to the intersection with NC 55
- **NC 55, MOUN0002-B:** From the intersection with North Breazeale Avenue (US 117A) traveling west to Walmart™ after the intersection with Bert Martin Road
- **Bert Martin Road, MOUN0003-B:** From the intersection with Henderson Street traveling southeast to the intersection with Martin Street
- **Country Road, MOUN0004-B:** From the intersection with County Road traveling northwest to the intersection with South Breazeale Avenue (US 117A)
- **County Road, MOUN0005-B:** From the intersection with Young Drive traveling northwest to the intersection with Country Road
- **Henderson Street, MOUN0006-B:** From the intersection with North Breazeale Avenue (US 117A) traveling northwest to the intersection with NC 55
- **Journey Street, MOUN0007-B:** From the intersection with Northeast Center Street traveling southeast to the intersection with North Church Street
- **Martin Street, MOUN0008-B:** From the intersection with Bert Martin Road traveling southwest to the intersection with Henderson Street
- **Northeast Center Street, MOUN0009-B:** From the intersection with East Main Street traveling northeast to the intersection with Talton Street

- **Northwest Center Street, MOUN0010-B:** From the intersection with East Main Street traveling northeast to the intersection with Westbrook Street. From the intersection with Talton Street traveling northeast to the intersection with Northeast Church Street
- **Old 7 Springs Road, MOUN0011-B:** From the intersection with North Church Street traveling east to the intersection with Carver Elementary School
- **Old Smith Chapel Highway, MOUN0012-B:** From the intersection with West Main Street traveling southwest to the intersection with Whitley Street
- **Park Avenue, MOUN0013-B:** From the intersection with Ann Street to the intersection with Francis Street
- **Southeast Center Street, MOUN0014-B:** From the intersection with East Main Street to the intersection with Country Road
- **Southwest Center Street, MOUN0015-B:** From the intersection with Country Road traveling northeast to the intersection with East Main Street
- **Westbrook Street, MOUN0016-B:** From the intersection with Northwest Center Street traveling west to the intersection with North Breazeale Avenue (US 117A)
- **West James Street, MOUN0017-B:** From the intersection with East Main Street traveling northwest to the intersection with Wooten Street
- **Wooten Street, MOUN0018-B:** From the intersection with West John Street traveling southwest to the intersection with West Main Street

Additionally, the following multi-use paths were recommended during the development of this CTP:

Multi-use path

- **South Breazeale Avenue, MOUN0001-M:** Multi-use path from the intersection with Carver Street traveling northeast to the intersection with South Chestnut Street
- **Herring Street, MOUN0002-M:** From the intersection with Southwest Center Street traveling northwest to the intersection with South Breazeale Avenue (US 117A)
- **Nelson Street, MOUN0003-M:** From the intersection with Oliver Street traveling west to the intersection with Southeast Center Street
- **Southwest Center Street, MOUN0004-M:** Multi-use path from the intersection with Nelson Street traveling northeast to the intersection with Herring Street

PEDESTRIAN

During the development of the Mount Olive CTP, several facilities were identified as needed new sidewalks or in need of improvement. These needs are identified below:

Sidewalks -- Recommended

- **North Breazeale Avenue, MOUN0001-P:** From the intersection with West Station Street traveling north to the intersection with Davis Road
- **NC 55, MOUN0002-P:** From the intersection with North Breazeale Avenue (US 117A) traveling west to 400 feet after the intersection with Bert Martin Road
- **Chestnut Street, MOUN0003-P:** From the intersection with West Station Street traveling north to the intersection with Witherington Street
- **Davis Road, MOUN0004-P:** From the intersection with North Breazeale Avenue (US 117A) traveling southeast to the end of the Road
- **East Hillsboro Street, MOUN0005-P:** From the intersection with Southeast Center Street traveling east to the intersection with Oliver Street
- **East Maple Street, MOUN0006-P:** From the intersection with South Johnson Street traveling east to the intersection with Garden Street
- **Franklin Street, MOUN0007-P:** From the intersection with Claytor Street traveling east to the intersection with Oliver Street
- **Henderson Street, MOUN0008-P:** From the intersection with Northwest Center Street to the intersection with James B. Hunt Drive
- **Henderson Street, MOUN0009-P:** From the intersection with Bert Martin Road traveling north to the intersection with NC 55
- **Nellie Avenue, MOUN0010-P:** From the intersection with Franklin Street traveling southwest to the intersection with County Road
- **North Church Street, MOUN0011-P:** From the intersection with East Station Street to the intersection with East College Street
- **Northwest Center Street, MOUN0012-P:** From the intersection with West College Street traveling north to the intersection with Henderson Street
- **Oliver Street, MOUN0013-P:** From the intersection with East Maple Street and Gordon Street traveling south to the intersection with Franklin Street
- **South Church Street, MOUN0014-P:** From the intersection with East Maple Street traveling south to the intersection with County Road
- **West Main Street, MOUN0015-P:** From the intersection with US 117 traveling southeast to the intersection with Mc Gee Street
- **West Park Avenue, MOUN0016-P:** From the intersection with Chestnut Street to the intersection with North Breazeale Avenue (US 117A)

APPENDICES

Appendix A
Resources and Contacts

Local Planning Organization

Eastern Carolina Rural Planning Organization (ECRPO) (http://www.eccog.org/)
Contact the RPO for information on long-range multi-modal planning services.
233 Middle Street New Bern, NC 28563 (252) 638-3185

North Carolina Department of Transportation

Customer Service Office
Contact information for other units within the NCDOT that are not listed in this appendix is available by calling the Customer Service Office or by visiting the NCDOT directory:
1-877-DOT-4YOU (1-877-368-4968) *(http://www.ncdot.gov/contact/)*

Secretary of Transportation *(http://www.ncdot.org/about/leadership/secretary.html)*
1501 Mail Service Center Raleigh, NC 27699-1501 (919) 707-2800

Board of Transportation *(http://www.ncdot.gov/about/board/)*
1501 Mail Service Center Raleigh, NC 27699-1501 (919) 707-2820

Highway Division 4 *(https://apps.dot.state.nc.us/dot/directory/authenticated/ToC.aspx)*
509 Ward Boulevard Wilson, NC 27895 (252) 237-6164

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

Contact the following NCDOT Divisions and Units[1] for:

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

[1] Unit websites are hyperlinked and can also be accessed at *https://connect.ncdot.gov/Pages/default.aspx*.

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

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/cd

Appendix B
Comprehensive Transportation Plan Definitions

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

Highway Map

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

Facility Type Definitions

- **Freeways**
  - *Functional purpose* – high mobility, high volume, high speed
  - *Posted speed* – 55 mph or greater
  - *Cross section* – minimum four lanes with continuous median
  - *Multi-modal elements* – High Occupancy Vehicles (HOV)/High Occupancy Transit (HOT) lanes, busways, truck lanes, park-and-ride facilities at/near interchanges, adjacent shared use paths (separate from roadway and outside ROW)
  - *Type of access control* – full control of access
  - *Access management* – interchange spacing (urban – one mile; non-urban – three miles); at interchanges on the intersecting roadway, full control of access for 1,000 ft. or for 350 ft. plus 650 ft. 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 2,000 ft.; 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, operations, or system continuity. The improvement to the facility may be widening, increasing the level of access control along the facility, operational strategies (including but not limited to traffic control and enforcement, incident and emergency management, and deployment of Intelligent Transportation Systems (ITS) technologies), or a combination of improvements and strategies. *"Needs improvement" does not refer to the maintenance needs of existing facilities or the replacement or rehab of structures.*
- **Recommended** – Roadway facilities on new location that are needed in the future.
- **Interchange** – Through movement on intersecting roads is separated by a structure. Turning movement area accommodated by on/off ramps and loops.
- **Grade Separation** – Through movement on intersecting roads is separated by a structure. There is no direct access between the facilities.
- **Full Control of Access** – Connections to a facility provided only via ramps at interchanges. No private driveway connections allowed.
- **Limited Control of Access** – Connections to a facility provided only via ramps at interchanges (major crossings) and at-grade intersections (minor crossings and service roads). No private driveway connections allowed.
- **Partial Control of Access** – Connections to a facility provided via ramps at interchanges, at-grade intersections, and private driveways. Private driveway connections shall be defined as a maximum of one connection per parcel. One connection is defined as one ingress and one egress point. These may be combined to form a two-way driveway (most common) or separated to allow for better traffic flow through the parcel. The use of shared or consolidated connections is highly encouraged.
- **No Control of Access** – Connections to a facility provided via ramps at interchanges, at-grade intersections, and private driveways.

Public Transportation and Rail Map

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

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

- **Operational Strategies** – Plans geared toward the non-single occupant vehicle. This includes but is not limited to HOV lanes or express bus service.
- **Rail Corridor** – Locations of railroad tracks that are either active or inactive tracks. These tracks were used for either freight or passenger service.
  - *Active* – rail service is currently provided in the corridor; may include freight and/or passenger service
  - *Inactive* – right of way exists; however, there is no service currently provided; tracks may or may not exist
  - *Recommended* – It is desirable for future rail to be considered to serve an area
- **High Speed Rail Corridor** – Corridor designated by the U.S. Department of Transportation as a potential high-speed rail corridor.
  - *Existing* – Corridor where high-speed rail service is provided (there are currently no existing high-speed corridor in North Carolina)
  - *Recommended* – Proposed corridor for high-speed rail service
- **Rail Stop** – A railroad station or stop along the railroad tracks.
- **Intermodal Connector** – A location where more than one mode of transportation meet such as where light rail and a bus route come together in one location or a bus station.
- **Park-and-Ride Lot** – A strategically located parking lot that is free of charge to anyone who parks a vehicle and commutes by transit or in a carpool.
- **Existing Grade Separation** – Locations where existing rail facilities and are physically separated from existing highways or other transportation facilities. These may be bridges, culverts, or other structures.
- **Proposed Grade Separation** – Locations where rail facilities are recommended to be physically separated from existing or recommended highways or other transportation facilities. These may be bridges, culverts, or other structures.

Bicycle Map

- **On Road - Existing** – Conditions for bicycling on the highway facility are adequate to safely accommodate cyclists.
- **On Road - Needs Improvement** – At the systems level, it is desirable for **an existing** highway facility to accommodate bicycle transportation; however, highway improvements are necessary to create safe travel conditions for the cyclists.
- **On Road - Recommended** – At the systems level, it is desirable for **a recommended** highway facility to accommodate bicycle transportation. The highway should be designed and built to safely accommodate cyclists.

- **Off Road - Existing** – A facility that accommodates only bicycle transportation and is physically separated from a highway facility either within the right-of-way or within an independent right-of-way.

- **Off Road - Needs Improvement** – A facility that accommodates only bicycle transportation and is physically separated from a highway facility either within the right-of-way or within an independent right-of-way that will not adequately serve future bicycle needs. Improvements may include but are not limited to, widening, paving (not re-paving or other maintenance activities), and improved horizontal or vertical alignment.

- **Off Road - Recommended** – A facility needed to accommodate only bicycle transportation and is physically separated from a highway facility either within the right-of-way or within an independent right-of-way.

- **Multi-use Path - Existing** – An existing facility physically separated from motor vehicle traffic that is either within the highway right-of-way or on an independent right-of-way that serves bicycle and pedestrian traffic. Sidewalks should not be designated as a multi-use path.

- **Multi-use Path - Needs Improvement** – An existing facility physically separated from motor vehicle traffic that is either within the highway right-of-way or on an independent right-of-way that serves bicycle and pedestrian traffic that will not adequately serve future needs. Improvements may include but are not limited to, widening, paving (not re-paving or other maintenance activities), and improved horizontal or vertical alignment. Sidewalks should not be designated as a multi-use path.

- **Multi-use Path - Recommended** – A facility physically separated from motor vehicle traffic that is either within the highway right-of-way or on an independent right-of-way that is needed to serve bicycle and pedestrian traffic. Sidewalks should not be designated as a multi-use path.

- **Existing Grade Separation** – Locations where existing "Off Road" facilities and "Multi-use Paths" are physically separated from existing highways, railroads, or other transportation facilities. These may be bridges, culverts, or other structures.

- **Proposed Grade Separation** – Locations where "Off Road" facilities and "Multi-use Paths" are recommended to be physically separated from existing or recommended highways, railroads, or other transportation facilities. These may be bridges, culverts, or other structures.

Pedestrian Map

- **Sidewalk - Existing** – Paved paths (including but not limited to concrete, asphalt, brick, stone, or wood) on both sides of a highway facility and within the highway right-of-way that are adequate to safely accommodate pedestrian traffic.

- **Sidewalk - Needs Improvement** – Improvements are needed to provide paved paths on both sides of a highway facility. The highway facility may or may not need

improvements. Improvements do not include re-paving or other maintenance activities but may include: filling in gaps, widening sidewalks, or meeting ADA (Americans with Disabilities Act) requirements.

- **Sidewalk - Recommended** – At the systems level, it is desirable for a recommended highway facility to accommodate pedestrian transportation **or** to add sidewalks on an existing facility where no sidewalks currently exist. The highway should be designed and built to safely accommodate pedestrian traffic.

- **Off Road - Existing** – A facility that accommodates only pedestrian traffic and is physically separated from a highway facility usually within an independent right-of-way.

- **Off Road - Needs Improvement** – A facility that accommodates only pedestrian traffic and is physically separated from a highway facility usually within an independent right-of-way that will not adequately serve future pedestrian needs. Improvements may include but are not limited to, widening, paving (not re-paving or other maintenance activities), improved horizontal or vertical alignment, and meeting ADA requirements.

- **Off Road - Recommended** – A facility needed to accommodate only pedestrian traffic and is physically separated from a highway facility usually within an independent right-of-way.

- **Multi-use Path - Existing** – An existing facility physically separated from motor vehicle traffic that is either within the highway right-of-way or on an independent right-of-way that serves bicycle and pedestrian traffic. Sidewalks should not be designated as a multi-use path.

- **Multi-use Path - Needs Improvement** – An existing facility physically separated from motor vehicle traffic that is either within the highway right-of-way or on an independent right-of-way that serves bicycle and pedestrian traffic that will not adequately serve future needs. Improvements may include but are not limited to, widening, paving (not re-paving or other maintenance activities), and improved horizontal or vertical alignment. Sidewalks should not be designated as a multi-use path.

- **Multi-use Path - Recommended** – A facility physically separated from motor vehicle traffic that is either within the highway right-of-way or on an independent right-of-way that is needed to serve bicycle and pedestrian traffic. Sidewalks should not be designated as a multi-use path.

- **Existing Grade Separation** – Locations where existing “Off Road” facilities and “Multi-use Paths” are physically separated from existing highways, railroads, or other transportation facilities. These may be bridges, culverts, or other structures.

- **Proposed Grade Separation** – Locations where “Off Road” facilities and “Multi-use Paths” are recommended to be physically separated from existing or recommended highways, railroads, or other transportation facilities. These may be bridges, culverts, or other structures.

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 four letters of the county name is combined with a four 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. In addition, upper case alphabetic characters (i.e. 'A', 'B', or 'C') are included after the numeric portion of the code if it is anticipated that project segmentation or phasing will be recommended.

- **Jurisdiction:** Jurisdictions listed are based on municipal limits, county boundaries, and MPO Metropolitan Planning Area Boundaries (MAB), as applicable.

- **Existing Cross-Section:** Listed under 'Total Width (ft.)' is the approximate width of the roadway from edge of pavement to edge of pavement and under 'Lane Width (ft.)' is the approximate width of a single lane based on centerline/ edge line markings. Listed under 'Lanes' is the total number of lanes, with 'D' if the facility is divided, and 'OW' if it is a one-way facility

- **Existing ROW:** The estimated existing right-of-way is based on NCDOT's Road Characteristics ArcGIS™ 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 based on the 2000 Highway Capacity Manual using the Transportation Planning Branch's LOS D Standards for Systems Level Planning, as documented in Chapter 1.

- **Existing and Proposed Volumes**, given in vehicles per day (vpd), are estimates only based on a systems-level analysis. The '2040 Volume E+C' is an estimate of the volume in 2040 with only existing plus committed projects assumed to be in place, where committed is defined as projects programmed for construction in the 2013 - 2023 Transportation Improvement Program (TIP). The '2040 Volume with CTP' is an estimate of the volume in 2040 with all proposed CTP improvements assumed to be in place. The '2040 Volume with CTP' is shown in bold if it exceeds the proposed capacity, indicating an unmet need. For additional information about the assumptions and techniques used to develop the AADT volume estimates, refer to Chapter 1.

- **Proposed Cross-section:** The CTP recommended cross-sections are listed by code; for depiction of the cross-section, refer to Appendix D. An entry of 'ADQ' indicates the existing facility is adequate and there are no improvements recommended for the given mode as part of the CTP.

- **CTP Classification:** The CTP classification is listed, as shown on the adopted CTP Maps (see Figure 1). Abbreviations are F = freeway, E = expressway, B = boulevard, Maj = other major thoroughfare, and Min = minor thoroughfare.

- **Tier:** Tiers are defined as part of the North Carolina Multimodal Investment Network (NCMIN). Abbreviations are Sta = statewide tier, Reg = regional tier, Sub = subregional tier.

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

CTP INVENTORY AND RECOMMENDATIONS

HIGHWAY																				
Local ID	Facility	Section		Jurisdiction	Dist. (mi)	2010 Existing System							2040 Proposed System					CTP Classification	Tier	Proposals for Other Modes
		From	To			Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd)	2010 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)			
MOUN0001-H (A)	Breazeale Avenue (US 117A)	Planning Area Boundary	Country Club Road (SR 1135)	Wayne County	0.4	24	2	12	100	55	12000	7500	15000	15000	15800	3A	100	Other Major Thoroughfare	Reg	T,B,P
MOUN0001-H (B)	Breazeale Avenue (US 117A)	Country Club Road (SR 1135)	Northeast Church Road (SR 1941)	Wayne County	1.4	22	2	11	100	50	12000	7500	15000	15000	15800	3A	100	Other Major Thoroughfare	Reg	T,B,P
MOUN0001-H (C)	Breazeale Avenue (US 117A)	Northeast Church Road (SR 1941)	NC 55	Wayne County	0.5	22	2	11	100	40	12000	8000	15000	15000	12150	3A	100	Other Major Thoroughfare	Reg	T,B,P
MOUN0001-H (D)	Breazeale Avenue (US 117A)	NC 55	Park Avenue	Wayne County	0.5	50	4	12	100	35	12000	13000	23000	23000	22200	3A	100	Other Major Thoroughfare	Reg	T,B,P
MOUN0001-H (E)	Breazeale Avenue (US 117A)	Park Avenue	Henderson Street (SR 1174)	Wayne County	0.2	50	4	12	100	35	12000	14500	23000	23000	22200	3A	100	Other Major Thoroughfare	Reg	T,B,P
MOUN0001-H (F)	Breazeale Avenue (US 117A)	Henderson Street (SR 1174)	East James Street (SR 1004)	Wayne County	0.3	26	2	12	100	35	12000	9200	17000	17000	11100	3A	100	Other Major Thoroughfare	Reg	T,B,P
MOUN0001-H (G)	Breazeale Avenue (US 117A)	East James Street (SR 1004)	Lee Country Club Road (SR 1144)	Wayne County	1.1	25	2	12	100	35	12000	7200	13000	13000	11100	3A	100	Other Major Thoroughfare	Reg	T,B,P
MOUN0001-H (H)	Breazeale Avenue (US 117A)	Lee Country Club Road (SR 1144)	Calypso Boundary Line	Wayne County / Dublin County	2.1	24	2	11	100	45	12000	2600	5500	5500	12600	3A	100	Other Major Thoroughfare	Reg	T,B,P
MOUN0002-H (A)	US 117	Planning Area Boundary	Country Club Road (SR 1135)	Wayne County	0.3	52	4	12	200	55	15000	13000	23000	23000	65400	2A	200	Freeway	Sta	T
MOUN0002-H (B)	US 117	Country Club Road (SR 1135)	NC 55	Wayne County	1.9	52	4	12	200	45	15000	13000	23000	23000	65400	2A	200	Freeway	Sta	T
MOUN0002-H (C)	US 117	NC 55	West Main Street (SR 1141)	Wayne County	1.0	52	4	12	200	55	15000	9500	18000	18000	65700	2A	200	Freeway	Sta	T
MOUN0002-H (D)	US 117	West Main Street (SR 1141)	Lee Country Club Road (SR 1144)	Wayne County	0.8	52	4	12	200	55	15000	9500	18000	18000	65700	2A	200	Freeway	Sta	T
MOUN0002-H (E)	US 117	Lee Country Club Road (SR 1144)	Calypso Boundary Line	Wayne County / Dublin County	1.4	52	4	12	200	55	15000	10000	18000	18000	65400	2A	200	Freeway	Sta	T
MOUN0003-H (A)	NC 55	Country Club Road (SR 1135)	US 117	Wayne County	0.8	24	2	12	150	45	12000	5400	10000	10000	38100	2A	150	Boulevard	Reg	T,B,P
MOUN0003-H (B))	Interchange at NC 55	NC 55	Northwest Center Street (SR 1938)	Wayne County	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Interchange		
MOUN0003-H (C)	NC 55	Thunder Swamp Road (SR 1183)	West Main Street (SR 1141)	Wayne County	1.4	25	2	12	150	55	12000	4800	10000	10000	15800	3A	150	Other Major Thoroughfare	Reg	T,B,P
MOUN0003-H (D)	NC 55	West Main Street	Country Club Road (SR 1135)	Wayne County	0.3	25	2	12	150	55	12000	4900	9500	9500	15800	3A	150	Other Major Thoroughfare	Reg	T,B,P
MOUN0003-H (E)	NC 55	US 117	Breazeale Avenue (US 117A)	Wayne County	0.3	48	4	12	150	45	12000	13500	13500	13500	26700	3A	150	Other Major Thoroughfare	Reg	T,B,P
MOUN0003-H (F)	NC 55	US 117A (Breazeale Avenue)	Northwest Center Street (SR 1938)	Wayne County	0.5	24	2	12	150	55	12000	6800	12000	12000	15800	3A	150	Other Major Thoroughfare	Reg	T,B,P

HIGHWAY																				
Local ID	Facility	Section		Jurisdiction	Dist. (mi)	2010 Existing System							2040 Proposed System					CTP Classification	Tier	Proposals for Other Modes
		From	To			Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd)	2010 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)			
MOUN0003-H (G)	NC 55	Northwest Center Street(SR 1938, Old Mount Olive Hwy)	East Church Street	Wayne County	0.8	24	2	12	150	55	12000	7500	14000	14000	15800	3A	150	Other Major Thoroughfare	Reg	T,B,P
MOUN0003-H (H)	NC 55	East Church Street	Kelley Spring Road (SR 1937)	Wayne County	1.3	24	2	12	100	55	12000	5500	9000	9000	15800	3A	100	Other Major Thoroughfare	Reg	T,B,P
MOUN0004-H	New Location Road	Daughtery Field Road (SR 1143) / Old Smith Chapel Road (SR 1157)	Lees Country Club Road (SR 1144)	Wayne County	0.9	28	2	12	N/A	45	9200	N/A	N/A	15,800	15,800	2A	N/A	Minor Thoroughfare		
MOUN0005-H	New Location Road	Old Smith Chapel Road (SR 1157)	West Main Street (SR 1141)	Wayne County	0.8	28	2	12	N/A	45	9200	N/A	N/A	15,800	15,800	2A	N/A	Minor Thoroughfare		
MOUN0006-H	New Location Road	Country Club Road (SR 1135) / Breazeale Avenue (US 117A)	Northwest Center Street (SR 1938, Old Mount Olive Hwy)	Wayne County	0.9	28	2	12	N/A	45	9200	N/A	N/A	15,800	15,800	2A	N/A	Minor Thoroughfare		
MOUN0007-H (A)	County Club Road (SR 1135)	Baker Chapel Church Road	US 117	Wayne County	2.1	22	2	11	60	55	9200	700	1400	1400	15800	2A	60	Minor Thoroughfare	Sub	T
MOUN0007-H (B)	County Club Road (SR 1135)	US 117	Breazeale Avenue (US 117A)	Wayne County	0.1	22	2	11	60	55	9200	700	1400	1400	15800	2A	60	Minor Thoroughfare	Sub	T
MOUN0007-H (C)	County Club Road (SR 1135)	Baker Chapel Church Road	NC 55	Wayne County	1.3	23	2	12	60	50	9200	750	1400	1400	14550	2A	60	Minor Thoroughfare	Sub	T
MOUN0008-H	Daughtery Field Road (SR 1143)	Old Smith Chapel Road (SR 1157)	Lee Country Club Road (SR 1144)	Wayne County	0.9	22	2	10	60	55	9200	1300	2600	2600	15800	2A	60	Minor Thoroughfare	Sub	
MOUN0009-H (A)	East James Street (SR 1004)	Wooten Street	Breazeale Avenue (US 117A)	Wayne County	0.3	22	2	11	N/A	35	9200	3500	6800	6800	10500	2A	N/A	Minor Thoroughfare		B,P
MOUN0009-H (B)	East James Street (SR 1004)	US 117A (Breazeale Avenue)	Rones Chapel Road (SR 1004)	Wayne County	1.2	22	2	11	N/A	35	9200	3500	6800	6800	10500	2A	N/A	Minor Thoroughfare		B,P
MOUN0010-H	Graham Road (SR 1558)	Kelly Springs Road (SR 1937)	NC 403	Dublin County	1.5	22	2	11	N/A	55	9200	2500	5000	5000	15800	2A	N/A	Minor Thoroughfare	Sub	
MOUN0011-H (A)	Henderson Street (SR 1174)	US 117A (Breazeale Avenue)	Micheal Martin Road	Wayne County	1.1	24	2	12	60	45	9200	1700	3000	3000	12700	2A	60	Minor Thoroughfare	Sub	H,B,P
MOUN0011-H (B)	Henderson Street (SR 1174)	Michael Martin Road	NC 55	Wayne County	0.1	25	2	12	60	35	9200	1700	3000	3000	10500	2A	60	Minor Thoroughfare	Sub	H,B,P
MOUN0012-H	Indian Springs Road (SR 1744)	Northeast Church Road	Kelley Springs Rd (1937)	Wayne County	0.9	22	2	10	N/A	55	9200	2800	5400	5400	15800	2A	N/A	Minor Thoroughfare	Sub	
MOUN0013-H (A)	Kelly Springs Road (SR 1937)	Indian Springs Road (SR 1744)	NC 55	Wayne County	1.2	22	2	10	N/A	55	9200	2500	5000	5000	15800	2A	N/A	Minor Thoroughfare	Sub	
MOUN0013-H (B)	Kelly Springs Road (SR 1937)	NC 55	Graham Road (SR 1558)	Wayne County	0.9	22	2	10	N/A	55	9200	2500	5000	5000	15800	2A	N/A	Minor Thoroughfare	Sub	
MOUN0014-H	Lees Country Club Road (SR 1144)	Lees Country Club Road (SR 1144)	Breazeale Avenue (US 117A)	Wayne County	0.3	22	2	10	N/A	35	9200	400	800	800	10500	2A	N/A	Minor Thoroughfare	Sub	
MOUN0015-H	Michael Martin Road	Henderson Street (SR 1174)	Breazeale Avenue (US 117A)	Wayne County	0.2	22	2	11	N/A	35	9200	1000	2000	2000	10500	2A	N/A	Minor Thoroughfare		T

HIGHWAY																				
Local ID	Facility	Section		Jurisdiction	Dist. (mi)	2010 Existing System							2040 Proposed System					CTP Classification	Tier	Proposals for Other Modes
		From	To			Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd)	2010 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)			
MOUN0016-H (A)	Northeast Center Street	Talton Street (SR 1942)	West Park Avenue	Wayne County	0.4	23	2	11	N/A	35	9200	2000	3800	3800	10500	2A	N/A	Minor Thoroughfare	Sub	B
MOUN0016-H (B)	Northwest Center Street (SR 1938, Old Mount Olive Hwy)	Parker Rd (SR 1939)	Northeast Church Road	Wayne County	2.0	22	2	10	N/A	55	9200	2000	3800	3800	15800	2A	N/A	Minor Thoroughfare	Sub	T,B,P
MOUN0016-H (C)	Northwest Center Street (SR 1938, Old Mount Olive Hwy)	Northeast Church Road	NC 55	Wayne County	0.6	22	2	10	N/A	55	9200	2000	3800	3800	15800	2A	N/A	Minor Thoroughfare	Sub	T,B,P
MOUN0016-H (D)	Northwest Center Street (SR 1938, Old Mount Olive Hwy)	NC 55	Talton Street (SR 1942)	Wayne County	0.2	22	2	10	N/A	55	9200	2000	3800	3800	15800	2A	N/A	Minor Thoroughfare	Sub	T,B,P
MOUN0017-H (A)	Northeast Church Road (SR 1941)	Breazeale Avenue (US 117A)	Northwest Center Street (SR 1938)	Wayne County	0.6	22	2	11	N/A	55	9200	2800	5500	5500	15800	2A	N/A	Minor Thoroughfare	Sub	B
MOUN0017-H (B)	Northeast Church Road (SR 1941)	NorthWest Center Street (SR 1938)	Indian Springs Road (SR 1744)	Wayne County	0.4	22	2	10	N/A	55	9200	2800	5500	5500	15800	2A	N/A	Minor Thoroughfare	Sub	B
MOUN0018-H (A)	Old Smith Chapel Road (SR 1157)	Thunder Swamp Road (SR 1183)	Daughtery Field Road (SR 1143)	Wayne County	1.2	22	2	10	N/A	55	9200	600	1200	1200	15800	2A	N/A	Minor Thoroughfare	Sub	T,B
MOUN0018-H (B)	Old Smith Chapel Road (SR 1157)	Daughtery Field Road (SR 1143)	US 117	Wayne County	0.5	22	2	10	N/A	55	9200	600	1200	1200	15800	2A	N/A	Minor Thoroughfare	Sub	T,B
MOUN0019-H	Rones Chapel Road (SR 1004)	East James Street (SR 1004)	NC 403	Wayne County	2.6	22	2	11	N/A	55	9200	3300	6000	6000	15800	2A	N/A	Minor Thoroughfare	Sub	
MOUN0020-H (A)	West Main Street (SR 1141)	NC 55	US 117	Wayne County	0.7	22	2	10	N/A	55	9200	3500	7000	7000	15800	2A	N/A	Minor Thoroughfare	Sub	T,P
MOUN0020-H (B)	West Main Street (SR 1141)	US 117	Wooten Street	Wayne County	0.4	24	2	12	N/A	35	9200	3500	7000	7000	10500	2A	N/A	Minor Thoroughfare	Sub	T,P
MOUN0020-H (C)	West Main Street (SR 1141)	Wooten Street	Breazeale Avenue (US 117A)	Wayne County	0.3	24	2	12	N/A	35	9200	4500	8500	8500	10500	2A	N/A	Minor Thoroughfare	Sub	T,P
MOUN0021-H	West Park Avenue	Breazeale Avenue (US 117A)	Northeast Center Street	Wayne County	0.3	24	2	12	N/A	35	9200	800	1500	1500	10500	2A	N/A	Minor Thoroughfare		T,P
MOUN0022-H	Wooten Street	East James Street (SR 1004)	East Main Street (SR 1141)	Wayne County	0.1	22	2	10	N/A	35	9200	600	1200	1200	10500	2A	N/A	Minor Thoroughfare		B

PUBLIC TRANSPORTATION AND RAIL

PUBLIC TRANSPORTATION[1]							
Local ID	Facility / Route	Section (From - To)	Speed Limit (mph)	Distance (mi)	Existing System Type	Proposed System Type	Other Modes
MOUN0001-T (A)	US 117 NB Ramp	1000 feet from NC 55 ramp - NC 55	55	0.4	--	Fixed-Route	H
MOUN0001-T (B)	US 117 SB Ramp	NC 55 - 1000 feet after NC 55 ramp	55	0.4	--	Fixed-Route	H
MOUN0001-T (C)	US 117	West Main Street (SR 1141) - Old Smith Chapel Hwy (SR 1157)	55	0.8	--	Fixed-Route	H
MOUN0002-T (A)	Breazeale Avenue (US 117A)	Northeast Church Road (SR 1941) - Country Road (SR 1947)	35	0.2	Bus	--	H,B,P
MOUN0002-T (B)	South Breazeale Avenue (US 117A)	Country Rd (SR 1947) - Cleveland Avenue	45	2.6	--	Fixed-Route	H,B,P
MOUN0003-T (A)	NC 55	Country Club Road (SR 1135) - Walmart™	45	0.6	--	Fixed-Route	H,B,P
MOUN0003-T (B)	NC 55	Walmart™ - North Breazeale Avenue (US 117A)	45	0.6	Bus	--	H,B,P
MOUN0004-T	Cleveland Avenue	Granger Place - South Breazeale Avenue (US 117A)	35	0.1	--	Fixed-Route	
MOUN0005-T	Country Club Road (SR 1135)	NC 55 - West Main Street (SR 1141)	55	0.5	--	Fixed-Route	H
MOUN0006-T	Country Road (SR 1947)	Southeast Center Street - County Road (SR 1947)	35	0.1	--	Fixed-Route	B
MOUN0007-T	County Road (SR 1947)	Country Road (SR 1947) - South Church Street (SR 1945)	55	0.3	--	Fixed-Route	B
MOUN0008-T	East James Street (SR 1004)	Northwest Center Street - South Johnson Street	35	0.2	--	Fixed-Route	H,B
MOUN0009-T	East Maple Street (SR 1946)	South Church Street (SR 1945) - South Johnson Street	35	0.1	--	Fixed-Route	P
MOUN0010-T	Henderson Street (SR 1174)	Micheal Martin Road - Piggly Wiggly™	35	1.1	--	Fixed-Route	H,B,P
MOUN0011-T	Michael Martin Road	Henderson Street (SR 1174) - North Breazeale Avenue (US 117A)	35	0.2	--	Fixed-Route	H
MOUN0012-T	North Church Street (SR 1969)	West Park Avenue - Old 7 Spring Road (SR 1744)	45	0.6	--	Fixed-Route	
MOUN0013-T	Northwest Center Street	West Park Avenue - West James Street (SR 1004)	35	0.5	--	Fixed-Route	B
MOUN0014-T	Old 7 Springs Road (SR 1744)	East Park Avenue - North Church Street (SR 1969)	45	0.5	--	Fixed-Route	B
MOUN0015-T	Old Smith Chapel Hwy (SR 1157)	West Main Street (SR 1141) - US 117	35	0.9	--	Fixed-Route	H,B
MOUN0016-T	South Center Street	West Pollock Street - Country Road (SR 1947)	45	0.8	Bus	--	B
MOUN0017-T	South Church Street (SR 1945)	East Maple Street (SR 1946) - County Road (SR 1947)	35	0.8	--	Fixed-Route	P
MOUN0018-T	South Johnson Street	East James Street (SR 1004) - East Maple Street (SR 1946)	35	0.3	--	Fixed-Route	
MOUN0019-T	West Main Street (SR 1141)	Country Club Road (SR 1135) - US 117	55	0.2	--	Fixed-Route	H,P

PUBLIC TRANSPORTATION AND RAIL

PUBLIC TRANSPORTATION[1]							
Local ID	Facility / Route	Section (From - To)	Speed Limit (mph)	Distance (mi)	Existing System Type	Proposed System Type	Other Modes
MOUN0020-T	West Main Street (SR 1141)	Old Smith Chapel Hwy (SR 1157) - South Breazeale Avenue (US 117A)	35	0.3	--	Fixed-Route	H,P
MOUN0021-T	West Park Avenue	North Breazeale Avenue (US 117A) - Old 7 Spring Road (SR 1744)	35	0.5	--	Fixed-Route	H,P
MOUN0022-T	West Pollock Street	South Breazeale Avenue (US 117A) - South Center Street	35	0.2	Bus	--	

[1] Only major public transportation routes and proposals are shown here. For further documentation of the public transportation system, refer to Goldsboro Wayne Transportation Authority - Gateway Transit

RAIL												
Local ID	Facility / Route	Section (From - To)	Class	Speed Limit (mph)	Distance (mi)	Existing System			Proposed System			Other Modes
						Type	ROW (ft)	Trains per day	Type	ROW (ft)	Trains per day	
N/A	CSX	Northern Area Boundary - Southern Area Boundary	I		6.7	Rail			N/A	N/A	N/A	N/A

BICYCLE AND PEDESTRIAN

BICYCLE								
Local ID	Facility / Route	Section (From - To)	Distance (mi)	Existing System		Proposed System		Other Modes
				Cross-Section		Type	Cross-Section	
				(ft)	lanes			
MOUN0001-B	South Breazeale Avenue (US 117A)	NC 55 - Country Road (SR 1947)	2.0	24 - 48	2 - 5	Bicycle	2B - 4G	H,T
MOUN0002-B	NC 55	Walmart™ - North Breazeale Avenue (US 117A)	0.6	60	4 - 5	Bicycle	4D	H,T,P
MOUN0003-B	Bert Martin Road (SR 1139)	Henderson Street (SR 1174) - Martin Street	0.3	20	2	Bicycle	2B	
MOUN0004-B	Country Road (SR 1947)	South Breazeale Avenue (US 117A) - County Road (SR 1947)	0.2	22	2	Bicycle	2B	T
MOUN0005-B	County Road (SR 1947)	Country Road (SR 1947) - Young Drive	0.1	22	2	Bicycle	2B	T
MOUN0006-B	Henderson Street (SR 1174)	NC 55 - North Breazeale Avenue (US 117A)	1.3	24	2	Bicycle	2B	H,T,P
MOUN0007-B	Journey Street (SR 1942)	Northeast Center Street - North Church Street (SR 1969)	0.1	20	2	Bicycle	2E	
MOUN0008-B	Martin Street	Bert Martin Road (SR 1139) - Henderson Street (SR 1174)	0.3	18	2	Bicycle	2C	
MOUN0009-B	Northeast Center Street	Westbrook Street - East Main Street (SR 1141)	0.5	36	2	Bicycle	2E	
MOUN0010-B	Northwest Center Street	Northeast Church Road (SR 1941) - East Main Street (SR 1141)	1.7	18 - 36	2	Bicycle	2E	T,P
MOUN0011-B	Old 7 Springs Road (SR 1744)	North Church Street (SR 1969) - Ann Street	0.3	18	2	Bicycle	2B	T
MOUN0012-B	Old Smith Chapel Hwy (SR 1157)	West Main Street (SR 1141) - Whitley Street	0.6	20	2	Bicycle	2B	H,T
MOUN0013-B	Park Avenue (SR 1744)	Ann Street - Francis Street	0.1	20	2	Bicycle	2B	T
MOUN0014-B	Southeast Center Street	East Main Street (SR 1141) - Country Road (SR 1947)	0.9	18	2	Bicycle	2C	
MOUN0015-B	Southwest Center Street	East Main Street (SR 1141) - Country Road (SR 1947)	0.9	18	2	Bicycle	2C	
MOUN0016-B	Westbrook Street	North Breazeale Avenue (US 117A) - Northwest Center Street	0.2	18	2	Bicycle	2C	
MOUN0017-B	West James Street (SR 1004)	Wooten Street - East Main Street (SR 1141)	0.9	20 - 30	2	Bicycle	2E	H,T,B
MOUN0018-B	Wooten Street	West John Street - West Main Street (SR 1141)	0.1	20	2	Bicycle	2E	H

PEDESTRIAN

Local ID	Facility / Route	Section (From - To)	Distance (mi)	Existing System		Proposed System		Other Modes
				Type	Side of Street	Type	Side of Street	
MOUN0001-P	North Breazeale Avenue (US 117A)	Davis Road (SR 1145) - West Station Street	1.7	N/A	N/A	Sidewalks	Both	H,T,B
MOUN0002-P	NC 55	Walmart™ - Breazeale Avenue (US 117A)	0.6	N/A	N/A	Sidewalks	Both	H,T,B
MOUN0003-P	Chestnut Street	Witherington Street and Vine Street - West Station Street	0.3	N/A	N/A	Sidewalks	Both	
MOUN0004-P	Davis Road (SR 1145)	North Breazeale Avenue (US 117A) - end of the road	0.5	N/A	N/A	Sidewalks	Both	
MOUN0005-P	East Hillsboro Street	Southeast Center Street - Oliver Street (SR 1946)	0.6	N/A	N/A	Sidewalks	Both	
MOUN0006-P	East Maple Street (SR 1946)	South Johnson Street - Oliver Street (SR 1946)	0.1	N/A	N/A	Sidewalks	Both	T
MOUN0007-P	Franklin Street	Claytor Street - Oliver Street (SR 1946)	0.8	N/A	N/A	Sidewalks	Both	
MOUN0008-P	Henderson Street (SR 1174)	James B. Hunt Drive - Northwest Center Street	0.6	N/A	N/A	Sidewalks	Both	H,T,B
MOUN0009-P	Henderson Street (SR 1168)	Bert Martin Road (SR 1139) - NC 55	0.2	N/A	N/A	Sidewalks	Both	H,T,B
MOUN0010-P	Nellie Avenue	Franklin Street - County Road (SR 1947)	0.1	N/A	N/A	Sidewalks	Both	
MOUN0011-P	North Church Street (SR 1969)	East Station Street - East College Street	0.1	N/A	N/A	Sidewalks	Both	T
MOUN0012-P	Northwest Center Street	Henderson Street (SR 1178) - West College Street	0.2	N/A	N/A	Sidewalks	Both	H,T,B
MOUN0013-P	Oliver Street (SR 1946)	East Maple Street (SR 1946) and Gordon Street - Franklin Street	0.4	N/A	N/A	Sidewalks	Both	
MOUN0014-P	South Church Street (SR 1945)	East Maple Street (SR 1946) - County Road (SR 1947)	0.8	N/A	N/A	Sidewalks	Both	T
MOUN0015-P	West Main Street (SR 1141)	US 117 - McGee Street	0.3	N/A	N/A	Sidewalks	Both	H,T
MOUN0016-P	West Park Avenue	North Breazeale Avenue (US 117A) - Chestnut Street	0.2	N/A	N/A	Sidewalks	Both	H,T

MULTI-USE PATH

Local ID	Facility / Route	Section (From - To)	Distance (mi)	Existing System		Proposed System		Other Modes
				Side of Street	Cross-Section	Side of Street	Cross-Section	
MOUN0001-M	South Breazeale Avenue (US 117A)	South Chestnut Street - Carver Street	0.1	N/A	N/A	N/A	MA	H,T,B
MOUN0002-M	Herring Street	South Breazeale Avenue (US 117A) - South Center Street	0.1	N/A	N/A	N/A	MA	P
MOUN0003-M	Nelson Street	Southeast Center Street - Oliver Street (SR 1946)	0.7	N/A	N/A	N/A	MA	P
MOUN0004-M	Southwest Center Street	Herring Street - Nelson Street	0.1	N/A	N/A	N/A	MA	B

Appendix D
Typical Cross Sections

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

The typical cross sections were updated on May 5, 2014 to support the Department's "Complete Streets[1]" policy that was adopted in July 2009. In addition, these typical highway cross sections have been updated in response to the Strategic Transportation Investments Law (House Bill 817), and are consistent with SPOT Online (used for Project Prioritization). This guidance established design elements that emphasize safety, mobility, and accessibility for multiple modes of travel. These "typical" cross sections should be used as preliminary guidelines for comprehensive transportation planning, project planning and project design activities. The specific and final cross section details and right of way limits for projects will be established through the preparation of the National Environmental Policy Act (NEPA) documentation and through final plan preparation.

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

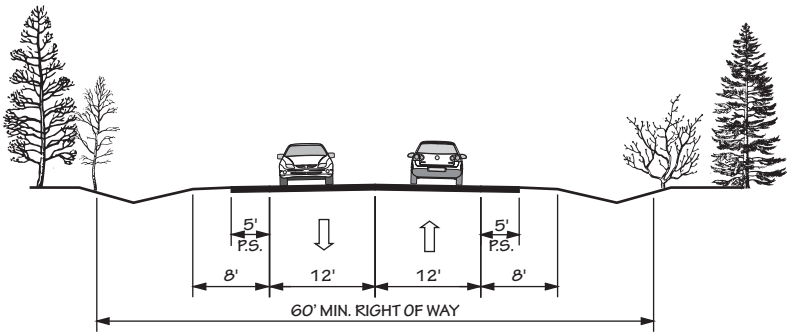
- roadways which may require widening after the current planning period,
- roadways which are borderline adequate and accelerated traffic growth could render them deficient,
- roadways where an urban curb and gutter cross section may be locally desirable because of urban development or redevelopment,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

[1] *For more information on Complete Streets, go to: http://www.completestreetsnc.org/.*

FIGURE 7

"TYPICAL" HIGHWAY CROSS SECTIONS

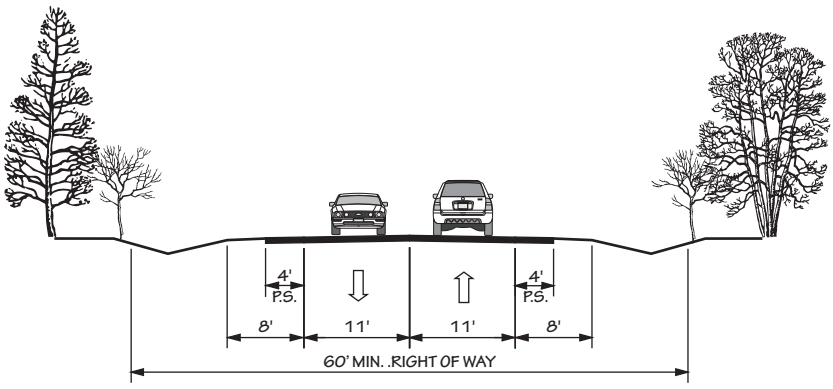
2A



2 LANE UNDIVIDED WITH PAVED SHOULDERS

POSTED SPEED 55 MPH

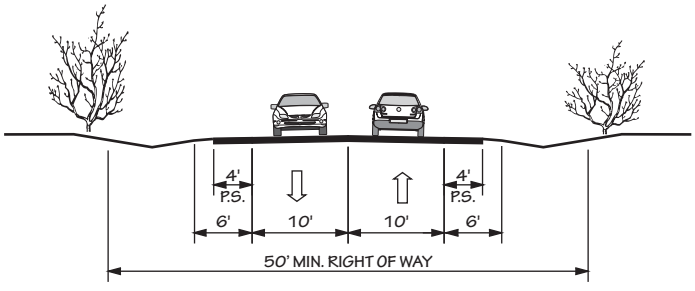
2B



2 LANES UNDIVIDED

POSTED SPEED 45 MPH OR LESS

2C

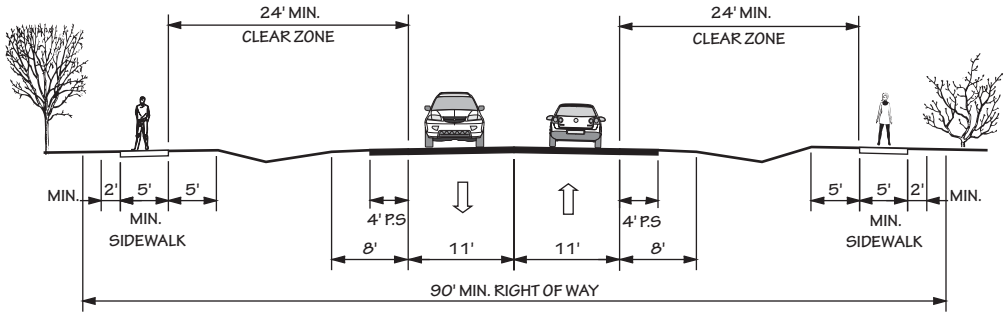


2 LANE UNDIVIDED WITH PAVED SHOULDERS

POSTED SPEED 25 - 35 MPH

"TYPICAL" HIGHWAY CROSS SECTIONS

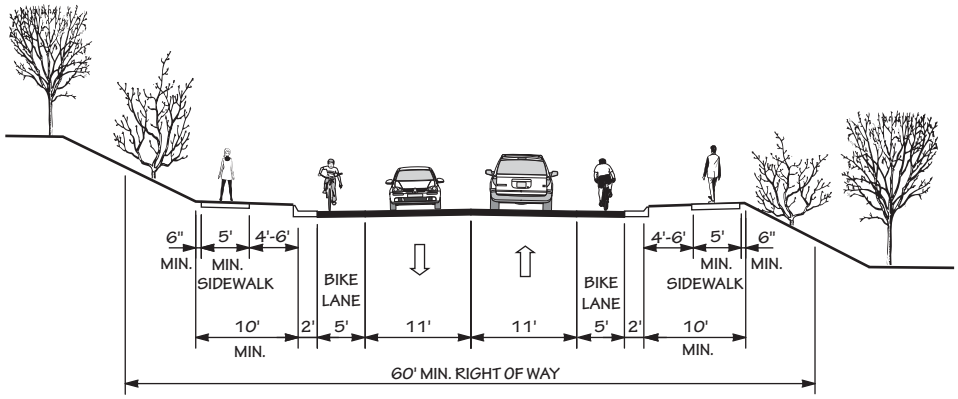
2D



2 LANE UNDIVIDED WITH PAVED SHOULDERS AND SIDEWALKS

POSTED SPEED 25-45 MPH

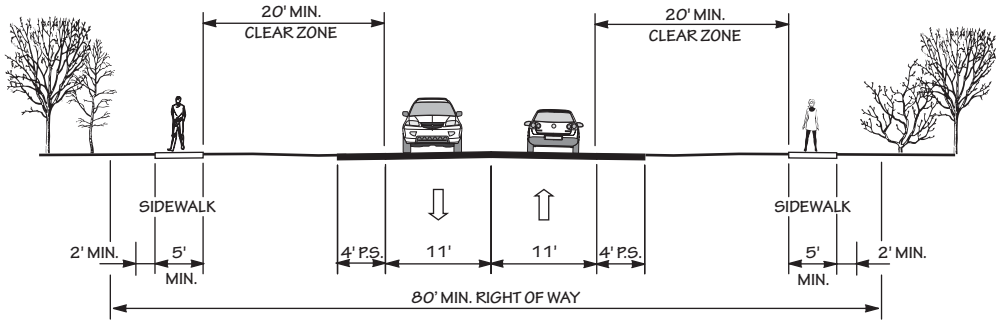
2E



2 LANE UNDIVIDED WITH CURB & GUTTER, BIKE LANES, AND SIDEWALKS

POSTED SPEED 25-45 MPH

2F

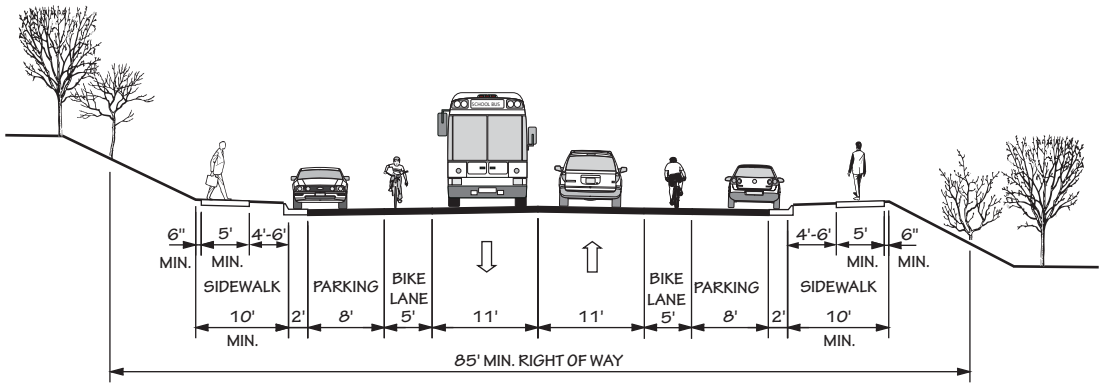


2 LANE UNDIVIDED WITH PAVED SHOULDERS AND SIDEWALKS
IN CAMA COUNTIES

POSTED SPEED 25-45 MPH

"TYPICAL" HIGHWAY CROSS SECTIONS

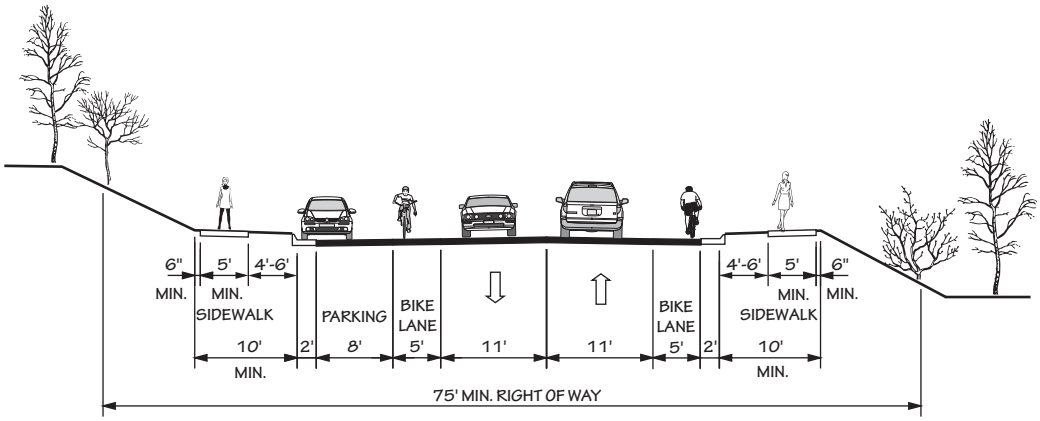
2G



2 LANE UNDIVIDED WITH CURB & GUTTER, PARKING BOTH SIDES, BIKE LANES, AND SIDEWALKS

POSTED SPEED 25-45 MPH

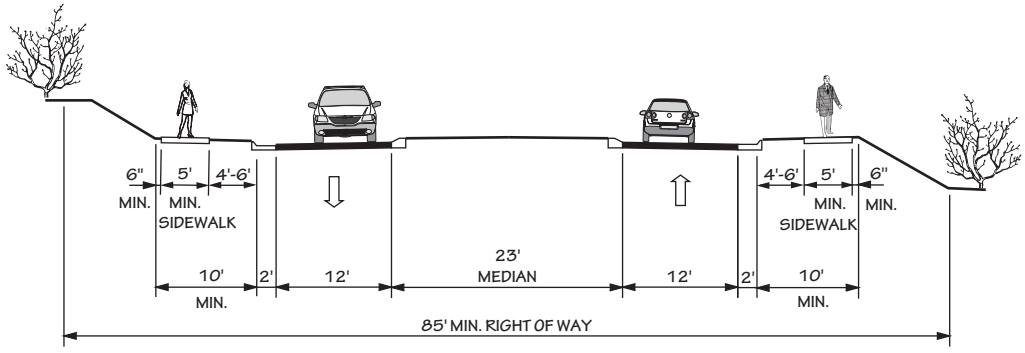
2H



2 LANE UNDIVIDED WITH CURB & GUTTER, PARKING ONE SIDE, BIKE LANES, AND SIDEWALKS

POSTED SPEED 25-45 MPH

2I

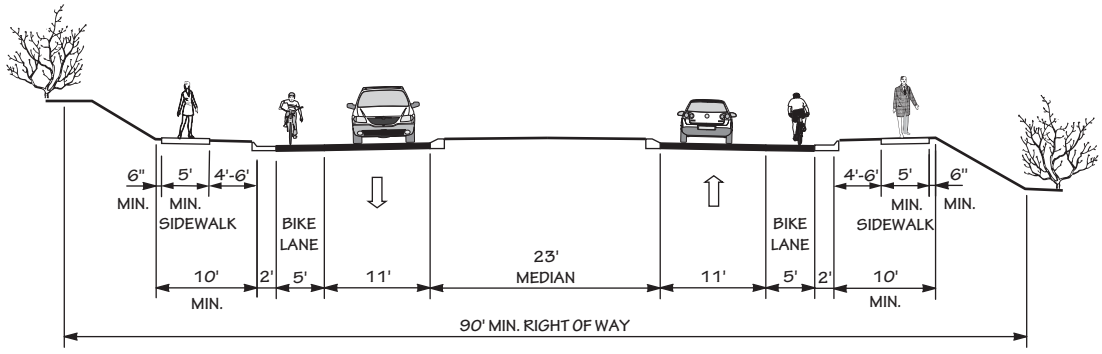


2 LANE DIVIDED (23' RAISED MEDIAN) WITH CURB & GUTTER AND SIDEWALKS

POSTED SPEED 25-45 MPH

"TYPICAL" HIGHWAY CROSS SECTIONS

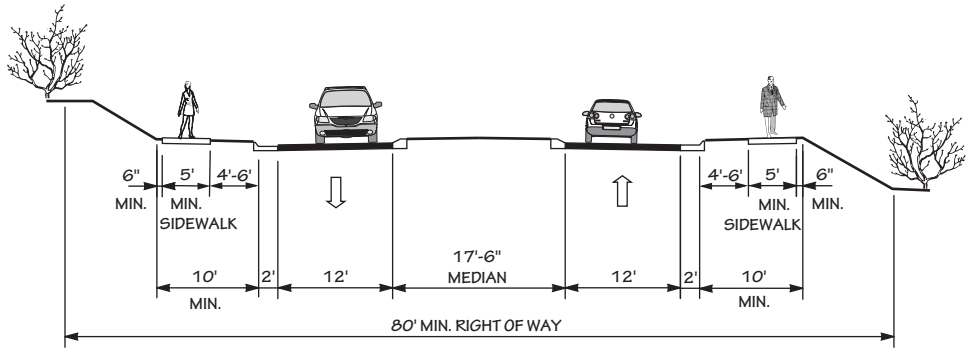
2J



2 LANE DIVIDED (23' RAISED MEDIAN) WITH CURB & GUTTER, BIKE LANES, AND SIDEWALKS

POSTED SPEED 25-45 MPH

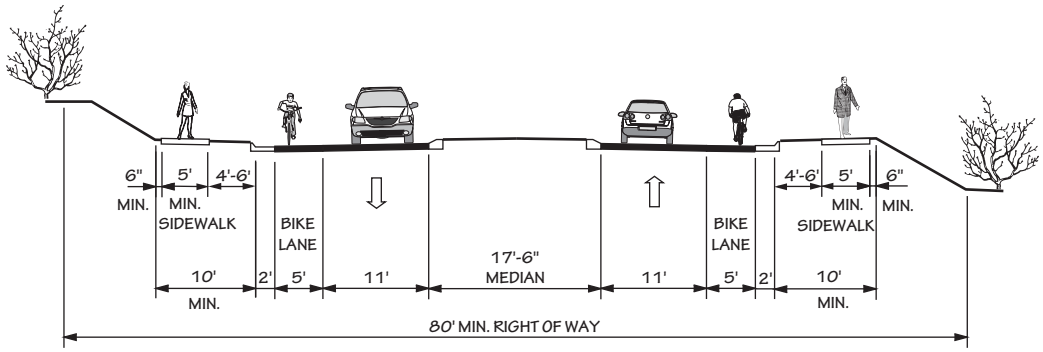
2K



2 LANE DIVIDED (17'-6" RAISED MEDIAN) WITH CURB & GUTTER AND SIDEWALKS

POSTED SPEED 25-45 MPH

2L

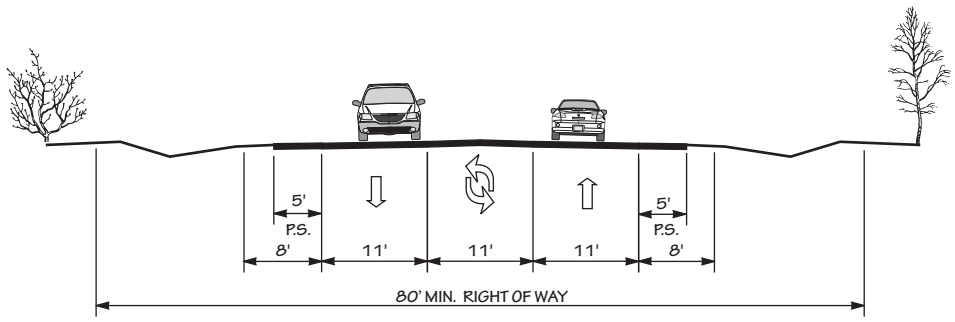


2 LANE DIVIDED (17'-6" RAISED MEDIAN) WITH CURB & GUTTER, BIKE LANES, AND SIDEWALKS

POSTED SPEED 25-45 MPH

"TYPICAL" HIGHWAY CROSS SECTIONS

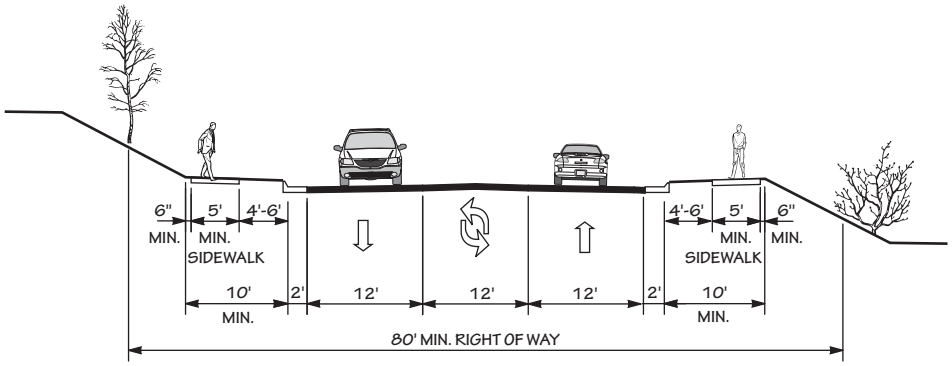
3A



2 LANE WITH TWO WAY LEFT TURN LANE, AND PAVED SHOULDERS

POSTED SPEED 25-55 MPH

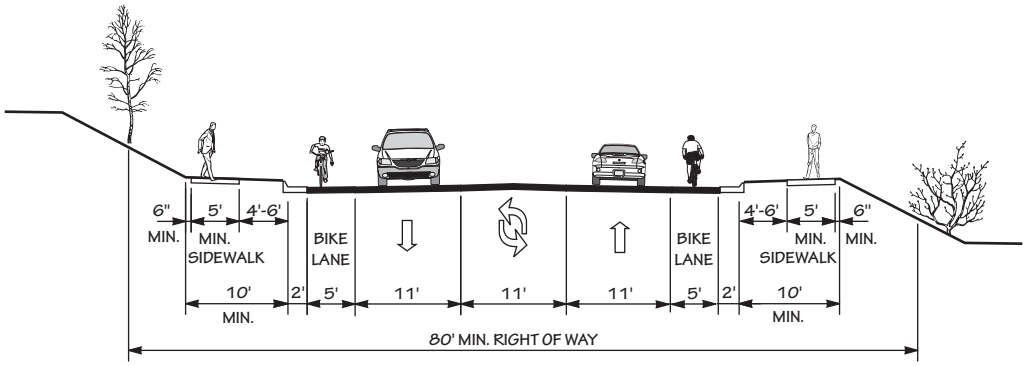
3B



2 LANE WITH TWO WAY LEFT TURN LANE, CURB & GUTTER, AND SIDEWALKS

POSTED SPEED 25-45 MPH

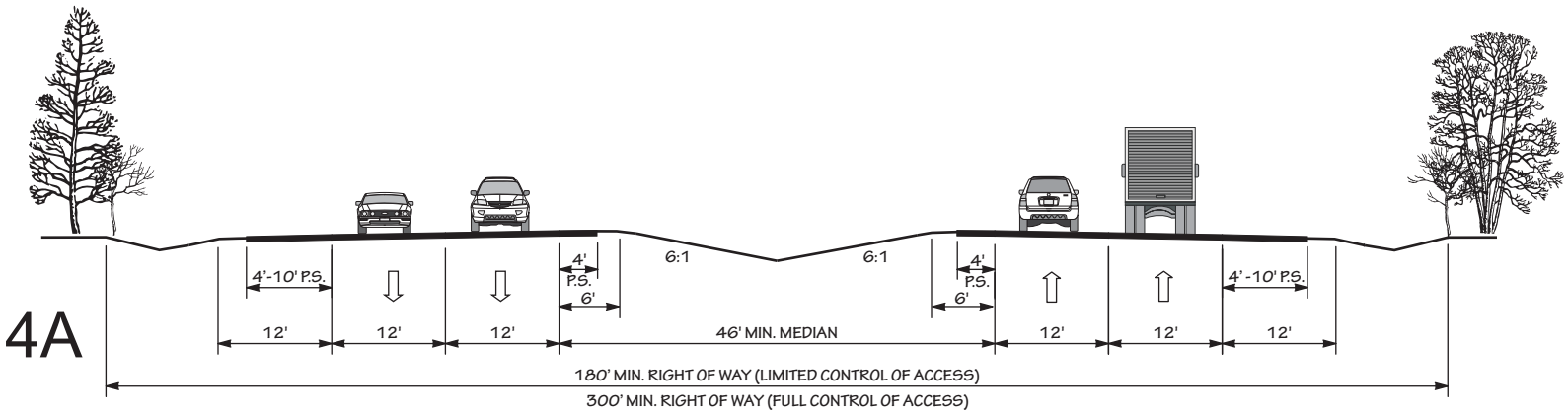
3C



2 LANE WITH TWO WAY LEFT TURN LANE, CURB & GUTTER, BIKE LANES, AND SIDEWALKS

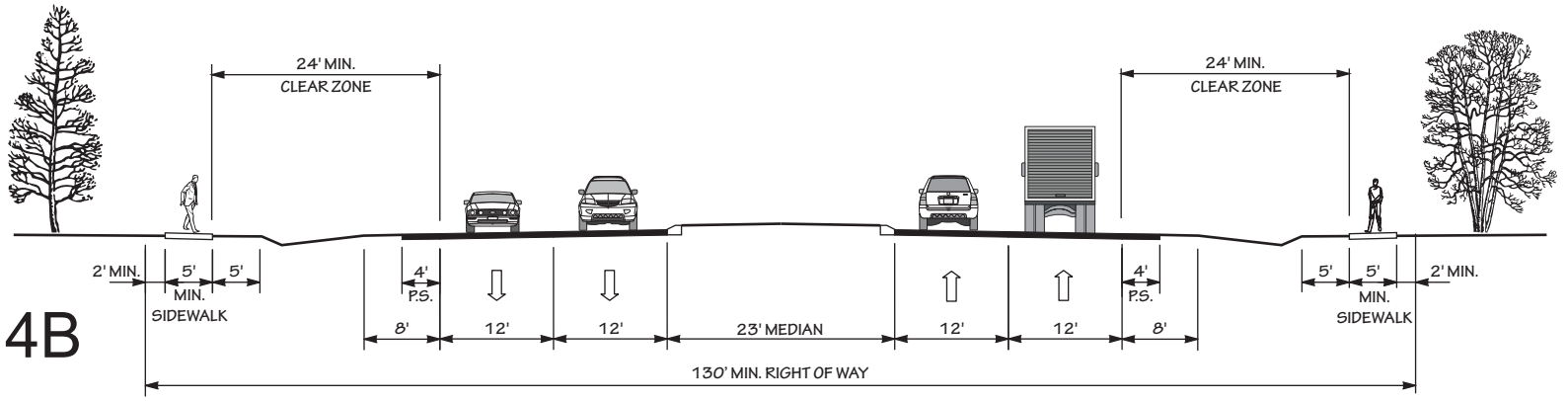
POSTED SPEED 25-45 MPH

"TYPICAL" HIGHWAY CROSS SECTIONS



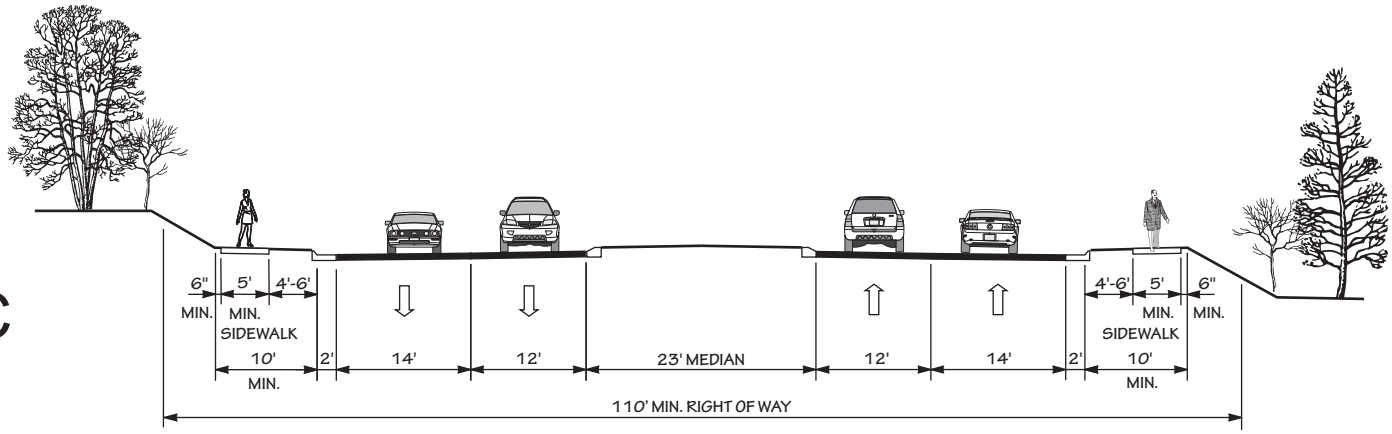
4 LANE DIVIDED (46' DEPRESSED MEDIAN) WITH PAVED SHOULDERS

POSTED SPEED 45-70 MPH



4 LANE DIVIDED (23' RAISED MEDIAN) WITH PAVED SHOULDERS AND SIDEWALKS

POSTED SPEED 35-55 MPH

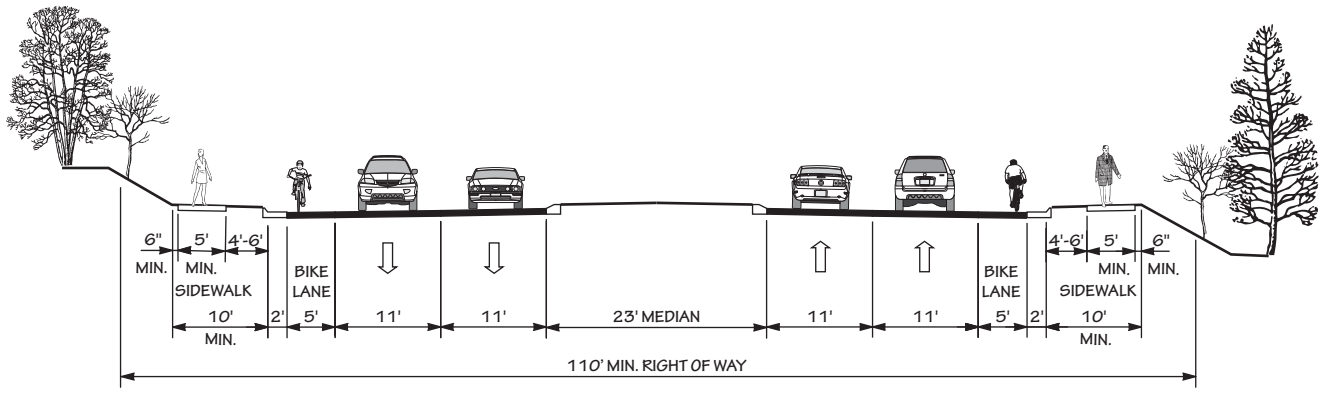


4 LANE DIVIDED (23' RAISED MEDIAN) WITH CURB & GUTTER, WIDE OUTSIDE LANES, AND SIDEWALKS

POSTED SPEED 35-45 MPH

"TYPICAL" HIGHWAY CROSS SECTIONS

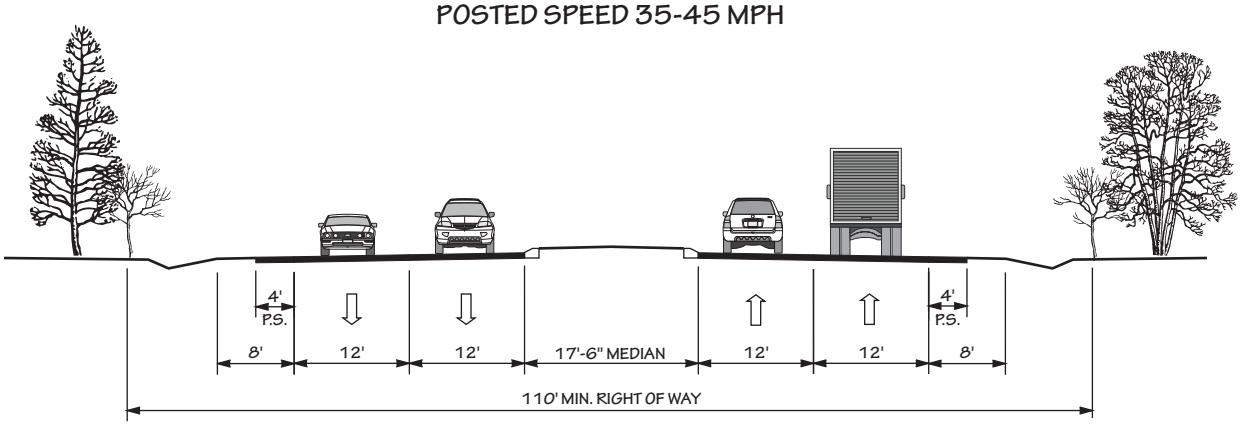
4D



4 LANE DIVIDED (23' RAISED MEDIAN) WITH CURB & GUTTER, WIDE OUTSIDE LANES, BIKE LANES, AND SIDEWALKS

POSTED SPEED 35-45 MPH

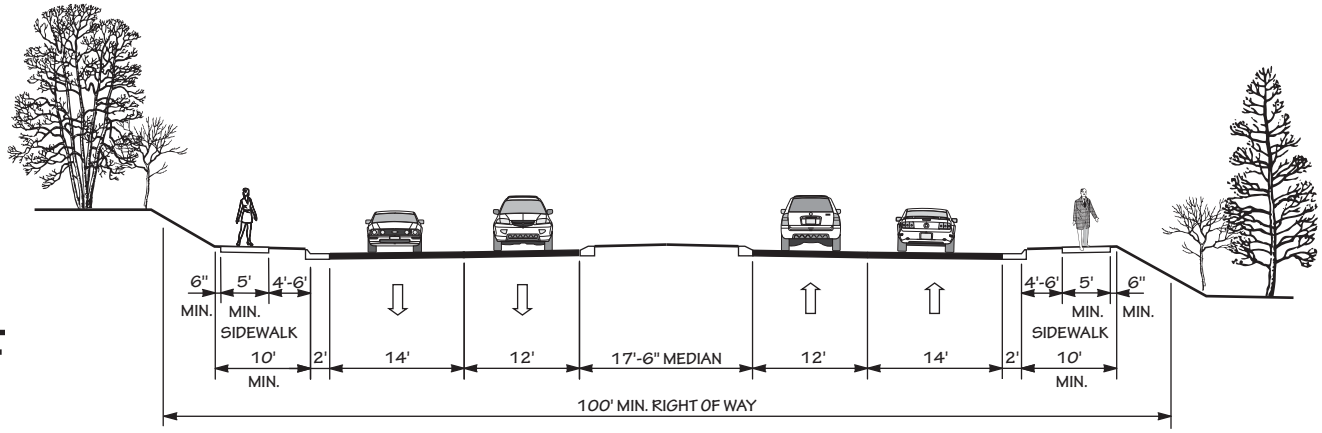
4E



4 LANE DIVIDED (17'-6" RAISED MEDIAN) WITH PAVED SHOULDERS AND SIDEWALKS

POSTED SPEED 35-55 MPH

4F

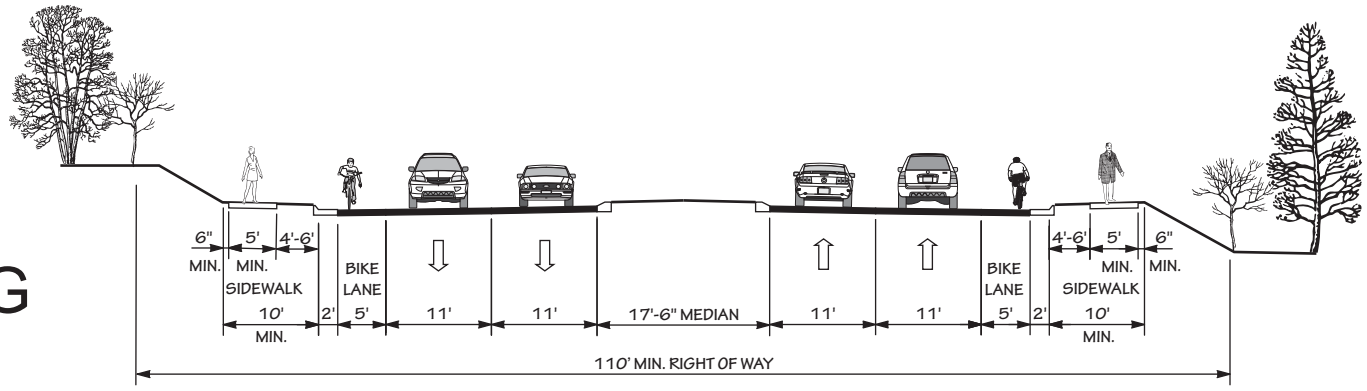


4 LANE DIVIDED (17'-6" RAISED MEDIAN) WITH CURB & GUTTER, WIDE OUTSIDE LANES, AND SIDEWALKS

POSTED SPEED 35-45 MPH

"TYPICAL" HIGHWAY CROSS SECTIONS

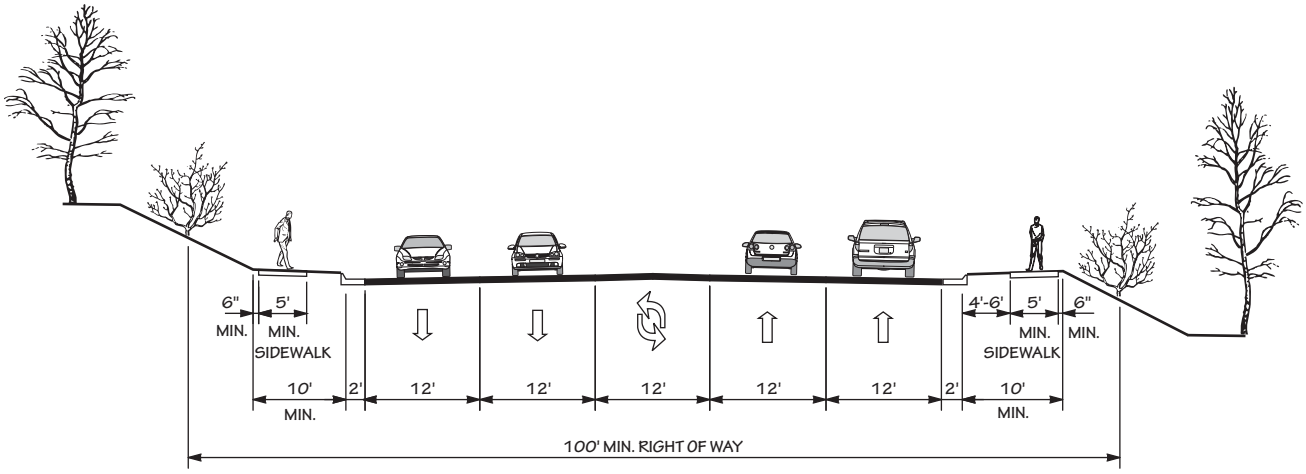
4G



4 LANE DIVIDED (17'-6" RAISED MEDIAN) WITH CURB & GUTTER, BIKE LANES, AND SIDEWALKS

POSTED SPEED 35-45 MPH

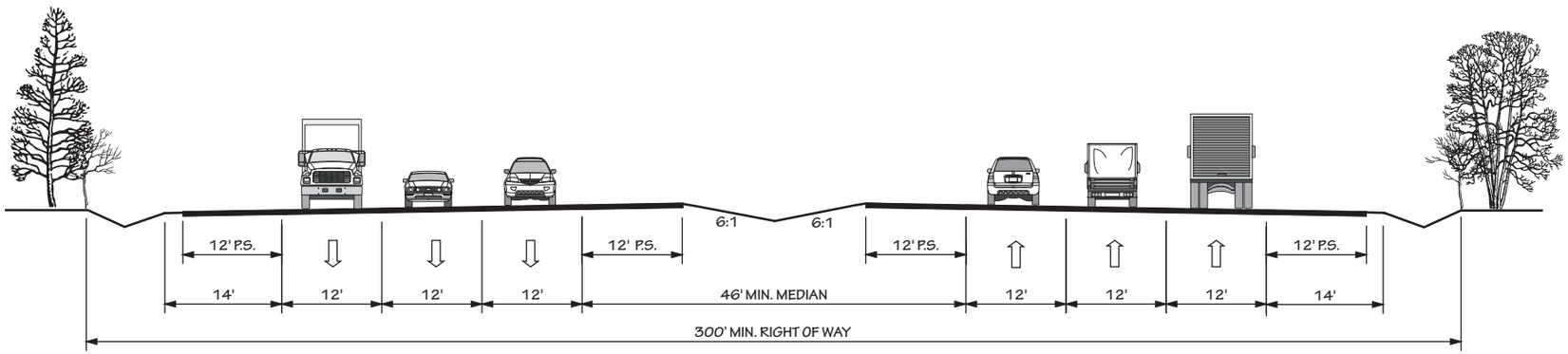
5A



4 LANE WITH TWO WAY LEFT TURN LANE, CURB & GUTTER, AND SIDEWALKS

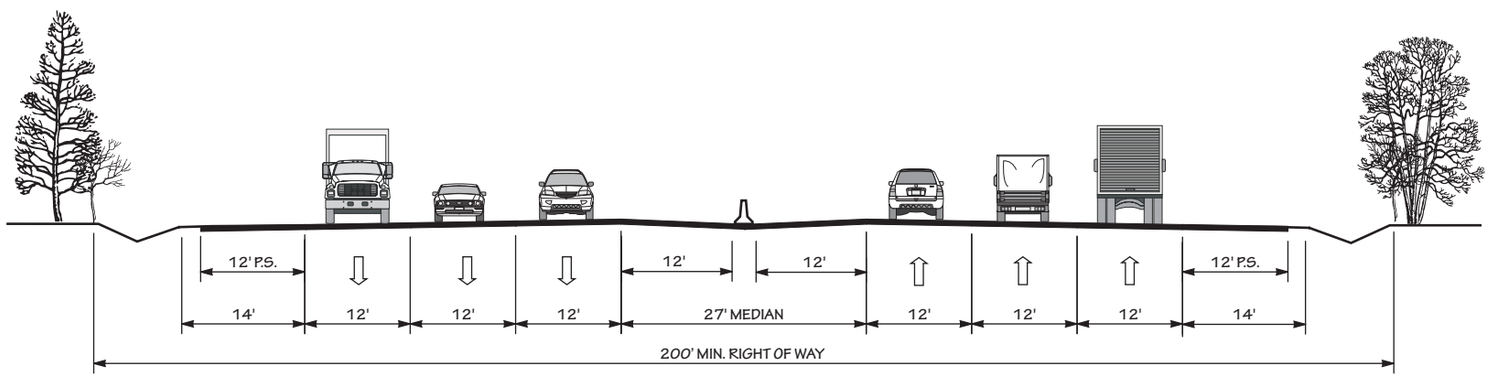
POSTED SPEED 35-45 MPH

"TYPICAL" HIGHWAY CROSS SECTIONS



6A 6 LANE DIVIDED (46' DEPRESSED MEDIAN) WITH PAVED SHOULDERS

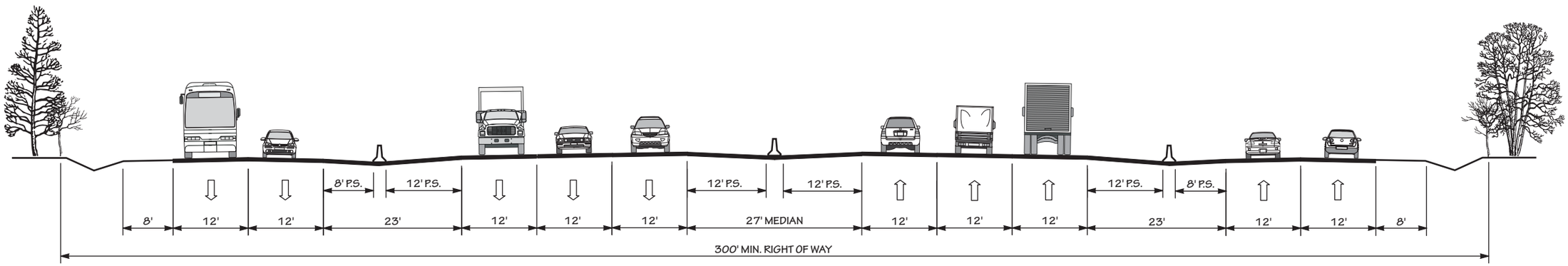
POSTED SPEED 45-70 MPH



6B 6 LANE DIVIDED (27' MEDIAN WITH JERSEY BARRIER) WITH PAVED SHOULDERS

POSTED SPEED 55-70 MPH

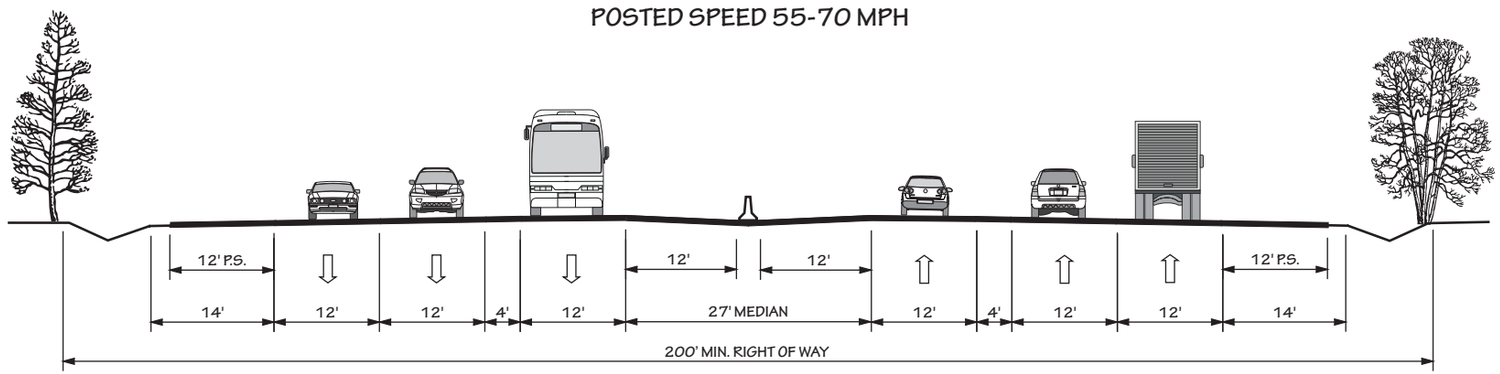
"TYPICAL" HIGHWAY CROSS SECTIONS



6C

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

POSTED SPEED 55-70 MPH

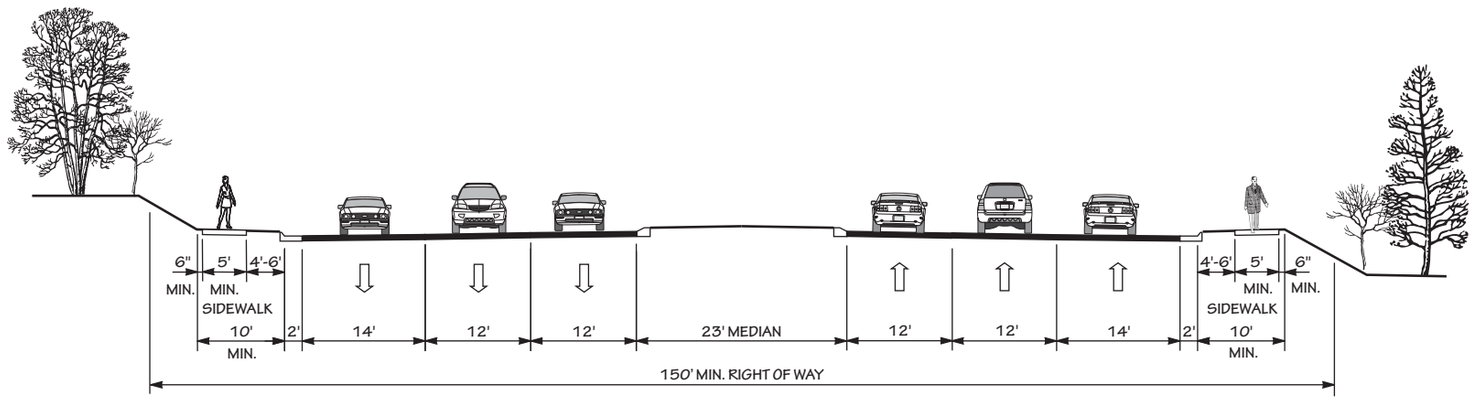


6D

6 LANE FREEWAY (4 GENERAL PURPOSE LANES, 2 MANAGED LANES, AND 27' MEDIAN WITH JERSEY BARRIER) WITH PAVED SHOULDERS

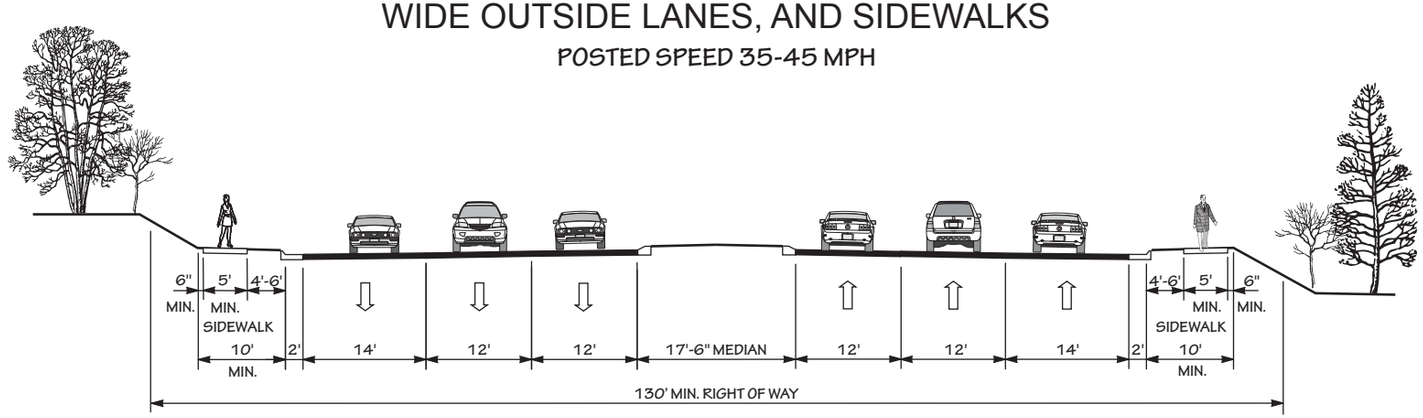
POSTED SPEED 55-70 MPH

"TYPICAL" HIGHWAY CROSS SECTIONS



6E 6 LANE DIVIDED (23' RAISED MEDIAN) WITH CURB & GUTTER, WIDE OUTSIDE LANES, AND SIDEWALKS

POSTED SPEED 35-45 MPH

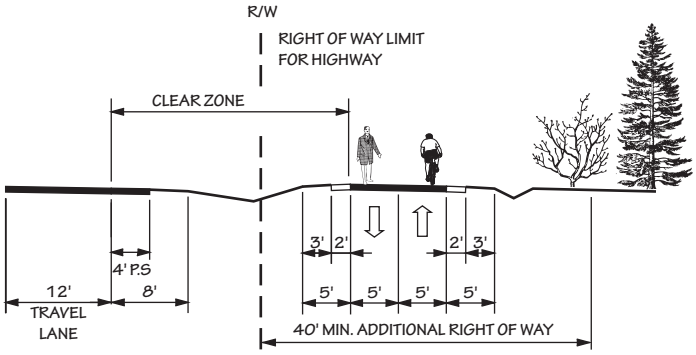


6F 6 LANE DIVIDED (17'-6" RAISED MEDIAN) WITH CURB & GUTTER, WIDE OUTSIDE LANES, AND SIDEWALKS

POSTED SPEED 35-45 MPH

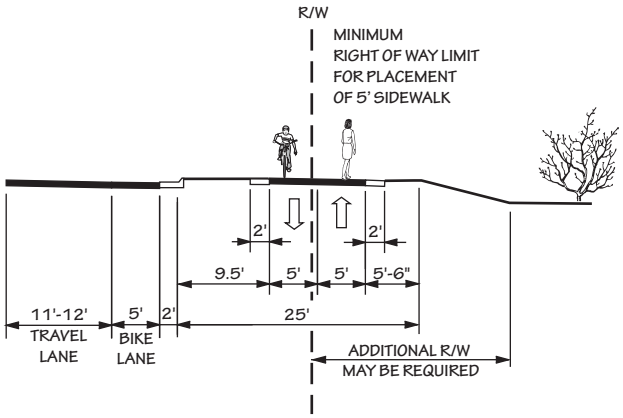
"TYPICAL" HIGHWAY CROSS SECTIONS

M A



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

M B



MULTI - USE PATH ADJACENT TO CURB AND GUTTER

Appendix E
Level of Service Definitions

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

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

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

Figure 8 - Level of Service Illustrations

Source: *2010 Highway Capacity Manual*, Exhibit 11-4

Appendix F
Bridge Deficiency Assessment

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

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

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

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

A bridge must be classified as deficient in order to qualify for federal replacement funds. Additionally, the sufficiency rating must be less than 50% to qualify for replacement or less than 80% to qualify for rehabilitation under federal funding. Deficient bridges located on roads evaluated as a part of the CTP are listed in Table 4, and Figure 5. For more details on deficient bridges within the planning area, contact the Structures Management Unit using the information in Appendix A.

Table 4 - Deficient Bridges

Bridge Number	*Facility*	*Feature*	*Condition*	*Local ID (Figure 5)*
950001	US 117 NBL	NC 55	FO	1
950002	US 117 SBL	NC 55	FO	2
300325	SR 1004	NE CAPE FEAR RIVER	SD & FO	25

Appendix G
Socio-Economic Data Forecasting Methodology

In the development of the Mount Olive CTP, existing and anticipated deficiencies were determined through an analysis of the transportation system looking at both current and future travel patterns.

For the non-modeled/rural portion of Wayne/Duplin Counties, travel demand was projected from 2010 to 2040 using a trend line analysis based on Annual Average Daily Traffic (AADT) from 1990 to 2010. In addition, local land use plans and growth expectations were used to further refine future growth rates and patterns. For this CTP, the 2030 Comprehensive Land Use Plan was used and is illustrated in Figures 9 and 10, respectively.

The CTP Steering Committee worked with NCDOT to estimate population growth, economic development potential, and land use trends to determine the potential impacts on the future transportation system in 2040.

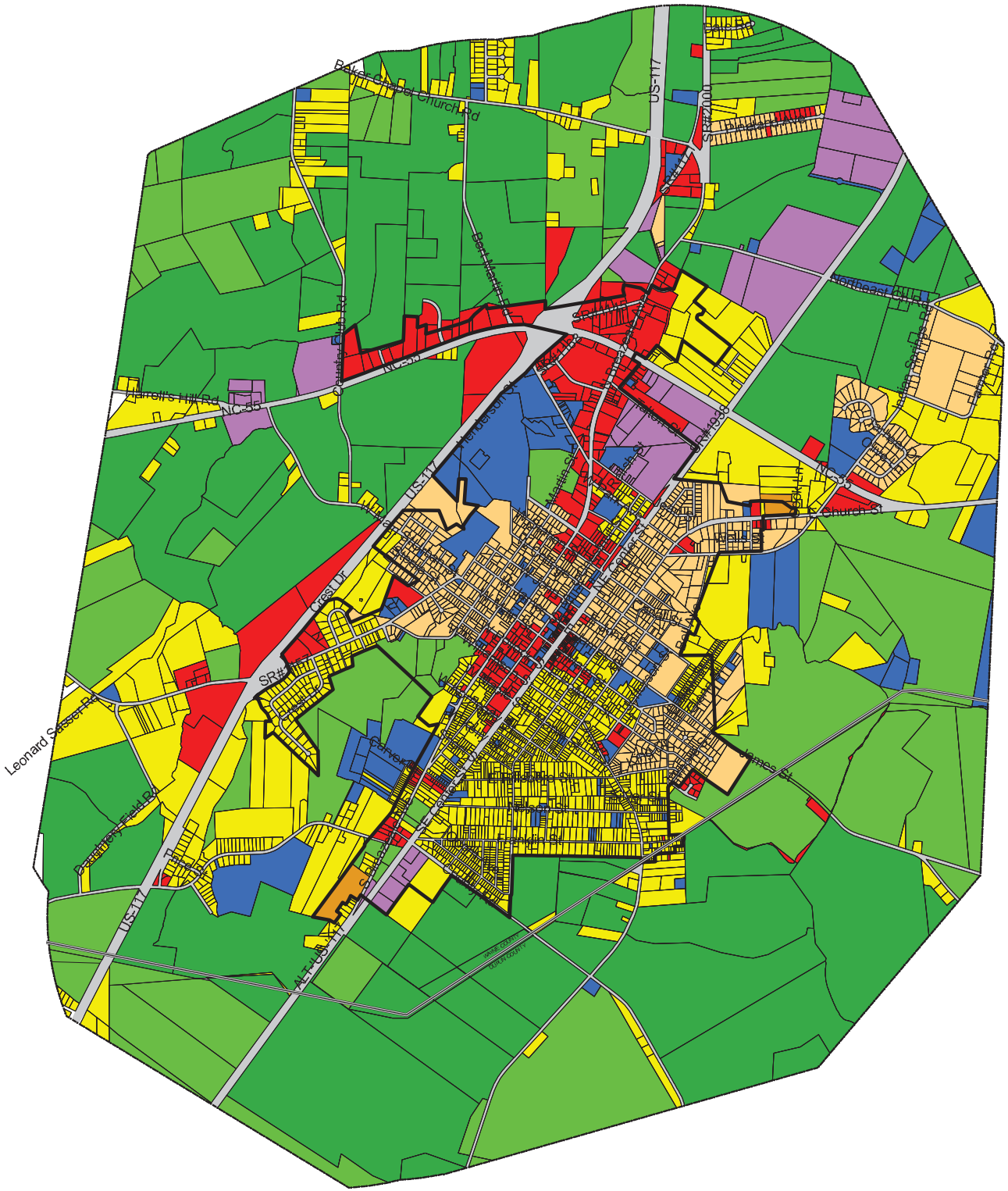
Population

Population trends were estimated using available data from the Office of State Budget and Management (OSBM) and simple exponential growth. Table 5 shows current and projected population through the year 2040.

Table 5 – Population Data

Year	**Mount Olive** Population
2010	4,589
2015	4,772
2020	4,962
2025	5,160
2030	5,366
2035	5,580
2040*	5,803

* Extrapolated by NCDOT



TOWN OF MOUNT OLIVE

NORTH CAROLINA

EXISTING LAND USE

MAP LEGEND

- Mount Olive ETJ
- Mount Olive Town Limits
- County Boundary

LAND USE

- COMMERCIAL
- INDUSTRIAL
- INSTITUTIONAL
- MHP
- MULTIFAMILY
- OPENSPACE
- RESIDENTIAL
- ROW

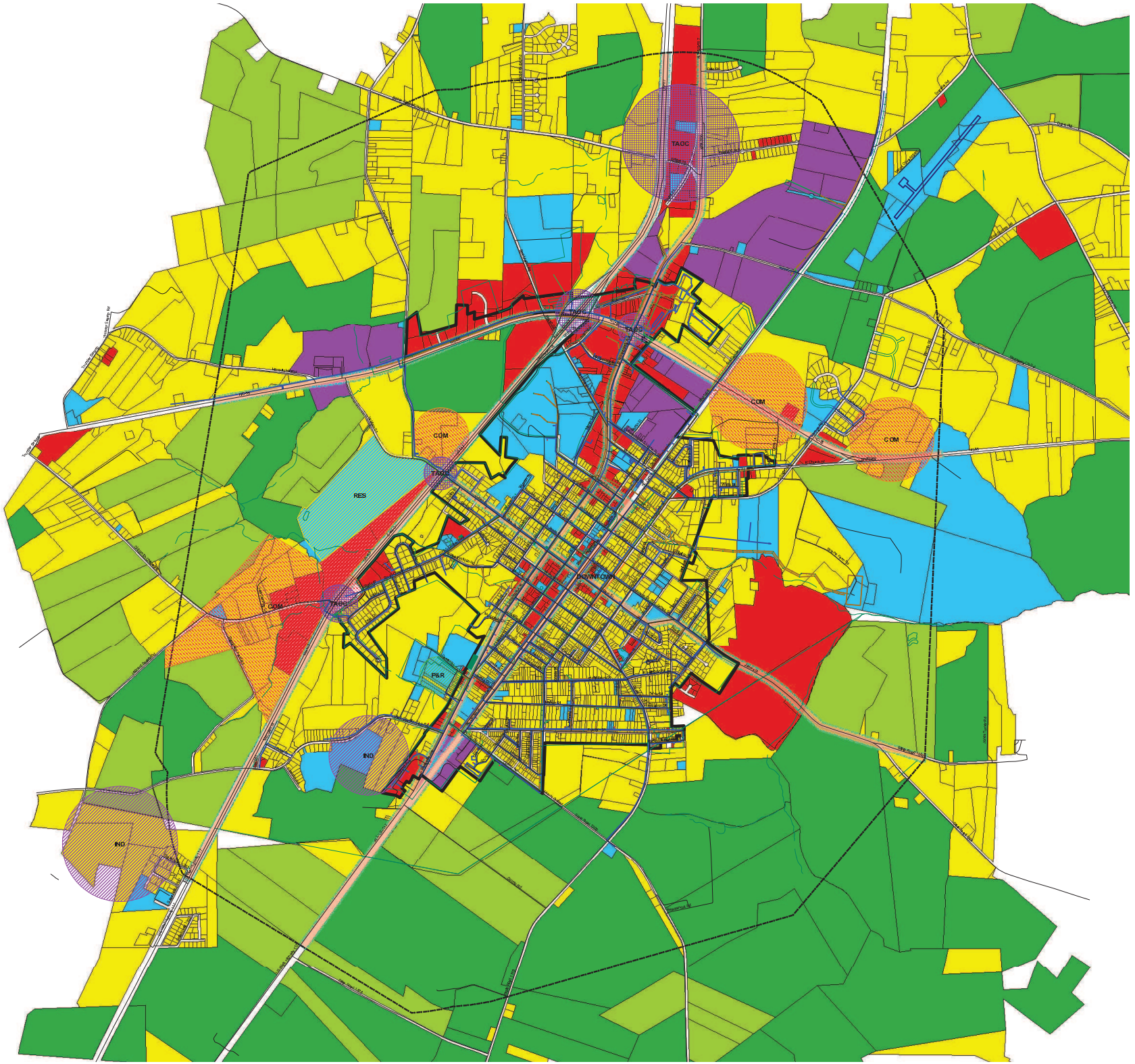
N
W E
S

2,000 1,000 0 2,000 Feet

Coordinate System: NAD 1983 StatePlane North Carolina FIPS 3200 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
False Easting: 2,000,000.0026
False Northing: 0.0000
Central Meridian: -79.0000
Standard Parallel 1: 34.3333
Standard Parallel 2: 36.1667
Latitude Of Origin: 33.7500
Units: Foot US

North Carolina Department of Commerce Community Planning Division

THRIVE in NORTH CAROLINA



MOUNT OLIVE Future Land Use Map

MAP LAYERS

- Mount Olive ETJ
- Mount Olive Corp Limits

FUTURE LAND USE

- FUTURE COMMERCIAL
- DOWNTOWN
- FUTURE INDUSTRIAL
- FUTURE BALLPARK
- FUTURE RESIDENTIAL
- TRANSPORTATION AREA OF CONCERN (TAOC)
- GATEWAY CORRIDOR
- AGRICULTURAL
- AG/ OPEN SPACE
- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL
- INSTITUTIONAL

EXISTING UTILITIES

- FIRE_HYDRANTS
- FORCE-MAIN-SEWER
- MANHOLES
- SEWER-HOLES
- SEWER-LINES
- VALVES
- WATERLINES

N
W E
S

1,250 625 0 1,250 Feet

Coordinate System: NAD 1983 StatePlane North Carolina FIPS 3200 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
False Easting: 2,000,000.0026
False Northing: 0.0000
Central Meridian: -79.0000
Standard Parallel 1: 34.3333
Standard Parallel 2: 36.1667
Latitude Of Origin: 33.7500
Units: Foot US

Appendix H
Public Involvement

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

List of CTP Steering Committee Members

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

Names	Representatives
Charles Brown	Town Manager, Town of Mount Olive
Sherry Davis	Town of Mount Olive / Administrative Assistant
Danny Keel	Town of Mount Olive Inspections
Jammie Royall	Town of Mount Olive Public Works
Arlene Talton	Town of Mount Olive Clerk
Brian Rhodes	Town of Mount Olive Chief of Police
Ray McDonald, Sr.	Mayor, Town of Mount Olive
Kenneth Lee	Mount Olive Planning Board
Lee Nichols	Department of Commerce / DCA
Connie Price	Wayne County Planning Board
Tyler Barwick	Mount Olive Chamber of Commerce
Gene Lee	Town Board Commissioner
Hosea Manley	Town Board Commissioner
Steve Keen	Wayne County Commissioner
Ed Cromartie	Wayne County Commissioner
Carlos Moya-Astudillo	*NCDOT/TPB – Project Engineer*
James Upchurch	NCDOT/TPB
Travis Marshall	NCDOT/TPB
Alex Rickard	Eastern Carolina Rural Planning Organization
Patrick Flanagan	Eastern Carolina Rural Planning Organization
Robert Lewis	NCDOT
Tim Little	NCDOT
Chris Pendergraph	NCDOT

Names	Representatives
William 'Luther' Thompson	NCDOT
Doug Connor	Attorney (Wayne/Duplin) Counties
Tony Jones	Local Farmer
Jeff Brogden	Mount Olive College Maintenance
Philip Kerstetter	President Mount Olive College
Mary Miller	Local Business Owner
Reggie Strickland	Local Farmer
Tim Blake	Mount Olive Pickle Company
Randall Tyndall	Duplin County Planner
Steve Moore	Duplin County
Rosemarie Smith	Duplin County
Terry Jordan	Gateway Goldsboro

CTP Vision, Goals, Objectives and MOEs

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

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

TOWN OF MOUNT OLIVE

COMPREHENSIVE TRANSPORTATION PLAN
GOALS AND VISION STATEMENT

VISION STATEMENT:

To enhance the quality of life in the Town Mount Olive through the development of a transportation network which promotes and supports economic development compatible with the existing and future environmental and land use patterns and the preservation of the historic character of the Town.

Provide a safe, reliable, efficient, and sustainable multi-modal transportation network that enhances the quality of life and economic vitality that is compatible with the environment and land use patterns. Maximize the use of existing facilities across the jurisdictions of the Town of Mount Olive, Wayne County, and Duplin County, adding capacity in a strategic and cost effective manner.

To accomplish this, the Town of Mount Olive, with the assistance of the North Carolina Department of Transportation and the Eastern Carolina Rural Planning Organization, will work to develop a Comprehensive Transportation Plan (CTP) to serve as a guide for all future transportation improvements to roads, bicycle and pedestrian ways, and rail and public transportation facilities.

GOALS:

- Provide a safe, reliable, efficient, and sustainable multi-model transportation network that enhances the quality of life within, and the economic vitality of The Town of Mount Olive and its surrounding areas.
- Maximize the use of existing facilities and add capacity and connectivity strategically.
- Promote the continued improvement of the road, bicycle, and pedestrian way networks around and within the Town of Mount Olive to create and improve a transportation network that promotes and supports economic development that is consistent with existing and future land use goals and patterns.
- Promote the orderly design of new rights-of-way.
- Plan for alternative forms of transportation taking particular note of the needs of citizens whose access to transportation is limited by health or economic issues.
- Reduce traffic congestion and improve safety.

TOWN OF MOUNT OLIVE

COMPREHENSIVE TRANSPORTATION PLAN
GOALS AND VISION STATEMENT

- Devise a plan in conjunction with Wayne County Emergency Management personnel to insure the safe movement and/or evacuation of the towns' population in the event of a natural or manmade disaster.
- Seek increased funding for all modes of transportation.
- Promote cooperative local and regional transportation planning.

OBJECTIVES:

- Establish a multi-model transportation system for the Town of Mount Olive to include the surrounding areas of Wayne County and Duplin County.
- Coordinate transportation and land use plans among the Town of Mount Olive, Wayne County, Duplin County, the North Carolina Department of Transportation, the Eastern Carolina Rural Planning Organization, and other local and state organizations.
- Enhance and expand services for alternative transportation needs, including (but not limited to) transit, walking, and bicycling.
- Make informed transportation decisions that are sensitive to possible adverse impacts on the environment.
- Study automobile crashes within the Town of Mount Olive, its Extra Territorial Jurisdiction (ETJ) and make improvement recommendations.
- Coordinate transportation plans and recommendations with Wayne County and Duplin County Emergency Services and other relevant local and State organizations.
- Educate the public on general transportation issues, as well as alternative forms of transportation.

Goals and Objectives Survey

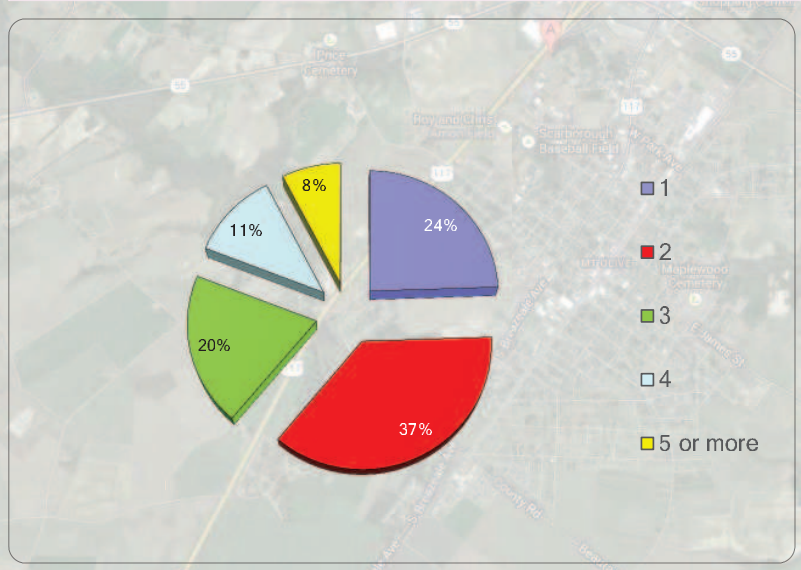
A G&O survey is a public involvement technique used to help identify an area's perception of transportation-related issues, identify concerns that should be addressed during the development of a CTP, and to help develop a vision for the community. The G&O survey is most appropriately implemented at the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

Mount Olive Comprehensive Transportation Plan (CTP)

Survey Results and Analysis

February 1, 2013

Question 1:
How many people live in your household?

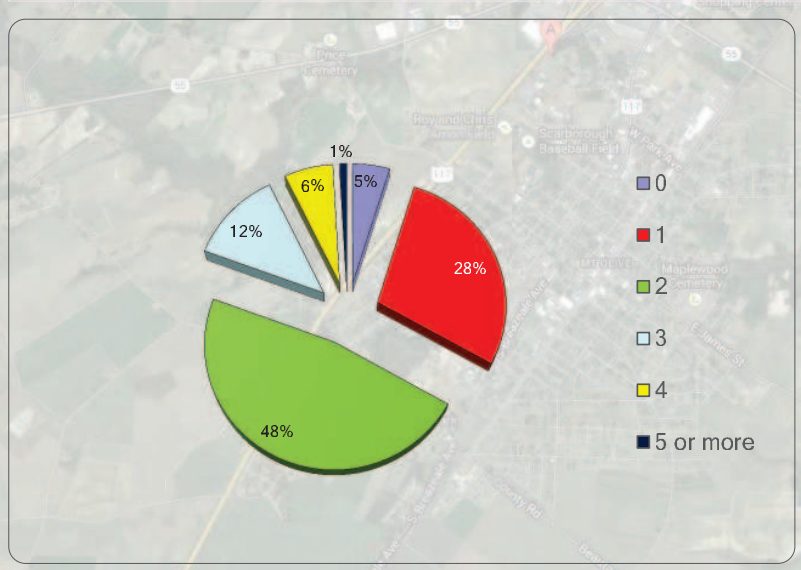


Answer Options	Response Percent (%)	Response Count
1	24.5	81
2	**36.6**	**121**
3	19.9	66
4	11.5	38
5 or more	7.6	25

Answered Question	331
Skipped Question	9

Section 1

Question 2:
How many drivers are in your household?

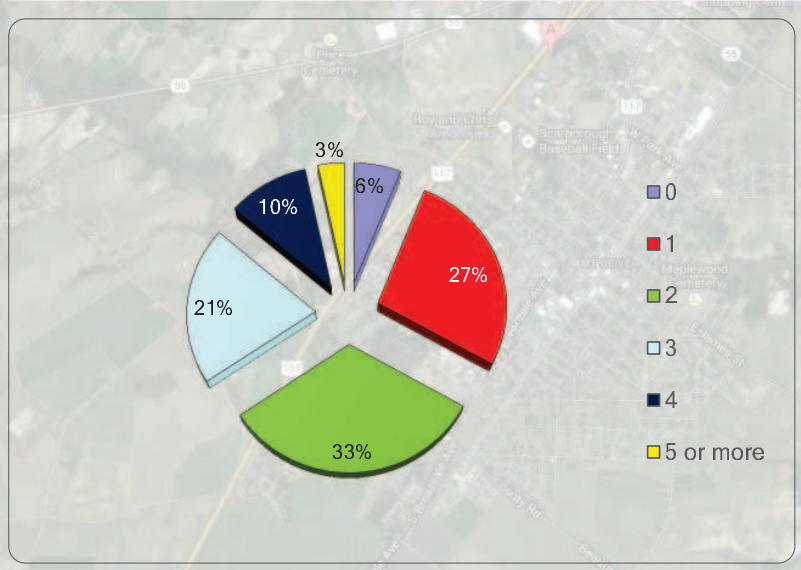


Answer Options	Response Percent (%)	Response Count
0	4.8	16
1	28.4	95
2	**47.5**	**159**
3	12.2	41
4	6.3	21
5 or more	0.9	3

Answered Question	335
Skipped Question	5

Section 1

Question 3:
How many vehicles are in your household?

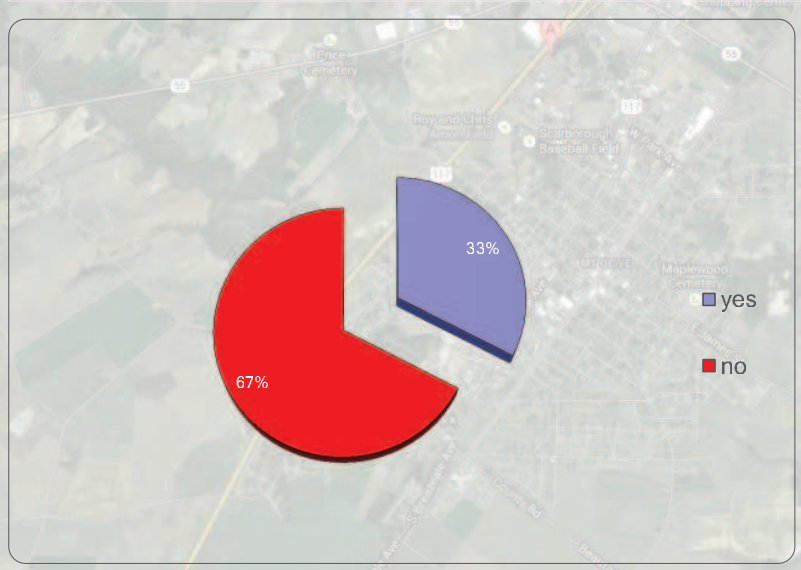


Answer Options	Response Percent (%)	Response Count
0	6.1	20
1	27.0	88
2	**32.5**	**106**
3	20.6	67
4	10.4	34
5 or more	3.4	11

Answered Question	326
Skipped Question	14

Section 1

Question 4a:
Someone in my household is over the age of 65

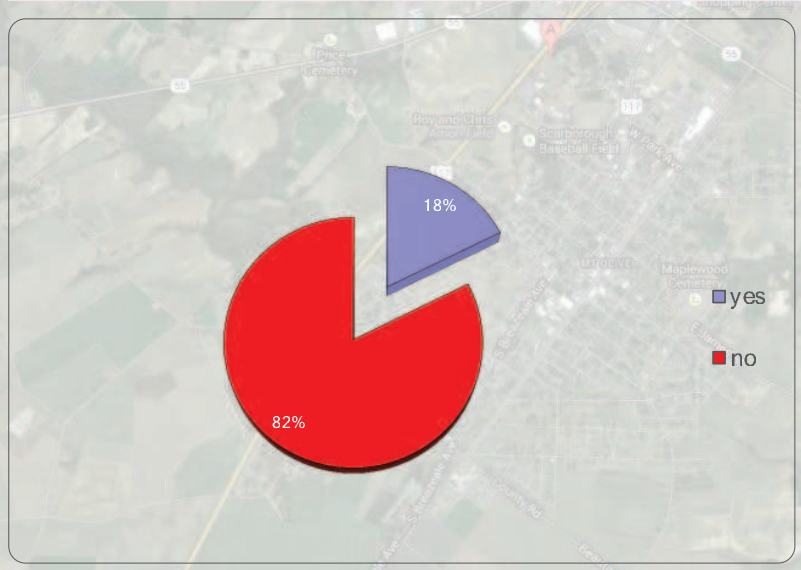


Answer Options	Response Percent (%)	Response Count
Yes	32.7	106
No	67.3	218

Answered Question	324
Skipped Question	16

Section 1

Question 4b:
Someone is my household is disabled

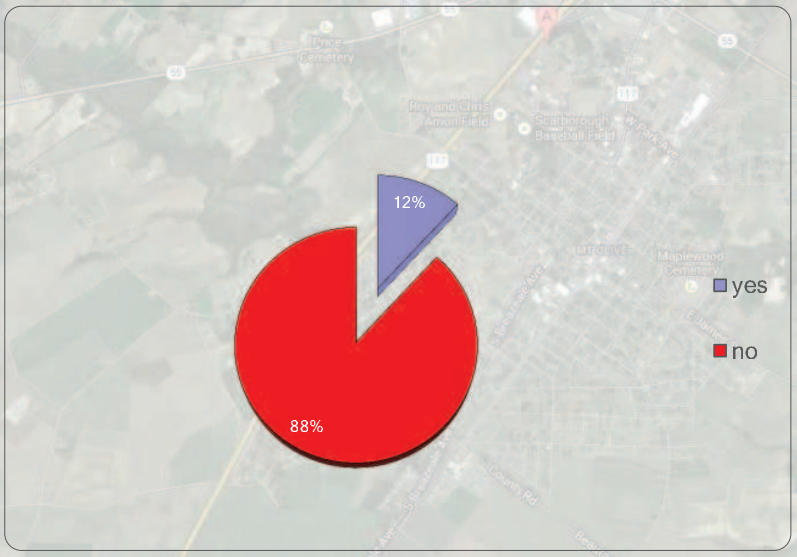


Answer Options	Response Percent (%)	Response Count
Yes	17.6	52
No	82.4	243

Answered Question	295
Skipped Question	45

Section 1

Question 4c:
Someone in my household is unemployed and transportation is an obstacle to finding a job

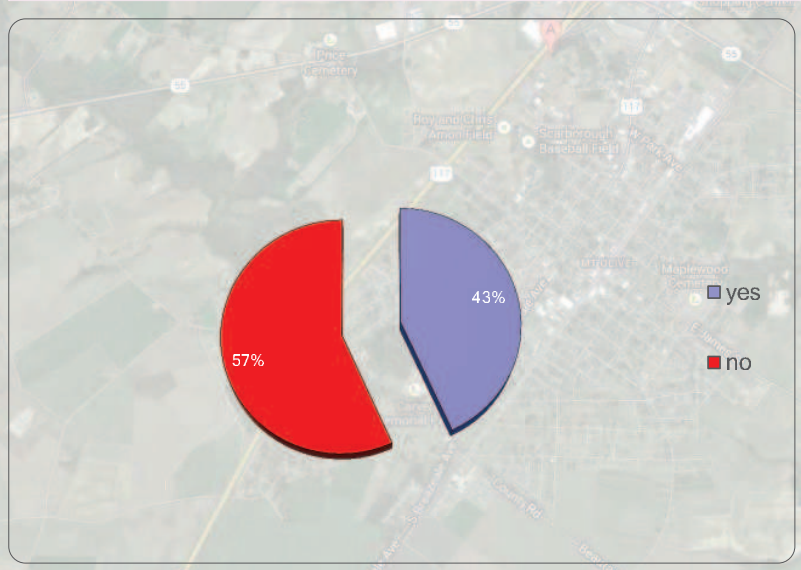


Answer Options	Response Percent (%)	Response Count
Yes	11.8	34
No	88.2	255

Answered Question	289
Skipped Question	51

Section 1

Question 5:
Are you a student or employee at Mount Olive College? (If not, go to question #11)

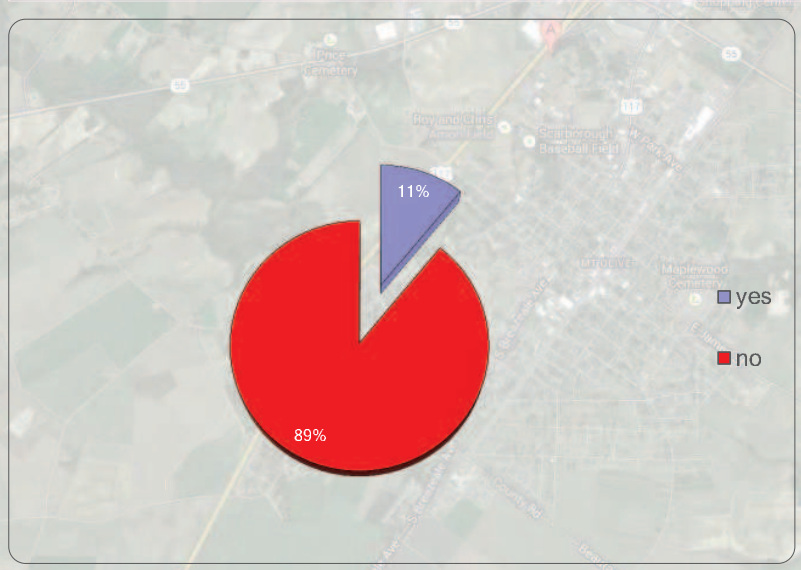


Answer Options	Response Percent (%)	Response Count
Yes	43.2	114
No	56.8	150

Answered Question	264
Skipped Question	76

Section 2

Question 5a:
Do you live on campus?

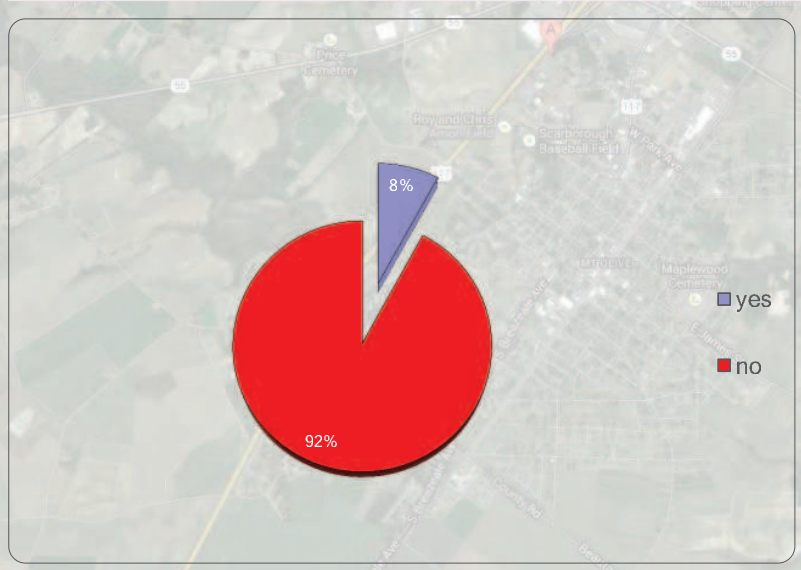


Answer Options	Response Percent (%)	Response Count
Yes	10.9	14
No	**89.1**	**114**

Answered Question	128
Skipped Question	212

Section 2

Question 5b:
Do you bike to campus?

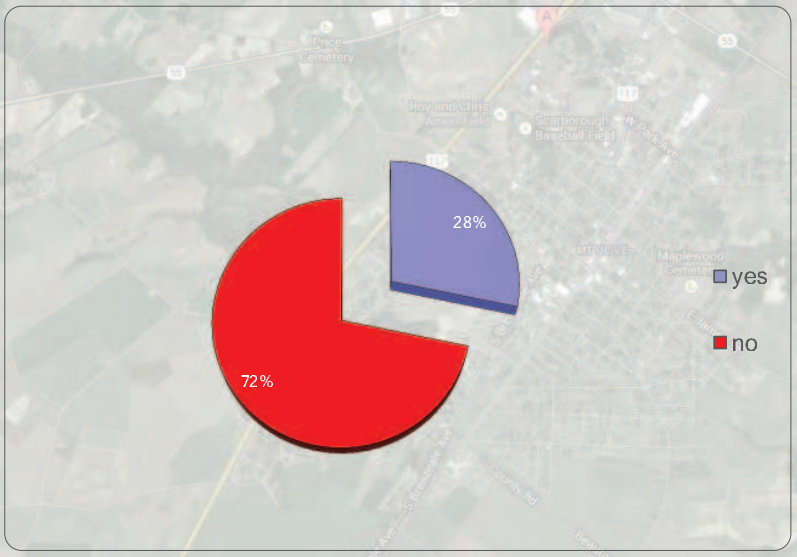


Answer Options	Response Percent (%)	Response Count
Yes	7.9	10
No	**92.1**	**116**

Answered Question	126
Skipped Question	214

Section 2

Question 5c:
Do you have accessible walkways to downtown?

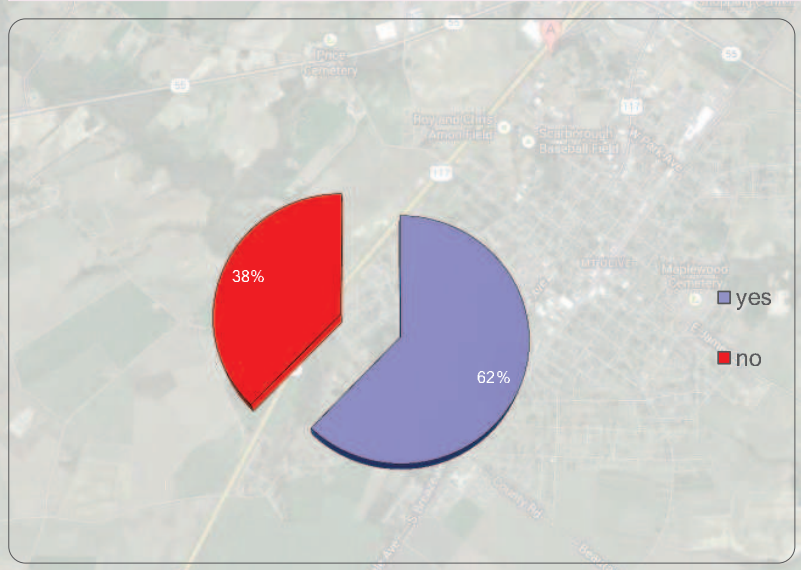


Answer Options	Response Percent (%)	Response Count
Yes	28.3	36
No	**71.7**	**91**

Answered Question	127
Skipped Question	213

Section 2

Question 6:
Are there areas where you would like to see sidewalks constructed or improved?

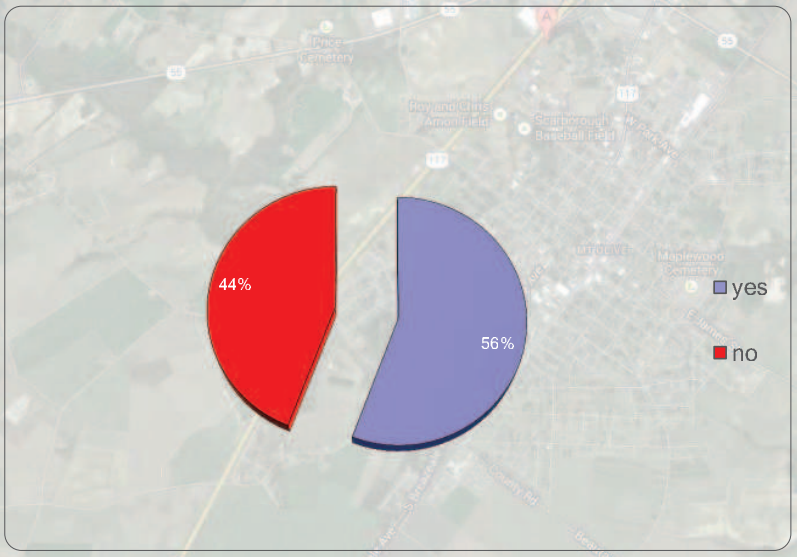


Answer Options	Response Percent (%)	Response Count
Yes	**62.1**	**195**
No	37.9	119

Answered Question	314
Skipped Question	26

Section 2

Question 7:
Would you use off-road trails or greenways for walking, running and/or bicycling?

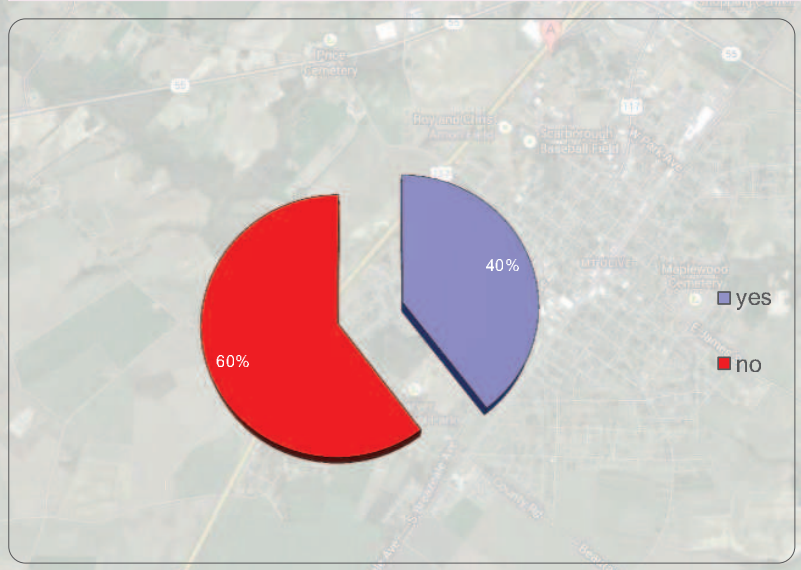


Answer Options	Response Percent (%)	Response Count
Yes	**55.8**	**174**
No	44.2	138

Answered Question	312
Skipped Question	28

Section 2

Question 8:
Would you use on-road bicycle lanes and/or wide shoulders?

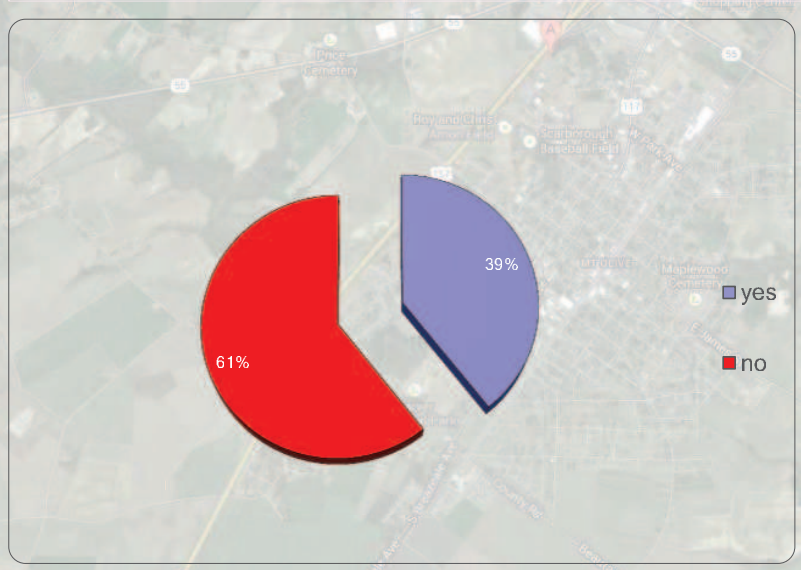


Answer Options	Response Percent (%)	Response Count
Yes	39.7	124
No	**60.3**	**188**

Answered Question	312
Skipped Question	28

Section 2

Question 9:
Would you use bus routes if provided?

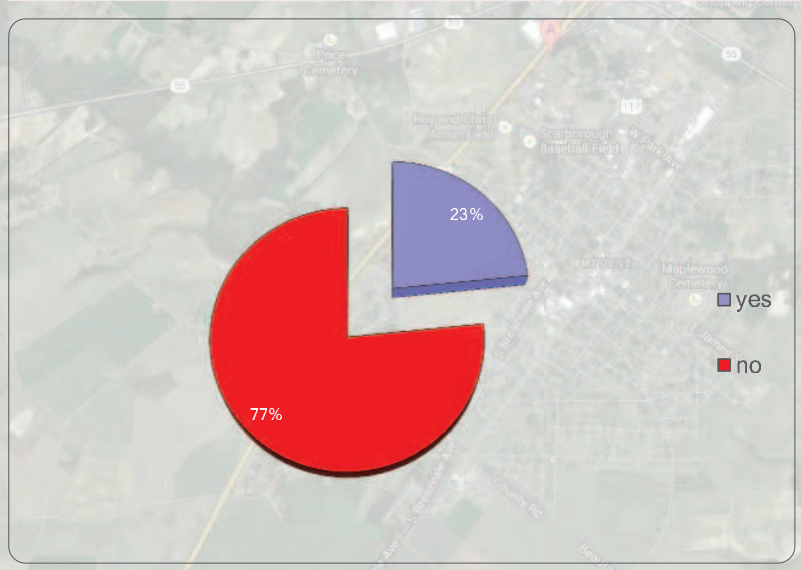


Answer Options	Response Percent (%)	Response Count
Yes	39.4	122
No	60.6	188

Answered Question	310
Skipped Question	30

Section 2

Question 10:
Would you use vanpools or carpools if available?

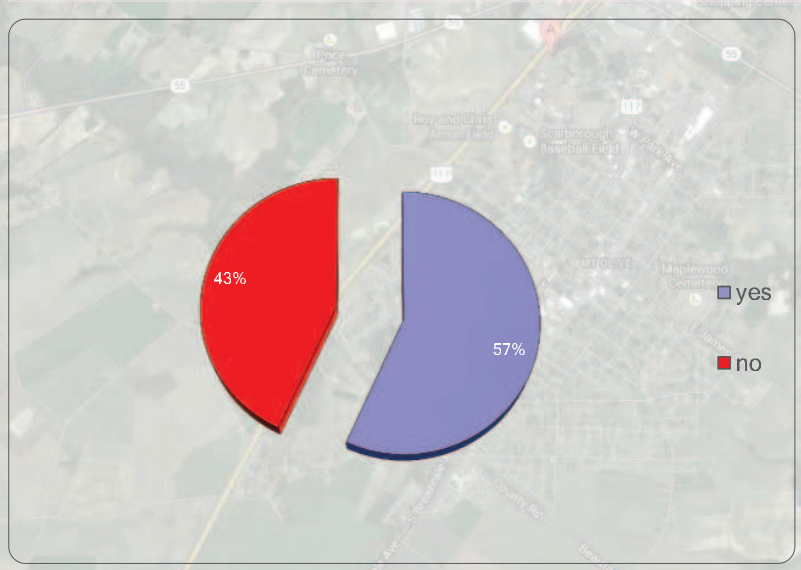


Answer Options	Response Percent (%)	Response Count
Yes	23.4	70
No	76.6	229

Answered Question	299
Skipped Question	41

Section 2

Question 11:
Would you use passenger rail if there were a stop in Mount Olive?

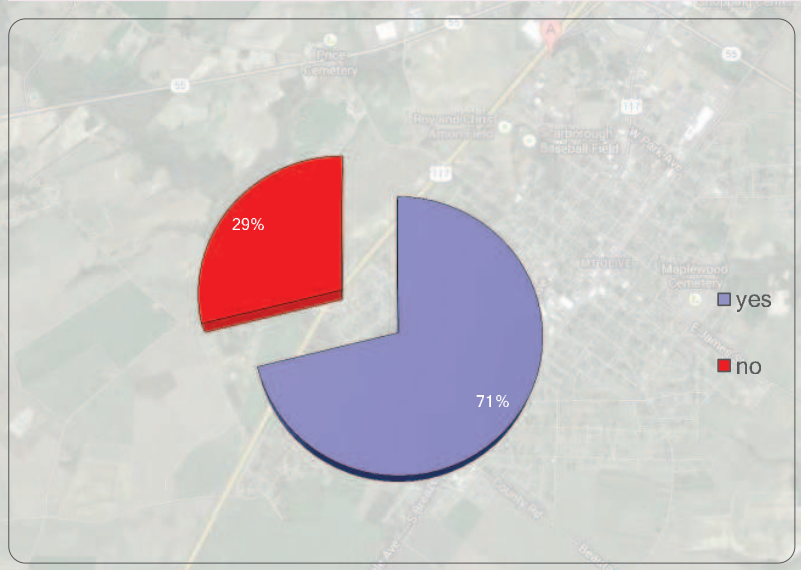


Answer Options	Response Percent (%)	Response Count
Yes	56.8	176
No	43.2	134

Answered Question	310
Skipped Question	30

Section 2

Question 12:
Is your zip code 28365?

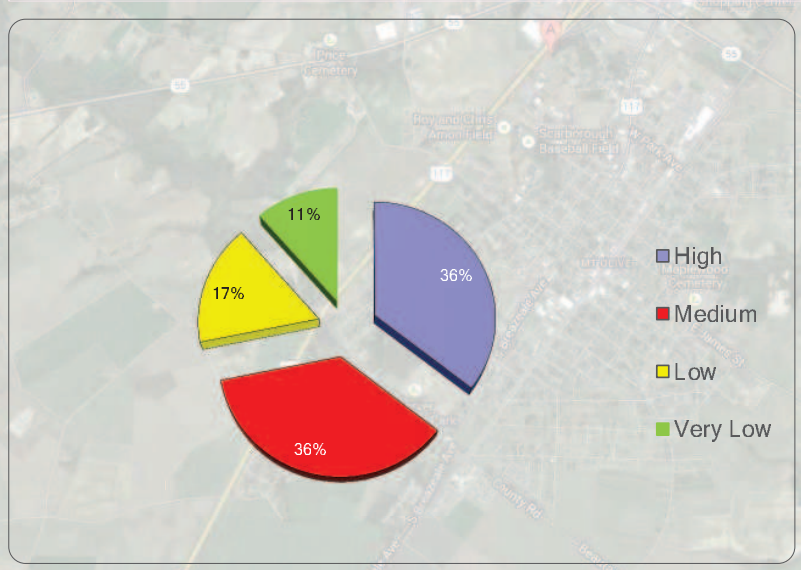


Answer Options	Response Percent (%)	Response Count
Yes	71.1	216
No	28.9	88

Answered Question	304
Skipped Question	36

Section 2

Question 13:
MORE TRANSPORTATION CHOICES: More ways to get to places - buses, sidewalks, trains, etc.

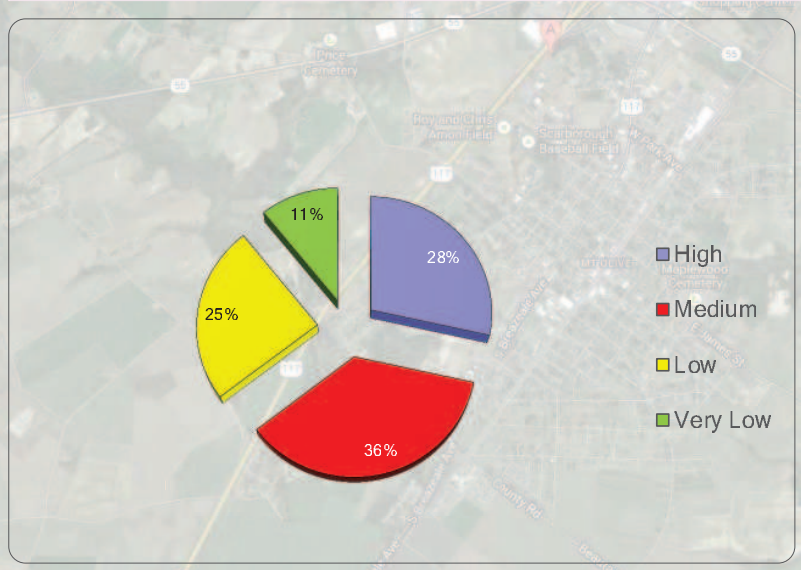


Answer Options	Response Percent (%)	Response Count
High	35.6	112
Medium	**36.2**	**114**
Low	16.8	53
Very Low	11.4	36

Answered Question	315
Skipped Question	25

Section 3

Question 14:
FASTER TRAVEL TIMES: High speed roads with more lanes and fewer intersections

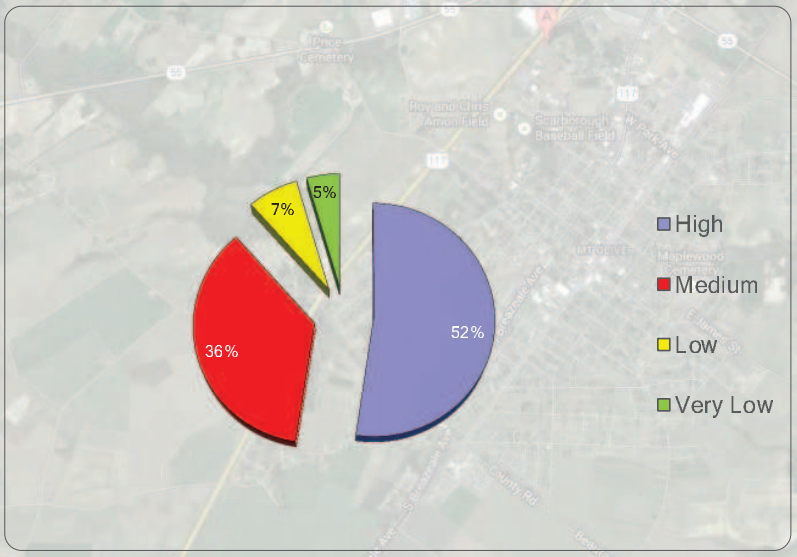


Answer Options	Response Percent (%)	Response Count
High	28.5	90
Medium	**36.1**	**114**
Low	24.7	78
Very Low	10.8	34

Answered Question	316
Skipped Question	24

Section 3

Question 15:
ECONOMIC GROWTH: New and improved roads and railways to attract and expand businesses

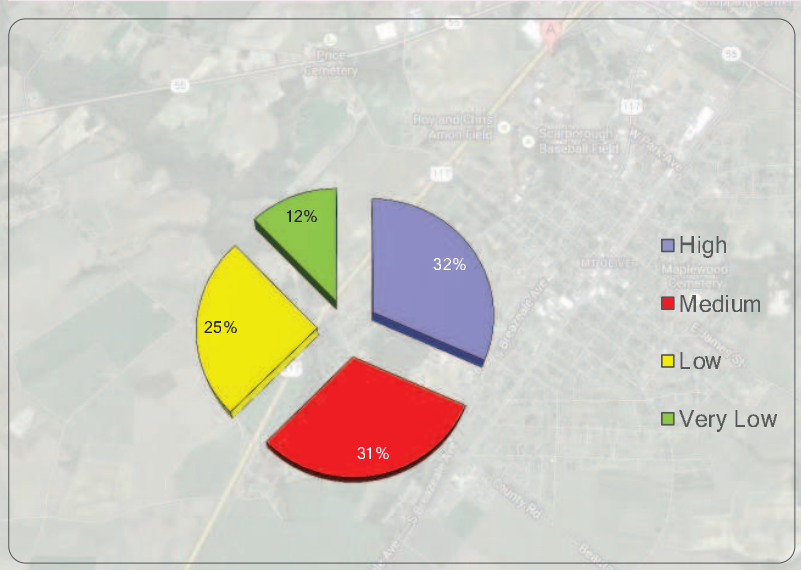


Answer Options	Response Percent (%)	Response Count
High	**52.4**	**164**
Medium	36.1	113
Low	7.0	22
Very Low	4.5	14

Answered Question	313
Skipped Question	27

Section 3

Question 16:
INCREASED PUBLIC TRANSPORTATION OPTIONS: Bus service to more destinations. Park-n-Ride lots for carpooling

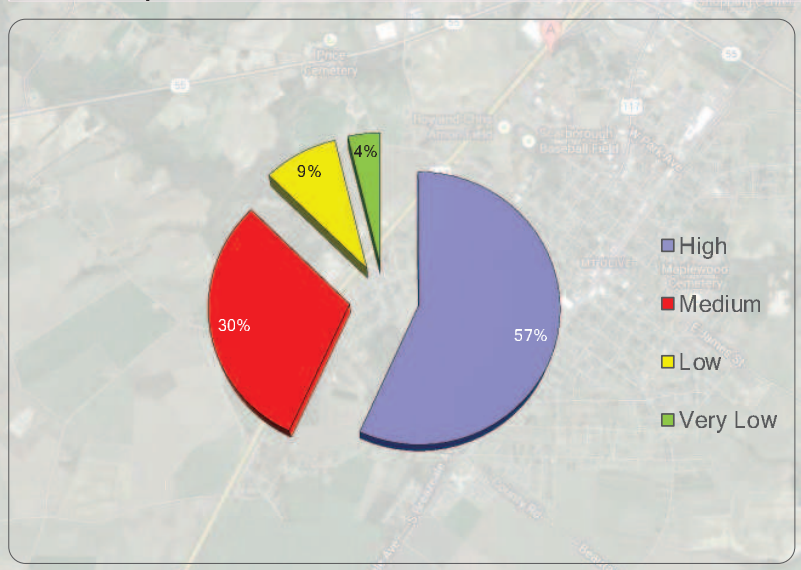


Answer Options	Response Percent (%)	Response Count
High	**31.7**	**101**
Medium	30.7	98
Low	25.4	81
Very Low	12.2	39

Answered Question	319
Skipped Question	21

Section 3

Question 17:
COMMUNITY AND RURAL CULTURE PRESERVATION: Keep businesses downtown, protect existing neighborhoods, preserve landscape

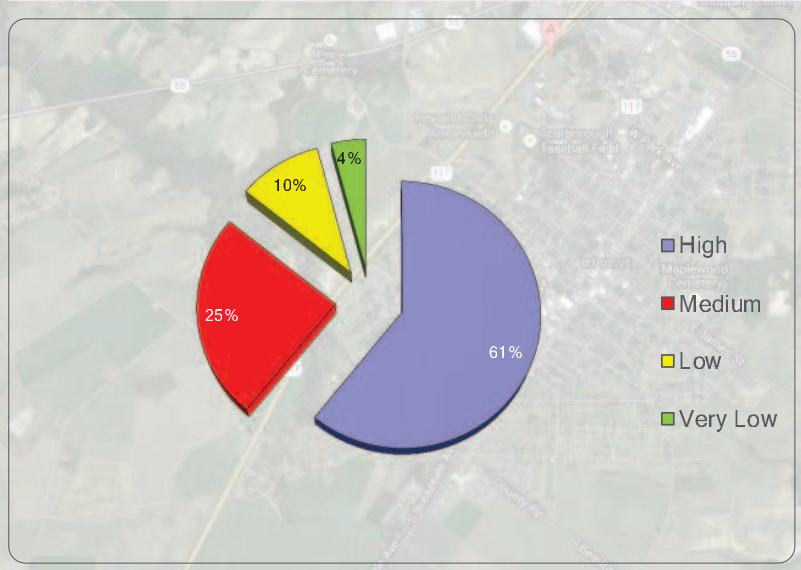


Answer Options	Response Percent (%)	Response Count
High	**56.8**	**180**
Medium	30.6	97
Low	8.8	28
Very Low	3.8	12

Answered Question	317
Skipped Question	23

Section 3

Question 18:
ENVIRONMENTAL PROTECTION: Protect wetlands, streams and wildlife, reduce air, and noise pollution

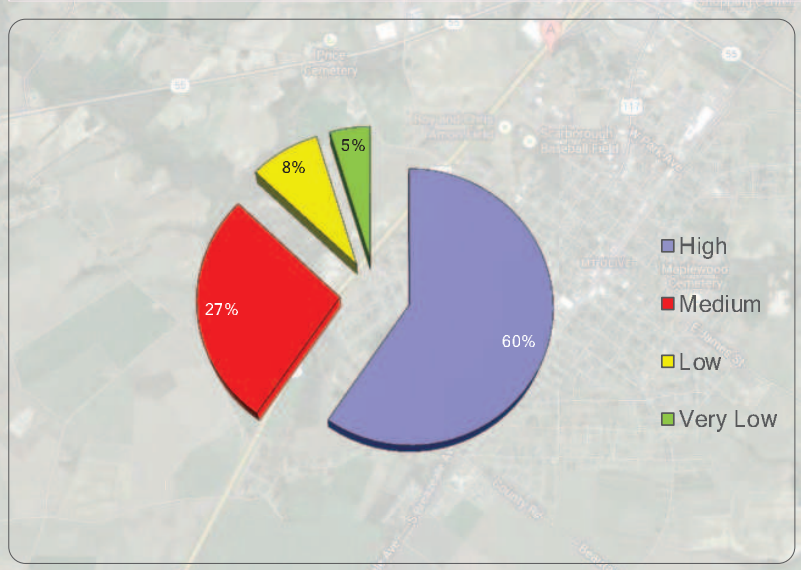


Answer Options	Response Percent (%)	Response Count
High	**60.8**	**192**
Medium	25.0	79
Low	10.1	32
Very Low	4.1	13

Answered Question	316
Skipped Question	24

Section 3

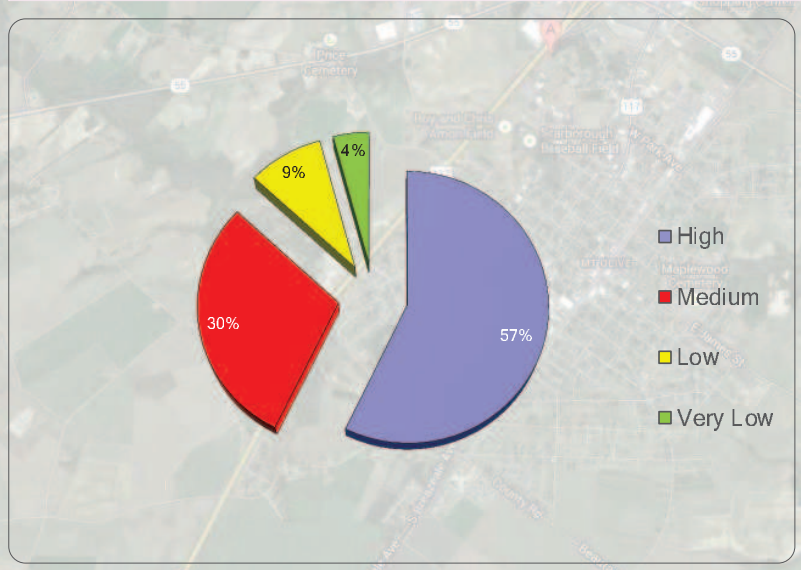
Question 19:
CARE FOR SPECIAL NEEDS CITIZENS: Better transportation for elderly, low-income, and disabled residents



Answer Options	Response Percent (%)	Response Count
High	**59.5**	**188**
Medium	27.5	87
Low	8.2	26
Very Low	4.7	15

Answered Question	316
Skipped Question	24

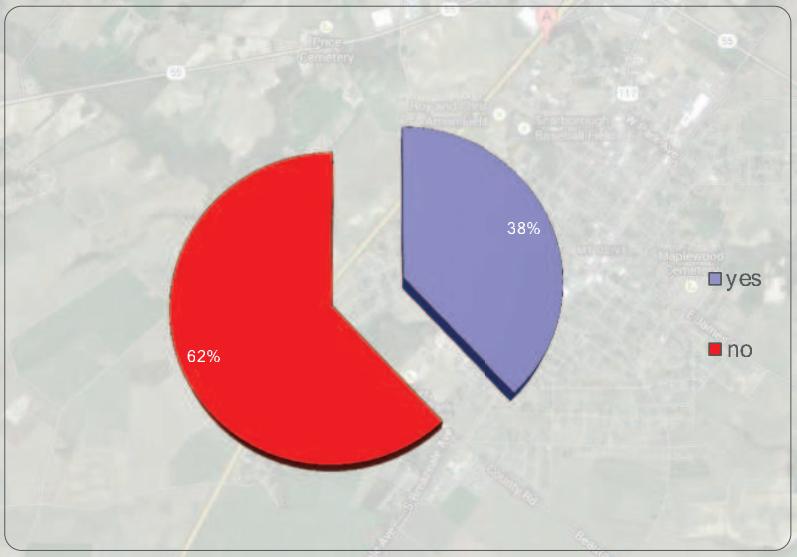
Question 20:
IMPROVED ACCESS: Better connections to employment, schools, and services



Answer Options	Response Percent (%)	Response Count
High	**57.2**	**179**
Medium	29.7	93
Low	8.9	28
Very Low	4.2	13

Answered Question	313
Skipped Question	27

Question 21:
Is truck traffic a problem in Mount Olive?



Answer Options	Response Percent (%)	Response Count
High	38.1	121
Medium	61.9	197

Answered Question	318
Skipped Question	22

Section 4

Questions or Concerns

Contact:
Carlos Moya-Astudillo, EI
Project Engineer
Phone: (919) 707-0934
E-mail: cemoya@ncdot.gov

Public Meetings

The public involvement process included holding one public drop-in session in the Town of Mount Olive to present the proposed CTP to the public and solicit comments. This session was publicized in the local newspapers, through fliers in Town Halls, and local radio stations.

The one drop-in session was held on March 5, 2013 from 5:00 to 8:00 p.m. at:

- The Train Depot at 110 West Main Street, in the Town of Mount Olive

Presentations to the Boards were held at the following dates:

- Mount Olive CTP Steering Committee -- January 30, 2013, 10:00 a.m.
- Mount Olive Town Board of Commissioners -- February 4, 2013, 7:00 p.m.
- Wayne County Board of Commissioners -- February 5, 2013, 9:00 a.m.
- Duplin County Board of Commissioners -- February 18, 2013, 9:00 a.m.