North Carolina Department of Transportation
Transportation Planning Branch

2008

Granville County

Comprehensive Transportation Plan

Kerr-Tar Regional Council Of Governments

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

Capital Area Metropolitan Planning Organization

"A Comprehensive Transportation Plan is an essential element in the future growth and development of our county."
Hubert L. Gooch, Granville County Commissioner

"One way to measure the effectiveness of any process is to assess the input and the outcome. In our case, we were committed to quality data and a collective voice from multiple jurisdictions and agencies. The outcome will be measured by how well the county and each municipality keep the plan alive by using it as a guide for land use planning and future funding opportunities."
Scottie K. Cornett-Wilkins, Granville County Transportation Planner

"The best part of the planning process was that everyone had a voice. The representatives from NCDOT, the Kerr-Tar RPO, the Capitol Area MPO, and the County Transportation Planner were very helpful and knowledgeable. They were willing to help the smaller towns. We are all more knowledged about transportation planning."
Mayor Janet Parrott, Town of Stovall

"The planning process throughout the development of this new CTP was very effective. As a result of multiple jurisdictions working together, we have a plan that addresses a broader scope of transportation issues. This process forced Creedmoor to take a much longer view of our transportation needs. The best part was getting a relatively current view of our current traffic counts and conditions."
Mayor Darryl Moss, City of Creedmoor

"The City of Oxford has had an excellent experience working with the planning process for the new CTP. The information and guidance provided to the City by the Granville County Transportation Planner has been very helpful. This process provided an orderly and convenient way to have the City's preferences included in the CTP."
Mark Donham, Manager for the City of Oxford

"The communication was excellent throughout the planning process. Our Board learned a lot about transportation planning through the different updates and presentations given throughout the planning process. By the time we had to vote on the plan, it passed easily; our Board approved everything 100%. All of the projects we needed in our jurisdiction were in the new CTP Plan."
Mayor Jack Day, Town of Stem

"The planning process for the CTP has been very positive. The ability to openly discuss the issues between the stakeholders greatly accelerated the process. The rating of the various projects has helped all understand what is needed throughout the county. Having the input of NCDOT, RPO, MPO, and the County Transportation Planner available at all the meetings helped the process immensely. The result of the effort gives us better data and justification as we compete with other localities for funding of our projects."
Mayor Thomas Lane, Town of Butner

" The Granville County Comprehensive Transportation Plan was one of the first plans in the state to combine municipal governments, a county government, and a rural and metropolitan planning organization. The process went incredibly smoothly thanks to the collaborative efforts of the CTP Planning Committee and the staffs of the County, RPO, MPO, and NCDOT. The process won a National Association of Development Organizations Transportation Innovation Award in 2006, and is likely to be mirrored across the state as more regional plans are developed."

Shelby Powell, Kerr-Tar RPO Planner

" The process for development of the Comprehensive Transportation Plan for Granville County was without a doubt one of the best planing events I have seen or in which I have had the opportunity to be involved. The process itself was well thought out, clearly presented and truly an outstanding example of the 3-C planning process involving multiple jurisdictions, the general public and elected officials. This plan is clearly an outstanding example of how to coordinate and bring consensus to planning for the future."

Diane Wilson, Member Services Manager, NC Capital Area MPO

"I've been working on transportation plans for nearly 17 years, and this was by far the best transportation planning effort that I have been a participant. Usually, NCDOT drives the planning process, but in this case, it was truly all the major players – locals, MPO, RPO, and NCDOT. Each member pulled some weight and all helped move this forward, and each were willing to "try something new". The local transportation committee should also be commended for their participation throughout the process. This effort was the first MPO/RPO plan and it will serve as a model throughout the state."

Scott Walston, PE, NCDOT Transportation Planning Branch

"Throughout the Comprehensive Transportation Planning process we strived to create as open a planning process as possible, such that opportunities for public input were not limited to the minimum requirements and they were given the chance to speak together and express their comprehensive vision. This planning process has also been deliberately designed to engage and involve local government, County, MPO and RPO to a very high level. The planning process throughout the development of CTP was very successful. I am grateful to be a part of this team and thank everyone for their support."

Rupal Desai, EIT, NCDOT Transportation Planning Branch

Comprehensive Transportation Plan
for
Granville County

Prepared by the: Transportation Planning Branch
N.C. Department of Transportation

In Cooperation with: Granville County and its municipalities
Capital Area Metropolitan Planning Organization
Kerr-Tar Rural Planning Organization
The Federal Highway Administration
U.S. Department of Transportation

March 2010

Rupal Desai, PE

Acknowledgments

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Manager, Transportation Planning Branch:	Mike Bruff, P.E.

Special thanks to:

Kerr-Tar RPO Planner	Shelby Powell, AICP
Granville County Planner	Scottie K. Cornett-Wilkins

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Chapter 1
Introduction

1.1 Background

An area's transportation system is its lifeline, contributing to its economic prosperity and social well being. The importance of a safe and efficient transportation infrastructure cannot be overstressed. This system provides a means of transporting people and goods from one place to another quickly, conveniently, and safely. A well-planned system should meet the existing travel demands, as well as keep pace with the growth of the region.

Officials from Granville County and all municipalities within the county, with assistance from the Kerr Tar Rural Planning Organization (RPO) and the NC Capital Area Metropolitan Planning Organization (MPO), recognized the importance of the transportation planning process, and worked cooperatively with the North Carolina Department of Transportation (NCDOT) Transportation Planning Branch to complete this Comprehensive Transportation Plan (CTP).

Granville County, located in north central North Carolina, was established in 1746 and named in honor of Lord John Carteret, Earl of Granville. For a short period Granville County was a frontier county and extended as far West as the Mississippi River. The current land use is a mix of residential, agricultural and commercial with most of the development in the central to southern portion of the County. The major routes in Granville County include I-85, US 15, US 158, NC 96, NC 56 and NC 50. The geographical location of the county is shown in **Figure 1.**

This report documents the development of the 2007 Granville County Comprehensive Transportation Plan as shown in **Figure 2**. In addition, this report presents recommendations for each mode of transportation, (highway, bicycle/pedestrian, transit and rail) as reflected in the CTP maps.

A Comprehensive Transportation Plan (CTP) is developed to ensure that the transportation system should be progressively developed, meeting the needs of the county. It should serve as an official guide to providing a well-coordinated, efficient, and economical transportation system using all modes of transportation. This document should be used by local officials to ensure that planned transportation facilities reflect the needs of the public while minimizing the disruption to local residents, businesses, and the environment.

The purpose of this plan is to examine present and future transportation needs of the county and develop a Comprehensive Transportation Plan to meet these needs. The plan

recommends improvements deemed necessary to provide an efficient transportation system within the 2005-2035 planning period.

The initiative for implementation of the Comprehensive Transportation Plan rests predominately with the policy boards and citizens of Granville County. The proposed Comprehensive Transportation Plan is based on the projected growth for the county determined through a coordinated effort with the County, Kerr Tar RPO, and Capital Area MPO representatives. It is possible that actual growth patterns should differ from those anticipated. As a result, it may be necessary to accelerate or delay the development of some recommendations found in the plan. Some portions of the plan may require revision in order to accommodate unexpected changes in urban development. The best use of this plan is to make sure that any changes made to one element of the transportation plan should be consistent with the remaining elements.

1.2 CTP Community Vision, Goals and Objectives Statement

The CTP Committee developed a goals and objectives statement to ensure that the final CTP met its community vision.

Vision:

1) Enhance connectivity throughout the county by developing a transportation network that promotes and adequately supports economic development and is compatible with the environment and land use patterns.
2) Provide convenient, safe, reliable and affordable transportation choices and education to the public on those choices.
3) Develop a regional transportation network that improves quality of life while protecting and enhancing the environment.

Goals:

1) Improve Economic Development Countywide
   Objective 1: Improve access to major retail developments and industrial sites such as Triangle North and Falls Lake Commerce Center.
   Objective 2: Provide adequate facilities for truck travel on all truck-route designated roads in the county, including safe alternatives that reduce freight traffic within downtown districts.
2) Create better connectivity and mobility throughout the county and municipalities.
   Objective 1: Improve major NC and US routes to four-lane facilities where appropriate, and widen to a standard 24' cross section in other areas.
   Objective 2: Provide adequate facilities to accommodate commuter traffic within Granville County as well as between Granville County and the Wake/Durham/RTP area.
3) Provide a comprehensive multi-modal transportation network that should improve air quality through reduction of single-occupancy vehicle trips.
   Objective 1: Provide transit, bicycle, and pedestrian options for transportation within the county.

Objective 2: Educate the public about transportation options, and the benefits of choosing alternative modes of transportation.

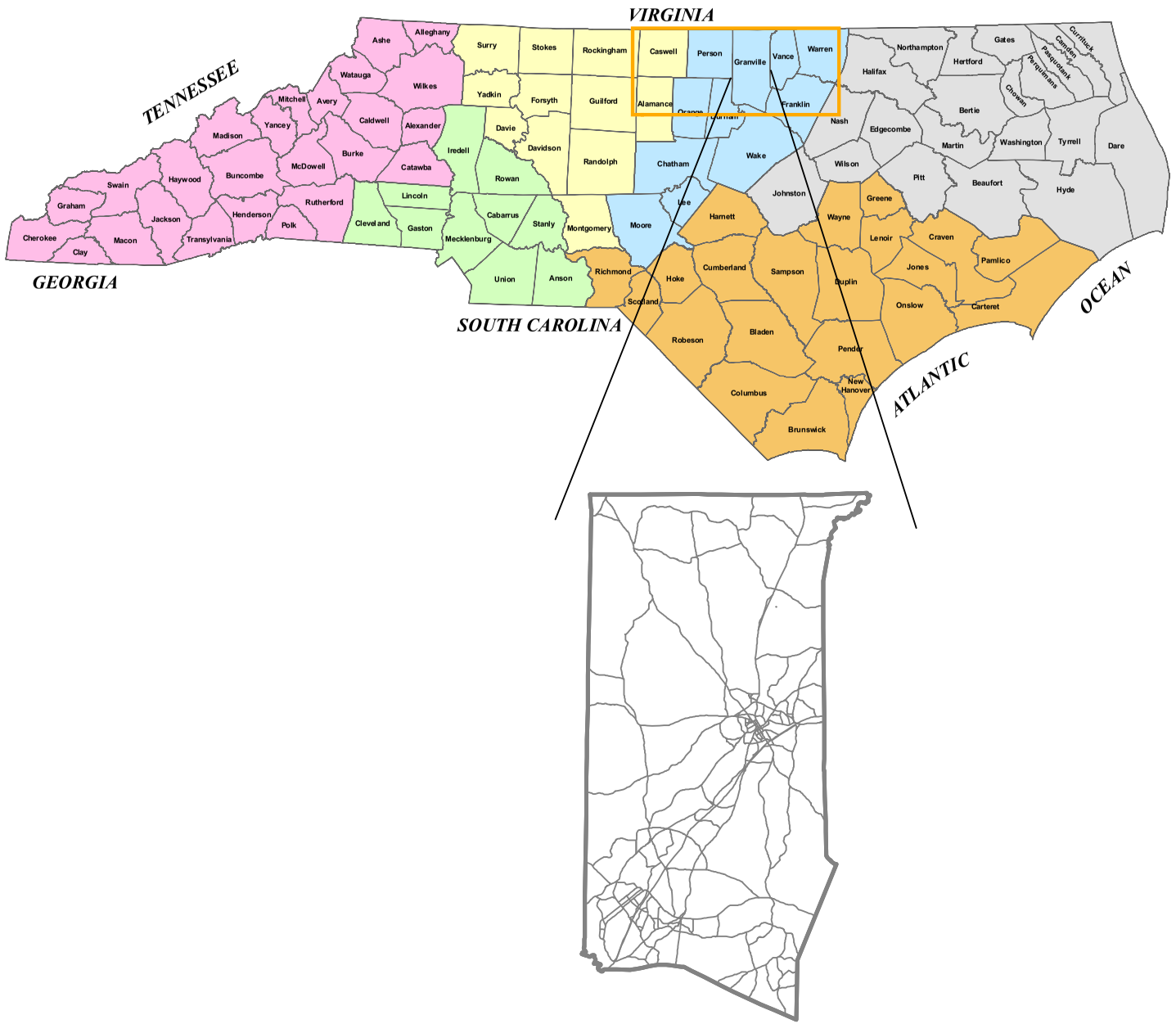


FIGURE 1

GEOGRAPHIC LOCATION

N
W E
S

LEGEND

- METROLINA
- MOUNTAINS
- NORTHEAST
- SOUTHEAST
- TRIAD
- TRIANGLE

GRANVILLE COUNTY

NORTH CAROLINA

PREPARED BY THE
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PLANNING BRANCH

IN COOPERATION WITH THE
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

BASE MAP DATE: DECEMBER 2004

Back of Figure 1

Granville County

Comprehensive Transportation Plan

Plan date: September 06, 2007

Adopted by:

Granville County
Date: 10/01/07

City of Butner
Date: 09/06/07

Town of Stovall
Date: 09/10/07

City of Oxford
Date: 09/11/07

Town of Stem
Date: 09/17/07

NCDOT
Date: 06/06/08

Endorsed by:

City of Creedmoor
Date: 09/25/07

Kerr - Tar RPO
Date: 11/19/07

Capitol Area MPO
Date: 12/19/07

Recommended by

Transportation Planning Branch
Date: 02/04/08

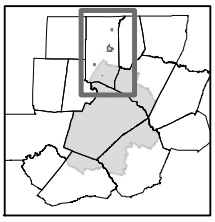
NOTES:

Format for Sheet 5 Pedestrian map is pending.

Legend

- County Boundry
- CAMPO Boundry
- Municipal Boundry
- Major Streams
- DOT Roads

N
W E
S



0 2.5 5 Miles

Figure 2 - Sheet 1 of 5

Base map date: June 22, 2007

Refer to CTP document for more details

Back of Figure 2, Sheet 1 Adoption sheet

Highway Map

Granville County

Comprehensive Transportation Plan

Plan date: September 06, 2007

Freeways
- Existing
- Needs Improvement
- Recommended

Expressways
- Existing
- Needs Improvement
- Recommended

Boulevards
- Existing
- Needs Improvement
- Recommended

Other Major Thoroughfares
- Existing
- Needs Improvement
- Recommended

Minor Thoroughfares
- Existing
- Needs Improvement
- Recommended

- Existing Interchange
- Proposed Interchange
- Existing Grade Separation
- Proposed Grade Separation
- County Boundry
- CAMPO Boundry
- Municipal Boundry

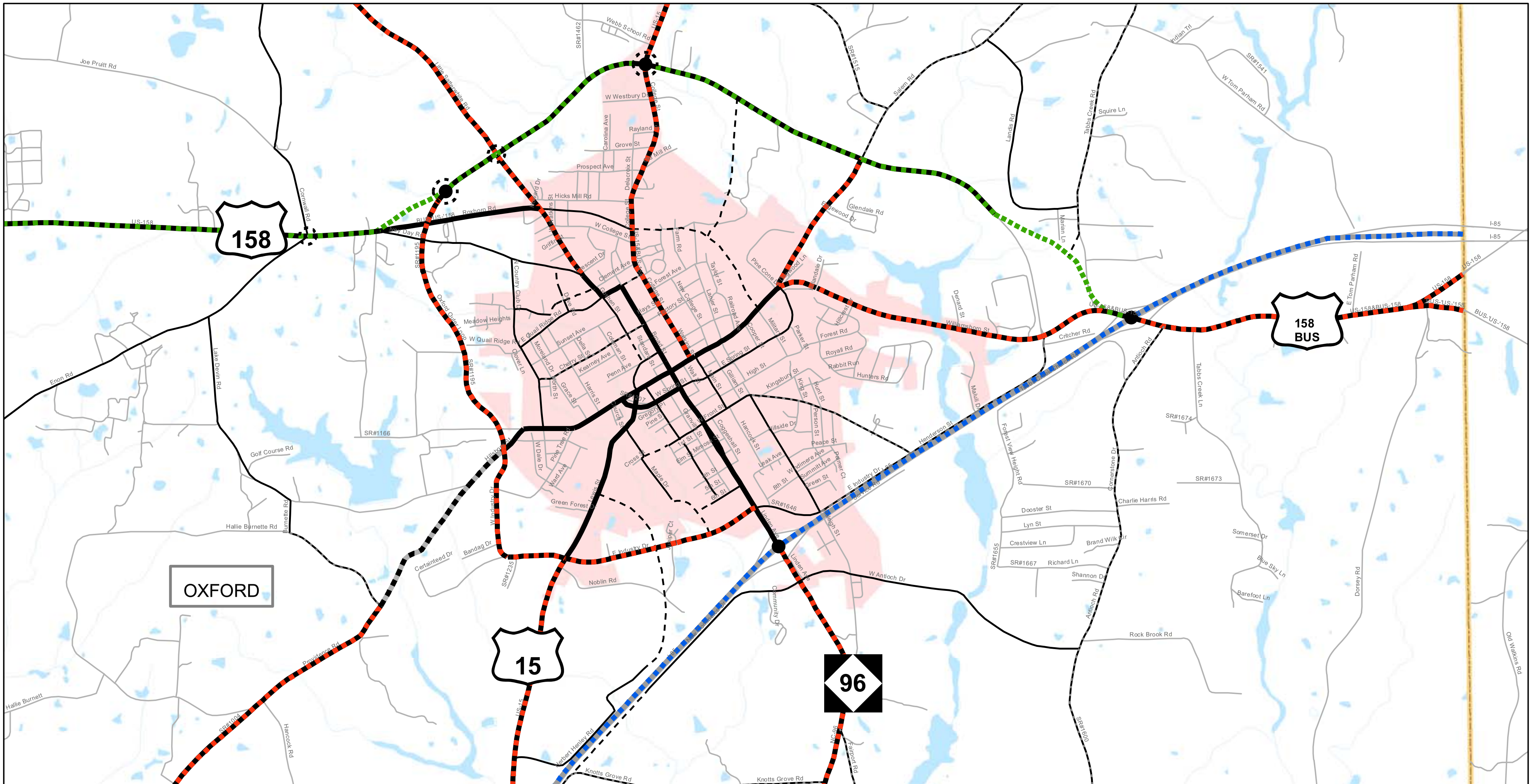
Miles
0 2.5 5

Figure 2 - Sheet 2 of 5

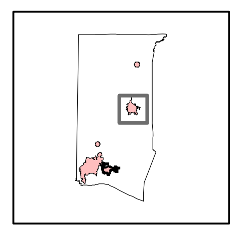
Base map date: June 22, 2007

Refer to CTP document for more details

Back of Figure 2, Sheet 2 Highway map



Highway Map
Granville County Comprehensive TransportationPlan
Figure 2 - Sheet 2A of 5 (Oxford)
North Carolina



Plan date: September 06, 2007

0 0.4 0.8 Miles

N E S W

Base map date: June 22, 2007

Refer to CTP document for more details

Freeways
- Existing
- Needs Improvement
- Recommended

Expressways
- Existing
- Needs Improvement
- Recommended

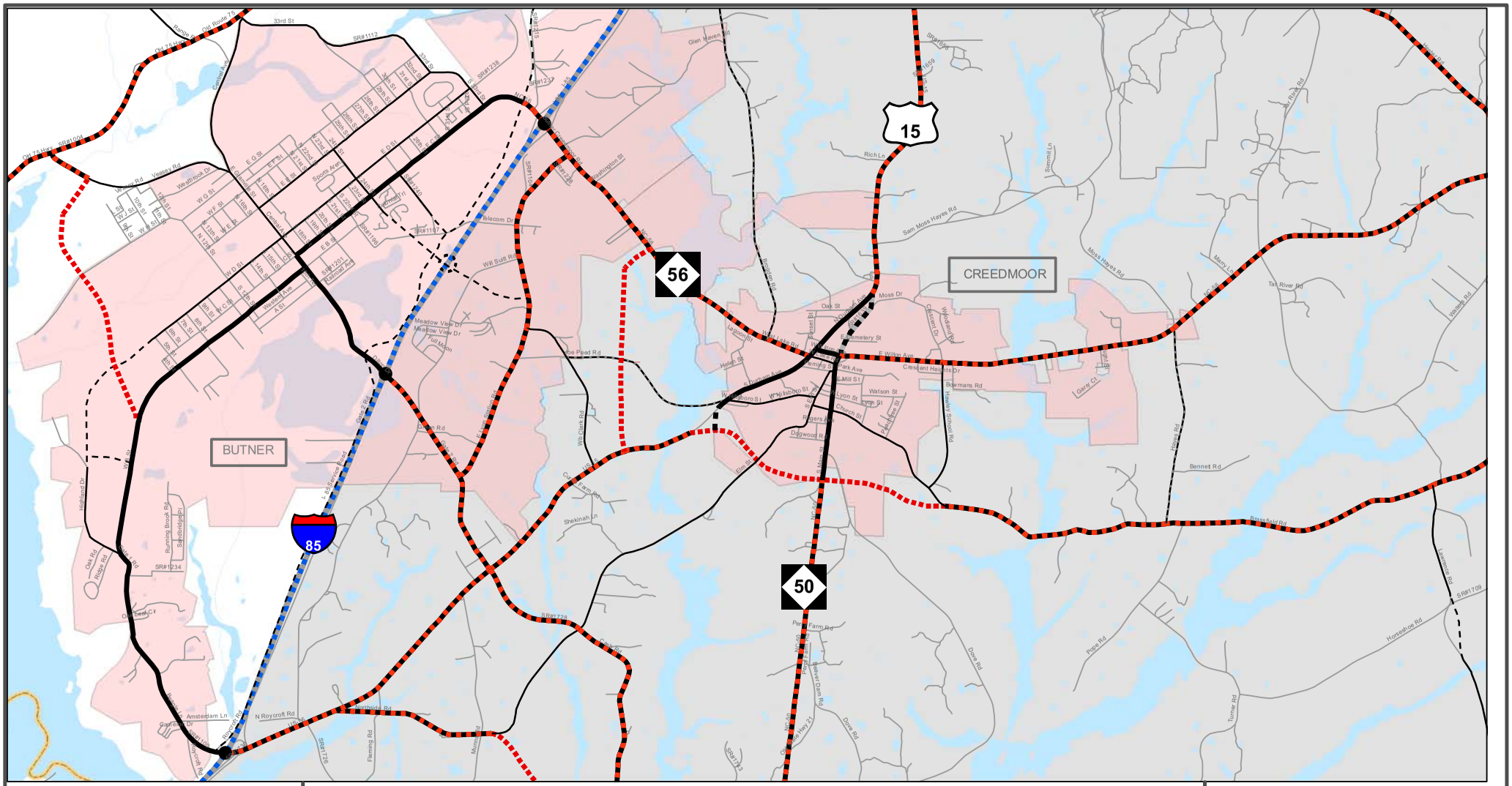
Boulevards
- Existing
- Needs Improvement
- Recommended

Other Major Thoroughfares
- Existing
- Needs Improvement
- Recommended

Minor Thoroughfares
- Existing
- Needs Improvement
- Recommended

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

Back of Figure 2A Inset



Plan date: September 06, 2007

0 0.45 0.9 Miles

N W E S

Base map date: June 22, 2007

Refer to CTP document for more details

Freeways
- Existing
- Needs Improvement
- Recommended

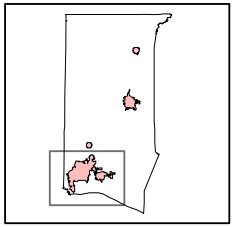
Expressways
- Existing
- Needs Improvement
- Recommended

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



Highway Map

Granville County Comprehensive Transportation Plan

Figure 2 - Sheet 2B of 5 (Creedmoor and Butner)

North Carolina

Back of Figure 2B Inset

Bicycle Map

Granville County

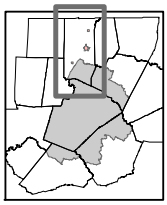
Comprehensive Transportation Plan

Plan date: September 06,2007

On-road
- Existing
- Needs Improvement
- Recommended

Off-road
- Existing
- Needs Improvement
- Recommended

- Existing Grade Separation
- Proposed Grade Separation
- County Boundry
- CAMPO Boundry
- Municipal Boundry



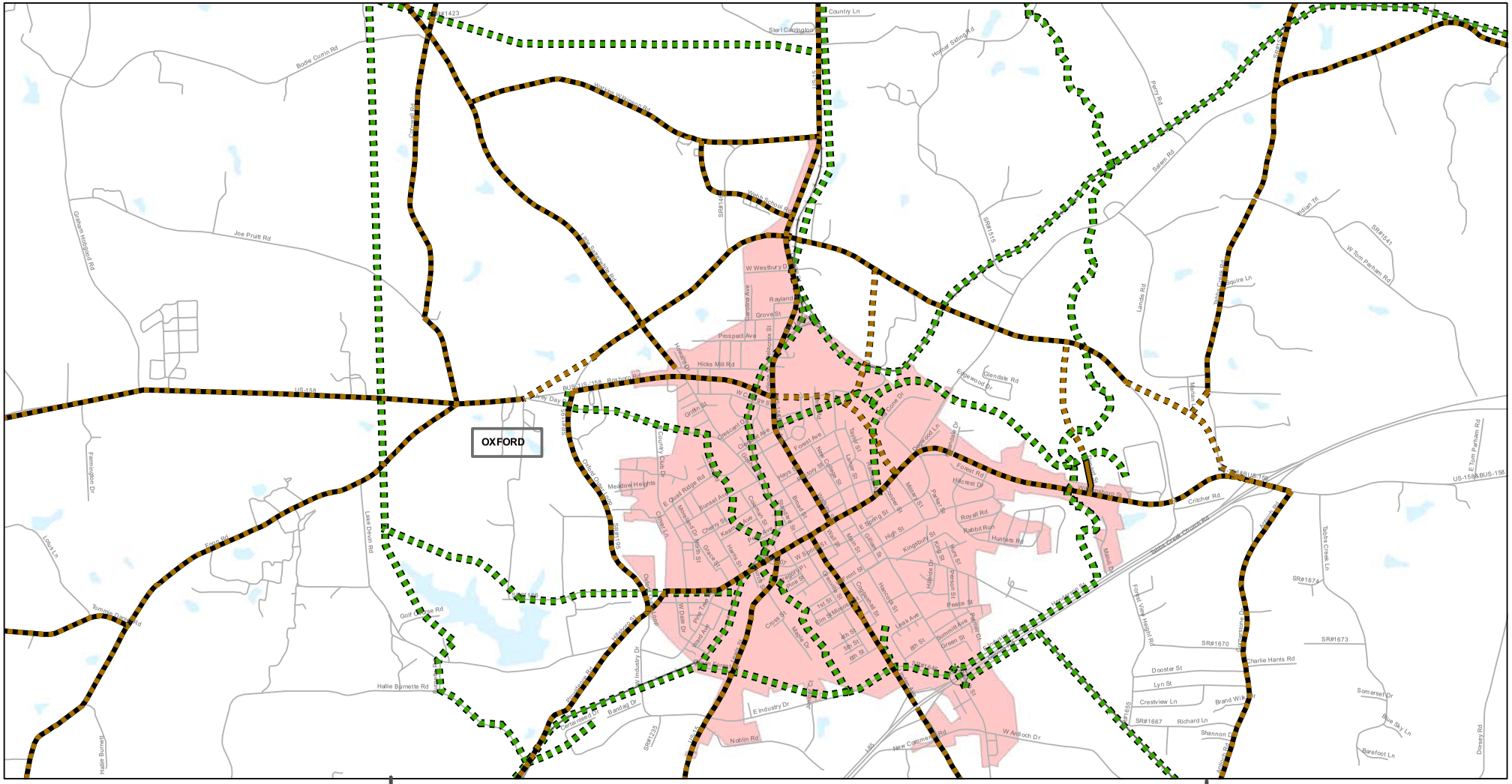
Miles
0 2.5 5

Figure 2 - Sheet 3 of 5

Base map date: June 22, 2007

Refer to CTP document for more details

Back of Figure 2, Sheet 3, Bike Map



Plan date: September 06, 2007

0 0.45 0.9 Miles

Base map date: June 22, 2007

Refer to CTP document for more details

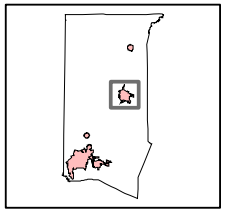
N W E S

On Road

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

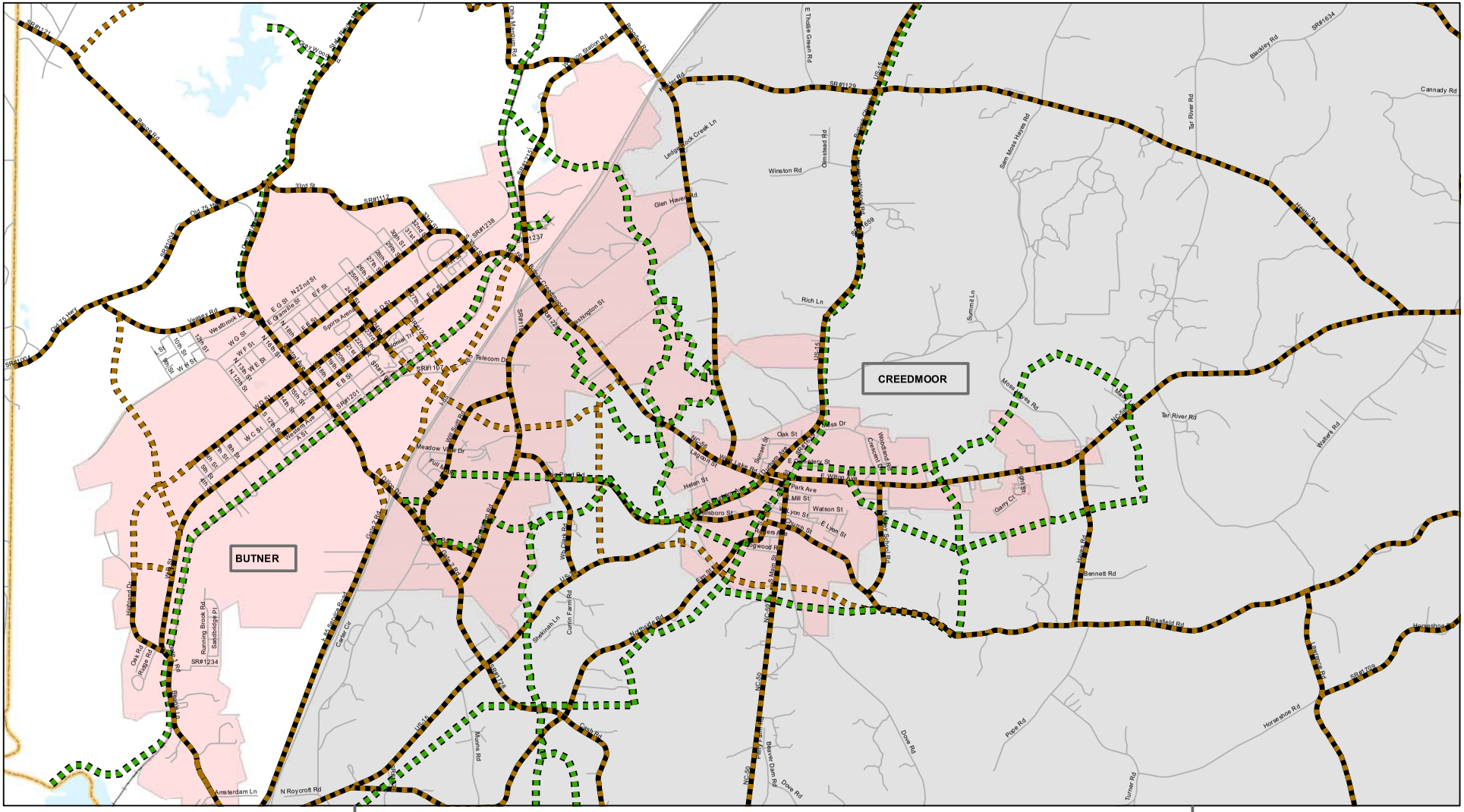
Off Road

- Existing
- Needs Improvement
- Recommended



Bicycle Map
Granville County Comprehensive Transportation Plan
Figure 2 - Sheet 3A of 5 (Oxford)
North Carolina

Back of Figure 2, Inset


BUTNER
CREEDMOOR
Plan date: September 06, 2007
0 0.45 0.9 Miles
Refer to CTP document for more details
Base map date: June 22, 2007
On Road
Existing
Needs Improvement
Recommended
Existing Grade Separation
Proposed Grade Separation
Off Road
Existing
Needs Improvement
Recommended
Bicycle Map
Granville County
Comprehensive
Transportation Plan
Figure 2 - Sheet 3B of 5
(Creedmoor & Butner)
North Carolina

Back of Figure B

Public Transportation and Rail Map

Granville County

Comprehensive Transportation Plan

Plan date: September 06, 2007

Bus Routes
- Existing
- Needs Improvement
- Recommended

Fixed Guideway
- Existing
- Needs Improvement
- Recommended

Operational Strategies
- Existing
- Needs Improvement
- Recommended

Rail Corridor
- Active
- Inactive
- Recommended

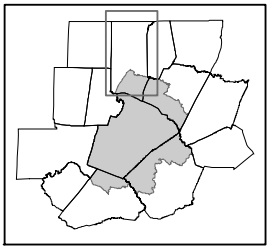
High Speed Rail Corridor
- Existing
- Recommended

Rail Stops
- Existing
- Recommended

Intermodal Connector
- Existing
- Recommended

Park and Ride Lot
- Existing
- Recommended

- County Boundry
- CAMPO Boundry
- Municipal Boundry



Miles
0 2.5 5

Figure 2 - Sheet 4 of 5

Base map date: June 22, 2007

Refer to CTP document for more details

Back of Figure 2, Sheet 4, Public Transportation and Rail

Chapter 2
Recommendations

This chapter contains recommended improvements based on the ability of the existing system to serve current and anticipated travel desires as the area continues to grow. The recommended plan represents a system of transportation elements including highway, public transportation and rail, bicycle, and pedestrian which should serve the anticipated traffic and land development needs for the area. The primary objective of this plan is to reduce traffic congestion and improve safety by eliminating both existing and projected deficiencies in the transportation system.

2.1 Bicycle and Pedestrian Recommendations

The NCDOT envisions that all citizens and visitors of North Carolina should be able to walk and bicycle safely and conveniently to their chosen destinations with reasonable access to roadways. Information on events, funding, maps, policies and processes dealing with theses modes of transportation is available by contacting the NCDOT Division of Bicycle and Pedestrian Transportation.

The bicycle element of the Granville County Comprehensive Transportation Plan (CTP) is presented in **Figure 2, Sheet 3**. These maps classify the bicycle routes into two categories depending on the type of service each route provides. These classifications are On-road and Off-road, and are described in detail in Appendix B.

The CTP bicycle map includes several improvements recommended to meet future travel demands. These improvements were developed based on the needs assessment, the goals and objectives of the area and the known environmental limitations of the planning area.

On-Road Recommendations:

All of the on-road bicycle routes are identified in the CTP Bicycle map legend and are shown as "Needs Improvement". Due to this shared, or multi-modal, use of these facilities, it is recommended that sub-standard roadway sections be widened to a standard 24-foot cross section with 4-foot paved shoulders. These improvements should enhance safety and the functional design of the facility. The Granville County CTP Committee also recommends that bicycle accommodations be considered during the planning and funding for all future pavement rehabilitation or re-surfacing projects. The facilities that are part of the designated bicycle routes in Granville County with substandard pavement /shoulder widths are listed in the Project Proposal Spreadsheet, and are illustrated in the Bicycle Maps with the brown lines. For more information, please check the Project Proposal Spreadsheet and Roadway Inventory **Appendix C** & Granville County Cross Sections **Appendix D**.

When considering the widening of these facilities, it is recommended that the division of Bicycle and Pedestrian Transportation (NCDOT) be consulted. They can help provide the most appropriate improvements based on present and future bicycle traffic. The county should contact the coordinator of this branch for further consideration and assistance.

Off-Road Recommendations:

All of the off-road bicycle routes evolved from the Granville County Greenway Master Plan 2006 and are walking paths or greenway corridors that connect destinations within Granville County. These facilities would typically reduce short vehicle trips by providing citizens with an alternative method of transportation. For detail information please see Figure 3, Greenway Master Plan 2006 Map. Some of the Off-Road Bike Routes include:

- G1 (Proposed Granville County Greenway Corridor): North-South route connecting Oxford with NC Bike Route 4 (North Line Trace) and Clarksville, VA/Tobacco Heritage Trail. (Along US 15 North, or Norfolk Southern Railroad).

- G2 (Proposed Granville County Greenway Corridor): Spur off of G1 connecting over to an historical marker, the John Penn Gravesite. (Rockwell Road over to John Penn Road).

- G4 (Proposed Granville County Greenway Corridor): East-West route connecting Oxford (Granville Medical Center) to NC Bike Route 1 (Carolina Connection) and Henderson, passing Oxford-Henderson Airport (along Salem Road / Norfolk Southern Railroad).

- G5 (Proposed Granville County Greenway Corridor): Connect East Oxford industrial/residential complex (Revlon, Dill Manufacturing, and Autumn Park) with Mary Potter School and Oxford City Hall. (along sewer easements).

- G6 (Proposed Granville County Greenway Corridor): Oxford Loop Trail around Oxford (along US 158, Oxford Outer Loop, Industry Drive, Service Road[I-85]/sewer easements).

- G7 (Proposed Granville County Greenway Corridor): Larger loop north of Oxford connecting inner loop with Oxford Park, with US 15 with Kinton Forks/NC 96 with Lake Devin, with trail G12b.

- G8 (Proposed Granville County Greenway Corridor): North-South route connecting Lake Devin Recreation Area to Jonesland/Granville Athletic Park.

- G9 (Proposed Granville County Greenway Corridor): East-West route connecting Lake Devin to Oxford Loop Trail (G6).

- G12a (Proposed Granville County Greenway Corridor): North-South route connecting Granville Athletic Park to Granville Central High School, to Stem, to Holt Lake to Butner. Branch off before Butner to connect with nearby planned trails in Durham County along Old 75 (SR 1004).

- G12b (Proposed Granville County Greenway Corridor): North-South rail with trail route connecting Oxford to Butner along Norfolk Southern Railroad Line. At South-West Corner, at Falls of Neuse Lake, branch trail to connect with planned Durham County trails (Railroad easement).

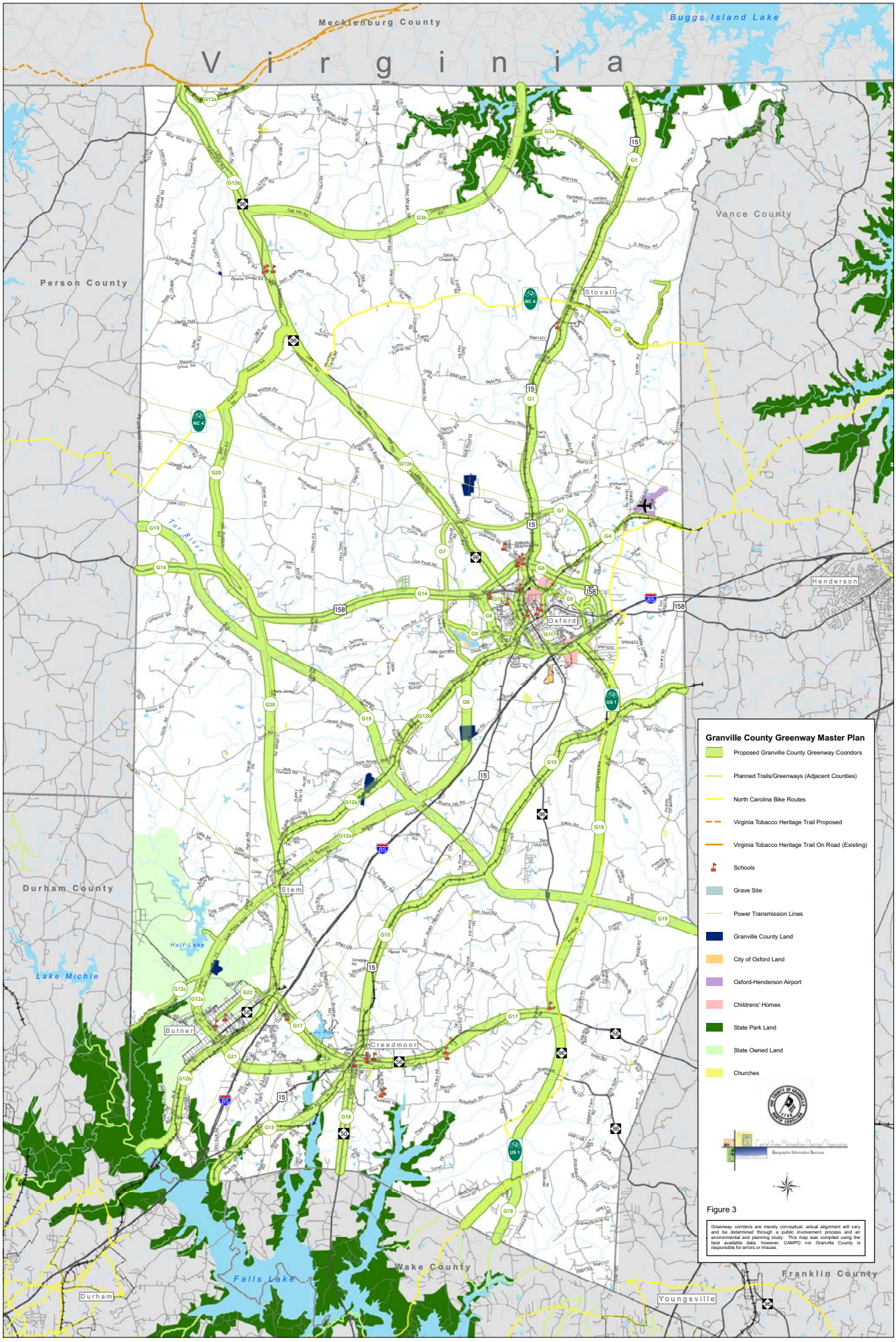
- G13a (Proposed Granville County Greenway Corridor): Complete section of Virginia Tobacco Heritage Trail near Virgilina that dips into Granville County (along Norfolk Southern Railroad).

- G15 (Proposed Granville County Greenway Corridor): North-South route connecting Oxford Loop to Creedmoor, including an extension to Vance County line (along Seaboard Railroad).

- G17 (Proposed Granville County Greenway Corridor): East-West route connecting North Butner to Creedmoor to Wilton and NC Bike Route 1 (Carolina Connection) include connections to schools, development, new shopping area (along sewage easement, or NC 56).

- G19 (Proposed Granville County Greenway Corridor): East-West route running the length of the Tar River.

- G21 (Proposed Granville County Greenway Corridor): East-West route connecting central Butner to Creedmoor accessing residential, commercial and industrial developments.


Mecklenburg County
Buggs Island Lake
V i r g i n i a
Vance County
Person County
Stovall
Henderson
Oxford
Durham County
Stem
Butner
Creedmoor
Holt Lake
Lake Michie
Falls Lake
Wake County
Franklin County
Youngsville
Durham
Tar River
Granville County Greenway Master Plan
Proposed Granville County Greenway Cooridors
Planned Trails/Greenways (Adjacent Counties)
North Carolina Bike Routes
Virginia Tobacco Heritage Trail Proposed
Virginia Tobacco Heritage Trail On Road (Existing)
Schools
Grave Site
Power Transmission Lines
Granville County Land
City of Oxford Land
Oxford-Henderson Airport
Childrens' Homes
State Park Land
State Owned Land
Churches
Geographic Information Services
Figure 3
Greenway corridors are merely conceptual, actual alignment will vary and be determined through a public involvement process and an environmental and planning study. This map was compiled using the best available data, however, CAMPO nor Granville County is responsible for errors or misuse.

Back of Greenway Master Plan 2006

2.2 Public Transportation and Rail Recommendations:

The Public Transportation and Rail Map of the CTP considers other modes of transportation and gives the public other options of traveling from one place to another. Today, the emphasis is on obtaining a balance between a walking society and a riding society. The Kerr Area Rural Transit System (KARTS) and Granville County CTP Committee recommended some additional public transportation routes for the plan. The recommended Public Transportation and Rail map for Granville County is presented in **Figure 2, Sheet 4.**

Bus Route Recommendations:

- Along I-85 from Durham County line to Oxford.
- Along US 15 from Oxford to Stovall.
- Along NC 50 from Wake County line to Creedmoor.
- Along US 158 from Oxford to Vance County Line.

Loop Service Recommendations:

- Providing service between Butner, Creedmoor and Stem.
- Providing service in and around Creedmoor.
- Providing service in and around Oxford.

Park and Ride Locations:

- Primary facilities along I-85.
- One facility recommended serving Butner Federal Institution areas.

Fixed guideway:

- None Recommended.

High speed rail:

- None Recommended.

2.3 Highway Recommendations

The recommended highway improvements are illustrated in **Figure 2, Sheet 2.** The plan includes roadways within the planning area that fall into five categories: freeways, expressways, boulevards, other major thoroughfares, and minor thoroughfares. See **Appendix B** for a more detailed description of the each category and **Appendix C** for an inventory of the highway recommendations.

The process of determining and evaluating recommendations for the roads in the plan involves many considerations including the goals and objectives survey of the public in the

area, existing roadway properties, identified roadway capacity deficiencies, environmental impacts, and existing and anticipated land development. Considerations of these factors led to the cooperative development of the recommended improvements. For more information please see **Figure 4, Project Proposal Map.**

2.4 Primary Route Improvements

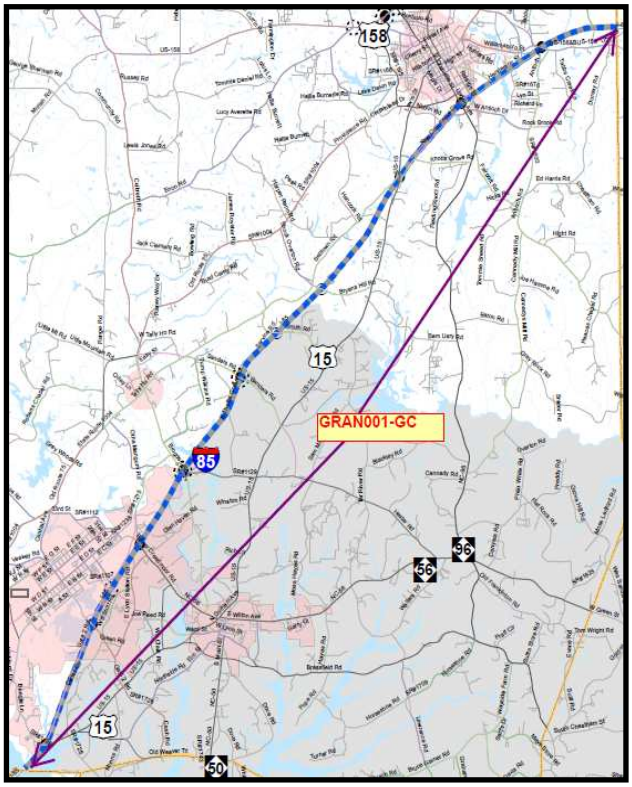
The following pages should summarize and describe major recommendations.

I-85

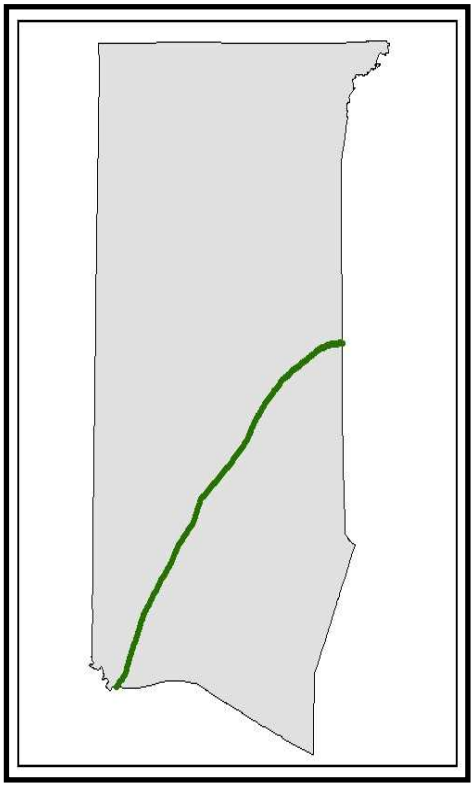
Proposed improvements from Durham County Line to Vance County Line

Project #: GRAN001

Last updated on: 10/29/09



I-85



Project Location within County

I-85 looking south from NC 96

Note: Definitions of terms can be found in Appendix B. All Information subject to change.

Project Description:

- It is recommended that I-85 be widened to a 6-lane divided freeway facility throughout the county. (The need for an additional interchange has been identified and is recommended for study under **project GRAN001-GC).**

Purpose:

- The widening of this route should improve the north-south travel along I-85 through Granville County. It was determined that the traffic volumes projected in this section should be near to over capacity in 2035. This widening is intended to improve the safety and capacity of the existing roadway.

County:	Granville
MPO/RPO Planning Area	MPO/RPO
Municipality	Granville Co.
Project Category	Highway
CTP Designation	Freeway-NI
Highway Tier	Highway Tier
Total Project Length	25 miles
TIP #	None
Funding Source	STP
AQ Regionally Significant	☐ Yes ☒No
Segmented Project	☐ Yes ☒No
Number of Segments	1

Additional Information

Existing Conditions:

I-85 is a 4-lane interstate facility in Granville County, and it is the only north-south interstate facility in the central part of North Carolina.

Economic Development Impacts:

I-85 widening should have a positive impact on economic development, and improve automobile and freight mobility in Granville County.

Land Use Impacts:

This project should cause no land use changes.

Safety:

If I-85 is not widened, congestion and delays should worsen, and crashes may increase due to the projected increased volumes.

Bike/Ped/Transit:

I-85 is recommended as a future bus route corridor for service from Durham / Granville County Line to Oxford. Park and ride facilities are also recommended at various locations along this corridor.

Environmental/Historic Features:

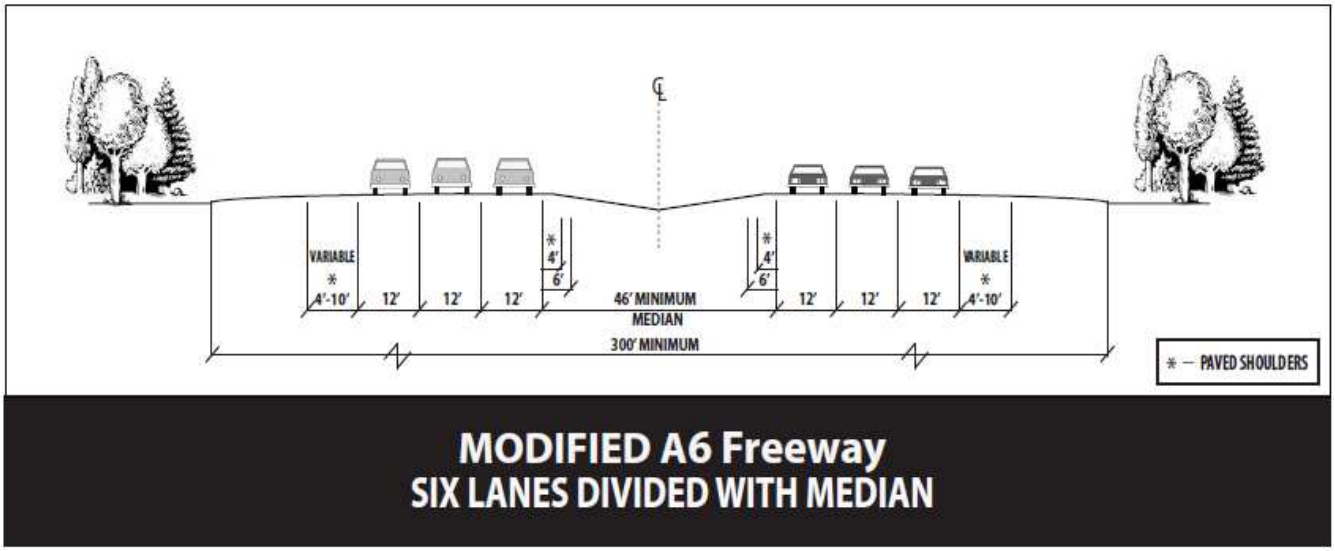
There are various sightings of rare plants and animals throughout Granville County. A detailed field investigation is recommended prior to construction in this area.

Project History/Relationship to Other Plans:

The improvements to I-85 were identified in the 2004 City of Creedmoor Thoroughfare Plan.

Project Detail Table

Project: I-85	Dist Mi	Roadway Width	ROW	Number of Lanes	Capacity (VPD)	AADT (VPD)	Cross Section Or Notes
GRAN001-GC (Durham County line to Vance County line)							
Current Conditions	25.0	48	350	4	45000	28000-39000	-
Future Conditions	25.0	72	350	6	110000	72500-90500	A6

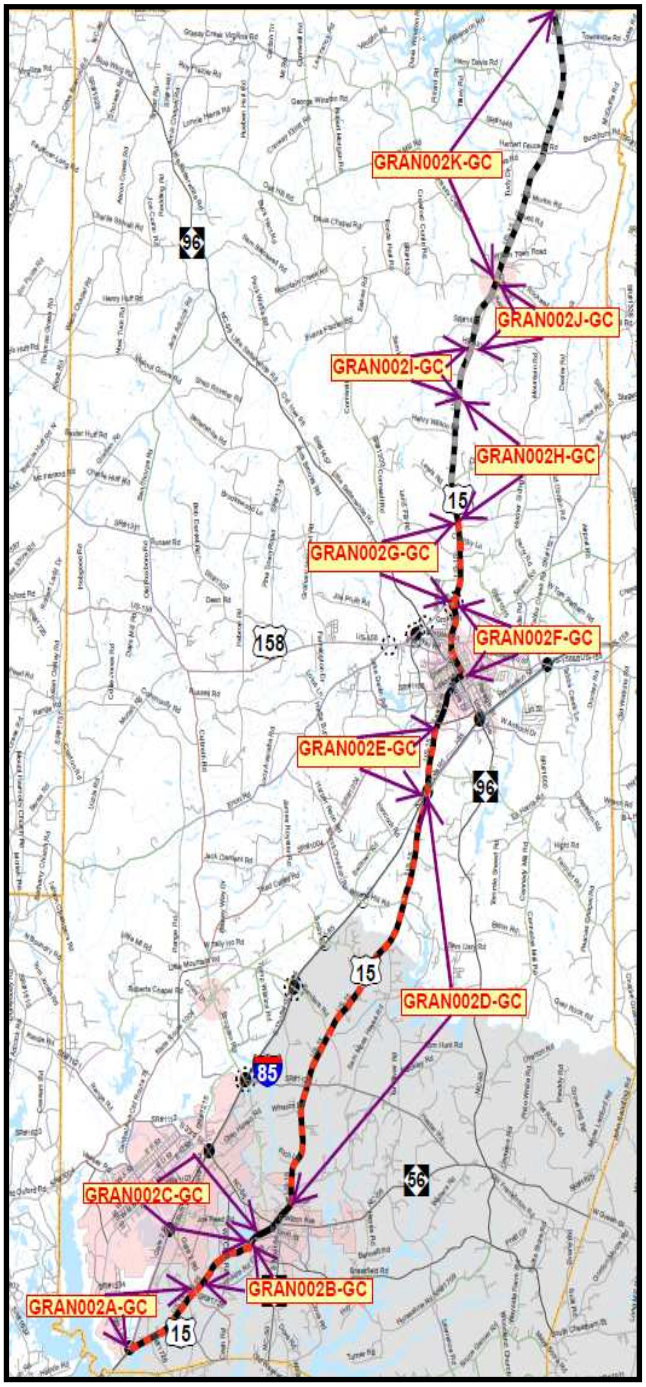


US 15

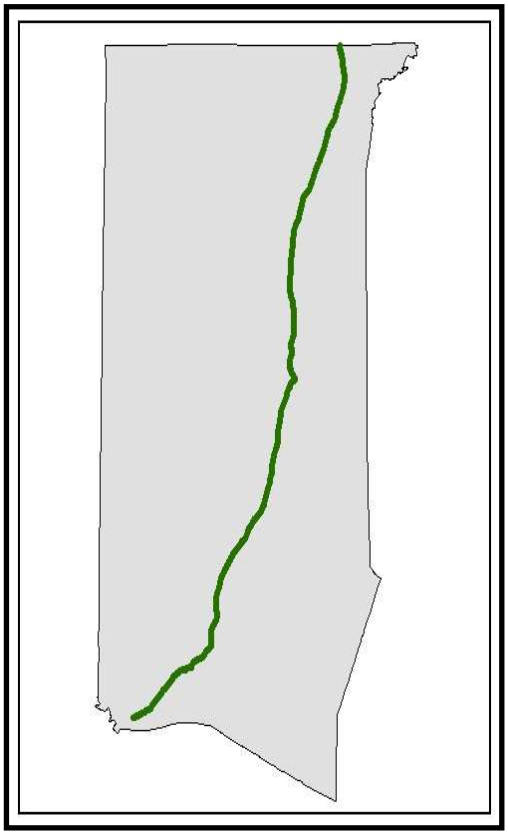
Proposed improvements from I-85 Exit 189 to Virginia State Line

Project #: GRAN002

Last updated on: 10/29/09



US 15



Project Location within County

US 15 North looking towards I-85

Note: Definitions of terms can be found in Appendix B. All Information subject to change.

Project Description:

Widening the current 2-lane facility to a 3-lane urban section or 4-lane divided boulevard facility with raised median as specified on the Project Detail Table that follows.

Purpose:

This two lane facility serves both residential and commercial traffic between Raleigh and Virginia State Line. The projected traffic volumes in this section should be near to over capacity in 2035. This widening is intended to improve the safety and capacity of existing roadway. The widening of this route should improve the north-south travel along US 15 through Creedmoor, Oxford, Stovall and Granville County. US 15 functions as the major detour route for I-85 during construction and emergency management conditions.

County:	Granville
MPO/RPO Planning Area	MPO/RPO
Municipality	Granville Co.
Project Category	Highway
CTP Designation	Boulevard - NI
Highway Tier	Highway Tier
Total Project Length	37 miles
TIP #	none
Funding Source	STP
AQ Regionally Significant	☐ Yes ☒No
Segmented Project	☒ Yes ☐No
Number of Segments	11

Additional Information

Existing Conditions:

US 15 is Major Thoroughfare on the Federal Functional Classification System. This roadway runs southwest to northeast throughout the county. US 15 is currently operating at a less than desirable level for users.

Economic Development Impacts:

The US 15 widening should have a positive impact on economic development, and improve automobile and freight mobility in Granville County.

Land Use Impacts:

This project may promote urbanized development patterns in current rural areas.

Safety:

If US 15 is not widened, congestion and delays should worsen. US 15 functions as the major detour route for I-85 during construction and emergency management conditions. More detailed information on several intersections along US 15 is available in the "Intersection Analysis Report".

Bike/Ped/Transit:

Local and regional cyclists frequently use the "Cannady's Mill to Bell Town Loop" route along US 15. The lack of shoulder and minimal lane width increases the potential for conflicts between cyclists and motorist. US 15 is recommended as a future bus route corridor for service from Oxford to Stovall. Ancillary bicycle routes via on-road or off-road accommodations are recommended along US 15 to enhance the county-wide bicycle network.

Environmental/Historic Features

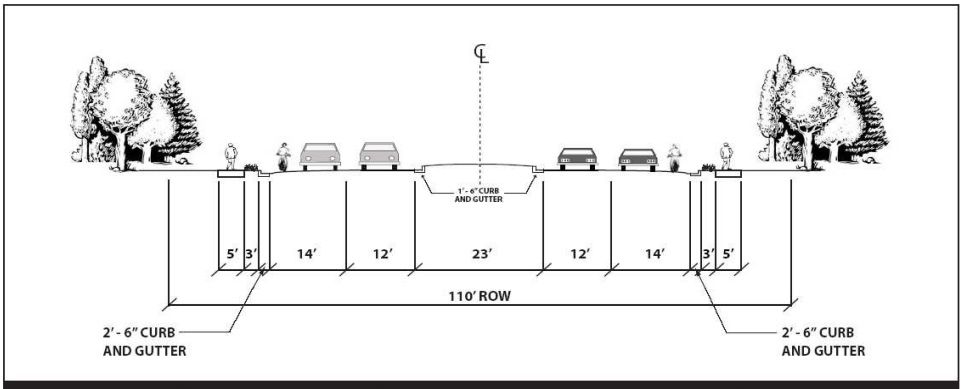
Various instances of rare plants and animals have been noted throughout Granville County. A large portion of southern Granville County lies within a protected watershed area. A detailed field investigation is recommended prior to construction in this area.

Project History/Relationship to Other Plans

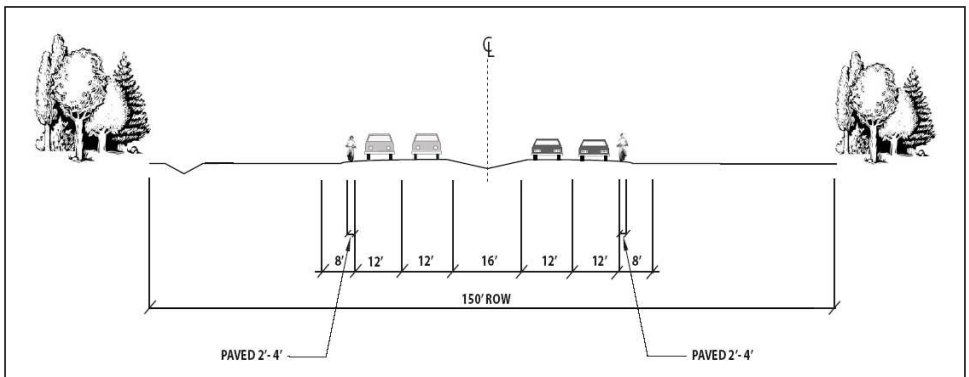
Improvements to US 15 were identified in previously adopted thoroughfare plans in Oxford, Creedmoor and Granville County. Portions of the improvements to US 15 have consistently been a priority of the MPO and RPO that represent the county.

Project Detail Table

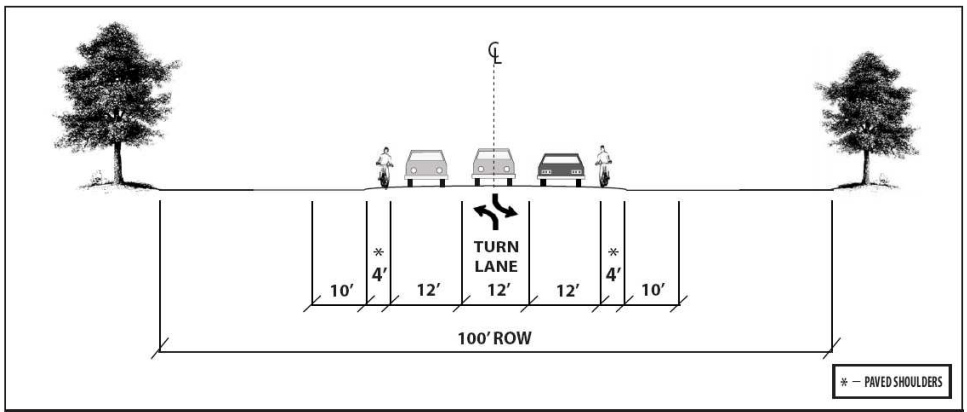
Project: US15	Dist Mi	Roadway Width	ROW	Number of Lanes	Capacity (VPD)	AADT (VPD)	Cross Section Or Notes
GRAN002A-GC (I-85 to Gate #2 Rd)							
Current Conditions	2.30	24	100	2	9800	6200	-
Future Conditions	2.30	48	150	4	35000	22000	Modi – B1
GRAN002B-GC (Gate #2 - Relocated US 15)							
Current Conditions	1.31	24	100	2	9800	4600	-
Future Conditions	1.31	52	110	4	35000	17500	B1
GRAN002C-GC (US 15 Relocation)							
Current Conditions	0.20	21	80	2	7600	4900	-
Future Conditions	0.20	36	100	2-3	35000	11000	Modi – H2
GRAN002D-GC (Moss Rd - I-85)							
Current Conditions	10.26	24	100	2	7600	3700-5400	-
Future Conditions	10.26	48	150	4	35000	18600	Modi – B1
GRAN002E-GC (I-85 to Oxford SCL)							
Current Conditions	1.50	24	100	2	9800	7400	-
Future Conditions	1.50	52	110	4	35000	14800	B1
GRAN002F-GC (Hillsboro St. to US 158)							
Current Conditions	1.65	24	80	2	9800	6700-10000	-
Future Conditions	1.65	52	110	4	35000	14000	B1
GRAN002G-GC (US 158 to Chewning Rd)							
Current Conditions	2.90	24	100	2	7600	6600	-
Future Conditions	2.90	52	150	4	35000	11400	Modi – B1
GRAN002H-GC (Chewning Rd to Simpson Hill)							
Current Conditions	2.10	22	60	2	7600	4800	-
Future Conditions	2.10	36	100	2-3	15000	5500	Modi- H2
GRAN002I-GC (Simpson Hill to Hill Airy)							
Current Conditions	1.20	22	60	2	7200	4800	-
Future Conditions	1.20	36	100	2-3	15000	5500	Modi- H2
GRAN002J-GC (Hill Airy to Reavis Rd)							
Current Conditions	1.20	22	60	2	7200	4800	-
Future Conditions	1.20	36	100	2-3	15000	5500	Modi- H2
GRAN002K-GC (Reavis Rd to Virginia)							
Current Conditions	7.30	22	60	2	7200	4500	-
Future Conditions	7.30	36	100	2-3	15000	6500	Modi- H2



B1 Boulevard / Major Thoroughfare Inside Town
FOUR LANE MEDIAN DIVIDED TYPICAL SECTION
With Wide Outside Lanes



MODIFIED B1 Boulevard / Major Thoroughfare Outside Town
FOUR LANE MEDIAN DIVIDED TYPICAL SECTION
With Wide Outside Lanes, Without Sidewalk, Curb and Gutter



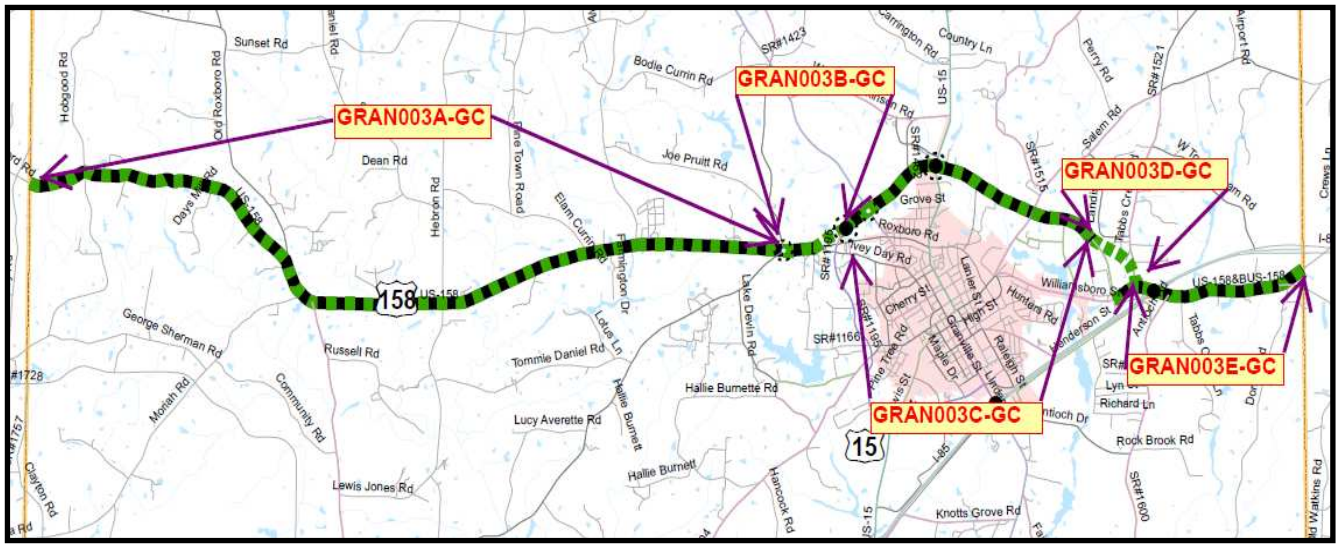
MODIFIED H2
MINOR THOROUGHFARE

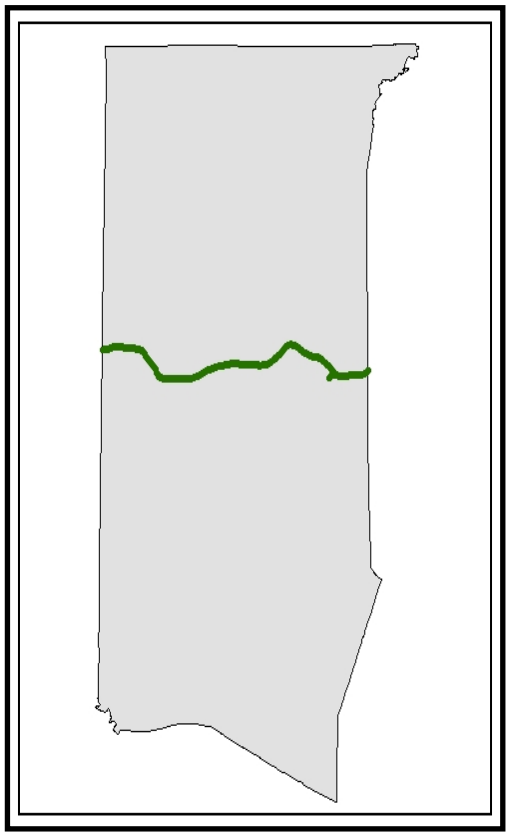
US 158

Proposed improvements from Person County Line to Vance County Line

Project #: GRAN003

Last updated on: 10/29/09





Project Location within County

US 158

US 158 in Oxford

Note: Definitions of terms can be found in Appendix B. All Information subject to change.

Project Description:

Widening the current 2-lane facility to a 4-lane divided expressway facility with raised median, curb and gutter from the Person County Line to the Vance County line.

Purpose:

This 2-lane facility serves residential, commuter and commercial traffic from Person County to Vance County. It was determined that the traffic volumes projected in this section should be near to over capacity in 2035. This widening is intended to improve the safety and capacity of existing roadway. The widening of this route should help improve the east-west travel along US 158 through Oxford and Granville County.

County:	Granville
MPO/RPO Planning Area	Kerr-Tar RPO
Municipality	Granville Co.
Project Category	Highway
CTP Designation	Expressway- NI
Highway Tier	Highway Tier
Total Project Length	18 miles
TIP #	R-2585, R-2257(loop)
Funding Source	STP
AQ Regionally Significant	☐ Yes ☒No
Segmented Project	☒ Yes ☐No
Number of Segments	5

Additional Information

Existing Conditions:

US 158 is a 2-lane east-west connector throughout NC, traversing Granville County from Person County to Vance County. This facility serves residential, commercial, commuter and freight traffic.

Economic Development Impacts:

The US 158 widening should have a positive impact on economic development, and improve automobile and freight mobility in Granville County.

Land Use Impacts:

This project may promote urbanized development patterns in current rural areas.

Safety:

While safety is not the primary purpose of this project, several intersections have been identified as safety concerns. More detailed information on those intersections along US 158 is available in the "Intersection Analysis Report" shown in Appendix E.

Bike/Ped/Transit:

Ancillary bicycle routes via on-road or off-road accommodations are recommended along US 158 to enhance the county-wide bicycle network. US 158 is recommended as a future bus route corridor for service from Oxford to Henderson in Vance County. A circulator route has been recommended to serve Oxford using US 158.

Environmental/Historic Features

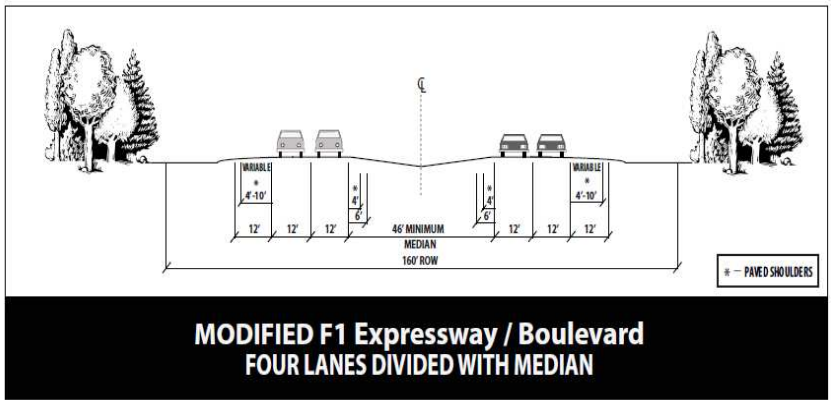
Various instances of rare plants and animals have been noted throughout Granville County. A portion of southwestern Granville County lies within a protected watershed area. A detailed field investigation is recommended prior to construction in this area.

Project History/Relationship to Other Plans

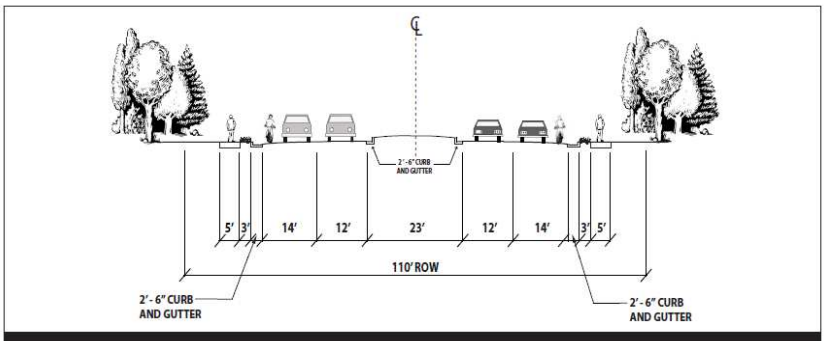
Improvements to US 158 were identified in previously adopted thoroughfare plans in Oxford and Granville County. US 158 is identified as an Intrastate facility and identified on the 2009-2015 TIP as R-2585, to be improved to a multi-lane facility. Improvements to the Oxford Loop portion of this route have been a consistent priority of the County and funding is being sought through regional channels including the RPO. See 2002 comprehensive/land use/hazardous mitigation plan. Recommended bicycle/pedestrian improvements are consistent with the adopted 2006 Granville County Greenway Master Plan. This route is also identified as Strategic Highway Corridor.

Project Detail Table

Project: US158	Dist Mi	Roadway Width	ROW	Number of Lanes	Capacity (VPD)	AADT (VPD)	Cross Section Or Notes
GRAN003A-GC (Person County Line to Cornwall Road)							
Current Conditions	10.20	21	80	2	9800	5700	-
Future Conditions	10.20	48	160	4	35000	12600	Modi – F1
GRAN003B-OX (Cornwall Road to US 158)							
Current Conditions	1.20	21	80	2	9800	5800	-
Future Conditions	1.20	52	110	4	35000	13000	Modi – E2
GRAN003C-OX (US 158 Outer loop)							
Current Conditions	3.60	24	60	2	7200	5900	-
Future Conditions	3.60	52	110	4	35000	13000	Modi – E2
GRAN003D-OX (US 158 to US 158 BUS)							
Current Conditions	-	-	-	-	-	-	-
Future Conditions	1.00	52	110	4	35000	14000	Modi – E2
GRAN003E-GC (I-85 to Vance County Line)							
Current Conditions	2.10	24	100	2	9800	3900	-
Future Conditions	2.10	52	110	4	35000	15900	Modi – E2



MODIFIED F1 Expressway / Boulevard
FOUR LANES DIVIDED WITH MEDIAN



MODIFIED E2 Expressway / Boulevard
FOUR LANES DIVIDED WITH RAISED MEDIAN - CURB & GUTTER

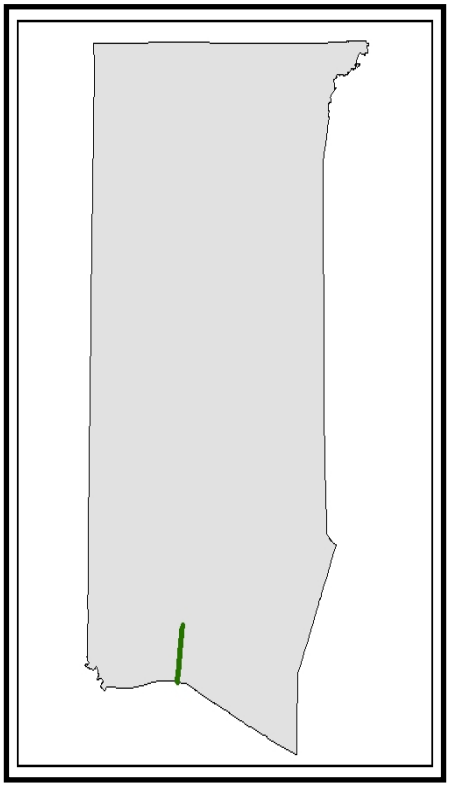
NC 50

Proposed improvements from Wake County Line to Creedmoor Loop

Project #: GRAN005

Last updated on: 10/29/09

NC 50



Project Location within County

NC 50 South of Creedmoor

Note: Definitions of terms can be found in Appendix B. All Information subject to change.

Project Description:

- Widening the current 2-lane facility to a 4-lane divided boulevard facility with median from the Wake County line to the proposed Creedmoor Connector.

Purpose:

- This project is needed to improve the north-south transportation link between Creedmoor and Raleigh. The growth in Creedmoor, southern Granville County and northern Wake County has resulted in increased transportation demands on this 2-lane facility. This widening is intended to improve the safety and capacity on the existing roadway.

County:	Granville
MPO/RPO Planning Area	Capital Area MPO
Municipality	Granville Co.
Project Category	Highway
CTP Designation	Boulevard - NI
Highway Tier	Highway Tier
Total Project Length	3 miles
TIP #	None
Funding Source	STP
AQ Regionally Significant	☐ Yes ☒No
Segmented Project	☐ Yes ☒No
Number of Segments	1

Additional Information

Existing Conditions:

NC 50 is a Major Thoroughfare. It is the only major route providing direct access between Creedmoor and Raleigh. Citizens and motorists in Northern Granville County also rely on NC 50 for regional connectivity to the Raleigh area. The route is heavily used by commuters from Granville County into the RTP Area. Additionally, the route is used as a link between Raleigh and the State and Federal institutions in Butner. The area along NC 50 is primarily residential, with many undeveloped tracts of land. NC 50 is currently operating at a less than desirable level for users, especially during peak hours.

Economic Development Impacts:

The NC 50 widening should have a positive impact on economic development, and improve mobility and connectivity between Granville County and the greater Triangle area. Improvements to this facility should further provide sufficient roadway capacity to handle additional traffic resulting from new development and projected increases in commuter traffic. Prime development opportunities exist in Creedmoor and Butner areas which should result in increased commuter traffic along NC 50.

Land Use Impacts:

This project may promote urbanized development patterns in current rural areas.

Safety:

If NC 50 is not widened, congestion, delays and crashes should worsen. The current alignment of NC 50 contains numerous vertical curves which may affect sight distance.

Bike/Ped/Transit:

A future bus route is recommended in the NC 50 corridor to provide service from Creedmoor to Raleigh. An ancillary bicycle route accommodation is recommended along NC 50 to enhance the county-wide bicycle network.

Environmental/Historic Features

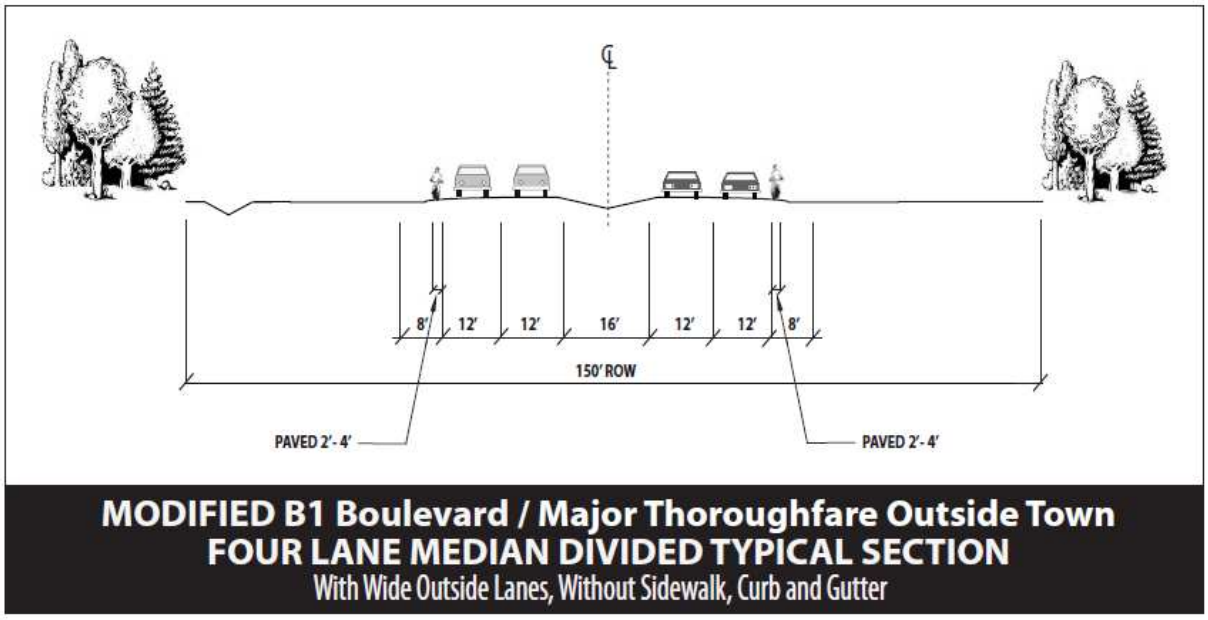
Various instances of rare plants and animals have been noted throughout Granville County. A large portion of southern Granville County lies within a protected watershed area. A detailed field investigation is recommended prior to construction in this area.

Project History/Relationship to Other Plans

Improvements to NC 50 were identified in previously adopted thoroughfare plans in Creedmoor and Granville County and supported by all other municipalities in the county. Improvements to this route have been a consistent priority of the County and funding is being sought through regional channels including the MPO and RPO. An advanced planning study to identify possible solutions to the existing problems has been funded by the Capital Area MPO. Recommended bicycle/pedestrian improvements are consistent with the adopted 2006 Granville County Greenway Master Plan.

Project Detail Table

Project: NC 50	Dist Mi	Roadway Width	ROW	Number of Lanes	Capacity (VPD)	AADT (VPD)	Cross Section Or Notes
GRAN005-GC (Wake County Line to Creedmoor Loop)							
Current Conditions	3.10	24	60	2	7600	7100-11000	-
Future Conditions	3.10	48	150	4	35000	30000-33400	Modi – B1

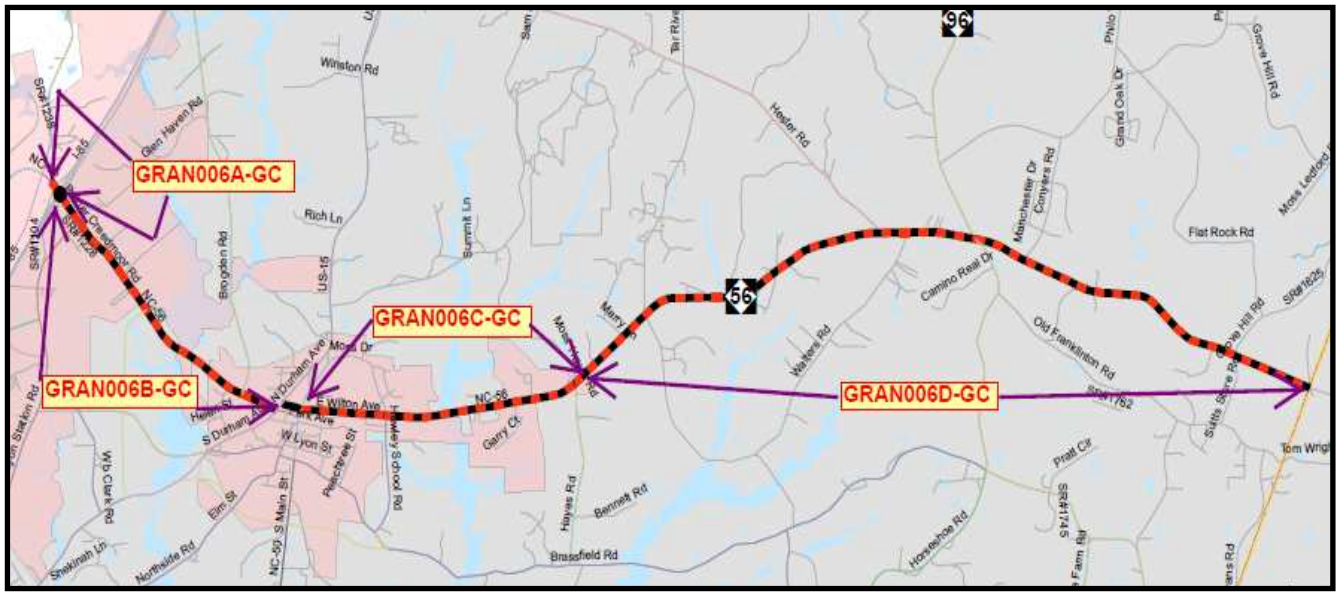


NC 56

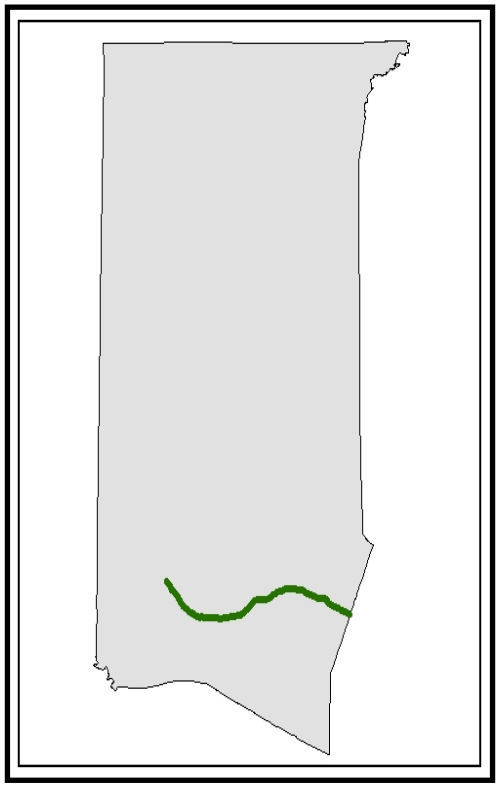
Proposed improvements from West Lyon Station Road in Butner to Franklin County Line

Project #: GRAN006

Last updated on: 10/29/09



NC 56



Project Location within County

NC 56 towards Creedmoor

Note: Definitions of terms can be found in Appendix B. All Information subject to change.

Project Description:

- Widening the current 2-lane facility to a 4-lane divided boulevard facility with median from I-85 in southern Granville County to Franklin County as specified on the Project Detail Table.

Purpose:

- Portions of NC 56 are currently over capacity and the remainder is projected to exceed capacity by 2035. If no improvements are made to NC 56, the resulting congestion and delays should worsen. The widening should provide increased capacity and greater maneuverability resulting in safer driving conditions.

County:	Granville
MPO/RPO Planning Area	Capital Area MPO
Municipality	Creedmoor
Project Category	Highway
CTP Designation	Boulevard - NI
Highway Tier	Highway Tier
Total Project Length	13 miles
TIP #	None
Funding Source	STP
AQ Regionally Significant	☐ Yes ☒No
Segmented Project	☒ Yes ☐No
Number of Segments	4

Additional Information

Existing Conditions:

NC 56 is a Major Thoroughfare and is the primary east-west route in southern Granville County and provides a connection from I-85 in Butner to points eastward, including Creedmoor and Franklin County.

Economic Development Impacts:

The NC 56 widening should have a positive impact on economic development, and improve automobile and freight mobility in Granville and neighboring counties.

Land Use Impacts:

This route serves all types of development, from industrial to rural to agricultural. There are three schools near Creedmoor directly impacted by any improvements along NC 56. This project may promote urbanized development patterns in current rural areas.

Safety:

If NC 56 is not widened, congestion and delays should worsen. Access management methods should be implemented in order to provide maximum mobility and safety, particularly near I-85. Several intersection improvements along NC 56 have been identified in the "Intersection Analysis Report" shown in Table 2.

Bike/Ped/Transit:

Ancillary bicycle routes via on-road or off-road accommodations are recommended along NC 56 to enhance the county-wide bicycle network. NC 56 is recommended as part of a future bus circulator corridor to provide service from Butner to Creedmoor.

Environmental/Historic Features

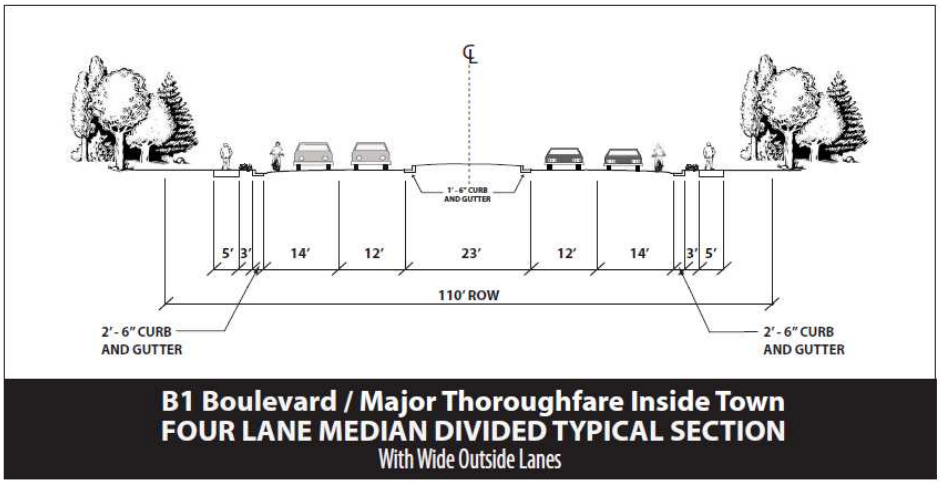
Various instances of rare plants and animals have been noted throughout Granville County. A large portion of southern Granville County lies within a protected watershed area. A detailed field investigation is recommended prior to construction in this area. This project should improve air quality by reducing emissions related to severe congestion.

Project History/Relationship to Other Plans

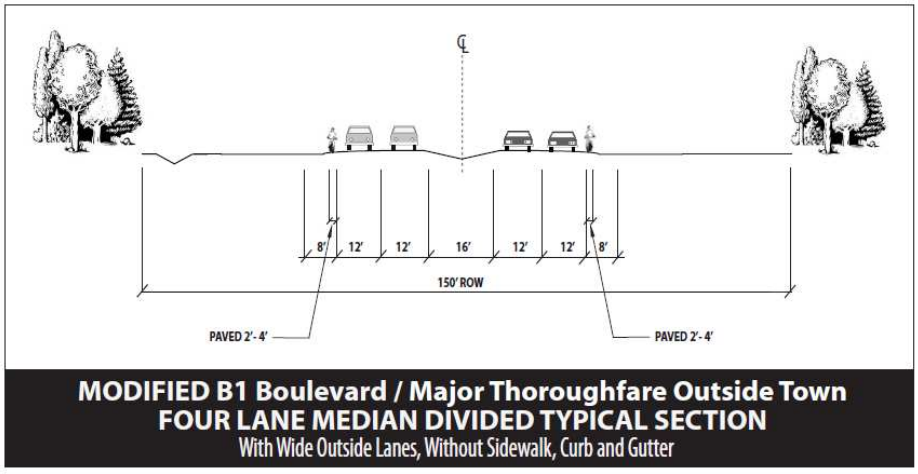
Improvements to NC 56 were identified in previously adopted thoroughfare plans in Creedmoor and Granville County. Improvements to this route have been a consistent priority of the County and funding is being sought through regional channels including the MPO and RPO. See 2002 comprehensive/land use/hazardous mitigation plan. Recommended bicycle/pedestrian improvements are consistent with the adopted 2006 Granville County Greenway Master Plan.

Project Detail Table

Project: NC 56	Dist Mi	Roadway Width	ROW	Number of Lanes	Capacity (VPD)	AADT (VPD)	Cross Section Or Notes
GRAN006A-CR (New West Lyon Station Road Extension to I-85)							
Current Conditions	0.20	24	60	2	8500	15000	-
Future Conditions	0.20	52	110	4	35000	29000	B1
GRAN006B-CR (I-85 to US 15)							
Current Conditions	2.80	24	60	2	7600	10000	-
Future Conditions	2.80	52	110	4	35000	25500	B1
GRAN006C-CR(NC 50 to Hayes Road)							
Current Conditions	2.40	24	60	2	7200	9800	-
Future Conditions	2.40	52	110	4	35000	20800	B1
GRAN006D-GC (Hayes Road to Franklin County)							
Current Conditions	7.02	25	80	2	7600	4400-6700	-
Future Conditions	7.02	48	150	4	35000	16500	Modi – B1



B1 Boulevard / Major Thoroughfare Inside Town
FOUR LANE MEDIAN DIVIDED TYPICAL SECTION
With Wide Outside Lanes



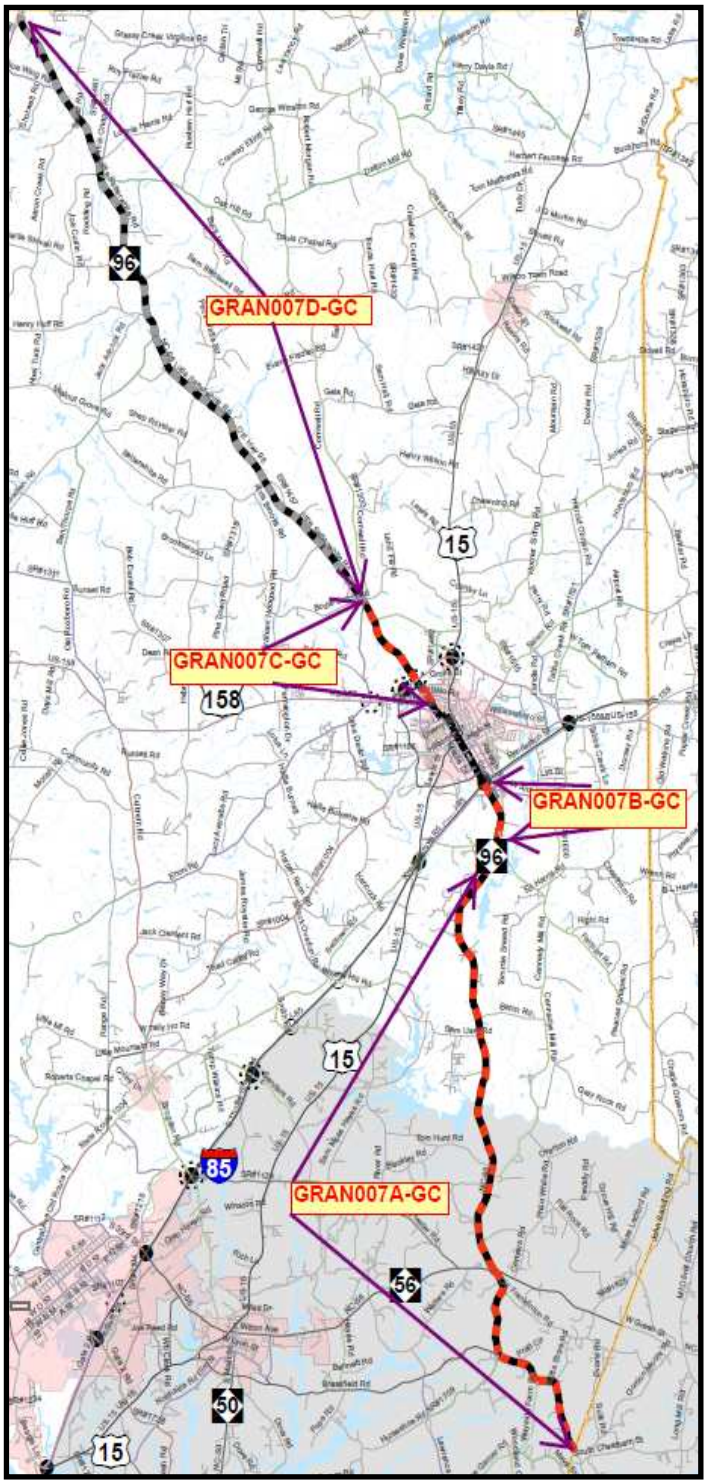
MODIFIED B1 Boulevard / Major Thoroughfare Outside Town
FOUR LANE MEDIAN DIVIDED TYPICAL SECTION
With Wide Outside Lanes, Without Sidewalk, Curb and Gutter

NC 96

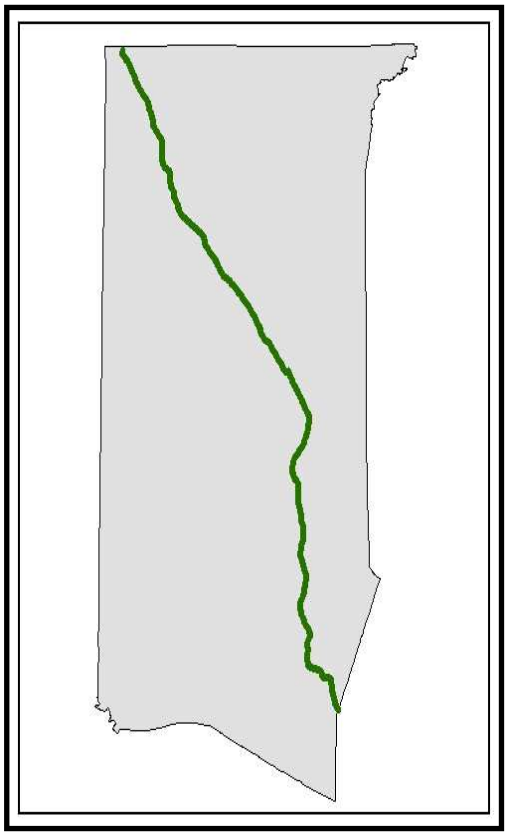
Proposed improvements from Franklin County Line to NC-49

Project #: GRAN007

Last updated on: 10/29/09



NC 96



Project Location within County

NC 96 at Broad Street in Oxford

Note: Definitions of terms can be found in Appendix B. All Information subject to change.

Project Description:

- Widening the current rural 2-lane facility to a 4-lane divided boulevard facility with median, or a 2-3 lane facility with center turn lane as specified on the Project Detail Table that follows.

Purpose:

- This 2-lane facility serves both residential and commercial traffic between Raleigh and the Virginia State Line. Portions of NC 96 are currently at capacity and the remainder is projected to exceed capacity by 2035. This widening is intended to improve the safety, mobility and capacity of the existing roadway. The widening of this route should improve the north-south travel along NC 96 from Franklin County through Granville County extending to the Virginia State Line. NC 96 in southern Granville County is the primary route for access to US 1 in Franklin County, which serves as a connection to the greater Triangle Area.

County:	Granville
MPO/RPO Planning Area	MPO/RPO
Municipality	Granville Co.
Project Category	Highway
CTP Designation	various
Highway Tier	Statewide
Total Project Length	38 miles
TIP #	None
Funding Source	STP
AQ Regionally Significant	☐ Yes ☒No
Segmented Project	☒ Yes ☐No
Number of Segments	4

Additional Information

Existing Conditions:

NC 96 is a Major Thoroughfare and runs southeast to northwest throughout the county. NC 96 is currently operating at a less than desirable level for users. Narrow shoulders create a safety concern for bicyclists.

Economic Development Impacts:

The NC 96 widening should have a positive impact on economic development, and improve automobile and freight mobility in Granville County.

Land Use Impacts:

This project may promote urbanized development patterns in current rural areas.

Safety:

If NC 96 is not widened, congestion and delays should worsen. NC 96 in southern Granville County is the primary freight route for access to US 1 in Franklin County. Several intersections along NC 96 are identified for improvement and are detailed in the Intersection Improvement Summary Table shown in Table 2.

Bike/Ped/Transit:

Local and regional cyclists frequently use the State Bike Route #1 corridor along NC 96. The lack of shoulder and minimal lane width increases the potential for conflicts between cyclists and motorist.

Ancillary bicycle routes via on-road or off-road accommodations are recommended along NC 96 to enhance the county-wide bicycle network.

Environmental/Historic Features

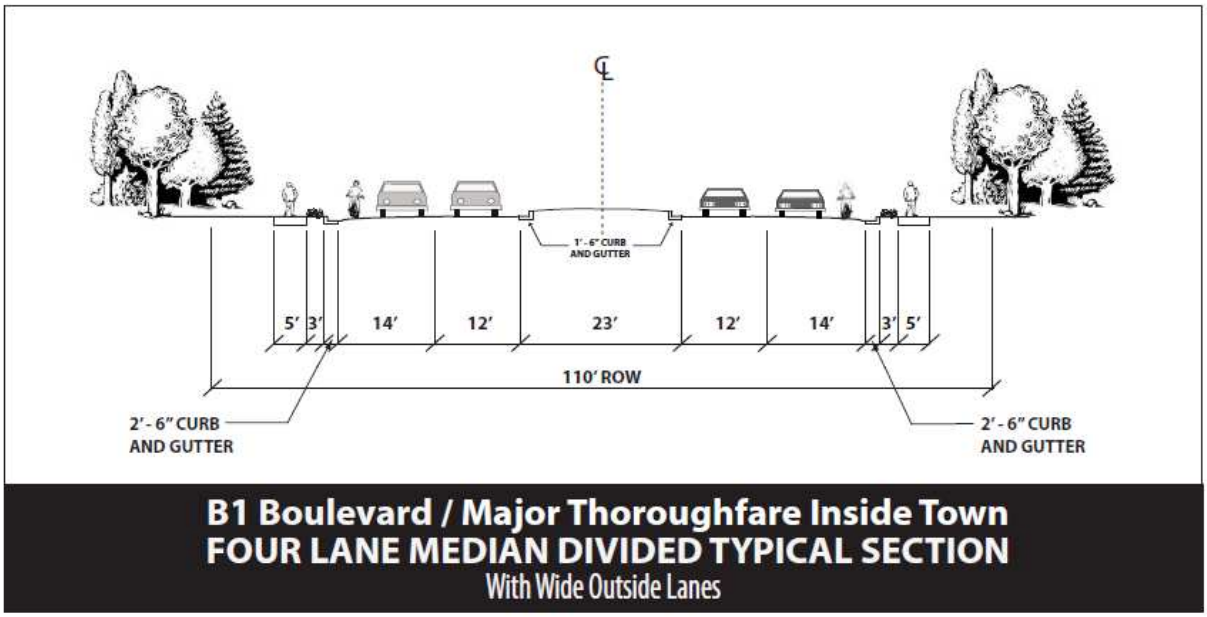
Various instances of rare plants and animals have been noted throughout Granville County. A large portion of southern Granville County lies within a protected watershed area. A detailed field investigation is recommended prior to construction in this area. This project should improve air quality by reducing vehicle emissions.

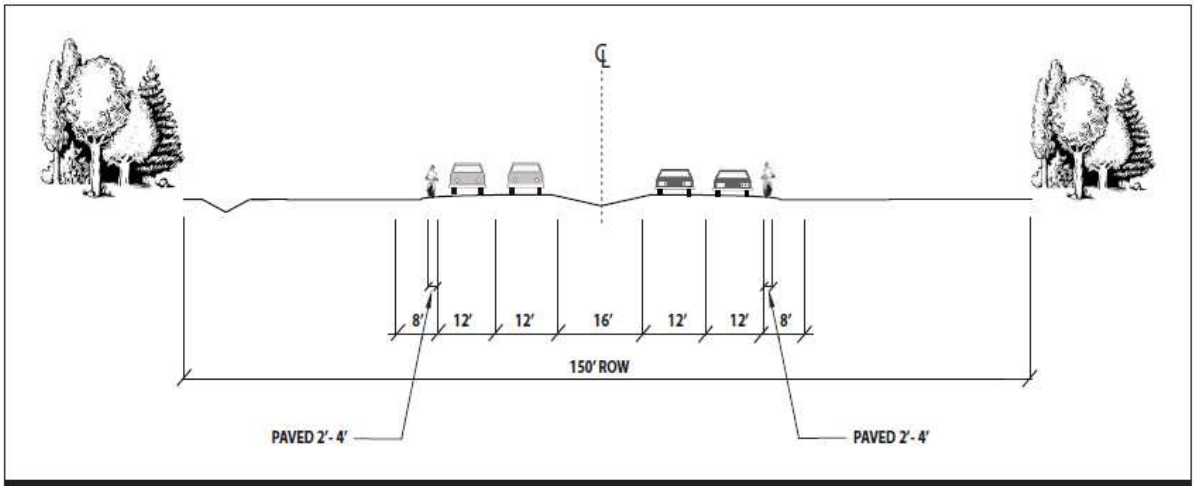
Project History/Relationship to Other Plans

Improvements to NC 96 have been identified in previously adopted thoroughfare plans in Oxford and Granville County. Improvements to this route have been a consistent priority of the County and funding is being sought through regional channels including the MPO and RPO. This project is consistent with 2002 comprehensive/land use/hazardous mitigation plan. Recommended bicycle/pedestrian improvements are consistent with the adopted 2006 Granville County Greenway Master Plan.

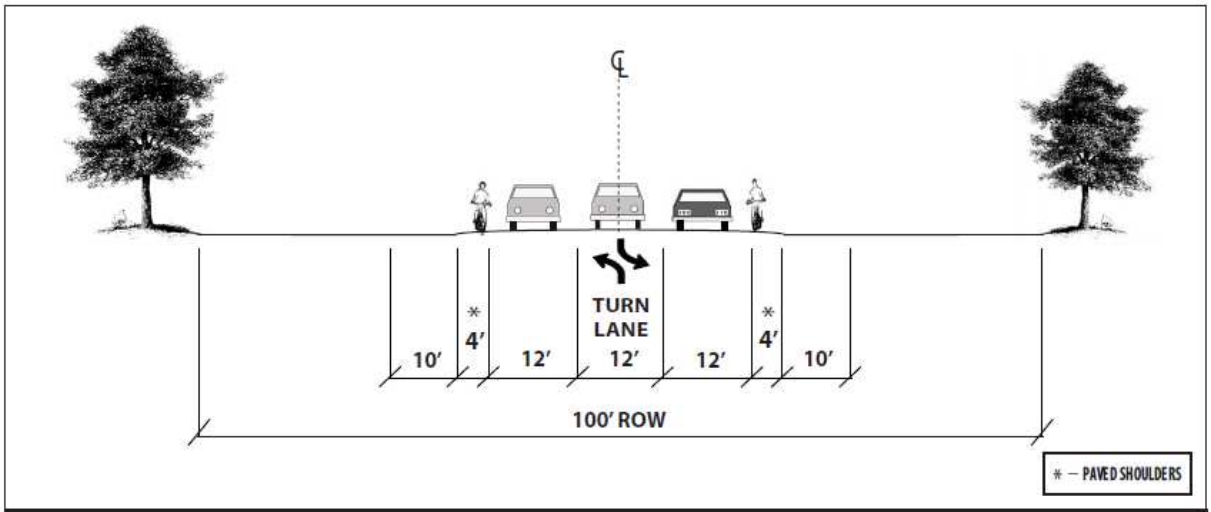
Project Detail Table

Project: NC 96	Dist Mi	Roadway Width	ROW	Number of Lanes	Capacity (VPD)	AADT (VPD)	Cross Section Or Notes
GRAN007A-GC (Franklin County Line to Knott's Grove Road)							
Current Conditions	13.40	24	60	2	7400	3800-4800	-
Future Conditions	13.40	48	150	4	33500	10000	Modi – B1
GRAN007B-GC (Knott's Grove Road to I-85)							
Current Conditions	3.00	24	80	2	8500	3100-5200	-
Future Conditions	3.00	52	110	4	33500	13800	B1
GRAN007C-GC (Ivey Day Road to Cornwallis Road)							
Current Conditions	4.50	24	80	2	8500	2400-13000	-
Future Conditions	4.50	52	110	4	33500	30000	B1
GRAN007D-GC (Cornwallis Road to NC-49)							
Current Conditions	16.00	24	80	2	9800	1300-6100	-
Future Conditions	16.00	36	100	2-3	15000	6000-11500	Modi – H2





MODIFIED B1 Boulevard / Major Thoroughfare Outside Town
FOUR LANE MEDIAN DIVIDED TYPICAL SECTION
With Wide Outside Lanes, Without Sidewalk, Curb and Gutter



MODIFIED H2
MINOR THOROUGHFARE

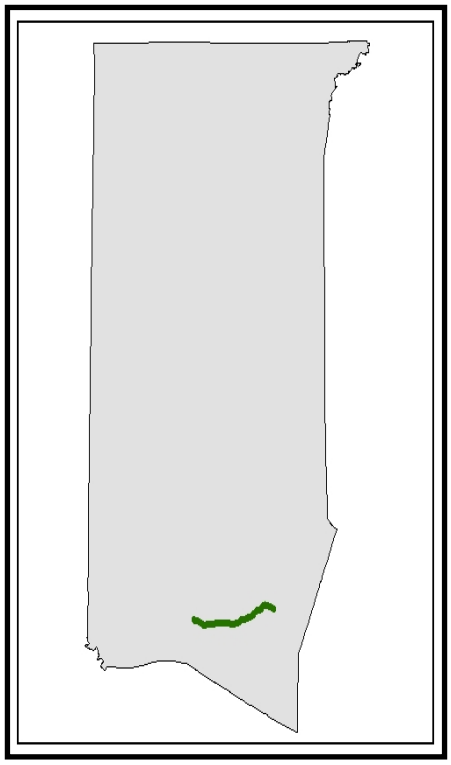
Brassfield Road (SR 1700)

Proposed improvements from Creedmoor Loop to NC 96

Project #: GRAN013

Last updated on: 10/29/09

Brassfield Road



Project Location within County

Brassfield Road looking west toward Creedmoor

Note: Definitions of terms can be found in Appendix B. All Information subject to change.

Project Description:

Widening the current 2-lane facility to a 4-lane divided boulevard facility with raised median and bicycle accommodations from the proposed Creedmoor Connector to NC 96. This recommendation also includes improvements to the intersection of Brassfield Road (SR 1700) and Hayes Road (SR 1702).

Purpose:

This widening, in conjunction with the Creedmoor Connector and improvements to Hayes Road (SR 1702), is intended to improve capacity, mobility and safety while providing an alternative to NC 56. The intersection improvements should allow for smoother traffic flow, completing the connection between Brassfield Road (SR 1700) and NC 56, thus completing Creedmoor Connector. Portions of Brassfield Road (SR 1700) are projected to be over capacity by 2035. The construction of the Creedmoor Connector and widening of Brassfield Road (SR 1700) should provide a needed alternative that relieves congestion on NC 56.

County:	Granville
MPO/RPO Planning Area	Capital Area MPO
Municipality	Granville Co.
Project Category	Highway
CTP Designation	Boulevard - NI
Highway Tier	Highway Tier
Total Project Length	6 miles
TIP #	None
Funding Source	STP
AQ Regionally Significant	☐ Yes ☒No
Segmented Project	☒ Yes ☐No
Number of Segments	2

Additional Information

Existing Conditions:

Brassfield Road (SR 1700) is a minor collector on the Federal Functional Classification System. This roadway is currently serving rapidly developing residential areas. It helps provide regional connectivity between I-85 and US 1 in Franklin County. Narrow shoulders create a safety concern for bicyclists.

Economic Development Impacts:

Proposed improvements should enhance economic development opportunities in Creedmoor.

Land Use Impacts:

Land use along this corridor is projected to be medium density residential (as per the 2002 Granville County Comprehensive Plan). Mixed use development is possible along this corridor. Mobility function of this 4-lane facility could be impaired by excessive driveway access. Future land use plan amendments should consider the functionality of this corridor when making land use decisions.

Safety:

If this facility is not widened, congestion and delays should worsen, and crashes may increase due to the projected increased volumes. NC 96-Brassfield Road (SR 1700) intersection improvements are needed as per the detailed Intersection Improvement Summary Table shown in Table 2.

Bike/Ped/Transit:

Ancillary bicycle routes via on-road or off-road accommodations are recommended along Brassfield Road (SR 1700) to enhance the county-wide bicycle network.

Environmental/Historic Features

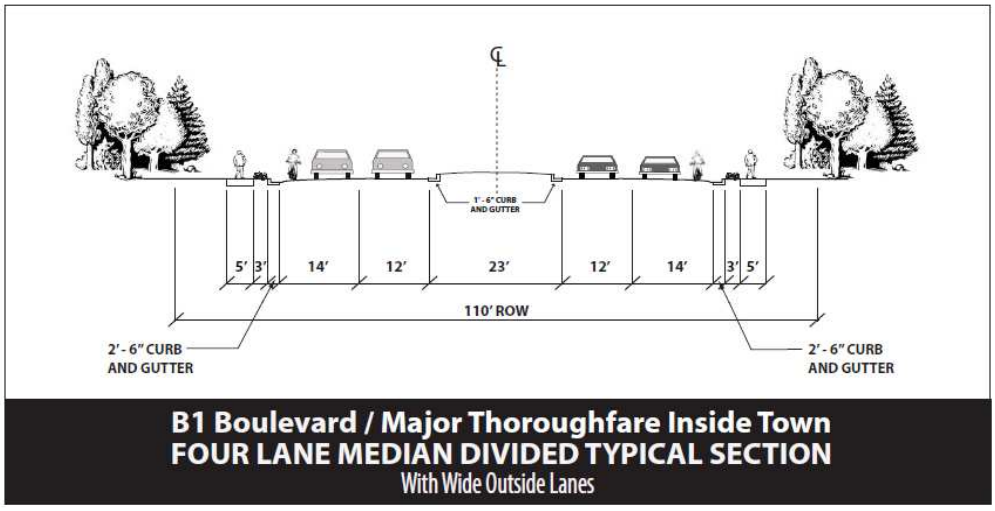
Various instances of rare plants and animals have been noted throughout Granville County. A large portion of southern Granville County lies within a protected watershed area. A detailed field investigation is recommended prior to construction in this area.

Project History/Relationship to Other Plans

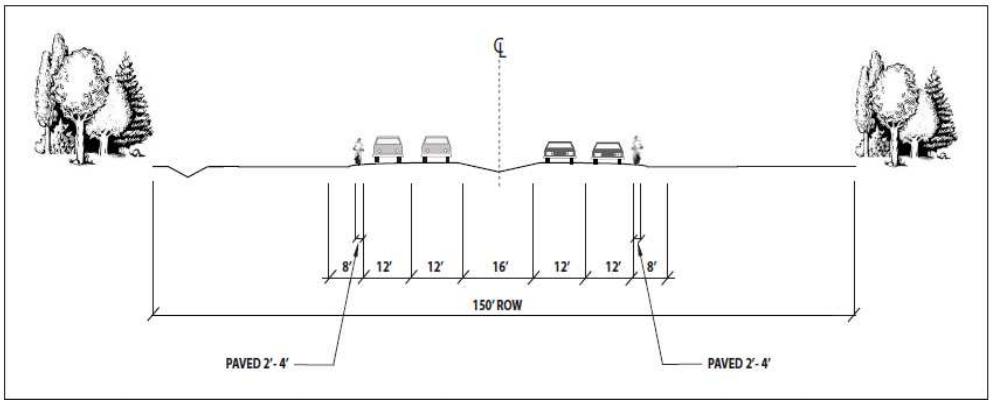
Improvements to Brassfield Road (SR 1700) were identified in previously adopted thoroughfare plans in Creedmoor and Granville County. Bicycle and Pedestrian recommendations are consistent with the 2006 Granville County Greenway Master Plan. Project recommendation connects with the Creedmoor Connector (GRAN026).

Project Detail Table

Project: Brassfield Road (SR 1700)	Dist Mi	Roadway Width	ROW	Number of Lanes	Capacity (VPD)	AADT (VPD)	Cross Section Or Notes
GRAN0013A-GC (Creedmoor Loop to Hayes Road)							
Current Conditions	2.00	24	100	2	9800	3200-4300	-
Future Conditions	2.00	52	150	4	33500	22000	B1
GRAN0013B-GC (Hayes Road to NC 96)							
Current Conditions	4.02	24	100	2	9800	8500	-
Future Conditions	4.02	52	110	4	33500	17500	Modified-B1



B1 Boulevard / Major Thoroughfare Inside Town
FOUR LANE MEDIAN DIVIDED TYPICAL SECTION
With Wide Outside Lanes



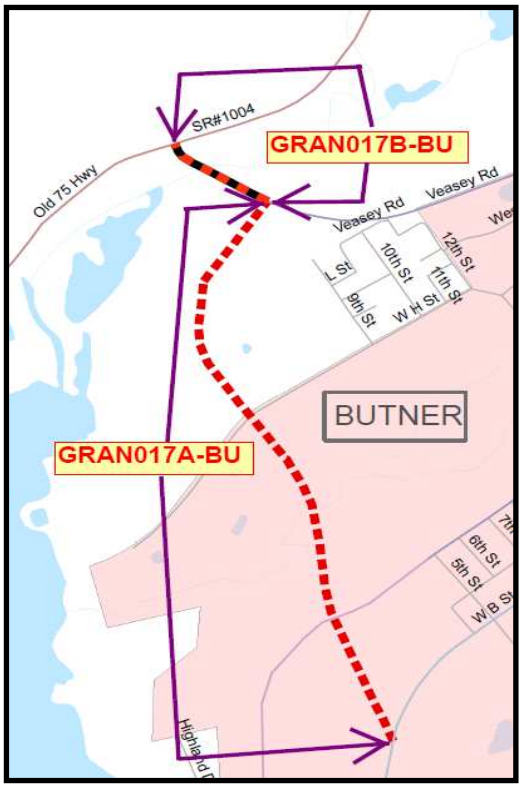
MODIFIED B1 Boulevard / Major Thoroughfare Outside Town
FOUR LANE MEDIAN DIVIDED TYPICAL SECTION
With Wide Outside Lanes, Without Sidewalk, Curb and Gutter

Butner Blvd

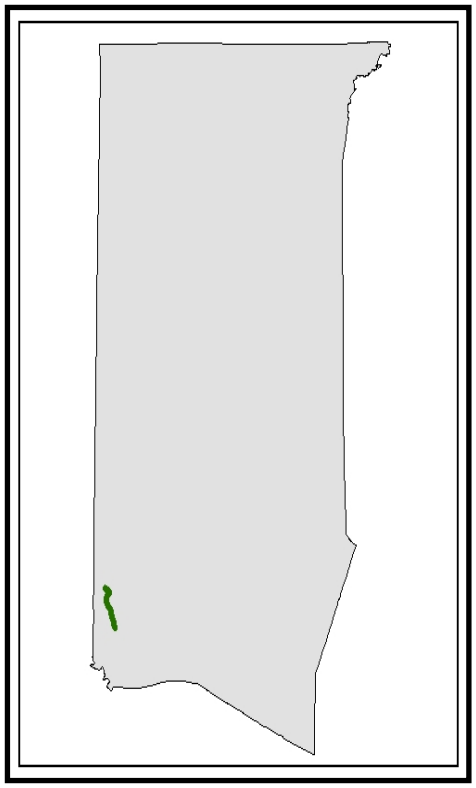
Proposed improvements from W B Street to SR1004

Project #:GRAN017

Last updated on: 10/29/09



Butner Blvd



Project Location within County

New Location Project

Note: Definitions of terms can be found in Appendix B. All Information subject to change.

Project Description:

Construct a 4-lane divided boulevard facility with raised median from W. B Street to Veasey Street on new location, and widen Veasey Street to Old 75 (SR 1004) from a 2-lane road to a 4-lane divided boulevard facility.

Purpose:

The proposed Butner Boulevard facility should enhance commuter access between Raleigh and the state & federal facilities in Butner and provide better passenger and freight mobility in and around the Town of Butner. The traffic volumes projected on existing roadways in that area should be significantly over capacity in 2035.

County:	Granville
MPO/RPO Planning Area	Kerr-Tar RPO
Municipality	Butner
Project Category	Highway
CTP Designation	Boulevard - NI
Highway Tier	Highway Tier
Total Project Length	2.5 miles
TIP #	None
Funding Source	STP
AQ Regionally Significant	☐ Yes ☒No
Segmented Project	☒ Yes ☐No
Number of Segments	2

Additional Information

Existing Conditions:

This is a new location project intended to provide access and mobility on the south-western side of Butner including the State and Federal facilities and Camp Butner Training Site.

Economic Development Impacts:

It is anticipated that the proposed Butner Boulevard should bring new growth and economic development to the town, and improve regional connectivity.

Land Use Impacts:

This project may promote urbanized development patterns in current rural areas. Mixed use development is possible along this corridor. Mobility function of this 4-lane facility could be impaired by excessive driveway access. Future land use plan amendments should consider the functionality of this corridor when making land use decisions.

Safety:

If this facility is not constructed, congestion and delays on nearby roads should worsen, and crashes may increase due to the projected increased volumes. The Butner Boulevard should remove some of the current and projected traffic from downtown Butner Area.

Bike/Ped/Transit:

Ancillary bicycle routes via on-road and off-road accommodations are recommended along Butner Boulevard to enhance the county-wide bicycle network.

Environmental/Historic Features

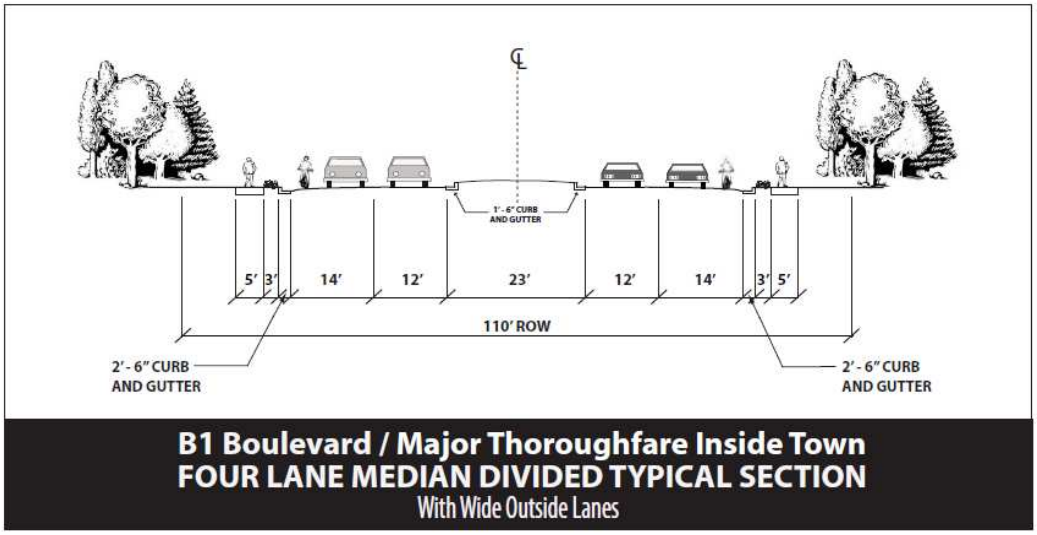
There are various sightings of rare plants and animals throughout Granville County. A detailed field investigation is recommended prior to construction in this area. A large portion of southern Granville County lies within a protected watershed area.

Project History/Relationship to Other Plans

Portions of this project were previously identified in the Butner Transportation Plan.

Project Detail Table

Project: Butner Blvd	Dist Mi	Roadway Width	ROW	Number of Lanes	Capacity (VPD)	AADT (VPD)	Cross Section Or Notes
GRAN017A-GC (W.B Street to Veasey Road)							
Current Conditions	2.05	22	100	2	9500	2800	-
Future Conditions	2.05	52	110	4	33500	4200	B1
GRAN017B-GC (New Butner Blvd to Old Route NC75 (SR 1004))							
Current Conditions	-	-	-	-	-	-	-
Future Conditions	0.37	52	110	4	33500	-	B1



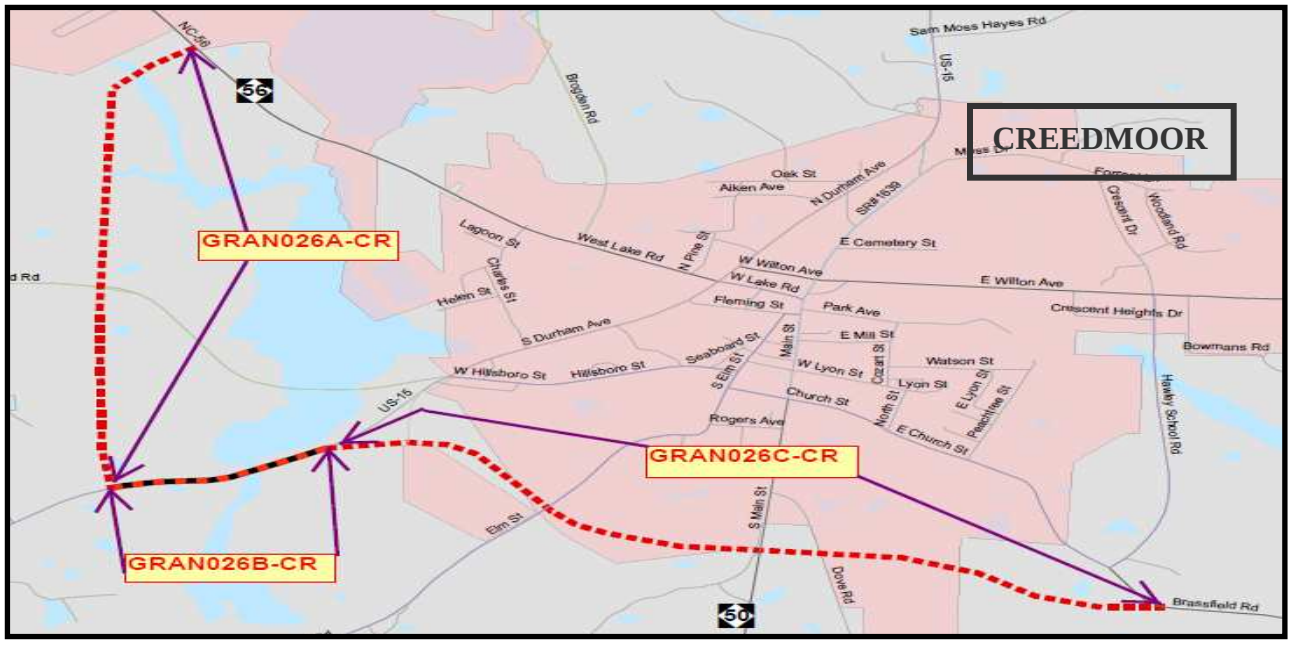
B1 Boulevard / Major Thoroughfare Inside Town
FOUR LANE MEDIAN DIVIDED TYPICAL SECTION
With Wide Outside Lanes

Creedmoor Connector

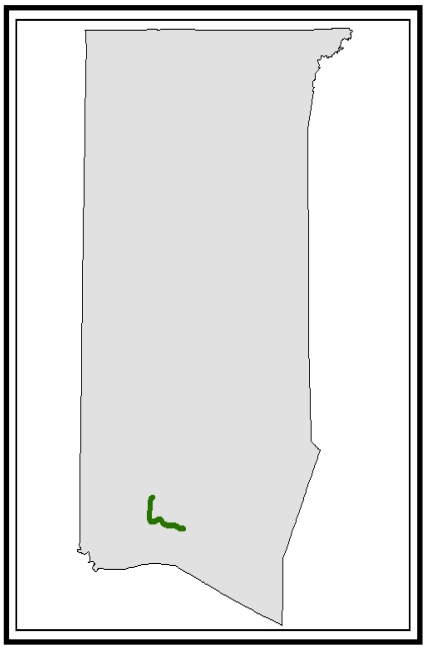
Proposed improvements from NC 56 to Brassfield Road (SR 1700)

Project #: GRAN026

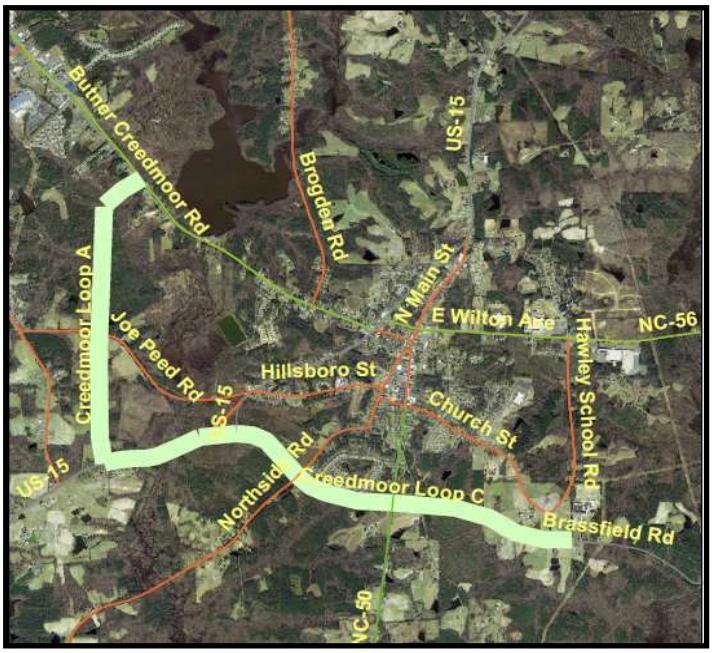
Last updated on: 10/29/09



Creedmoor Connector



Project Location within County



New Location Project

Note: Definitions of terms can be found in Appendix B. All Information subject to change.

Project Description:

It is recommended that a new 4-lane divided boulevard facility with limited control of access be constructed on the southwestern and southeastern sides of Creedmoor. This new facility is divided into three sections: from NC 56 to US 15; from US 15 to Relocated US 15; and from Relocated US 15 to Brassfield Road (SR 1700). This project, in conjunction with recommendations on Hayes Road and Brassfield Road (SR 1700), should complete a southern loop around Creedmoor.

Purpose:

The proposed Creedmoor Connector is intended to provide better automobile and freight mobility in and around the City of Creedmoor. This facility should help to reduce congestion in downtown Creedmoor and along NC 56. The western section of Creedmoor Connector is intended to alleviate traffic on NC 56 by providing alternative access to I-85 south via US 15 south for motorists traveling from Creedmoor and points east. The traffic volumes projected on existing roadways in that area should be significantly over capacity in 2035.

County:	Granville
MPO/RPO Planning Area	Capital Area MPO
Municipality	Creedmoor
Project Category	Highway
CTP Designation	various
Highway Tier	Highway Tier
Total Project Length	4.5 miles
TIP #	R-2542
Funding Source	STP
AQ Regionally Significant	☐ Yes ☒No
Segmented Project	☒ Yes ☐No
Number of Segments	3

Additional Information

Existing Conditions:

This is a new location project intended to improve conditions on NC 56 and Downtown Creedmoor.

Economic Development Impacts:

It is anticipated that the proposed Creedmoor Connector should bring new growth and economic development to the city, and improve automobile and freight mobility in southern Granville County.

Land Use Impacts:

This project may promote urbanized development patterns in current rural areas. Mixed use development is possible along this corridor. Mobility function of this 4-lane facility could be impaired by excessive driveway access. Future land use plan amendments should consider the functionality of this corridor when making land use decisions.

Safety:

If this facility is not constructed congestion and delays on NC 56 should worsen, and crashes may increase due to the projected increased volumes. The Creedmoor Connector should remove some of the current and projected traffic from NC 56 and NC 50 in downtown Creedmoor. The traffic volumes projected on existing roadways in that area should be significantly over capacity in 2035.

Bike/Ped/Transit:

Ancillary bicycle routes via on-road accommodations are recommended along Creedmoor Connector to enhance the county-wide bicycle network.

Environmental/Historic Features

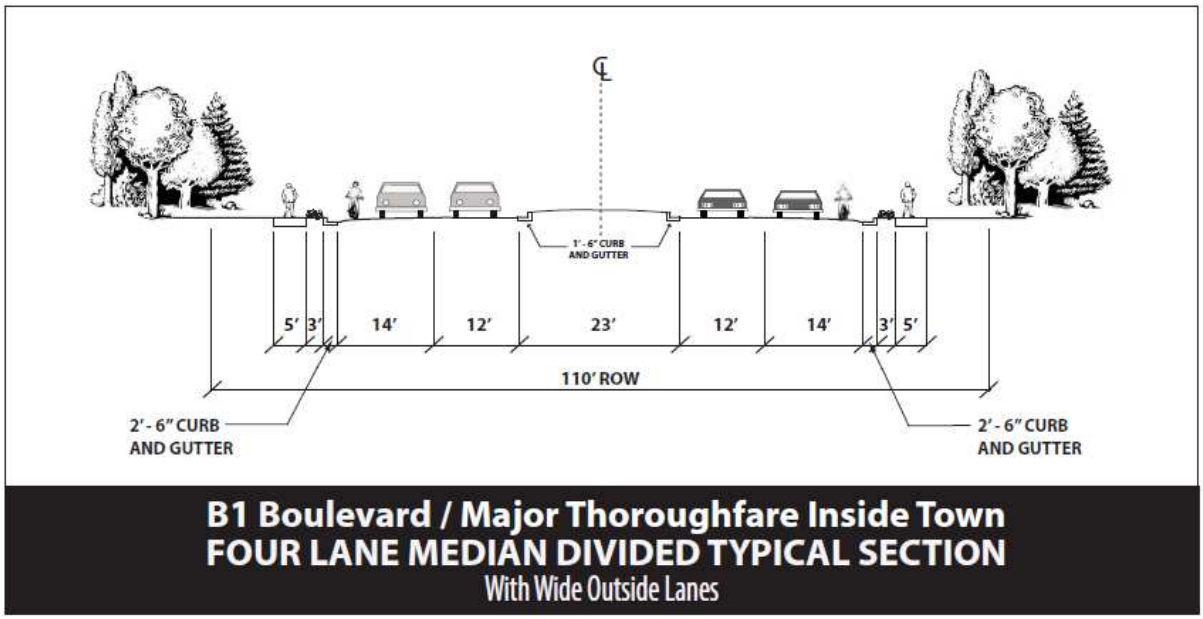
There are various sightings of rare plants and animals throughout Granville County. A detailed field investigation is recommended prior to construction in this area.

Project History/Relationship to Other Plans

The improvements to Creedmoor Connector were identified in the 2004 Creedmoor Thoroughfare Plan. Synopsis of the alternatives can be found in Appendix A of the 2004 Creedmoor Thoroughfare Plan. With this new plan, the alignment of the Creedmoor Connector has been modified to create a more regional transportation project. Also, a portion of this project is listed on the 2009-2015 Transportation Improvement Program as R-2542.

Project Detail Table

Project: Creedmoor Connector	Dist Mi	Roadway Width	ROW	Number of Lanes	Capacity (VPD)	AADT (VPD)	Cross Section Or Notes
GRAN026A-CR (NC56 to US 15)							
Current Conditions	-	-	-	-	-	-	-
Future Conditions	1.91	52	110	4	35000	16000	B1
GRAN026B-CR (US 15 to Relocated US 15)							
Current Conditions	1.10	24	60	2	-	-	-
Future Conditions	1.10	52	110	4	35000	16000	B1
GRAN026C-CR (Relocated US 15 to Brassfield Road (SR 1700))							
Current Conditions	-	-	60	-	-	-	-
Future Conditions	1.60	52	110	4	35000	23000	B1

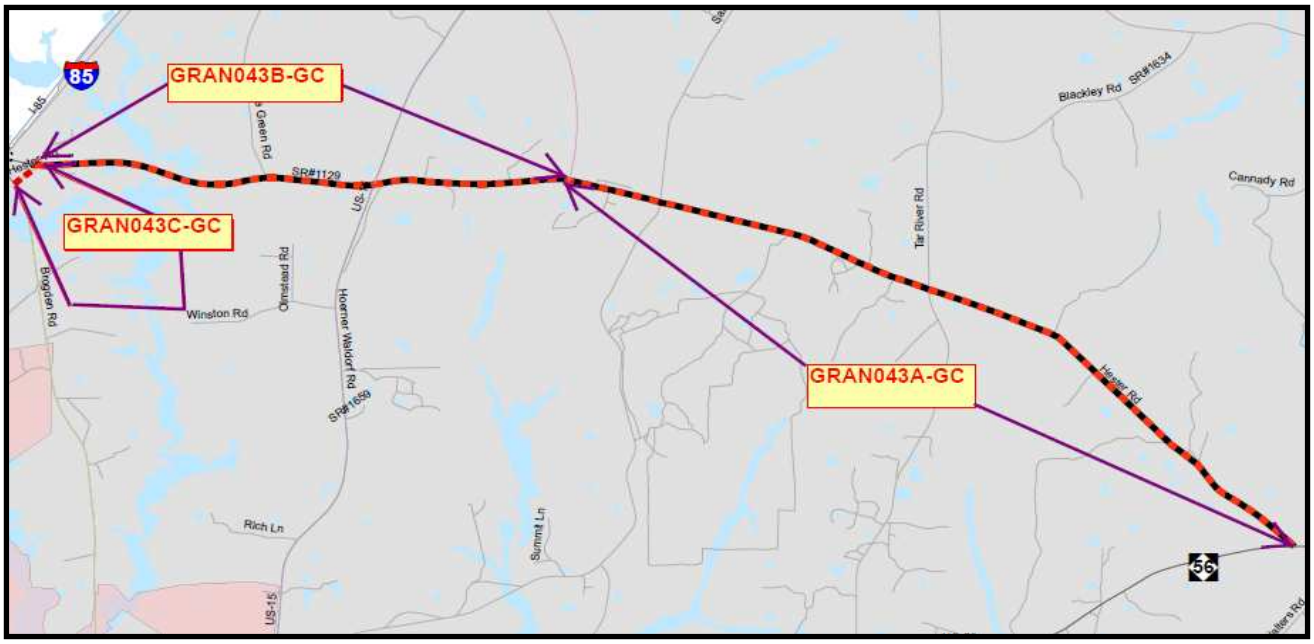


Hester Road (SR 1129)

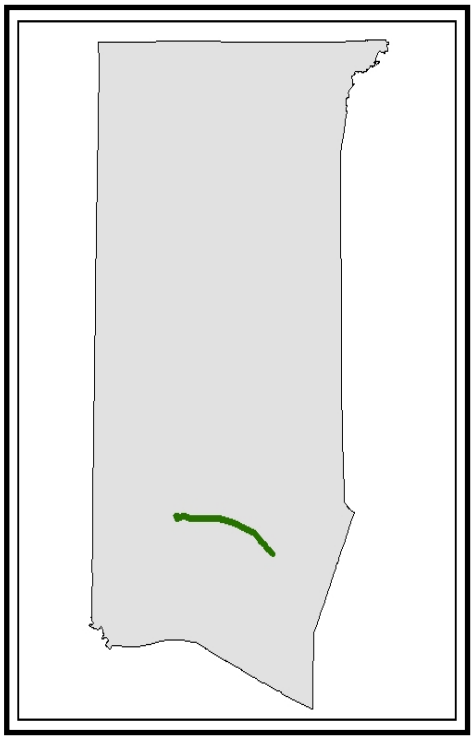
Proposed improvements from NC 56 to Brogden Road

Project #: GRAN043

Last updated on: 10/29/09



Hester Road



Project Location within County

Hester Road at US 15

Note: Definitions of terms can be found in Appendix B. All Information subject to change.

Project Description:

Hester Road (SR 1129) is recommended to widen the existing 2-lane facility to a 4-lane divided boulevard facility with raised median from NC 56 to Brogden Road (SR 1127) near I-85.

Purpose:

The widening of Hester Road (SR 1129) is intended to provide east-west mobility for passengers and freight in southern Granville County. This facility should also help to reduce congestion in downtown Creedmoor and along NC 56. It is possible that a new interchange proposed on I-85 could be located at either Brogden (SR 1127) or Hester Road (SR 1129). If Hester Road (SR 1129) is selected it would alleviate traffic on NC 56 by providing alternative access to I-85 north for motorists traveling from Creedmoor and points east.

County:	Granville
MPO/RPO Planning Area	Capital Area MPO
Municipality	Granville Co.
Project Category	Highway
CTP Designation	Boulevard - NI
Highway Tier	Highway Tier
Total Project Length	7 miles
TIP #	None
Funding Source	STP
AQ Regionally Significant	☐ Yes ☒No
Segmented Project	☒ Yes ☐No
Number of Segments	3

Additional Information

Existing Conditions:

Hester Road (SR 1129) is a minor collector on the Federal Functional Classification system. This roadway runs east to west between I-85 and NC 56.

Economic Development Impacts:

The Hester Road (SR 1129) widening should have a positive impact on economic development, and improve automobile and freight mobility in Granville County.

Land Use Impacts:

This project may promote urbanized development patterns in current rural areas. Mixed use development is possible along this corridor. Mobility function of this 4-lane facility could be impaired by excessive driveway access. Future land use plan amendments should consider the functionality of this corridor when making land use decisions.

Safety:

The improvement of this facility should improve safety along NC 56.

Bike/Ped/Transit:

Ancillary bicycle routes via on-road accommodations are recommended along Hester Road (SR 1129) to enhance the county-wide bicycle network.

Environmental/Historic Features

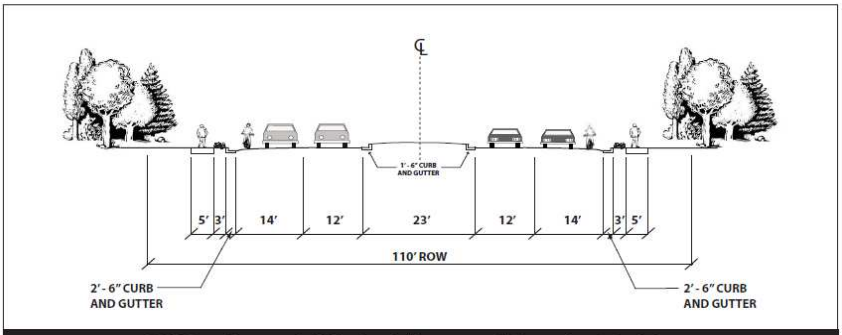
There are various sightings of rare plants and animals throughout Granville County. A detailed field investigation is recommended prior to construction in this area.

Project History/Relationship to Other Plans

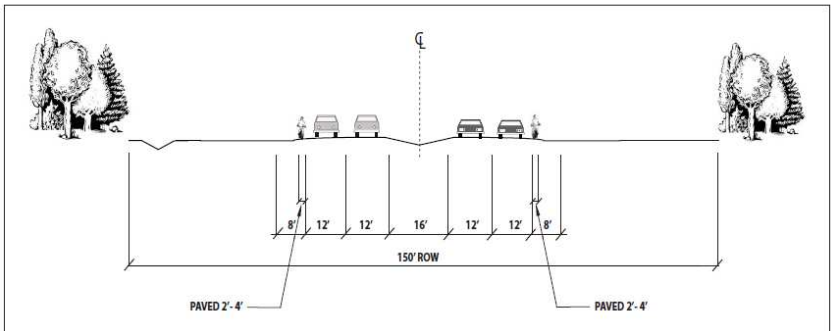
This is the first identification as a need for highway improvements. Bicycle and Pedestrian improvements recommended are consistent with the 2006 Granville County Greenway Master Plan.

Project Detail Table

Project: Hester Road	Dist Mi	Roadway Width	ROW	Number of Lanes	Capacity (VPD)	AADT (VPD)	Cross Section Or Notes
GRAN043A-GC (NC 56 to New Sanders Road Extension)							
Current Conditions	0.10	20	80	2	7200	1500	-
Future Conditions	0.10	52	150	4	11000	-	Modi – B1
GRAN043B-GC (New Sanders Road Extension to Brogden Road)							
Current Conditions	0.30	20	80	2	7200	1100	-
Future Conditions	0.30	52	110	4	11000	-	B1
GRAN043C-GC (Hester Road to Brogden Road)							
Current Conditions	6.80	20	80	2	7200	840	-
Future Conditions	6.80	52	110	4	11000	-	B1



B1 Boulevard / Major Thoroughfare Inside Town
FOUR LANE MEDIAN DIVIDED TYPICAL SECTION
With Wide Outside Lanes



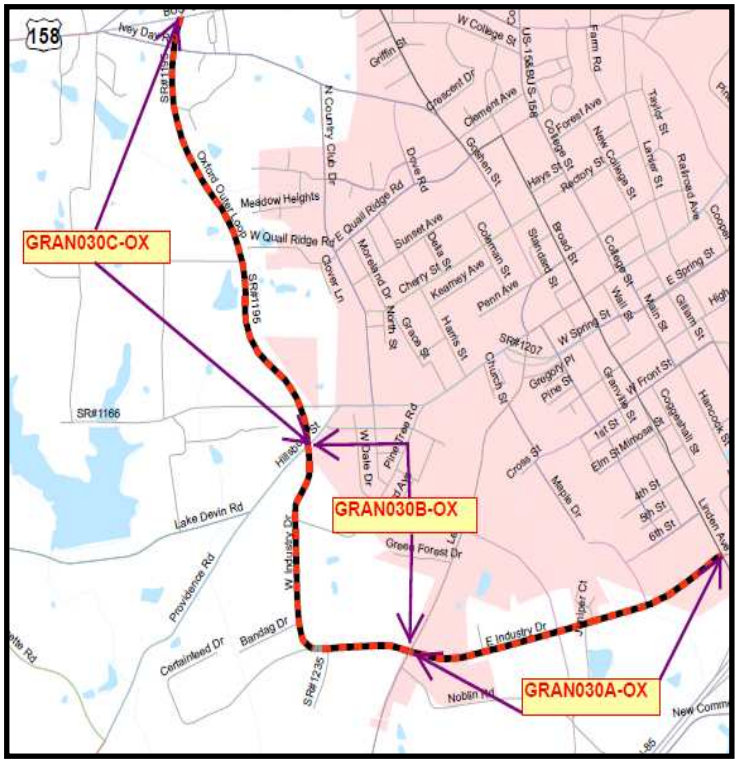
MODIFIED B1 Boulevard / Major Thoroughfare Outside Town
FOUR LANE MEDIAN DIVIDED TYPICAL SECTION
With Wide Outside Lanes, Without Sidewalk, Curb and Gutter

Industry Drive (SR 1646)

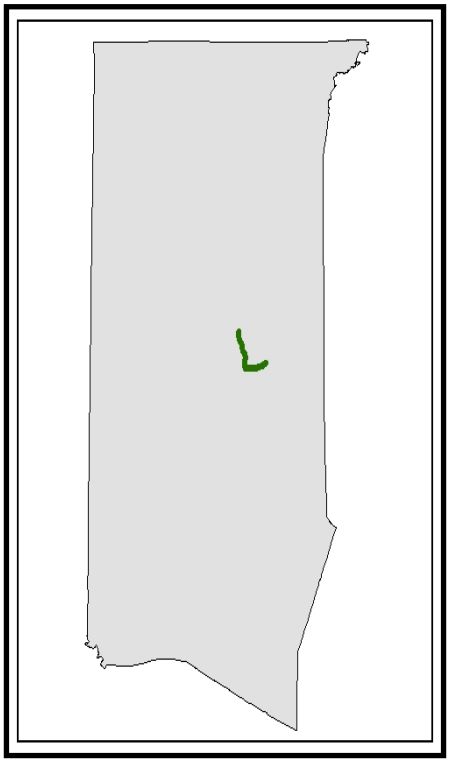
Proposed improvements from NC 96 to US 158

Project #: GRAN030

Last updated on: 10/29/09



Industry Drive



Project Location within County

Industry Drive

Note: Definitions of terms can be found in Appendix B. All Information subject to change.

Project Description:

Industry Drive (SR 1646) is recommended to widen the current 2-lane facility to a 4-lane divided boulevard facility with raised median, from NC 96 (Linden Avenue), crossing US 15 to US 158.

Purpose:

This facility has been used as a loop facility around the City of Oxford. The traffic volumes projected in this section should be near to over capacity in 2035. This widening is intended to improve the safety and capacity of existing roadway, while providing continued access and freight mobility to industrial sites in Oxford.

County:	Granville
MPO/RPO Planning Area	Kerr-Tar RPO
Municipality	Oxford
Project Category	Highway
CTP Designation	Boulevard - NI
Highway Tier	Highway Tier
Total Project Length	4.2 miles
TIP #	None
Funding Source	STP
AQ Regionally Significant	☐ Yes ☒No
Segmented Project	☒ Yes ☐No
Number of Segments	3

Additional Information

Existing Conditions:

This corridor serves industrial freight traffic, commuter traffic, and residential traffic in Oxford. There is a severe curve on the existing route between US 15 (Lewis Street) and Hillsboro Street that can be a safety hazard for freight and vehicular traffic.

Economic Development Impacts:

The Industry Drive (SR 1646) widening should have a positive impact on economic development, and improve automobile and freight mobility and access in the City of Oxford.

Land Use Impacts:

This project should enhance opportunities for industrial development.

Safety:

If Industry Drive (SR 1646) is not widened, congestion and delays should occur. The traffic volumes projected in this section should be near to over capacity in 2035. The severe curve between US 15 (Lewis Street) and Hillsboro Street should be corrected to provide safe movement of freight and passenger vehicles.

Bike/Ped/Transit:

Ancillary bicycle routes via on-road or off-road accommodations are recommended along Industry Drive (SR 1646) to enhance the county-wide bicycle network. Industry Drive is recommended for use as a part of a future bus route corridor for service in and around the City of Oxford.

Environmental/Historic Features

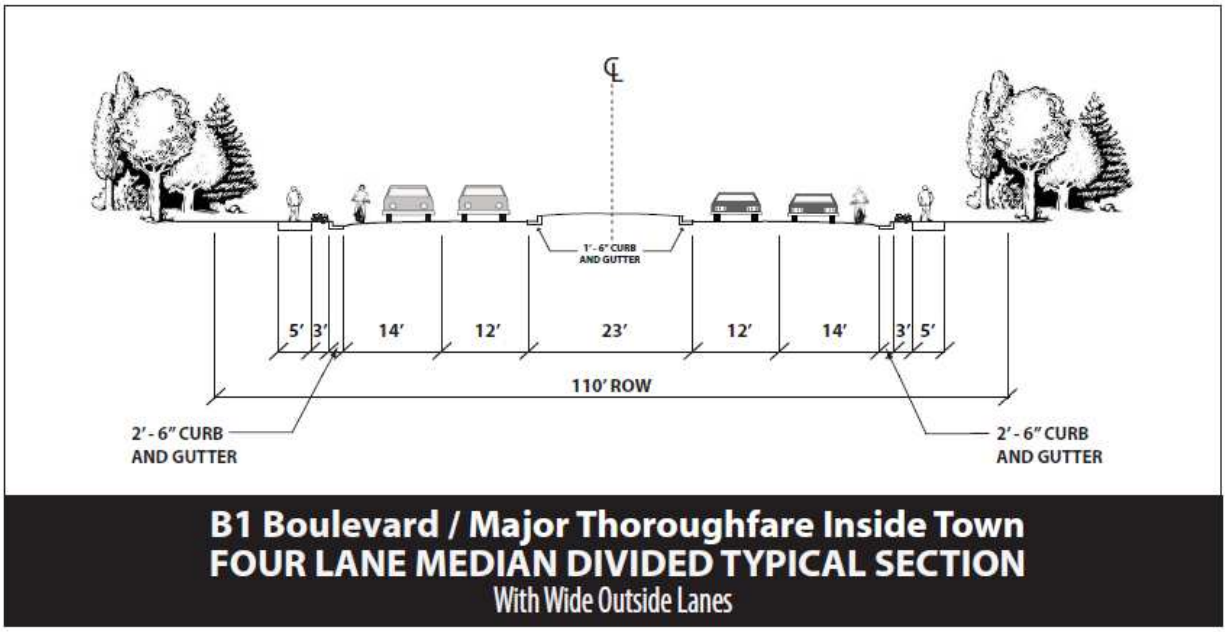
Various instances of rare plants and animals have been noted throughout Granville County. A detailed field investigation is recommended prior to construction in this area.

Project History/Relationship to Other Plans

Portions of this project were identified for improvement in the 1998 Oxford Thoroughfare Plan. Bicycle and Pedestrian improvements recommended are consistent with the 2006 Granville County Greenway Master Plan. Industry Drive (SR 1646) is a Major Thoroughfare on the Federal Functional Classification system.

Project Detail Table

Project: Industry Drive	Dist Mi	Roadway Width	ROW	Number of Lanes	Capacity (VPD)	AADT (VPD)	Cross Section Or Notes
GRAN030A-OX (NC 96 to US 15)							
Current Conditions	1.80	24	60	2	9500	6700	-
Future Conditions	1.80	52	110	4	11000	12800	B1
GRAN030B-OX (US 15 to SR 1004)							
Current Conditions	1.20	24	60	2	9500	6700	-
Future Conditions	1.20	52	110	4	11000	10000	B1
GRAN030C-OX (SR 1004 to US 158)							
Current Conditions	1.20	24	60	2	9500	5500	-
Future Conditions	1.20	52	110	4	11000	6500	B1

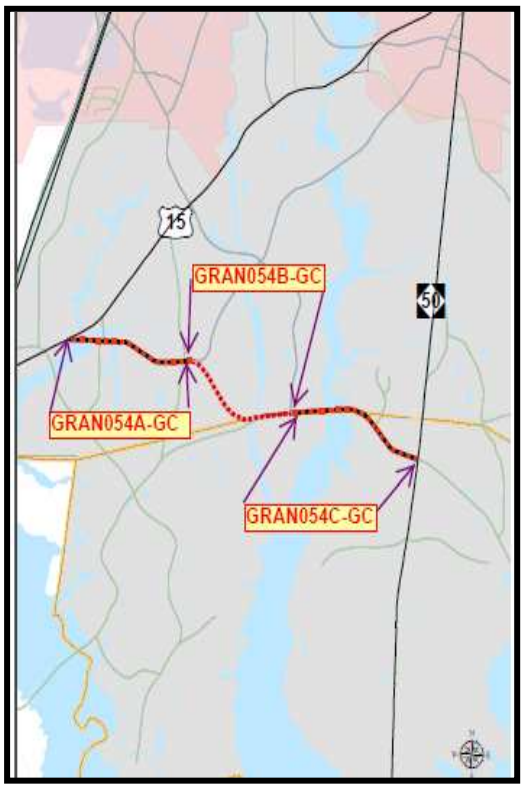


Northside Road (SR 1724)

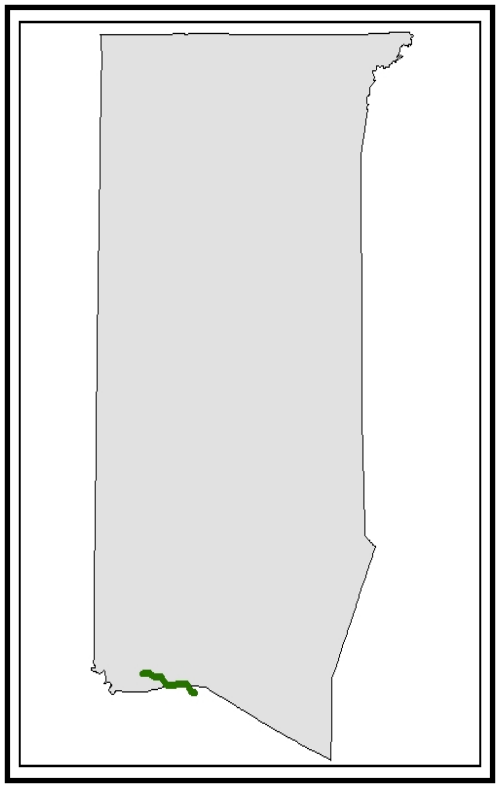
Proposed improvements from US 15 to NC 50

Project #: GRAN054

Last updated on: 10/29/09



Northside Road



Project Location within County

Northside Road

Note: Definitions of terms can be found in Appendix B. All Information subject to change.

Project Description:

Widening the current 2-lane to a 4-lane divided boulevard facility with raised median along Northside Road (SR 1724) from US 15 to Munns Road (SR 1725), and along Old Weaver Trail (SR 1901) from Cash Road (SR 1728) to NC 50. Construct 4-lane divided connector facility between Munns Road (SR 1725) and Cash Road (SR 1728) on new location.

Purpose:

Alternative access from NC 50 to I-85 via US 15. It also enhances commuter access between Raleigh and the State & Federal Facilities in Butner, reducing the need of using NC 56.

County:	Granville
MPO/RPO Planning Area	Capital Area MPO
Municipality	Granville Co.
Project Category	Highway
CTP Designation	various
Highway Tier	Highway Tier
Total Project Length	4 miles
TIP #	None
Funding Source	STP
AQ Regionally Significant	☐ Yes ☒No
Segmented Project	☒ Yes ☐No
Number of Segments	3

Additional Information

Existing Conditions:

Both Northside Road (SR 1724) and Old Weaver Trail (SR 1901) are 2-lane local roads. The connector portion of this project is recommended on new location.

Economic Development Impacts:

The Northside Road (SR 1724) project should have a positive impact on economic development, and improve commuter mobility in Wake County & Granville County.

Land Use Impacts:

This project may promote additional residential development in rural areas. Mobility function of this 4-lane facility could be impaired by excessive driveway access. Future land use plan amendments should consider the functionality of this corridor when making land use decisions.

Safety:

This facility should improve safety along NC 56 and NC 50.

Bike/Ped/Transit:

Ancillary bicycle routes via on-road and off-road accommodations are recommended along Northside Road (SR 1724) and Old Weaver Trail (SR 1901) to enhance the county-wide bicycle network.

Environmental/Historic Features

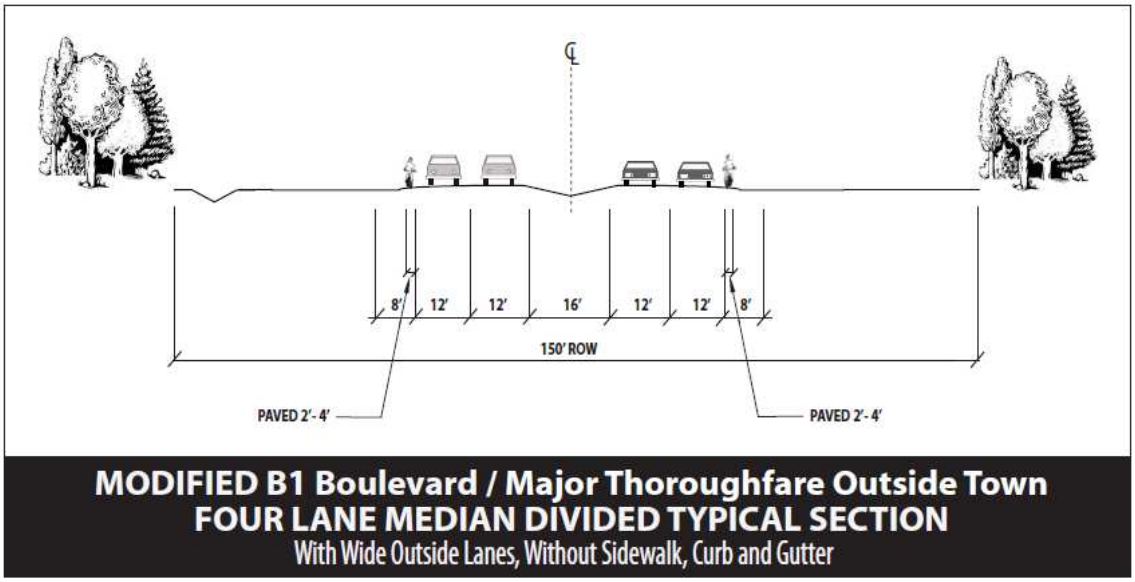
There are several stream crossings along this proposed project. There are various sightings of rare plants and animals throughout Granville County. A detailed field investigation is recommended prior to construction in this area. A large portion of southern Granville County lies within a protected watershed area.

Project History/Relationship to Other Plans

Portions of this project, East of Cash Road (SR 1728) were identified in 2004 Creedmoor Thoroughfare Plan. Bicycle and Pedestrian recommendations along this roadway are consistent with the 2006 Granville County Greenway Master Plan.

Project Detail Table

Project: Northside Road	Dist Mi	Roadway Width	ROW	Number of Lanes	Capacity (VPD)	AADT (VPD)	Cross Section Or Notes
GRAN054A-GC (US 15 to Munns Road)							
Current Conditions	1.80	24	80	2	7500	950	-
Future Conditions	1.80	52	150	4	11000	1700-2600	Modi – B1
GRAN054B-GC (Munns road to Cash Road)							
Current Conditions	-	-	80	-	-	-	-
Future Conditions	1.00	52	150	4	11000	5200	Modi – B1
GRAN002C-GC (New Northside Road Extension to NC 50)							
Current Conditions	1.20	24	80	2	7500	1400	-
Future Conditions	1.20	52	150	4	11000	3500	Modi – B1

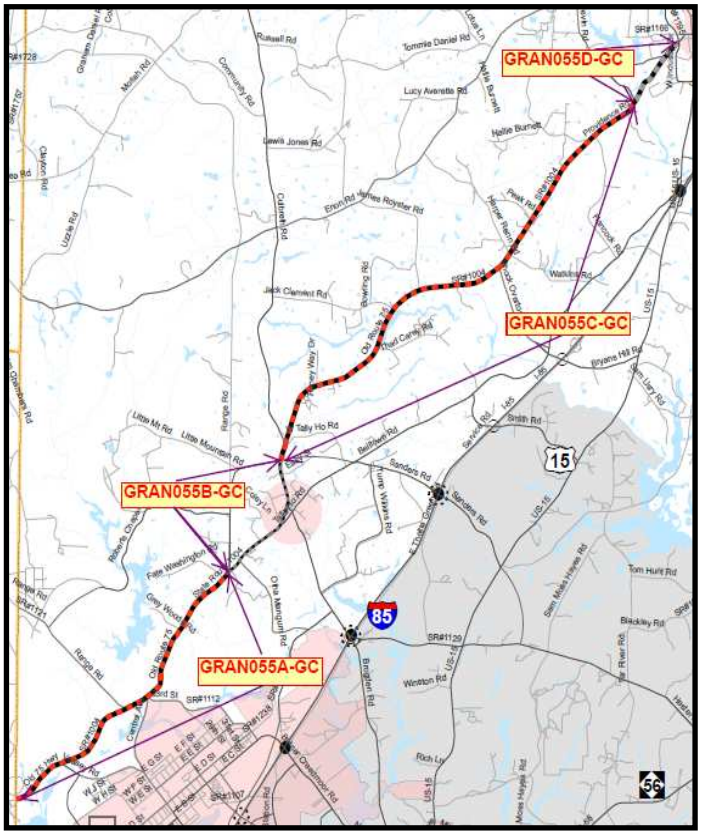


Old Route 75 (SR 1004)

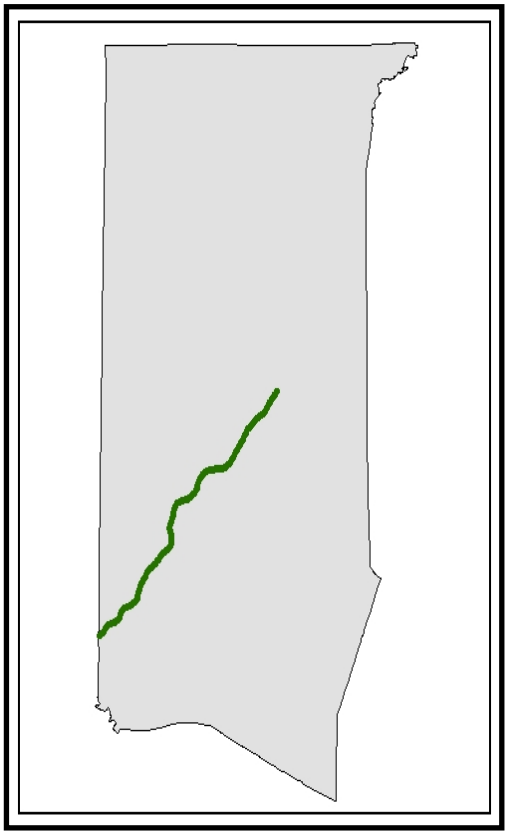
Proposed improvements from Durham County line to Industry Drive

Project #:GRAN055

Last updated on: 10/29/09



Old Route 75



Project Location within County

Old Route 75 at Federal Prison in Butner

Note: Definitions of terms can be found in Appendix B. All Information subject to change.

Project Description:
To improve capacity, Old Route 75 (SR 1004) is recommended to be widened as follows:

- From Durham County Line to Range Road (SR 1126) – Widen to 4-lane divided boulevard facility.
- From Range Road (SR 1126) through Stem to Sanders Road (SR 1132) – Widen to 2-3 lane facility.
- From Sanders Road (SR 1132) to Hallie Burnette Road – Widen to 4-lane divided boulevard facility.
- From Hallie Burnette Road to Industry Drive (SR 1646) – Widen to 2-3 lane facility.

Purpose:
This facility should enhance commuter access and mobility between northern Granville County and the state & federal facilities in Butner and provide better passenger and freight mobility through the Town of Stem. The traffic volumes projected on Old Route 75 (SR 1004) should be significantly over capacity in 2035. This widening is intended to improve the safety and capacity of existing roadway.

County:	Granville
MPO/RPO Planning Area	Kerr-Tar RPO
Municipality	Municipality
Project Category	Highway
CTP Designation	Boulevard - NI
Highway Tier	Highway Tier
Total Project Length	17.5 miles
TIP #	None
Funding Source	STP
AQ Regionally Significant	☐ Yes ☒No
Segmented Project	☒ Yes ☐No
Number of Segments	4

Additional Information

Existing Conditions:
Old Route 75 (SR 1004) is identified as a major collector on the Federal Functional Classification System. This roadway runs southwest to northeast throughout the county. Old Route 75 (SR 1004) is currently operating at a less than desirable level for users.

Economic Development Impacts:
It is anticipated that the proposed improvements should bring new growth and economic development to the Towns of Stem and Butner, and improve regional connectivity.

Land Use Impacts:
This project may promote mixed use and residential development patterns in current rural areas. Mobility function of this 4-lane facility could be impaired by excessive driveway access. Future land use plan amendments should consider the functionality of this corridor when making land use decisions.

Safety:
If Old Route 75 (SR 1004) is not widened, congestion and delays should occur. Old Route 75 (SR 1004) could also provide for an alternate route in the event of the crash on I-85 in Granville County. This widening is intended to improve the safety and capacity of existing roadway.

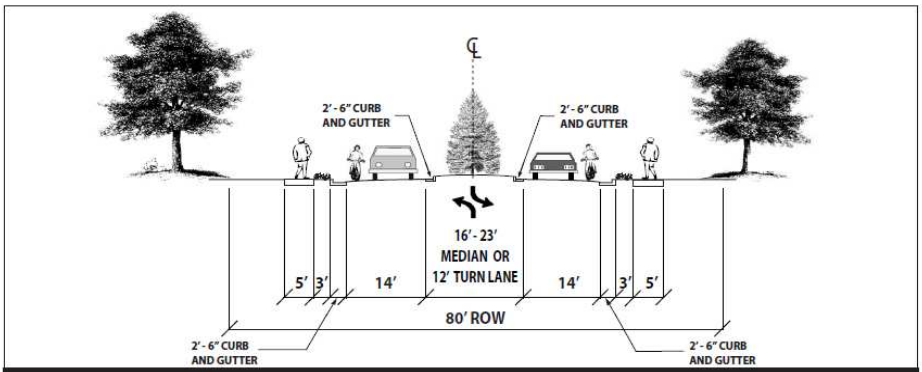
Bike/Ped/Transit:
Ancillary bicycle routes via on-road and off-road accommodations are recommended along Old Route 75 (SR 1004) to enhance the county-wide bicycle network.

Environmental/Historic Features
There are various sightings of rare plants and animals throughout Granville County. A detailed field investigation is recommended prior to construction in this area. Some portions of this project in southern Granville County lie within a protected watershed area.

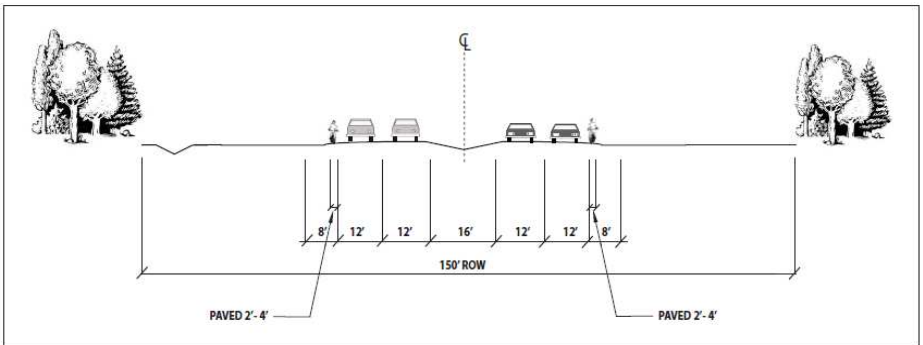
Project History/Relationship to Other Plans
This is the first identification as a need for highway improvements. Bicycle and Pedestrian improvements recommended are consistent with the 2006 Granville County Greenway Master Plan.

Project Detail Table

Project: Old Route 75 (SR 1004)	Dist Mi	Roadway Width	ROW	Number of Lanes	Capacity (VPD)	AADT (VPD)	Cross Section Or Notes
GRAN055A-GC (I-85 to Gate #2 Rd)							
Current Conditions	5.26	24	80	2	9500	1900-3300	-
Future Conditions	5.26	48	150	4	35000	13000	Modi – B1
GRAN055B-GC (Gate #2 - Relocated US 15)							
Current Conditions	2.23	20	80	2	8500	2200	-
Future Conditions	2.23	48	80	2-3	11000	10000	Modi – H1
GRAN055C-GC (US 15 Relocation)							
Current Conditions	8.68	20	80	2	8500	2700	-
Future Conditions	8.68	48	150	4	35000	7500-10000	Modi – B1
GRAN055D-GC (Moss Rd - I-85)							
Current Conditions	1.00	20	80	2	9500	4500	-
Future Conditions	1.00	48	80	2-3	11000	6000	Modi – H1



MODIFIED H1
URBAN MINOR THOROUGHFARE



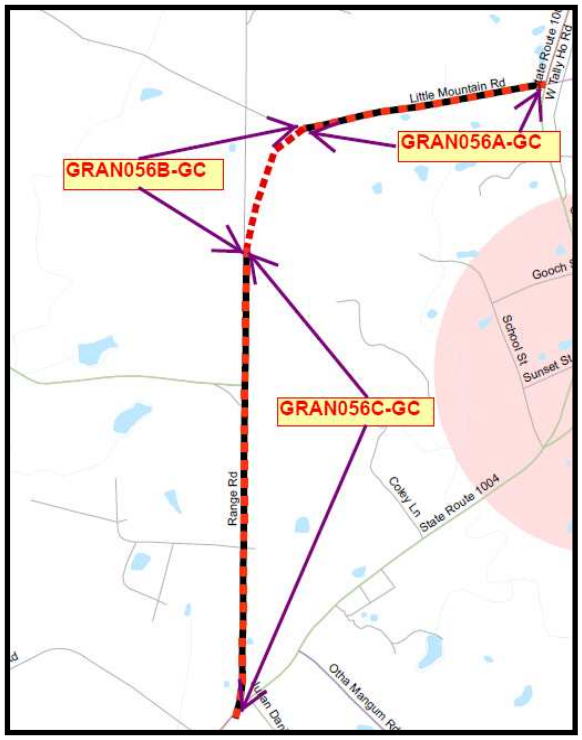
MODIFIED B1 Boulevard / Major Thoroughfare Outside Town
FOUR LANE MEDIAN DIVIDED TYPICAL SECTION
With Wide Outside Lanes, Without Sidewalk, Curb and Gutter

Stem Western Loop

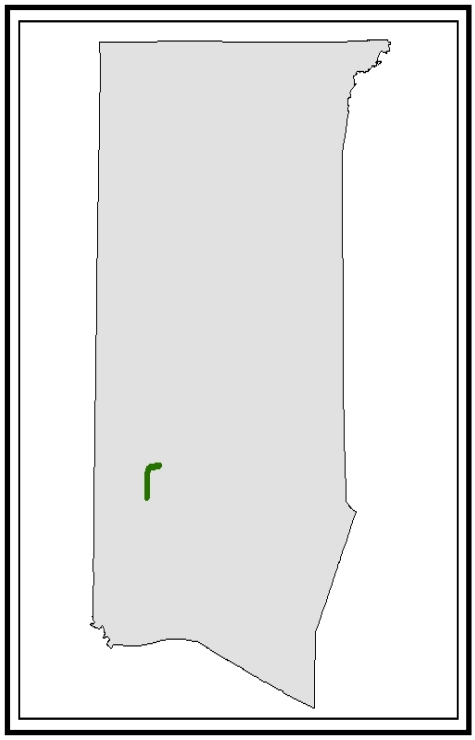
Proposed improvements for Old Route 75 (SR 1004) around Stem

Project #: GRAN056

Last updated on: 10/29/09



Stem Western Loop



Project Location Within County

Stem Western Loop

Note: Definitions of terms can be found in Appendix B. All Information subject to change.

Project Description:
To provide a western bypass to the Town of Stem, the following routes are proposed to be constructed or improved:

- Along Range Road (SR 1126) from Old Route 75 (SR 1004) to south of Little Mountain Road (SR 1137) – Widen to 4-lane divided boulevard facility.
- From south of Little Mountain Road (SR 1137) to Little Mountain Road (SR 1137) east of Range Road (SR 1126) – Construct 4-lane divided boulevard facility on new location.
- Along Little Mountain Road (SR 1137) to Old Route 75 (SR 1004) north of Stem - Widen to 4-lane divided boulevard facility.

Purpose:
This facility serves as a western bypass to the Town of Stem. This facility, in conjunction with Old Route 75 (SR 1004) improvements, should enhance commuter access between northern Granville County and the state & federal facilities in Butner and provide better passenger and freight mobility around the Town of Stem.

County:	Granville
MPO/RPO Planning Area	Kerr-Tar RPO
Municipality	Stem
Project Category	Highway
CTP Designation	Boulevard - NI
Highway Tier	Highway Tier
Total Project Length	2.5 miles
TIP #	None
Funding Source	STP
AQ Regionally Significant	☐ Yes ☒No
Segmented Project	☒ Yes ☐No
Number of Segments	3

Additional Information

Existing Conditions:
Range Road (SR 1126) and Little Mountain Road (SR 1137) are identified as 2-lane rural roads. The new location portion of this project should create a prevailing movement connecting Range Road (SR 1126) to Little Mountain Road (SR 1137), thus completing a western loop around Stem.

Economic Development Impacts:
It is anticipated that the proposed improvements should bring new growth and economic development to the Town of Stem and improve regional connectivity.

Land Use Impacts:
This project may promote mixed use and residential development patterns in current rural areas. Mobility function of this 4-lane facility could be impaired by excessive driveway access. Future land use plan amendments should consider the functionality of this corridor when making land use decisions.

Safety:
If the Stem Western Loop is not constructed, congestion and delays should occur in Stem. This widening is intended to improve the safety and capacity of Old Route 75 (SR 1004).

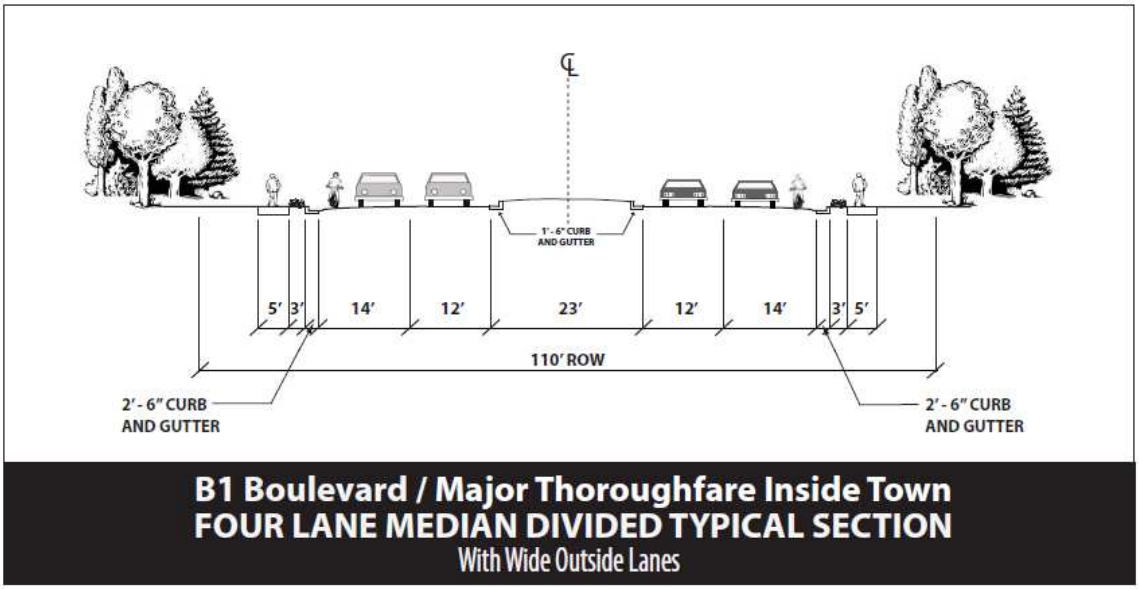
Bike/Ped/Transit:
Ancillary bicycle routes via on-road accommodations are recommended along Butner Boulevard to enhance the county-wide bicycle network.

Environmental/Historic Features
There are various sighting of rare plants and animals throughout Granville County. A detailed field investigation is recommended prior to construction in this area. Some portions of this project in southern Granville County lie within a protected watershed area.

Project History/Relationship to Other Plans
This is the first identification as a need for highway improvements. Bicycle and Pedestrian improvements recommended are consistent with the 2006 Granville County Greenway Master Plan.

Project Detail Table

Project: Stem Western Loop	Dist Mi	Roadway Width	ROW	Number of Lanes	Capacity (VPD)	AADT (VPD)	Cross Section Or Notes
GRAN056A-GC (Culbreth Road to Little mountain road)							
Current Conditions	1.3	20	60	2	7200	490	-
Future Conditions	1.3	52	110	4	11000	1500	B1
GRAN056B-GC (Little mountain road to Range road (new location))							
Current Conditions	-	-		-	-	-	-
Future Conditions	0.4	52	110	4	11000	6000	B1
GRAN056C-GC (Range road to Julian Daniel Road)							
Current Conditions	0.7	20	60	2	7200	1300	-
Future Conditions	0.7	52	110	4	11000	9800	B1



B1 Boulevard / Major Thoroughfare Inside Town
FOUR LANE MEDIAN DIVIDED TYPICAL SECTION
With Wide Outside Lanes

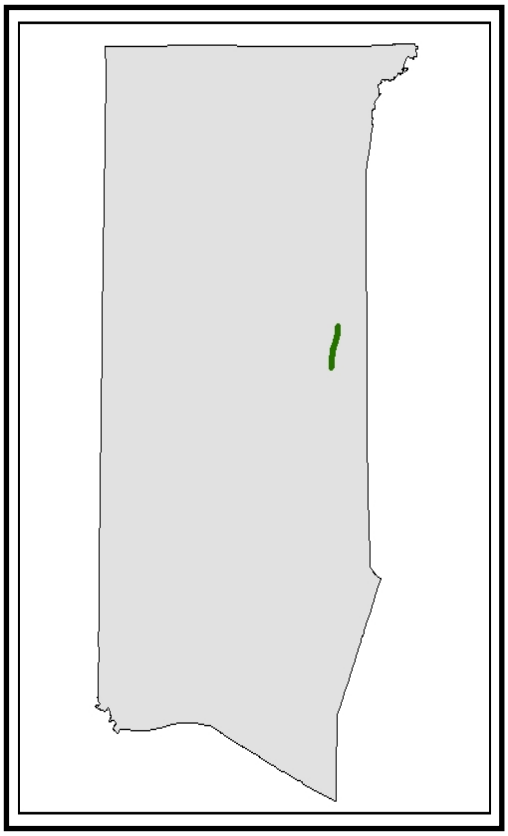
Tabbs Creek Road (SR 1662)

Proposed improvements form Salem Road to US 158

Project #: GRAN065

Last updated on: 10/29/09

Tabbs Creek Road



Project Location within County

Tabbs Creek Road near Triangle North Site

Note: Definitions of terms can be found in Appendix B. All Information subject to change.

Project Description:

Widening the current 2-lane facility to a 2-3 lane highway with center turn lane where necessary from Salem Road (SR 1552) to Tabbs Creek Road (SR 1662) to provide an improved intersection of Tabbs Creek Road (SR 1662) and US 158 on new location.

Purpose:

This widening is intended to improve the safety and capacity of existing roadway and to accommodate increased freight and residential traffic. Also due to development around Triangle North industrial site, traffic volumes projected in this section should be near capacity in 2035.

County:	Granville
MPO/RPO Planning Area	Kerr-Tar RPO
Municipality	Granville Co.
Project Category	Highway
CTP Designation	Major Thoro - NI
Highway Tier	Highway Tier
Total Project Length	2.1 miles
TIP #	None
Funding Source	STP
AQ Regionally Significant	☐ Yes ☒No
Segmented Project	☒ Yes ☐No
Number of Segments	2

Additional Information

Existing Conditions:

Tabbs Creek Road (SR 1662) is two-lane rural highway currently serving residential development with no bicycle accommodations.

Economic Development Impacts:

The area is undergoing major commercial and industrial development, including the establishment of the Triangle North industrial site.

Land Use Impacts:

Traffic pattern should shift from primarily residential to more commercial and freight.

Safety:

The widening and intersection realignment should contribute to safer driving conditions on this facility.

Bike/Ped/Transit:

Add wide paved shoulder and/or sidewalks to the facility to accommodate bicycle and pedestrian traffic.

Environmental/Historic Features

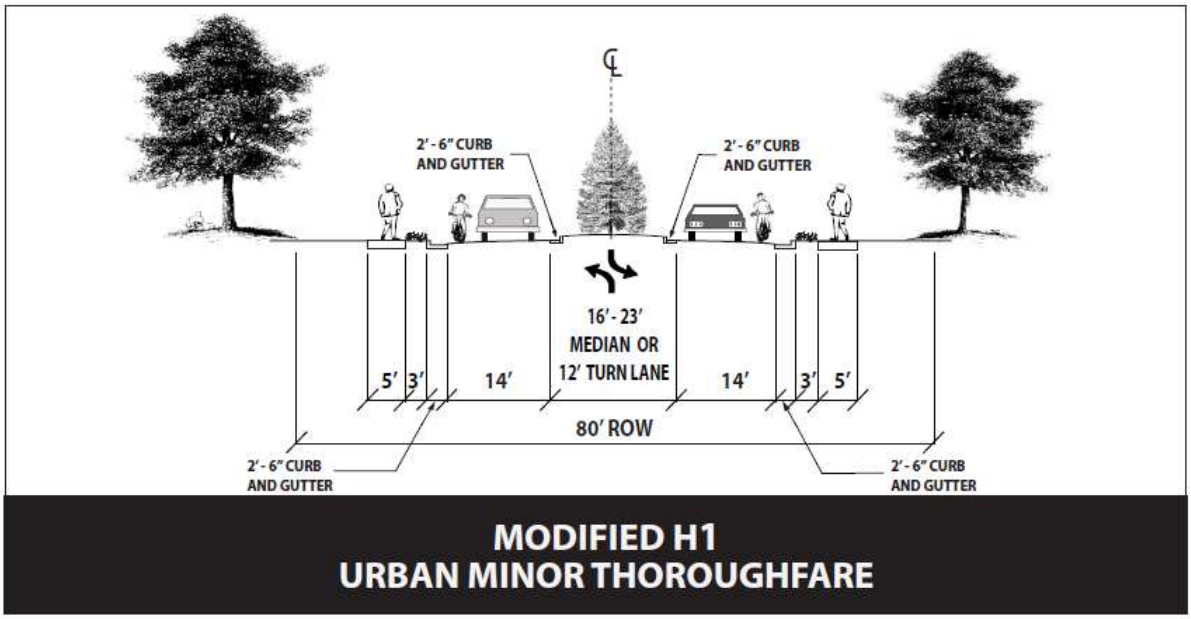
There are various sightings of rare plants and animals throughout Granville County. A detailed field investigation is recommended prior to construction in this area.

Project History/Relationship to Other Plans

This is the first identification as a need for highway improvements. Bicycle and Pedestrian improvements recommended are consistent with the Granville County 2006 Greenway Master Plan.

Project Detail Table

Project: Tabbs Creek Road	Dist Mi	Roadway Width	ROW	Number of Lanes	Capacity (VPD)	AADT (VPD)	Cross Section Or Notes
GRAN065A- GC (Salem Road to Tabbs Creek Road)							
Current Conditions	1.90	18	60	2	7500	-	-
Future Conditions	1.90	28	80	2-3	11000	-	Modi – H1
GRAN065B–GC (Tabbs Creek Road to US 158)							
Current Conditions	-	-	-	-	-	-	-
Future Conditions	0.15	28	80	2-3	11000	-	Modi – H1

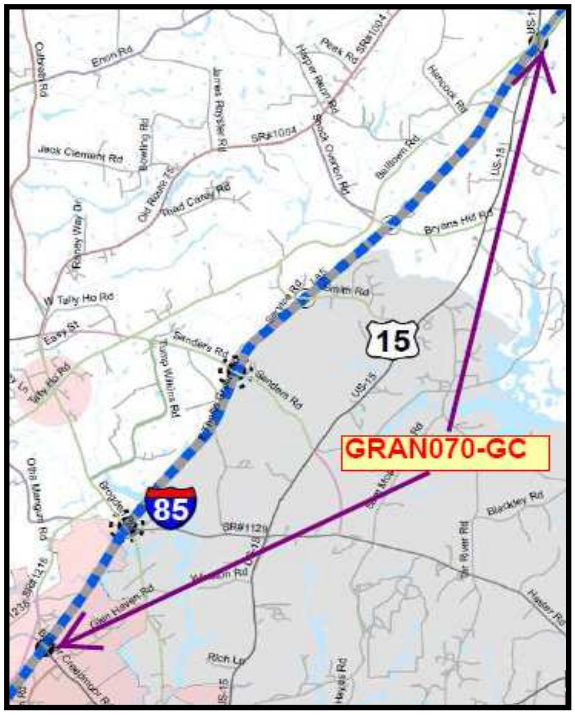


I-85 Interchange Study

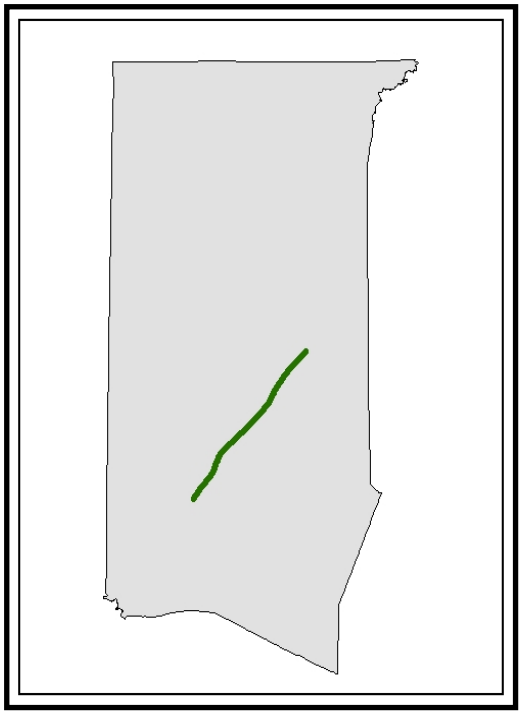
Interchange Study between Exit 191(NC 56) and Exit 202(US 15) on I-85

Project #: GRAN070

Last updated on: 10/29/09



I-85 Interchange Study



Project Study Area within County

I-85 Study Area

Note: Definitions of terms can be found in Appendix B. All Information subject to change.

Project Description:

Study the portion of I-85 between Exit-191(NC 56) and Exit-202(US 15) to determine the location for a new interchange. The Granville County CTP Committee has identified 2 potential locations: Hester Road (SR 1129) and Sanders Road (SR 1132).

Purpose:

A New Interchange is needed in order to address following needs:

- Improve Access and Mobility for emergency management purposes. There are 11 miles without any interchanges between Exit 191 and Exit 202 making access to this section of I-85 difficult. An additional interchange should improve response time for emergency vehicles and allow for enhanced traffic management in emergency.
- A new high school serving central Granville County has recently opened on Sanders Road (SR 1132). An additional Interchange would increase access to the school as well as surrounding residential and commercial development.
- An additional interchange should help relive the severe congestion at NC 56 (Exit 191), especially during peak hour.

County:	Granville
MPO/RPO Planning Area	MPO/RPO
Municipality	Granville Co.
Project Category	Highway
CTP Designation	Freeway - NI
Highway Tier	Highway Tier
Total Project Length	-
TIP #	None
Funding Source	STP
AQ Regionally Significant	☐ Yes ☒No
Segmented Project	☐ Yes ☒No
Number of Segments	0

Additional Information

Existing Conditions:

- NC 56 currently exceeds capacity.
- There are 11 miles between Exits 191 and Exit 202, creating safety and access concerns specific to emergency management purposes.

Economic Development Impacts:

An additional interchange should have a positive impact on economic development by providing direct access for industrial development. It should improve automobile and freight mobility in Granville County.

Land Use Impacts:

This project may promote urbanized development patterns in current rural areas, including Commercial and Industrial development.

Safety:

This facility should improve safety and mobility along this 11 mile segment of I-85.

Bike/Ped/Transit:

I-85 is recommended as a future bus route corridor for service from Durham / Granville County Line to Oxford. Park and ride facilities are also recommended at various locations along I-85 corridor.

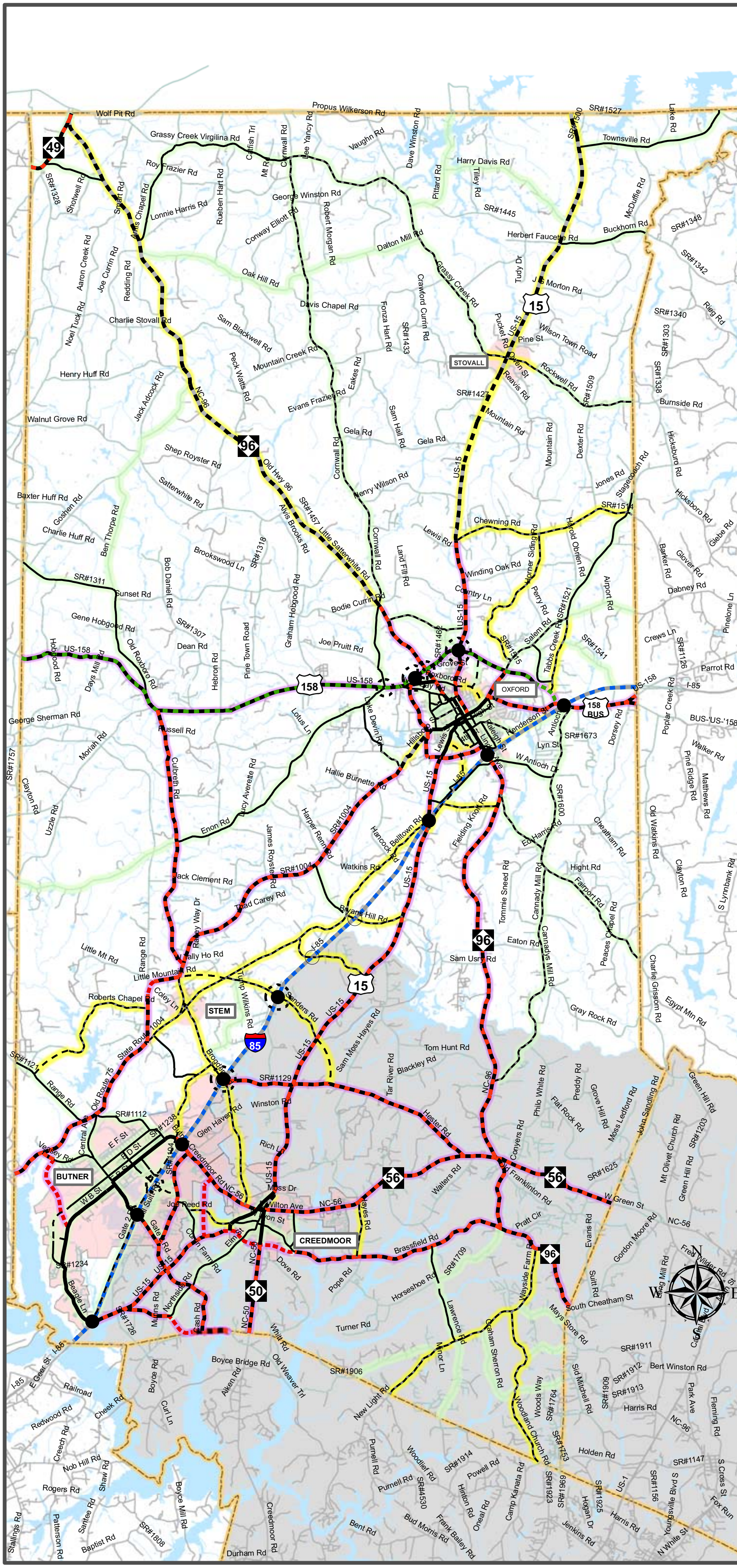
Environmental/Historic Features

There are various sighting of rare plants and animals throughout Granville County. A detailed field investigation is recommended prior to construction in this area.

Project History/Relationship to Other Plans

This is the first identification as a needed interchange along I-85 in Granville County.

The recommended highway improvements are illustrated in **Figure 4, Project Proposal Highway Map.** This map classifies the Highway facilities into three categories, depending on number of lanes each facility provides. The recommended Project Proposal Highway Map is presented for informational purpose only – this map is not part of officially adopted CTP. This map was very useful in public drop-in sessions and pubic involvement session.



Project Proposal Map

Granville County Project Proposals

Plan date: 09.06.07

Freeways
- Existing
- Needs Improvement
- Recommended

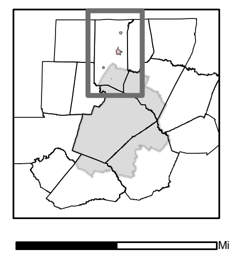
Expressways
- Existing
- Needs Improvement
- Recommended

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
- County Boundary
- CAMPO Boundary
- Municipal Boundary
- 2 Lanes
- 3 Lanes
- 4 Lanes



Base map date: 05.22.07

Refer to CTP document for more details

Back of Project Proposal Map

Chapter 3
Population, Land Use, and Traffic

In order to fulfill the objectives of an adequate long range transportation plan, reliable forecasts of future travel patterns must be made. Such forecasts depend on careful analysis of the following items: historic and potential population changes; significant economic trends; character and intensity of land development; and, the ability of the existing transportation system to meet current and future travel demand. Secondary items that influence forecasts include the effects of legal controls such as zoning ordinances and subdivision regulations, availability of public utilities and transportation facilities, as well as topographic and other physical features of the planning area.

3.1 Population

Since the volume of traffic on a roadway is related to the size and distribution of the population that it serves, population data is used to aid in the development of the transportation plan. The Base year population used in this analysis was based on the 2000 Census. Future population estimates typically rely on the observance of past population trends, the Travel Demand model and traffic counts. **TABLE 1** presents the population trends for Granville County and North Carolina as provided by North Carolina State Data Center.

Table 1: Population Growth

Location	1970	1980	1990	2000	2005
North Carolina	5,082,059	5,881,766	6,628,637	8,046,487	8,869,442
Granville County	32,762	33,855	38,341	48,498	54,473
City of Oxford	7,178	7,709	7,965	8,338	8,550
City of Creedmoor	1,405	1,641	1,506	2,232	3,290
Town of Butner	*3,475 **	*4,100 **	4,679 *	5,792 *	7,464 *
Town of Stem	242	222	249	229	239
Town of Stovall	405	417	409	376	389

Note: * Town of Butner was incorporated in 2006; estimates prior to incorporation are based on county tract level census data.

3.2 Land Use

Land use refers to the physical development patterns of activities and functions within an area. The demand for trips on a particular transportation facility is related to the land uses adjacent to and connected by the facility. The intensity of the land use adjacent to a transportation facility affects the volume of traffic; for example, a shopping center generates higher traffic volumes than a similarly sized low-density residential area. The spatial distribution of varying land uses is the primary determinant of when, where, and why congestion occurs. Different land use types have different travel pattern associated with them, based on such factors as the proximity of other land uses and the time of day. For this study, land use has been divided into following categories:

- Residential - All land that is used for housing, excluding hotels and motels is expressed in terms of the number of households. This is further broken into categories based on the number of persons per household, children per household and workers per household.

- Commercial/Industrial – All land that is used by any type of business government, or non-profit organization is expressed in terms of number of employees. This information is further broken into following categories:
    - Highway Retail – retail businesses that are auto-oriented (often along major highways), such as gas stations and restaurants.
    - Retail – all retail businesses that are not categorized as Highway Retail, such as general merchandise stores and specialty stores.
    - Industrial – businesses that produce or handle goods, such as manufacturing plants, trucking firms, construction companies and farms.

- Institutional – Land devoted to public charitable, religious or educational organizational or entities, which include such uses as churches, schools, colleges, hospitals, civic uses, libraries, museums, parks or playgrounds.
    - Service - businesses or institutions that provide services rather than goods, such as medical offices and schools.
    - Office – businesses or institutions that are primarily administrative and have less customer interface, such as financial institutions, insurance offices, and government agencies.
- Public – Land devoted to social, religious, educational, cultural and political activities; this would include the office and service employment.

3.3 Roadway System

An important stage in development of the Comprehensive Transportation Plan is analysis of the existing roadway system and its ability to serve the travel needs of the planning area. Emphasis is placed not only on detecting the existing deficiencies, but also on understanding their causes. Travel deficiencies may be localized, resulting from problems with inadequate pavement width, intersection geometry, or intersection controls. Travel deficiencies may also result from system problems such as the need for construction of missing travel links, bypass routes, loop facilities, or additional radial routes.

An analysis of the roadway system looks at both current and future travel patterns and identifies existing and anticipated deficiencies. This is usually accomplished through a vehicle collision analysis, roadway capacity analysis, and a system deficiency analysis. This information, along with population growth, economic development potential, and land use trends, is used to analyze the future transportation system and develop recommendations for system improvements.

3.4 Current Transportation Plans for Granville County

Granville County had several mutually adopted thoroughfare plans. Thoroughfare plans are a tool to aid officials in the development of an appropriate roadway system. The following thoroughfare planning studies had previously been completed for Granville County:

- Creedmoor - plan adopted in 2003
- Granville County - plan adopted in 1998
- Oxford - plan adopted in 1997
- Butner - plan adopted in 1987

Due to a change in state law, thoroughfare plans are being phased out and replaced with Comprehensive Transportation Plans. By the mutual adoption of the Granville County Comprehensive Transportation Plan (CTP), these four thoroughfare plans have been replaced with the Granville County CTP.

3.5 Intersection / Vehicle Crashes Analysis

Vehicle crashes are often used as an indicator for locating deficiencies. While often the result of drivers or vehicle performance, crashes may also be associated with the physical characteristics of the roadway. Roadway conditions and obstructions, traffic conditions, and weather conditions may all lead to the occurrence of a collision. While some crashes are the fault of the driver, others may be prevented with physical design changes or traffic control changes such as the installations of stop signs or traffic signals.

Looking south from US 15 towards Gela Road

Crash data was obtained from the Traffic Engineering Branch of NCDOT and was studied as part of the development for this study. Transportation Planners for the Kerr-Tar RPO and Granville County also worked with the Granville County Comprehensive Transportation Planning Committee and law enforcement officers to get public input. Site visits were made to study each of the identified intersections. Analysis considered crash frequency, crash severity, and roadway conditions. (Crash frequency is the total number of reported crashes, while crash severity is the crash rate based upon injuries and property damage incurred.) These factors helped to determine the high crash locations within the study area that are summarized in **TABLE 2**.

The intersections that resulted as High Priority projects have been compiled into a request and submitted to NCDOT for low-cost spot-safety improvements or for more detailed Traffic Engineering Studies.

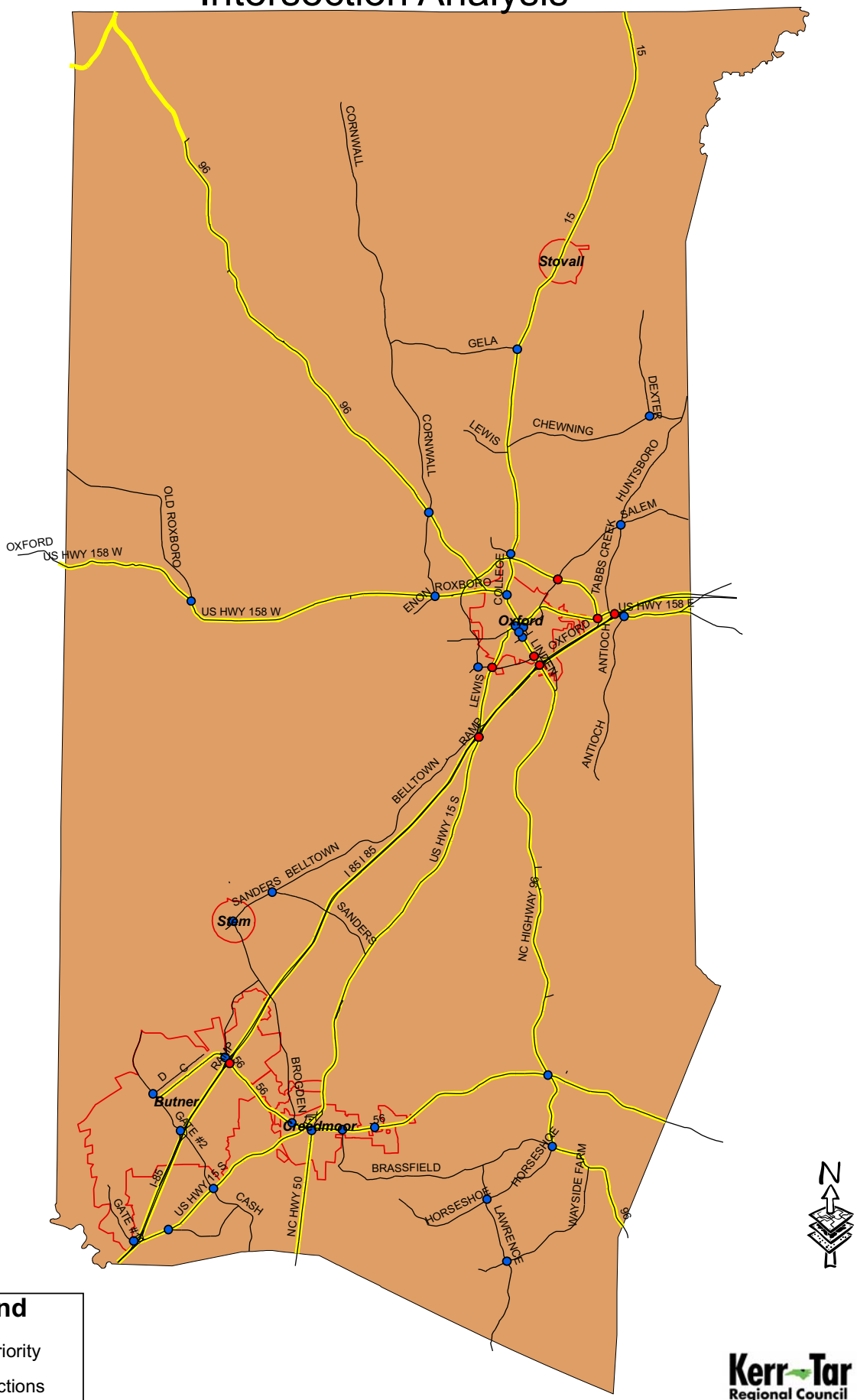
To request a more detailed analysis for any of the locations listed in below table, or other intersections of concern, contact the Division Traffic Engineer. Contact information for the Division Traffic Engineer is included in **Appendix A**.

Table 2: Intersection Improvement Summary Table

#	Intersection Location	General Area	High Priority	NCDOT Traffic Eng. Study Request	NCDOT Traffic Eng. Study Complete	Safety Funds Requested	Spot Safety/ Other Funds Received	Future CTP, LRTP, or TIP Project	Follow Up Year: 2010
1	US 15 at Gela Rd.	South of Stovall					X	X	X
2	Chewning Road at Dexter Rd.	NE of Oxford						X	
3	NC 96 at Cornwall Rd.	NW of Oxford						X	
4	Tabbs Creek / Huntsboro Rd at Salem Rd.	NE of Oxford						X	
5	US 15 at Webb High School Rd.	North of Oxford						X	
6	US 158 at Old Roxboro Rd.	Oxford						X	
7	US 158 at Enon St.	Oxford						X	
8	Oxford Loop at Salem Rd.	Oxford	X	X				X	
9	US 158 Business at Oxford Loop	Oxford	X	X				X	
10	US 158 at I-85	Oxford	X	X				X	
11	US 158 at Antioch Rd.	Oxford			X			X	
12	Roxboro St. at College St.	Oxford						X	
13	Main St. at Spring St.	Oxford		X					
14	Linden Ave. at Hillsboro St.	Oxford		X					
15	Hunt St. at Linden Ave.	Oxford							
16	Linden Ave. at Front St.	Oxford							
17	Industry Dr. at Linden Ave.	Oxford	X	X				X	
18	Industry Dr. at Lewis St.	Oxford	X					X	

#	Intersection location	General Area	High Priority	NCDOT Traffic Eng. Study Request	NCDOT Traffic Eng. Study Complete	Safety Funds Requested	Spot Safety / Other Funds Received	Future CTP, LRTP, or TIP Project	Follow Up Year : 2010
19	Industry Dr. at Certainteed.	Oxford						X	
20	NC 96 at I-85	Oxford	X	X				X	
21	Belltown Rd. at Sanders Rd.	NE of Stem						X	X
22	Belltown Rd. at Brogden Rd.	Stem				X	X	X	X
23	Central Ave. at "D" St.	Butner		X					
24	W. Lyon Station Rd. at NC 56	Butner		X				X	
25	NC 56 at I-85	Butner	X	X				X	
26	NC 56 at Stem Rd.	Creedmoor						X	
27	NC 56, NC 50, US 15	Creedmoor		X				X	
28	NC 56 at Hawley School Rd.	Creedmoor				X	X	X	X
29	NC 56 at Mt. Energy School	Creedmoor						X	
30	NC 96 at NC 56	East of Creedmoor					X	X	X
31	NC 96 at Brassfield Rd.	East of Creedmoor					X	X	X
32	Lawrence Rd. at Horseshoe Rd.	SE Granville Co							X
33	Bruce Garner Rd. at Lawrence Rd.	SE Granville Co		X				X	
34	Gate 2 Rd. at I-85	Butner					X	X	X
35	US 15 at Cash Rd.	SE of Butner					X	X	X
36	US 15 at Northside Dr.	SE of Butner						X	
37	US 15 at I-85 (Southern/Butner)	Southern Butner					X	X	X
38	US 15 at I-85 (Northern/Oxford)	South of Oxford	X	X				X	

Granville County
Intersection Analysis



Back of Intersection Improvement Map

3.6 Roadway Capacity Deficiencies

Roadway Capacity deficiencies occur wherever the travel demand volume of a roadway is close to or higher than the vehicle capacity of that roadway. The travel demand is expressed in terms of the total number of vehicles that choose to use a particular roadway on the way to their destinations. The existing volumes for Granville County are based upon traffic count data taken annually by the NCDOT Traffic Survey Group. Projected 2035 travel volumes are based on anticipated population growth, historic traffic projections, Granville County's adopted land use plan, and is developed with the aid of the Triangle Regional Travel Demand Model. This model covers all of Durham, Orange, and Wake Counties, and portions of Chatham, Franklin, Granville, and Johnston Counties. The version of the Triangle Regional Model used in this study was (trm25v5-2001). The future year, 2030 model volumes were adjusted and projected forward to the year 2035 for the purposes of this study.

The Triangle Regional Model was in the process of being updated with new population, economic and land use data during the course of this study. The updated Triangle Regional Model has a base year of 2002 and uses future years of 2010, 2020, and 2030 for projection purposes. Due to the uncertain completion date of the updated model, the elected officials of Granville County decided in May 2006 to proceed with the study using the trm25v5-2001 version of the Triangle Regional Model.

Many factors contribute to the capacity of a roadway, including:

- Roadway Geometry, including number of lanes, horizontal and vertical alignment, and proximity of perceived obstructions to safe travel along the roadway.
- Typical roadway users, such as commuters, recreational travelers, and commercial vehicles.
- Control of access to streets and driveways along the roadway.
- Development adjacent to the roadway, including residential, commercial, and industrial land uses.
- Number of traffic signals along the roadway.
- Peaking characteristics of the traffic on the roadway (i.e a spike in traffic at rush hour versus relatively constant traffic all day).
- Characteristics of intersecting roads along a facility.
- Directional split of traffic along the roadway, or the percent of vehicles traveling in each direction at a given time of day.

The relationship of travel demand to roadway capacity determines the level-of-service (LOS) of a roadway. Six distinct levels-of-service are possible, with letter designations ranging from LOS A, which represents the best operating conditions, to LOS F, which represents the worst operating conditions. LOS D indicates "practical capacity" of a roadway, or the capacity at which the public begins to express dissatisfaction. The six levels of service are described below and illustrated in **Figure 6**.

- **LOS A**: Describes primarily free flow conditions. The motorist experiences a high level of physical and psychological comfort. The effects of minor incidents of breakdown are easily absorbed. Even at the maximum density, the average spacing between vehicles is about 528 ft, or 26 car lengths.

- **LOS B**: Represents reasonably free flow conditions. The ability to maneuver within the traffic stream is only slightly restricted. The lowest average spacing between vehicles is about 330 ft, or 18 car lengths.

- **LOS C**: Provides for stable operations, but flows approach the range in which small increases should cause substantial deterioration in service. Freedom to maneuver is noticeably restricted. Minor incidents may still be absorbed, but the local decline in service should be great. Queues may be expected to form behind any significant blockage. Minimum average spacing is in the range of 220 ft, or 11 car lengths.

- **LOS D**: Borders on unstable flow. Density begins to deteriorate somewhat more quickly with increasing flow. Small increases in flow can cause substantial deterioration in service. Freedom to maneuver is severely limited, and the driver experiences drastically reduced comfort levels. Minor incidents can be expected to create substantial queuing. At the limit, vehicles are spaced at about 165 ft, or nine car lengths.

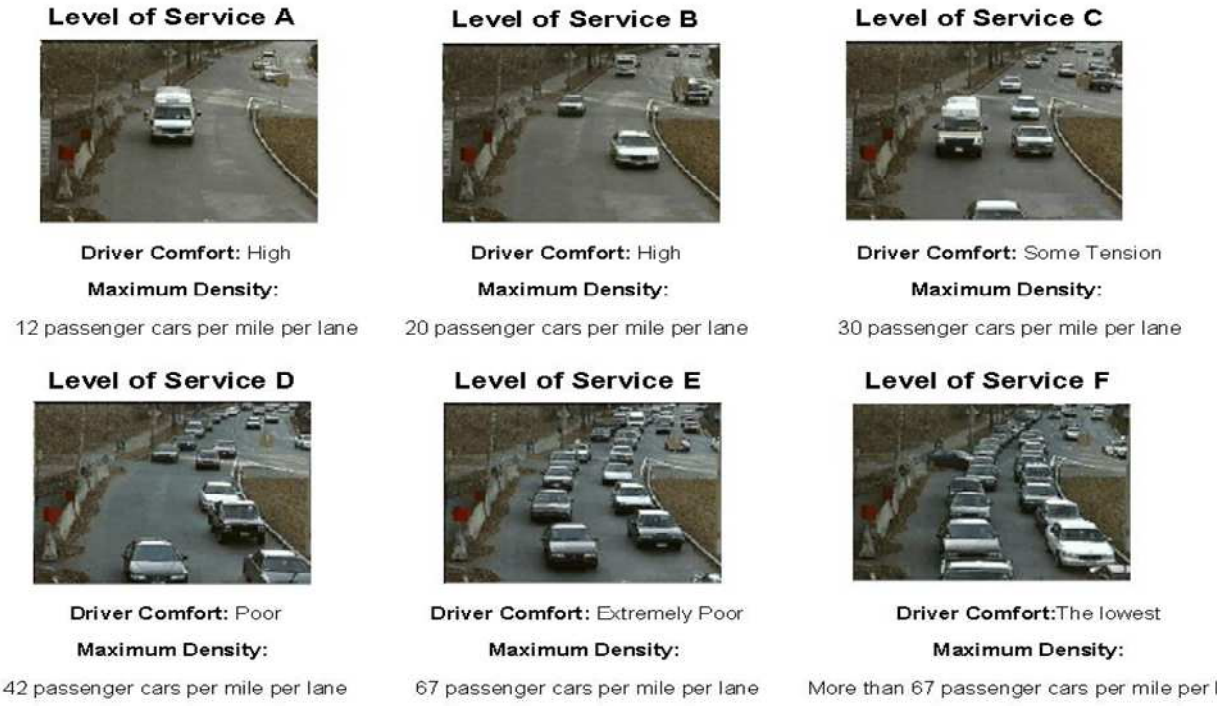
- **LOS E**: Describes operation at capacity. Operations at this level are extremely unstable, because there are virtually no usable gaps in the traffic stream. Any disruption to the traffic stream, such as a vehicle entering from a ramp, or changing lanes, requires the following vehicles to give way to admit the vehicle. This can establish a disruption wave that propagates through the upstream traffic flow. At capacity, the traffic stream has no ability to dissipate any disruption. Any incident can be expected to produce a serious breakdown with extensive queuing. Vehicles are spaced at approximately six car lengths, leaving little room to maneuver.

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

Design requirements for roadways vary according to the desired capacity and level-of-service. 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.

Following is a visual representation of typical levels of service for a roadway:

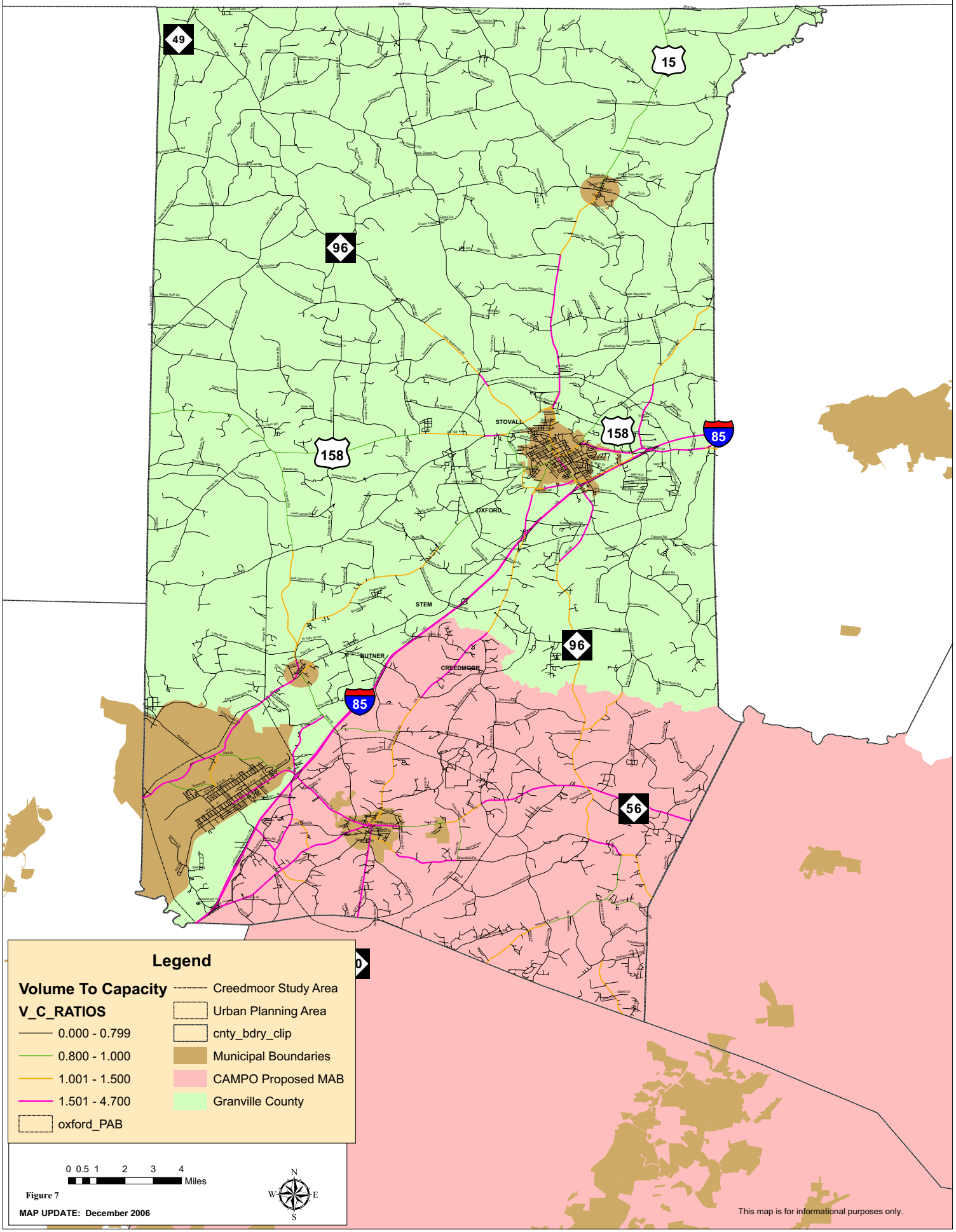
Figure 6: Level of Service



The Level of Service (LOS) is typically represented by using the capacity of a roadway compared against the actual volume that is on the roadway.

The existing roadway network (2004) and future roadway network (2035) were evaluated based on the volume to capacity ratio. The 2035 roadway network assumes that no new roads are built and no widening of existing occurs. **Figure 7, Volume to Capacity** shows the expected roadway deficiencies, or congestion problems for year 2035. The projected Future year (2035) growth rate and average daily traffic volumes, which are based upon historic and anticipated population economic growth patterns, and land use trends, are illustrated in **Figure 8, 2035 Growth Rate Projections & Figure 9, 2035 Average Daily Traffic Projections** respectively.

Volume To Capacity



Back of Volume to Capacity Map

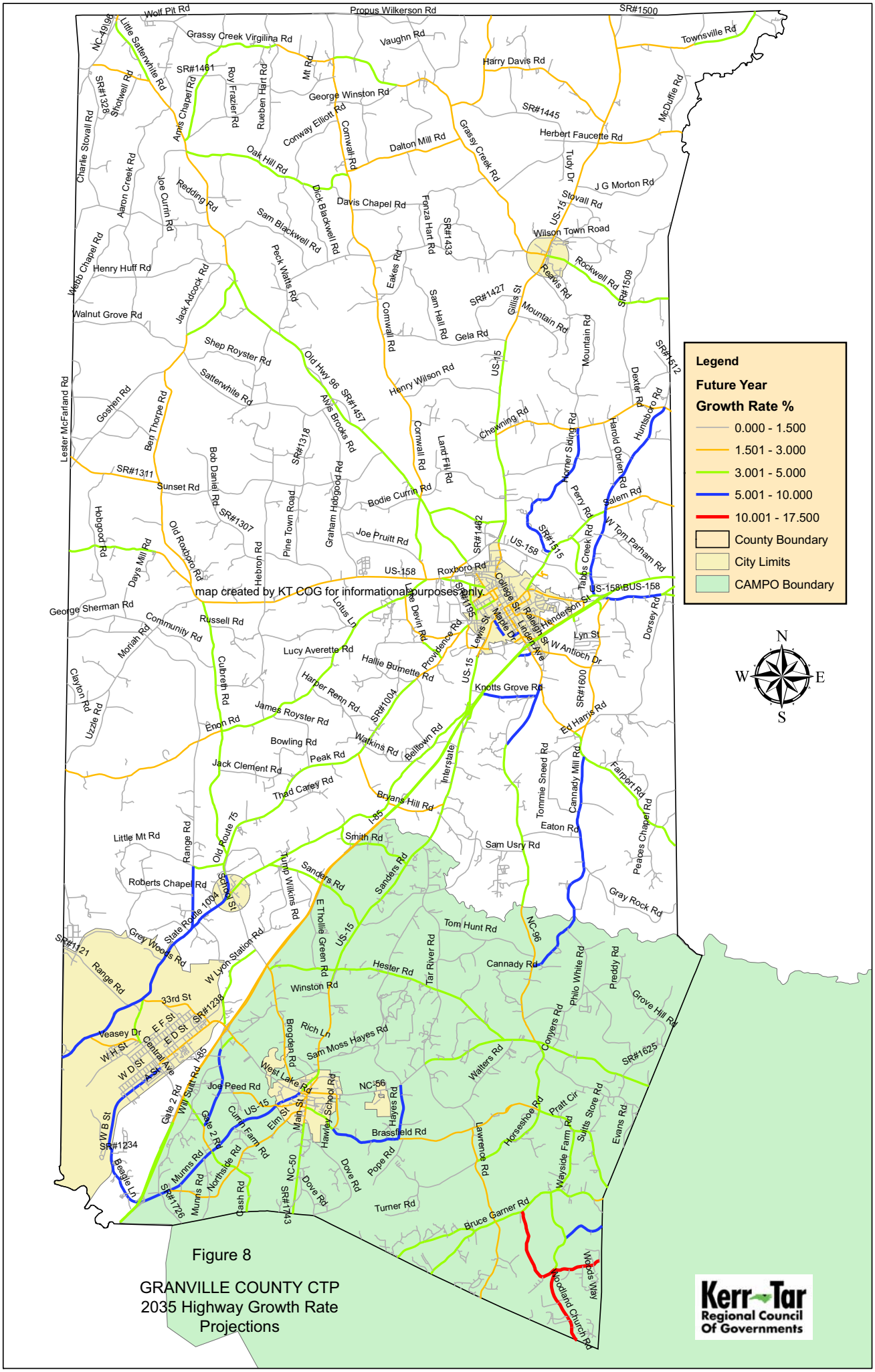


Figure 8

GRANVILLE COUNTY CTP
2035 Highway Growth Rate
Projections

Kerr-Tar Regional Council Of Governments

Back of Growth Rate % Map

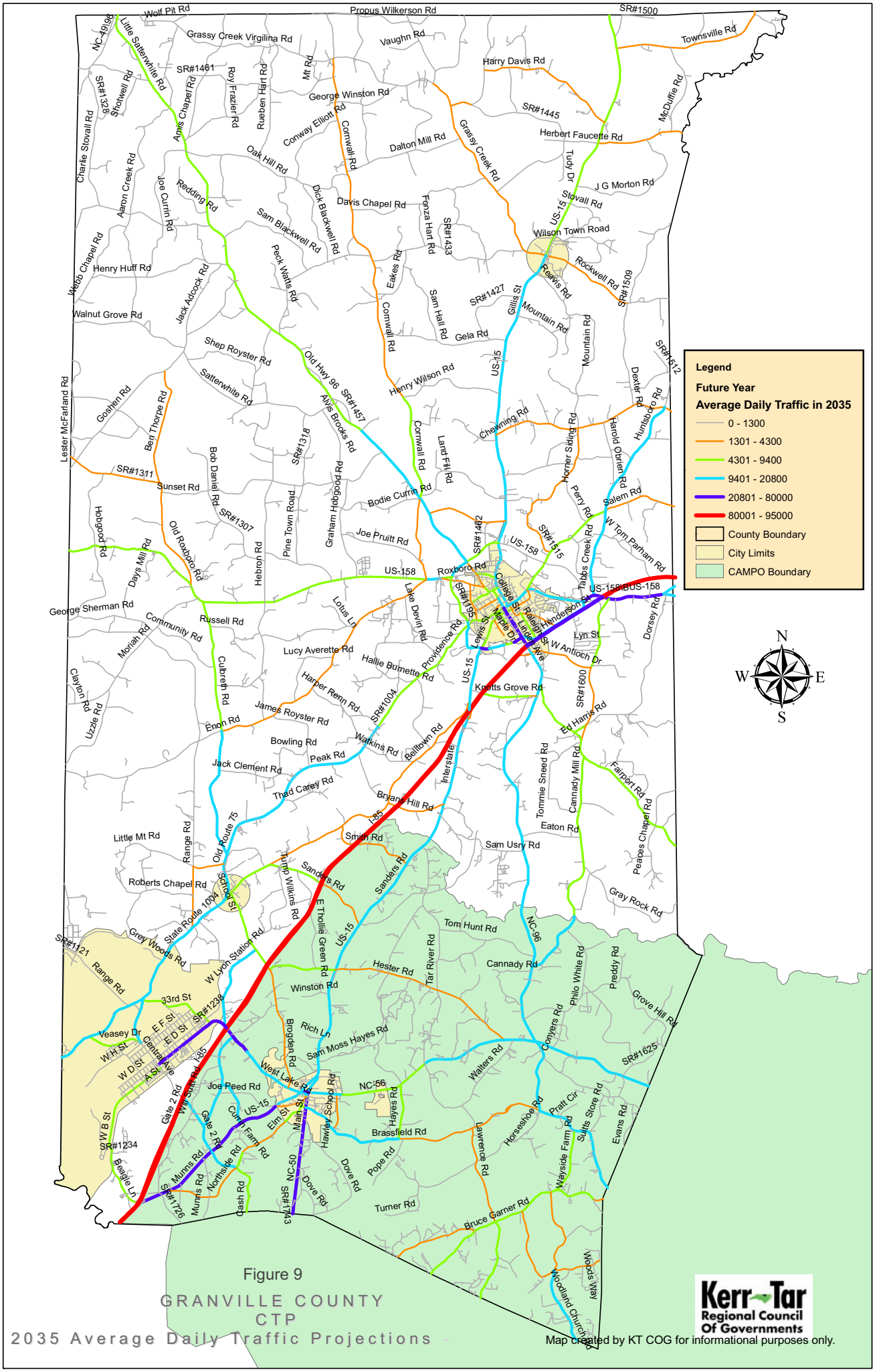


Figure 9

GRANVILLE COUNTY
CTP

2035 Average Daily Traffic Projections

Kerr-Tar Regional Council Of Governments

Map created by KT COG for informational purposes only.

Back of Future Traffic Volume Map

Chapter 4

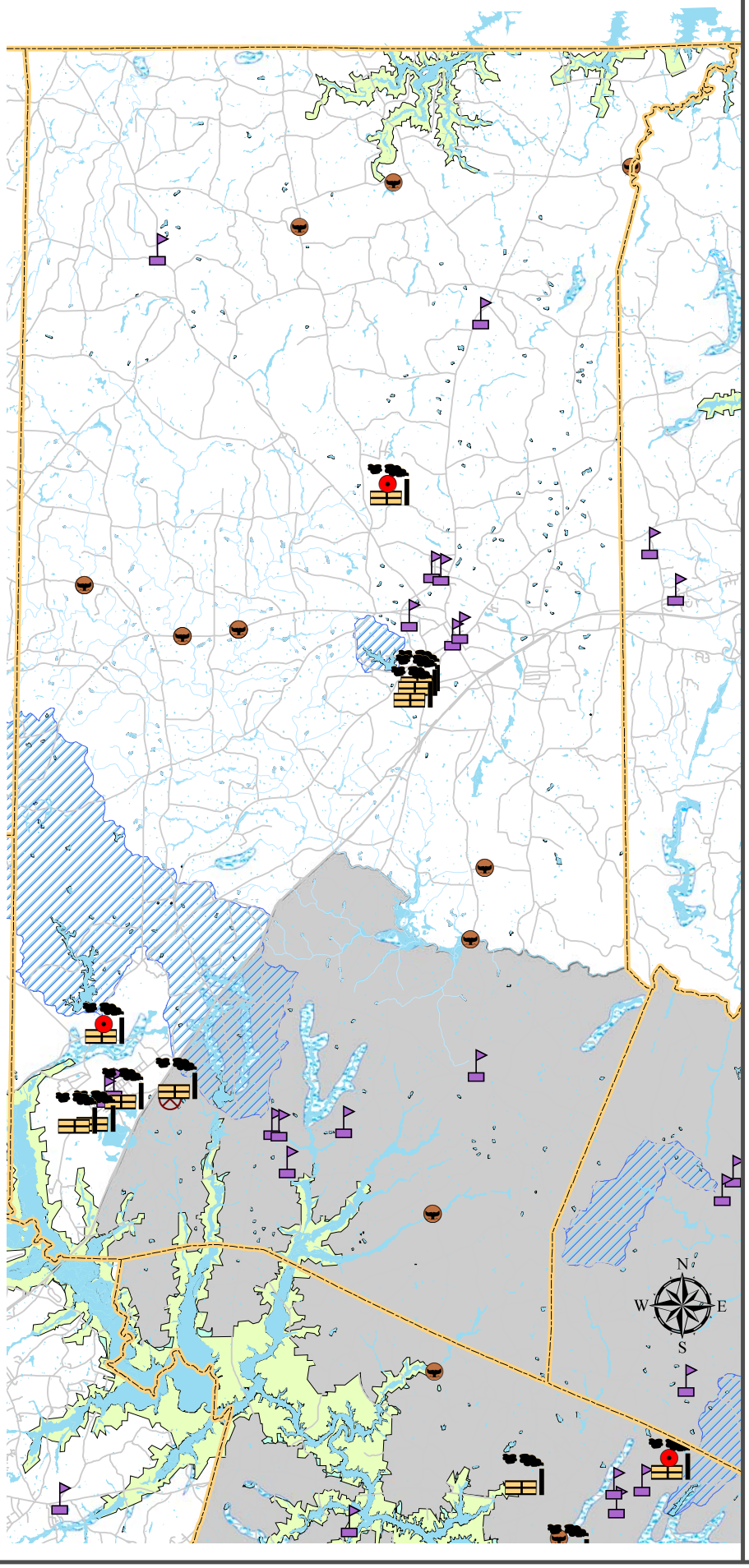
Environmental Screening

In recent years, the human and natural environmental considerations associated with transportation construction have come to the forefront of the planning process. Section 102 of the National Environmental Policy Act (NEPA) requires the completion of an Environmental Impact Statement (EIS) for projects that have a significant impact on the environment. The EIS includes impacts on wetlands, wildlife, water quality, historic properties, and public lands. While this Comprehensive Transportation Plan report does not address these environmental concerns in as much detail as an EIS would, many of these factors were considered during the development of the Comprehensive Transportation Plan and the recommended improvements therein. Prior to implementing any of the transportation projects recommended in this Comprehensive Transportation Plan, further detailed environmental analysis should be necessary. Environmental features found in the area are shown in **Figure 10.**

4.1 Wetlands

Wetlands are areas where water covers the soil, or is present either at or near the surface of the soil all year (or for varying periods of time during the year), including during the growing season. Wetlands are crucial ecosystems in our environment. They help regulate and maintain the hydrology of our rivers, lakes, and streams by storing and slowly releasing floodwaters. Wetlands help maintain the quality of water by storing nutrients, reducing sediment loads, and reducing erosion. They are also critical to fish and wildlife populations by providing an important habitat for approximately one-third of the plant and animal species that are federally listed as threatened or endangered.

The National Wetland Inventory showed several wetlands in the study area as shown in **Figure 10**.



ENVIRONMENTAL FEATURES

Granville County

Comprehensive Transportation Plan

Plan date: 5.22.07

Legend

- Solid Waste Facilities
- AirQuality Pollution Discharge Points
- Public School Locations
- Hazardous Waste Disposal Sites
- Fish Community Sampling Sites
- Aquatic Endangered Species Habitats
- National Wetland Inventory
- State Parks
- Water Polygons
- Restoration Zones
- HighQuality Water Zones
- Groundwater Recharge/Discharge Area
- Triangle_County_Boundaries

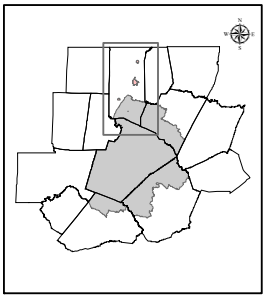


Figure 10

0 2.5 5 Miles

Base map date: 05.22.07

Refer to CTP document for more details

BACK of Environmental MAP

4.2 Threatened and Endangered Species

The Threatened and Endangered Species Act of 1973 allows the U.S. Fish and Wildlife Service to impose measures on the Department of Transportation to mitigate the environmental impacts of a transportation project on endangered animal and plant species, as well as critical wildlife habitats. Locating any rare species that exist within the study area during this early planning stage should help to avoid or minimize impacts.

A preliminary review of the Federally Listed Threatened and Endangered Species in the study area was completed to determine what effects, if any, the recommended improvements may have on wildlife. Mapping from the N.C. Department of Environment and Natural Resources revealed occurrences of threatened or endangered plant and/or animal species in the study area.

There are various sightings of rare plants and animals throughout Granville County. Projects of particular concern with respect to plants and animals include US 15 Widening, US 158 Widening and NC 56 Widening.

A detailed field investigation is recommended prior to construction of any highway project in this area.

4.3 Historic Sites

Granville County has a rich history over which a wealth of structurally and historically significant structures has accumulated. These structures are valuable resources and should be preserved for their aesthetic and cultural significance. An inventory of the historic architecture of the Tar River basin conducted by the North Carolina Division of Archives and History has registered many significant properties in Granville County. Several of these properties are also listed on the National Register of Historic Places and others are under consideration for nomination.

http://www.hpo.ncdcr.gov/nrhome.htm

4.4 Archaeological Sites

The locations of recorded archaeological sites were researched to determine the possible impacts of proposed roadway projects. This initial investigation identified no known archaeological sites within Granville County, but archeological sites are often difficult to identify without actual field excavation. As a result, possible sites may not be identified during the initial planning process and each proposed project should be evaluated individually prior to construction.

4.5 Educational Facilities

The location of educational facilities in the county was considered during the development of the CTP. Granville County has fourteen public schools that serve the county. No proposed transportation facilities or improvements should displace any school or other educational facility. **TABLE 3** provides a list of Educational Facility sites in Granville County.

Table 3: Educational Facilities

School Name	Area	Location
Butner-Stem Elementary	Butner	"D" Street (SR 1113) and Central Avenue (SR 1103)
C.G Credle Elementary	Oxford	College Street (US 15 North)
Creedmoor Elementary	Creedmoor	Creedmoor NC 56
Stovall-Shaw Elementary	Stovall	US 15 North
Toler-Oak Hill Elementary	Oak Hill	NC 96 North
West Oxford Elementary	Oxford	US 158 West and Ivy Day Road (SR 1170)
Wilton Elementary	Wilton	Wilton NC 96 South
Mary Potter Intermediate	Oxford	Oxford Lanier Street and East McClanahan
Butner-Stem Middle	Butner	"D" Street (SR 1113)
G .C. Hawley Middle	Creedmoor	Hawley School Road (SR 1733) and Brassfield Road (SR 1700) (SR 1700)
North Granville Middle	Oxford	Webb School Rd (SR 1453) and Watkins-Wilkinson Road (SR1422)
South Granville High	Creedmoor	NC 56
Webb High	Oxford	Webb School Rd (SR 1453), US 158 Bypass & US 15 North
Granville Central High	Stem	Sanders Road (SR 1132)
Vance-Granville Community College (Main Campus)	Oxford	Poplar Creek Road, Oxford
Vance-Granville Community College (South Campus)	Butner /Creedmoor	144 South Campus Drive, Creedmoor

Chapter 5
Public Involvement

5.1 Overview

Since passage of the Federal Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), the emphasis on public involvement in transportation has taken on a new role. Although public participation has been an element of long-range transportation planning in the past, the regulations from ISTEA (and later TEA-21 in 1998 and SAFETEA-LU in 2005) call for a much more proactive approach. The NCDOT Transportation Planning Branch (TPB) has a long history of making public involvement a key element in the development of any long range transportation plan, no matter the size of the city or town and/or county. This chapter is designed to provide an overview of the public involvement process used in development of Granville County Comprehensive Transportation Plan.

5.2 Study Initiation

In 2003, Granville County requested an update to its 1998 Thoroughfare Plan. The Transportation Planning Branch (TPB) met with the Granville County Planning Board on July 8, 2003 to identify primary transportation concerns and to define the scope of the study. Over the next several years, the County and its municipalities, NCDOT Transportation Planning Branch, Kerr-Tar RPO and Capital Area MPO cooperatively developed this plan.

CTP Committee Meeting

5.3 Public Outreach

Public Drop in session - Oxford

In order to gain local knowledge and opinions, a public outreach component was included in the planning efforts for the Granville County Comprehensive Transportation Plan. Public input was gathered through several different means with the chief efforts being public meetings and opinion surveys.

5.4 Survey

The CTP Committee developed a survey to assess the goals of the community at large, and to gain insight into the opinions of the community regarding transportation issues and options. The survey was distributed in hard copy in English and Spanish throughout the county and made available on the Internet. The results contained in the 430+ responses received have been compiled and used to guide the development of the CTP. For survey results please refer to the website:

http://www.ncdot.org/doh/preconstruct/tpb/planning/granvillecounty.html

5.5 Granville County Transportation Plan Committee

The Granville County Comprehensive Transportation Plan Committee met regularly on the first Tuesday of each month, from August 02, 2005 to December 04, 2007 to discuss the plan and related data. These meetings were open to the public and the press. The CTP Committee was comprised of representatives from each municipality, the County, general public, MPO and RPO and NCDOT staff, the Granville County Planner and elected officials from each municipality in Granville County. The CTP Committee has continued to meet quarterly since the adoption of the plan in July 2008.

GRANVILLE COUNTY
CTP PLANNING COMMITTEE
Members

* Not pictured in photo

Granville County Government
Commissioner Hubert Gooch
*Dudley Watts/*Brian Alligood
*Tommy Currin, Jr.
*Scott Phillips
Barry Baker
Scottie K. Wilkins
*Leon Turner/Jay Tilley
*Angela Oakley

Citizens & Other Members
*Tom Koinis
Johnny Balmer
Jackie Sergent
*Becky Currin

City of Oxford
*Mayor Al Woodleif
*Tommy Marrow/ Mark Dunham
*Larry Thomas

Capital Area MPO
*Ed Johnson
*Diane Wilson
*Jake Petrosky/Robert McCain

Town of Stovall
*Mayor Janet Parrott
*Tonya Sneed

Town of Stem
Mayor Jack Day

City of Creedmoor
*Mayor Darryl Moss
*Tim Karan
Dave Roessler

Town of Butner
*Tom McGee/*Tommy Marrow
*Edgar Smoak/ Tom Lane
Melissa Hodges

NCDOT
Scott Walston
Rupal Desai
*Ellen Beckman

Kerr-Tar RPO
Shelby Powell
Geraldine Dumas

Pictured from left to right: Geraldine Dumas, Mayor Jack Day, Commissioner Hubert Gooch, Shelby Powell, Melissa Hodges, Jackie Sergent, Mark Dunham, Rupal Desai, Jay Tilley, Johnny Balmer, Scott Walston, Tom Lane, Barry Baker, Scottie Cornett-Wilkins, Dave Roessler, Robert McCain.

5.6 Presentations

Public Drop-In Presentation – City of Oxford

The Granville County CTP covers area within the county and its five municipalities; this means that keeping the local boards and planning boards updated on the plan's progress is imperative to developing a plan that meets the needs of each local governments involved. Formal presentations were given at regular board meetings for each local government during the development of the plan. These presentations occurred at the start of the plan development, after capacity deficiencies for the transportation system and had been developed for endorsement/adoption of the plan. For more information please refer to **TABLE 4**.

Table 4: Granville County CTP Presentations from 2005 to 2007

Date	Purpose	Organization	Comments
8/02/05	CTP Meeting	Representatives from Granville County and Cities, NCDOT, RPO, MPO	
10/04/05	CTP Meeting		
11/01/05	CTP Meeting		
11/03/05	Public Survey	Representatives from Granville County and Cities, NCDOT, RPO, MPO	
1/24/06	CTP Meeting		

Date	Purpose	Organization	Comments
2/07/06	CTP Meeting		
3/07/06	CTP Meeting		
5/02/06	CTP Meeting		
6/19/06	CTP Tech Session		
6/26/06	CTP Tech Session		
7/21/06	CTP Tech Session		
8/1/06	CTP Meeting		
8/17/06	CTP Presentation	Granville County Planning Board	Presents Proposed Roads, Capacity Deficiency Maps for Public Input
9/05/06	CTP Presentation	Granville County Commissioners	Presents Proposed Roads, Capacity Deficiency Maps for Public Input
9/12/06	CTP Presentation	Oxford City Council	Presents Proposed Roads, Capacity Deficiency Maps for Public Input
9/18/06	CTP Presentation	Stem Town Council	Presents Proposed Roads, Capacity Deficiency Maps for Public Input
9/20/06	CTP Presentation	Butner Town Council	Presents Proposed Roads, Capacity Deficiency Maps for Public Input
9/26/06	CTP Presentation	Creedmoor City Council	Presents Proposed Roads, Capacity Deficiency Maps for Public Input
10/02/06	CTP Presentation	Stovall Town Council	Presents Proposed Roads, Capacity Deficiency Maps for Public Input
10/03/06	CTP Meeting		
11/08/06	Public Involvement	Creedmoor Planning Board	
11/14/06	CTP Meeting		
12/05/06	CTP Meeting		
12/13/06	Public Involvement	One-on-One Meeting with Stovall	To get input on recommendation
1/30/07	Public Involvement	One-on-One Meeting with Creedmoor	To get input on recommendation
2/06/07	CTP Meeting		
2/09/07	Public/Private Input		Mill ridge to Creedmoor Loop Road
2/10/07	County Commissioner Retreat	Update on CTP Plan Progress	
3/06/07	Public Involvement	One-on-One Meeting with Butner	To get input on recommendation
4/3/07	Public Involvement	One-on-One Meeting with Butner	To get input on recommendation

Date	Purpose	Organization	Comments
4/03/07	CTP Meeting		
4/25/07	CTP Tech Session		
4/27/07	Public Involvement	One-on-One Meeting with Oxford	To get input on recommendation
5/1/07	CTP Meeting		
5/21/07	Granville County Homebuilder Association	Creedmoor	Presentation/updates/CTP input
6/05/07	CTP Meeting		
6/22/07	CTP Tech Session		
6/27/07	CTP Tech Session		
7/09/07	Public Input	Granville County Commissioners	Update on CTP Plan
7/10/07	CTP Meeting		
7/18/07	CTP Public Involvement Session (Creedmoor)		
7/23/07	CTP Public Involvement Session (Butner)		
7/30/07	CTP Tech Session		
8/27/07	CTP Tech Session		
8/29/07	CTP Tech Session		
09/06/07	CTP Plan Adoption Presentation	City of Butner	
09/10/07	CTP Plan Adoption Presentation	Town of Stovall	
09/11/07	CTP Plan Adoption Presentation	City of Oxford	
09/17/07	CTP Plan Adoption Presentation	Town of Stem	
09/25/07	CTP Plan Adoption Presentation CTP Plan Adoption Presentation	City of Creedmoor	
10/01/07	CTP Plan Adoption Presentation	Granville County	
11/19/07	CTP Plan Adoption Presentation	Kerr Tar RPO	
12/19/07	CTP Plan Adoption Presentation	Capital Area MPO	

5.7 Website

As the CTP was being developed, updates were made available to the public on websites housed at NCDOT, the MPO and the RPO. These updates included maps, data, meeting reports, and other important information. For more information on CTP maps and other information, please refer to the website:

http://www.ncdot.org/doh/preconstruct/tpb/planning/granvillecounty.html

5.8 Public Drop-in Sessions

Two Public Workshops were held during development of the Comprehensive Transportation Plan to discuss proposed recommendations. During these public drop-in sessions, public input was taken in the form of map markups and comments and through discussions between citizens and CTP Committee members. The first drop-in session was held on July 18, 2007 at the Granville Co. South Campus Administration Building (Vance-Granville Community College Campus) in the Butner/Creedmoor area. The second workshop was held on July 23, 2007 in the Oxford area at the Oxford Public Works Building on McClanahan Street to target citizens in the northern part of the county.

These workshops opened with a brief overview of the comprehensive transportation planning process, followed by discussion of the County's goals and objectives, results of the analysis of existing traffic conditions, and based on the projected future traffic conditions, recommendations on the highway, bike and transit elements of the county's plan. After the formal presentation, the public was invited to write comments on the maps. Representatives from the County, Kerr-Tar RPO, Capital Area MPO and the NCDOT were available to explain the proposed recommendations and answer questions. Attendees were encouraged to provide comments on each Comprehensive Transportation Plan element on comment sheets.

For a list of attendees at the public drop-in sessions, a summary of questions /responses, and the results of the public involvement effectiveness survey please refer to the website:

http://www.ncdot.org/doh/preconstruct/tpb/planning/granvillecounty.html

Chapter 6
Conclusion

Granville County is a growing county. Improvements to the County's transportation system should be necessary over the next 30 years to keep pace with this growth. It is the responsibility of the County, its municipalities and the Capital Area Metropolitan Planning Organization (CAMPO) to take the initiative for implementation of this Comprehensive Transportation Plan. It is imperative that the local area aggressively pursues funding for desired projects. Any questions regarding funding, active projects, planning, and alternative modes of transportation should be addressed to the appropriate Branch of NCDOT. **Appendix A** includes contact information for many of these Branches. If, as time passes, revisions are required for any element of this Comprehensive Transportation Plan, all the transportation elements should also be reviewed for potential impacts. Prior to implementation of specific transportation projects, additional public involvement, traffic analysis, and analysis of impacts to the natural/human environment should be conducted as part of the project planning process. The Project Development and Environmental Analysis Branch (PDEA) branch of NCDOT is responsible for project planning.

6.1 Implementation Efforts

Below are some of the ongoing efforts that have resulted of the CTP process.

- Granville County CTP Committee should meet quarterly to discuss the maintenance of this plan, including periodic updates.
- Old Thoroughfare Plans are no longer valid for Granville County or any of its municipalities.
- Granville County and its municipalities should consider adopting measures to protect Right-of-Way for improvements recommended in this plan. When appropriate, consider requiring Traffic Impact Analysis and recommended improvements for major developments.
- This plan was developed to be consistent with all county and municipal land use plans. Future updates to those plans or this plan should consider the recommendations outlined in this CTP to maintain that consistency.
- Development review procedures within the count and municipalities should consider the recommendations outlined in this CTP.
- Granville County and its municipalities should remain active members of the RPO/MPO in order to advance project priorities on the State TIP and other plans.
- Granville County and its municipalities should actively pursue any available grant funds such as CMAQ, Transportation Enhancement, Spot Safety, etc., in order to expedite the implementation of the projects outlined in this CTP.
- Granville County CTP Plan update process is outlined in **Appendix E**.

APPENDIX A

NCDOT
Contacts

Appendix A: NCDOT Contacts

North Carolina Department of Transportation

Customer Service Office
1-877-DOT4YOU
(1-877-368-4968)

Secretary of Transportation
1501 Mail Service Center
Raleigh, NC 27699-1501
(919) 733-2520

Board of Transportation Member
Contact Information for the current Board of Transportation member may be accessed from the NCDOT homepage on the Internet at:
http://www.ncdot.org/about/board/agenda.html

Centralized Personnel

TRANSPORTATION PLANNING BRANCH Contact the Transportation Planning Branch with long-range planning questions.	**1554 Mail Service Center Raleigh, NC 27699-1554 (919) 733-4705 (919) 733-2417 Fax**
SECONDARY ROADS OFFICE Contact the Secondary Roads office for information regarding the Industrial Access Funds Program, information about paving priorities, or how to get a road added to the state maintained system.	**1535 Mail Service Center Raleigh, NC 27699-1535 (919) 733-3520**
PROGRAM DEVELOPMENT BRANCH Contact the Program Development Branch for information about current TIP projects, or the current Roadway Official Corridor Maps.	**1534 Mail Service Center Raleigh, NC 27699-1534 (919) 733-2039 (919) 733-3585 Fax**
GEOGRAPHIC INFORMATION SYSTEMS UNIT (GIS) Contact GIS to order County Road maps and for other available maps. Online ordering available at: http://www.ncdot.org/it/gis/	**New Hope center 4101 Capital Boulevard Raleigh, NC 27604 (919) 707-2152 (919) 707-2214 Fax**

Highway Division 5

The following table lists the appropriate NCDOT Division and District contact information for Granville County. All questions or requests for construction, operations and maintenance should be forwarded to the appropriate sections within the Division.

DIVISION ENGINEER Contact the Division Engineer with general questions concerning NCDOT activities within Division 5.	**2612 N Duke Street Durham, NC 27704 (919) 220-4600**
DIVISION CONSTRUCTION ENGINEER Contact the Division Construction Engineer for information concerning major roadway improvements under construction.	**2612 N Duke Street Durham, NC 27704 (919) 220-4600**
DIVISION TRAFFIC ENGINEER Contact the Division Traffic Engineer for information concerning high-collision locations.	**2612 N Duke Street Durham, NC 27704 (919) 220-4600**
DISTRICT ENGINEER Contact the District Engineer for information regarding Driveway Permits, Right of Way Encroachments, and Development Reviews.	**815 Stadium Drive Durham, 27704-2713 (919)220-4750**
COUNTY MAINTENANCE ENGINEER Contact the County Maintenance Engineer with any maintenance activities, such as drainage, re-paving, dead animals, or roadway conditions.	**5674 Cornwall Rd. Oxford, 27565 (919)-693-8164**

APPENDIX B

Comprehensive Transportation Plan Definitions

Appendix B: Comprehensive Transportation Plan Definitions

Definitions for Categories

Highway Map

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/High Occupancy Transit 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 feet or for 350 feet plus 650 feet 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 – High Occupancy Vehicle 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 feet; 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 *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
- 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 with center turn lane sections (as permitted by the *Driveway Manual*)

Minor Thoroughfares

- Functional purpose – balanced mobility and access, moderate volume, low to medium speed
- Posted speed – 25 to 45 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 *Driveway Manual*

Definitions

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

- No Control of Access – Connections to a facility provided via ramps at interchanges, at-grade intersections, and private driveways.

Public Transportation and Rail Map

- Bus Routes – The primary fixed route bus system for the area. Does not include demand response systems.
- Fixed Guide way – 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, also includes plane, cable car, automated Guide way transit, and ferryboats.
- Operational Strategies – Plans geared toward the non-single occupant vehicle. This includes but is not limited to High Occupancy Vehicle (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 corridors 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 public transportation meets such as where light rail and a bus route come together in one location or a bus station.
- Park and Ride Lot – A strategically located parking lot that is free of charge to anyone who parks a vehicle and commutes by transit or in a carpool.

Bicycle Map

On-Road

- Existing – Conditions for bicycling on the highway facility are adequate to safely accommodate cyclists.
- Needs Improvement – At the systems level, it is desirable for the highway facility to accommodate bicycle transportation; however, highway improvements are necessary to create safe travel conditions for the cyclists.
- 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 bicycle transportation (may also accommodate pedestrians, i.e. a greenway) and is physically separated from a highway facility usually on a separate right-of-way.
- Needs Improvement – A facility that accommodates bicycle transportation (may also accommodate pedestrians, e.g. greenways) and is physically separated from a highway facility usually on a separate right-of-way that should not adequately serve future bicycle needs. Improvements may include but are not limited to widening, paving (not re-paving), and improved horizontal or vertical alignment.
- Recommended – A facility needed to accommodate bicycle transportation (may also accommodate pedestrians, e.g. greenways) and is physically separated from a highway facility usually on a separate right-of-way. This may also include greenway segments that do not necessarily serve a transportation function but intersect recommended facilities on the highway map or public transportation and rail map.

Miscellaneous Definitions

CTP – Comprehensive Transportation Plan
MPO- Metropolitan Planning Organization
RPO- Rural Planning Organization
TIP- Transportation Improvement Program
MTIP – Metropolitan Transportation Improvement Program
NI- Needs Improvement
SR –State Route
AQ – Air Quality

APPENDIX C

Comprehensive
Transportation Plan
Project Proposal
Spreadsheet
And
Roadway Inventory

GRANVILLE COUNTY STREET APPENDIX

FACILITY & SECTION			EXISTING CONDITIONS						RECOMMENDATIONS	
			DIST	RDWY	ROW	NUMBER OF	CURRENT CAPACITY	2004	CROSS SECTION	2035
	from:	to:	MI	FT	FT	LANES	VPD	AADT		AADT
I-85										
I-85	Durham Co.	Creedmore SPB	x	48	350	4	43300	32000	A6	84400
I-85	Creedmore SPB	SR1103	0.43	48	350	4	43300	39000	A6	95000
I-85	SR 1103	NC 56	2.31	48	350	4	43300	39000	A6	84500
I-85	NC 56	NPB	1.51	48	400	4	43300	34000	A6	84500
i-85	NPB	CAMPO MAB	x	48	400	4	43300	30000	A6	84500
I-85	CAMPO MAB	NC 96	x	48	280	4	43300	28000	A6	80400
I-85	NC 96	US 158	2.00	48	280	4	43300	28000	A6	72500
I-85	US 158	Vance Co.	x	48	340	4	43300	33000	A6	90500
US 15 (Durham Ave., Lewis St., Hillsboro St., College St.)										
US 15	I-85	SR 1728	2.30	24	x	2	7600	6500	B1	22000
US 15	SR 1728	SR 1109	1.10	24	x	2	7600	5100	B1	22000
US 15	SR 1109	Creedmoor SCL	1.08	21	100	2	7600	4900	B1	22000
US 15 (Durham Ave.)	Creedmoor SCL	NC 56	0.77	21	100	2	7600	4900	B1	17500
US 15/NC 56 (Durham Ave.)	NC 56	NC 50-56	0.06	24	90	2	9800	13000	B1	17500
US 15 (Durham Ave.)	NC 50	Creedmoor NCL	0.76	21	x	2	7600	2900	B1	11000
US 15	Creedmoor NCL	NPB	0.14	24	100	2	9800	4900	B1	11000
US 15	NPB	SR 1132	4.00	24	x	2	9800	3900	B1	11000
US 15	SR 1132	CAMPO MAB	3.00	24	x	2	9800	4100	B1	18600
US 15	CAMPO MAB	I-85	3.80	24	100	2	9800	5700	B1	14800
US 15	I-85	Oxford SCL	1.40	24	90	2	9800	7200	B1	18500
US 15	Oxford SCL	SR 1646	0.34	24	90	2	9800	7400	B1	14800
US 15 (Lewis St.)	SR 1646	SR 1004	1.07	24	90	2	8500	4000	B1	7300
US 15 (Hillsboro St.)	SR 1004	NC 96	0.35	60	x	4	20000	5300	B1	7600
US 15/NC 96 (Hillsboro St.)	NC 96	US 158 Bus.	0.14	x	x	4	20000	9700	B1	14000
US 15-158 Bus./NC 96 (College St.)	US 158 Bus.	NC 96	0.56	50	60	2	9800	10000	B1	14500
US 15 (College St.)	NC 96	US 158	1.59	x	x	2	9800	6700	B1	12000
US 15	US 158	SR1426	1.00	22	60	2	7600	6600	B1	18400
US 15	SR 1426	SR 1430	2.60	22	60	2	7600	4500	B1	11400
US 15	SR 1430	SR 1445	3.40	22	60	2	7600	3200	B1	5500
US 15	SR 1445	Virginia	3.58	22	60	2	7600	2900	B1	6500

GRANVILLE COUNTY STREET APPENDIX

FACILITY & SECTION			EXISTING CONDITIONS						RECOMMENDATIONS	
			DIST	RDWY	ROW	NUMBER OF	CURRENT CAPACITY	2004	CROSS SECTION	2035
	from:	to:	MI	FT	FT	LANES	VPD	AADT		AADT
US 158 (Oxford Outer Loop)										
US 158	Person Co.	SR 1146	2.40	20	80	2	7200	2000	MODI F2	5500
US 158	SR 1146	SR 1303	x	20	80	2	7200	3700	MODI F2	7400
US 158	SR 1303	SR 1300	2.26	20	60	2	7200	4400	MODI F2	8900
US 158	SR 1300	SR 1170	0.40	24	60	2	7200	4300	MODI F2	15700
US 158	SR 1170	SR 1195	0.23	21	60	2	7200	4300	MODI F2	9300
US 158 (Oxford Outer Loop)	SR 1195	NC 96	0.70	21	60	2	7200	5600	MODI F2	7400
US 158 (Oxford Outer Loop)	NC 96	US 15	0.55	21	60	2	7600	5500	MODIF2	8500
US 158	US 15	SR 1522	1.37	21	60	2	9800	x	MODI E2	32900
US 158	SR 1522	US 158 Bus	1.38	22	60	2	9800	x	MODI E2	33700
US 158	US 158 Bus	I-85	0.50	24	60	2	9800	13000	MODI E2	41000
US 158	I-85	US 158 Bus	0.30	24	100	2	9800	7000	MODI E2	45600
US 158	US 158 Bus	Vance Co.	0.30	24	200	2	7600	3400	MODI E2	10200
US 158 Business (Roxboro Rd., College St., Williamsboro St.)										
US 158 Bus. (Roxboro Rd.)	US 158	NC 96	x	x	x	x	x	2500	MODI E2	x
US 158 Bus./NC 96 (Roxboro Rd.)	NC 96	US 15	0.55	21	x	2	7200	3900	MODI E2	5300
See US 15 (College St.)	*US 15*	*US 15*	x	x	x	x	x	x	MODI E2	x
US 158 Bus. (Williamsboro St.)	US 15	SR 1602	0.09	62	80	2	9500	5700	MODI E2	12600
US 158 Bus. (Williamsboro St.)	SR 1602	Military Rd.	0.45	62	80	2	9800	5700	MODI E2	13000
US 158 Bus. (Williamsboro St.)	Military Rd.	SR 1522	0.14	24	60	2	9800	5700	MODI E2	13000
US 158 Bus. (Williamsboro St.)	SR 1522	US 158	x	24	60	2	9800	5600	MODI E2	14000
US 158 Business	US 158	Vance Co.	x	22	100	2	9800	3900	MODI F2	15900
NC 49										
NC 49	Person Co.	NC 96	1.58	20	60	2	7200	960	B1	1200
NC 49-96	NC 96	Virginia	0.18	20	60	2	7200	2300	B1	5400
NC 50 (South Main St., West Wilton Ave.)										
NC 50	Wake Co.	Creedmoor SCL	2.40	22	60	2	7600	7100	MODI B1	30000
NC 50 (South Main St.)	Creedmoor SCL	SR 1700	0.43	21	60	2	7400	7900	MODI B1	33400
NC 50 (South Main St.)	SR 1700	NC 56	0.42	38	60	2+parking	7400	11000	MODI B1	30900
NC 50-56 (West Wilton Ave.)	NC 56	US 15	0.20	22	60	2	7600	7600	MODI B1	21600

GRANVILLE COUNTY STREET APPENDIX

FACILITY & SECTION			EXISTING CONDITIONS						RECOMMENDATIONS	
			DIST	RDWY	ROW	NUMBER OF	CURRENT CAPACITY	2004	CROSS SECTION	2035
	from:	to:	MI	FT	FT	LANES	VPD	AADT		AADT
NC 56 (West Lake Rd., Durham Ave., West Wilton Ave., East Wilton Ave.)										
NC 56	SR 1103	SR 1215	2.20	24	60	2	8500	15000	B1	29000
NC 56	SR 1215	SR 1108	0.40	40	60	3	9800	16000	B1	30000
NC 56	SR 1108	Capital Dr.	0.51	31	60	3	7600	10000	B1	25500
NC 56	Capital Dr.	Pond Dr.	0.10	21	60	2	7400	10000	B1	25500
NC 56	Pond Dr.	Mill Stream Cir.	0.10	31	60	3	7600	10000	B1	25500
NC 56	Mill Stream Cir.	Creedmoor WCL	0.69	21	60	2	7400	10000	B1	12900
NC 56 (West Lake Rd.)	Creedmoor WCL	SR 1127	0.64	21	60	2	7400	10000	B1	12900
NC 56 (West Lake Rd.)	SR 1127	US 15	0.34	21	60	2	7400	13000	B1	16700
See US 15/NC 56 (Durham Ave.)	*US 15*	*US 15*	0.06	21	60	2	7400	x	B1	x
See NC 50-56 (West Wilton Ave.)	*US 15*	*NC 50*	0.21	20	60	2	7200	x	B1	x
NC 56 (East Wilton Ave.)	NC 50	SR 1640	0.77	22	60	2	7600	9800	B1	20800
NC 56 (East Wilton Ave.)	SR 1640	Creedmoor ECL	1.40	22	60	2	7600	9800	B1	7300
NC 56	Creedmoor ECL	SR 1636	0.35	22	60	2	7600	6700	B1	8600
NC 56	SR 1636	SR 1635	0.84	22	60	2	7600	6700	B1	8600
NC 56	SR 1635	NC 96	3.00	24	80	2	7600	4900	B1	16500
NC 56	NC 96	SR 1625	0.70	24	80	2	7600	5200	B1	16500
NC 56	SR 1625	Franklin Co.	2.60	24	80	2	7600	4400	B1	17200
NC 96 (Linden Ave., Hillsboro St., College St., Roxboro Rd., Little Satterwhite Rd.)										
NC 96	Franklin Co.	SR 1711	1.98	20	60	2	7400	3900	B1	10000
NC 96	SR 1711	SR 1709	1.16	20	60	2	7400	4800	B1	15000
NC 96	SR 1709	NC 56	1.98	24	80	2	8500	4600	B1	12000
NC 96	NC 56	CAMPO MAB	4.00	24	80	2	8500	4100	B1	10000
NC 96	CAMPO MAB	SR 1608	6.00	24	60	2	8500	3100	B1	10000
NC 96	SR 1608	SR 1609	0.25	32	80	2	8500	5200	B1	19500
NC 96	SR 1609	SR 1606	0.91	32	80	2	8500	7300	B1	13800
NC 96 (Linden Ave.)	SR 1606	I-85	0.23	52	80	4	8500	11000	B1	18800
NC 96 (Linden Ave.)	I-85	SR 1646	0.26	52	200	4	8500	17000	B1	43000
NC 96 (Linden Ave.)	SR 1646	Mimosa St.	0.43	52	80	4	8500	13000	B1	30000
NC 96 (Linden Ave.)	Mimosa St.	SR 1207	0.38	35	60	2	8500	13000	B1	28000
NC 96 (Linden Ave.)	SR 1207	US 15	0.11	40	80	2	8500	13000	B1	23600
See US 15/NC 96 (Hillsboro St.)	*US 15*	*US 158 Bus.*	x	x	x	x	x	x	x	x
See US 15-158 Bus./NC 96 (College	*US 158 Bus.*	*US 15*	x	x	x	x	x	x	x	x
See US 158 Bus./NC 96 (Roxboro R	*US 15*	*US 158 Bus.*	x	x	x	x	x	x	x	x

GRANVILLE COUNTY STREET APPENDIX

FACILITY & SECTION			EXISTING CONDITIONS						RECOMMENDATIONS	
			DIST	RDWY	ROW	NUMBER OF	CURRENT CAPACITY	2004	CROSS SECTION	2035
	from:	to:	MI	FT	FT	LANES	VPD	AADT		AADT
NC 96 (Little Satterwhite Rd.)	US 158 Bus.	US 158	0.99	24	100	2	9800	3300	B1	3800
NC 96 (Little Satterwhite Rd.)	US 158	SR 1422	2.30	24	100	2	9800	5300	B1	11500
NC 96 (Little Satterwhite Rd.)	SR 1422	SR 1300	1.00	24	100	2	9800	6100	B1	18500
NC 96 (Little Satterwhite Rd.)	SR 1300	SR 1458	2.41	24	100	2	9800	3800	B1	11500
NC 96 (Little Satterwhite Rd.)	SR 1458	SR 1324	5.90	24	100	2	9800	2400	B1	6000
NC 96 (Little Satterwhite Rd.)	SR 1324	SR 1332	5.59	20	60	2	7200	2300	B1	4500
NC 96 (Little Satterwhite Rd.)	SR 1332	NC 49	1.90	20	60	2	7200	1300	B1	5000
SR 1004 (Old Route 75, Providence Rd., Hillsboro St.)										
Old Route 75	Durham Co.	Stem SCL	6.12	25	60	2	9500	3300	MODI B1	18000
Old Route 75	Stem SCL	Stem NCL	1.12	21	60	2	7600	1900	MODI H1	13000
Old Route 75	Stem NCL	SR 1138	1.00	25	60	2	9500	4800	MODI B1	13000
Old Route 75	SR 1138	SR 1159	2.20	25	60	2	8500	2200	MODI B1	10000
Providence Rd.	SR 1159	SR 1157	3.47	25	100	2	9500	2200	MODI B1	10000
Providence Rd.	SR 1157	SR 1161	1.60	25	100	2	9500	2200	MODI B1	7500
Providence Rd.	SR 1161	SR 1162	0.88	24	60	2	7400	2200	MODI B1	5500
Providence Rd.	SR 1162	SR 1164	0.86	24	60	2	8500	2700	MODI B1	5500
Hillsboro St.	SR 1164	SR 1195	0.30	24	60	2	8500	2700	MODI B1	6500
Hillsboro St.	SR 1195	SR 1166	0.17	21	60	2	9500	4500	MODI B1	6000
Hillsboro St.	SR 1166	SR 1169	0.27	20	50	2	9500	4500	MODI B1	6000
Hillsboro St.	SR 1169	US 15	0.43	36	45	2	9500	4500	MODI B1	6000
SR 1100 (W B St.)										
W B St.	I-85	Southern RR	1.74	22	60	2	7600	510	B1	5500
W B St.	Southern RR	SR 1103	2.79	36	80	3	7600	510	B1	5500
SR 1103 (Gate 2 Rd., Central Ave.)										
Gate 2 Rd.	US 15	SR 1104	0.70	21	60	2	7400	4700	B1	12000
Gate 2 Rd.	SR 1104	I-85	0.90	x	x	x	7600	2700	B1	12000
Central Ave.	I-85	SR 1117	x	22	100	2	7600	x	B1	x
SR 1104 (East Lyon Station Rd.)										
East Lyon Station Rd.	SR 1103	SR 1109	1.20	20	60	2	8500	2400	MODI B1	15000
East Lyon Station Rd.	SR 1109	SR 1106	0.50	20	60	2	8500	2400	MODI B1	15000
East Lyon Station Rd.	SR 1106	SR 1108	0.20	20	60	2	8500	2400	MODI B1	15000

GRANVILLE COUNTY STREET APPENDIX

FACILITY & SECTION			EXISTING CONDITIONS						RECOMMENDATIONS	
			DIST	RDWY	ROW	NUMBER OF	CURRENT CAPACITY	2004	CROSS SECTION	2035
	from:	to:	MI	FT	FT	LANES	VPD	AADT		AADT
SR 1108 (East Lyon Station Rd.)										
East Lyon Station Rd.	SR 1104	NC 56	0.65	20	60	2	8500	4300	MODI B1	15000
SR 1109 (W B Clark Rd.)										
W B Clark Rd.	SR 1104	US 15	1.30	20	60	2	7400	7400	MODI H1	10000
SR 1110 (Hillsboro St./Joe Peed Road)										
Hillsborough St.	US 15	Ward St.	0.15	20	60	2	7200	1700	MODI H1	4300
Hillsborough St.	Ward St.	SR 1724	0.52	20	60	2	7200	1700	MODI H1	4300
Joe Peed Road	Proposed Creedmoor loop		x	20	60	2	7200	x	MODI H1	x
Joe Peed Road	Creedmoor loop	SR 1110	x	20	60	2	7200	341	MODI H1	900
SR 1112 (33rd St.)										
33rd St.	NC 56	SR 1004	2.14	24	60	2	7600	4700	MODI H1	7500
SR 1120 (Veasey Rd.)										
Veasey Rd.	SR 1004	SR 1174	1.38	22	60	2	7600	2900	MODI H1	5800
SR 1121 (Range Rd.)										
Range Rd.	SR 1004	Durham Co.	2.38	20	60	2	7200	x	MODI H1	761
SR 1126 (Range Rd.)										
Range Rd.	SR 1137	SR 1004	1.66	20	x	2	7200	1700	MODI H1	4100
SR 1127 (Stem Rd., Brogden Rd., Creedmoor Rd., Main St.)										
Stem Rd.	NC 56	Creedmoor NCL	0.24	20	60	2	7200	1300	MODI H2	2000
Brogden Rd.	Creedmoor NCL	CAMPO MAB	x	20	x	2	7200	1100	MODI H2	2000
Creedmoor Rd.	CAMPO MAB	SR 1132	x	24	x	2	7400	4500	MODI H2	6000
Main St.	SR 1132	SR 1004	1.95	20	x	2	7200	3200	MODI H2	6000

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			DIST	RDWY	ROW	NUMBER OF	CURRENT CAPACITY	2004	CROSS SECTION	2035
	from:	to:	MI	FT	FT	LANES	VPD	AADT		AADT
SR 1129 (Hester Rd.)										
Hester Rd.	SR 1127	US 15	1.82	20	x	2	7200	1500	MODI F2	5700
Hester Rd.	US 15	SR 1636	1.42	20	x	2	7200	1300	MODI F2	4000
Hester Rd.	SR 1636	SR 1635	1.38	20	x	2	7200	1000	MODI F2	3100
Hester Rd.	SR 1635	Cannady Rd.	0.66	20	x	2	7200	840	MODI F2	3400
Hester Rd.	Cannady Rd.	NC 56	1.64	20	x	2	7200	860	MODI F2	3400
SR 1132 (Sanders Rd., Tally Ho Rd.)										
Sanders Rd.	US 15	I-85	1.50	20	60	2	7200	650	MODI H2	2400
Sanders Rd.	I-85	SR 1133	1.50	20	60	2	7200	2100	MODI H2	4700
Sanders Rd.	SR 1133	Stem ECL	0.76	20	60	2	7600	2100	MODI H2	4700
Tally Ho. Rd.	Stem ECL	SR 1127	0.52	20	60	2	7600	2100	MODI H2	9000
Tally Ho. Rd.	SR 1127	SR 1004	0.28	20	60	2	7600	1500	MODI H2	4800
SR 1133 (Brooks Rd.)										
Brooks Rd	US 15	SR 1161	1.60	20	60	2	7200	1700	MODI H2	4200
Brooks Rd.	SR 1161	SR 1132	5.50	20	60	2	7200	1400	MODI H2	4200
SR 1135 (Smith Rd.)										
Smith Rd.	US 15	I-85	1.60	20	60	2	7200	710	MODI H2	3000
Smith Rd.	I-85	SR 1133	0.70	20	60	2	7200	710	MODI H2	3000
SR 1137 (Little Mountain Rd.)										
Little Mountain Rd.	SR 1004	SR 1126	0.75	20	x	2	7200	490	B1	1500
SR 1138 (Culbreth Rd.)										
Culbreth Rd.	US 158	SR 1139	3.54	24	60	2	7600	1300	B1	6000
Culbreth Rd.	SR 1139	SR 1004	3.50	20	60	2	7200	2100	B1	9800
SR 1139 (Enon Rd.)										
Enon Rd.	US 158	SR 1164	0.73	21	60	2	7400	1400	MODI H2	3600
Enon Rd.	SR 1164	SR 1156	5.00	20	60	2	7200	990	MODI H2	3000
Enon Rd.	SR 1156	SR 1138	1.40	20	60	2	7200	1100	MODI H2	3900
Enon Rd.	SR 1138	Person County	4.70	20	60	2	6500	x	MODI H2	300

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			DIST	RDWY	ROW	NUMBER OF	CURRENT CAPACITY	2004	CROSS SECTION	2035
	from:	to:	MI	FT	FT	LANES	VPD	AADT		AADT
SR 1160 (Overton Rd)										
Overton Rd	SR 1133	SR 1004	2.18	20	60	2	7200	680	MODI H2	1300
SR 1162 (Hallie Burnette Rd.)										
Hallie Burnette Rd.	SR 1163	SR 1004	0.68	20	60	2	7400	140	MODI H2	450
SR 1163 (Burnette Rd.)										
Burnette Rd.	SR 1164	SR 1162	0.19	20	60	2	6500	150	MODI H2	400
SR 1164 (Lake Devin Rd.)										
Lake Devin Rd.	SR 1139	SR 1163	1.24	20	60	2	7800	450	MODI H2	1000
Lake Devin Rd.	SR 1163	SR 1004	1.60	20	60	2	x	470	MODI H2	1100
SR 1167 (Country Club Rd.)										
Country Club Rd.	SR 1170	SR 1004	1.00	20	60	2	6500	630	MODI H2	2000
SR 1170 (Ivey Day Rd., Goshen St.)										
Ivey Day Rd.	US 158	SR 1167	0.78	22	60	2	9300	1800	B1	4000
Ivey Day Rd.	SR 1167	Goshen St.	0.40	18	60	2	7600	1200	B1	3300
Goshen St.	Goshen St.	SR 1232	0.58	20	50	2	8500	3900	B1	5500
SR 1174 (Veasey Rd.)										
Veasey Rd.	SR 1103	SR 1120	0.10	22	60	2	9500	x	MODI H2	7000
SR 1192 (Bryant Hill Rd)										
Bryant Hill Rd	US 15	I 85	1.40	24	60	2	9500	510	MODI H2	1400
Bryant Hil Rd	I 85	SR 1133	0.20	22	60	2	9500	510	MODI H2	1400
SR 1195 (Industry Dr., Oxford Outer Loop)										
Industry Dr.	US 15	SR 1225	0.36	24	60	2	9500	8900	B1	14600
Industry Dr.	SR 1225	SR 1004	0.63	24	60	2	9500	6700	B1	12800
Oxford Outer Loop	SR 1004	SR 1166	1.30	28	60	2	7300	6700	MODI E2	10000
Oxford Outer Loop	SR 1166	US 158	0.09	40	100	3	8500	5500	MODI E2	6500

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FACILITY & SECTION			EXISTING CONDITIONS						RECOMMENDATIONS	
			DIST	RDWY	ROW	NUMBER OF	CURRENT CAPACITY	2004	CROSS SECTION	2035
	from:	to:	MI	FT	FT	LANES	VPD	AADT		AADT
SR 1206 (Broad St.)										
Broad St.	SR 1232	Cherry St.	0.25	40	50	2	9300	2820	MODI H1	7000
Broad St.	Cherry St.	US 15	0.29	40	50	2	9300	8220	MODI H1	14000
SR 1207 (Spring St.)										
Spring St.	SR 1602	NC 96	0.17	64	80	2	9500	5500	MODI H1	7300
Spring St.	NC 96	Orange St.	0.17	48	65	4	9500	3610	MODI H1	6300
Spring St.	Orange St.	US 15	0.14	48	65	4	9500	3610	MODI H1	6300
Spring St.	US 15	SR 1004	0.19	48	65	4	9500	3780	MODI H1	7000
SR 1215 (W Lyon Station Rd.)										
W Lyon Station Rd.	NC 56	SR 1127	2.40	22	60	2	9500	4400 [03]	MODI H1	15000
SR 1232 (Alexander Ave., Quail Ridge Rd.)										
Alexander Ave.	US 15	SR 1170	0.25	20	30	2	9500	3600	MODI H1	6500
Quail Ridge Rd.	SR 1170	SR 1167	0.55	21	60	2	9500	3600	MODI H1	6500
SR 1236 (McClanahan St.)										
McClanahan St.	SR 1004	Standard St.	x	20	60	2	8400	2010	MODI H1	3500
SR 1239 (Central Ave.)										
Central Ave.	SR 1112	SR 1117	1.28	22	60	2	7600	2700	MODI H1	13000
SR 1300 (Cornwall Rd.)										
Cornwall Rd.	SR 1400	SR 1410	3.19	20	60	2	6500	860	MODI H2	2000
Cornwall Rd.	SR 1410	SR 1430	2.52	20	60	2	6500	1300	MODI H2	2500
Cornwall Rd.	SR 1430	SR 1425	3.87	20	60	2	6500	1500	MODI H2	2500
Cornwall Rd.	SR 1425	NC 96	2.83	20	60	2	6500	2300	MODI H2	4600
Cornwall Rd.	NC 96	SR 1301	1.71	20	60	2	6500	630	MODI H2	1800
Cornwall Rd.	SR 1301	US 158	0.55	20	60	2	6500	1300	MODI H2	3000

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FACILITY & SECTION			EXISTING CONDITIONS						RECOMMENDATIONS	
			DIST	RDWY	ROW	NUMBER OF	CURRENT CAPACITY	2004	CROSS SECTION	2035
	from:	to:	MI	FT	FT	LANES	VPD	AADT		AADT
SR 1309 (Old Roxboro Rd., Thorpe Rd.)										
Old Roxboro Rd.	US 158	SR 1311	3.00	19	60	2	6500	1400	MODI H2	2800
Thorpe Rd.	SR 1311	SR 1316	3.16	19	60	2	6500	x	MODI H2	2800
SR 1311 (Old Roxboro Rd.)										
Old Roxboro Rd.	Person Co.	SR 1309	2.54	19	60	2	6500	880	MODI H2	1700
SR 1316 (Goshen Rd										
Goshen Rd	SR 1309	SR 1321	1.50	18	60	2	6500	550	B4	1400
SR 1321 (Goshen Rd)										
Goshen Rd	SR 1316	NC 96	2.00	18	60	2	6500	350	B4	700
SR 1332 (Blue Wing Rd.)										
Blue Wing Rd.	NC 49	NC 96	1.62	20	60	2	7200	380	B4	760
SR 1400 (Grassy Creek Virgilina Rd.)										
Grassy Creek Virgilina Rd.	SR 1403	SR 1407	1.54	18	60	2	7200	180	MODI H2	500
Grassy Creek Virgilina Rd.	SR 1407	SR 1300	1.66	18	60	2	7200	370	MODI H2	700
Grassy Creek Virgilina Rd.	SR 1300	SR 1439	2.03	18	60	2	7200	320	MODI H2	1000
Grassy Creek Virgilina Rd.	SR 1439	SR 1431	1.04	18	60	2	6800	430	MODI H2	1000
SR 1403 (Amis Chapel Rd.)										
Amis Chapel Rd.	NC 96	SR 1404	0.13	20	60	2	7200	430	MODI H2	1100
Amis Chapel Rd.	SR 1404	SR 1400	2.71	18	60	2	6800	430	MODI H2	1100
SR 1410 (Oak Hill Rd)										
Oak Hill Rd	NC 96	SR 1300	4.88	18	60	2	7200	300	B4	900
SR 1422 (Watkins Wilkinson Rd.)										
Watkins Wilkinson Rd.	NC 96	SR 1462	1.63	20	60	2	7200	340	B4	1500

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			DIST	RDWY	ROW	NUMBER OF	CURRENT CAPACITY	2004	CROSS SECTION	2035
	from:	to:	MI	FT	FT	LANES	VPD	AADT		AADT
SR 1430 (Rockwell Rd.)										
Rockwell Rd.	SR 1431	US 15		20	60	2	7200	2000	MODI H2	4000
Rockwell Rd.	US 15	Stovall ECL	0.60	20	60	2	7200	1400	MODI H2	3700
Rockwell Rd.	Stovall ECL	SR 1510	1.92	20	60	2	7200	1000	MODI H2	3600
Rockwell Rd.	SR 1510	Vance Co.	1.20	20	60	2	7200	440	MODI H2	1200
SR 1431 (Grassy Creek Rd.)										
Grassy Creek Rd.	SR 1430	SR 1400	5.30	22	60	2	7400	1200	MODI H2	2000
SR 1436 (Dalton Mill Rd)										
Dalton Mill Rd	SR 1300	SR 1431	3.22	24	80	2	7200	390 [00]	B4	1100
SR 1443 (Harry Davis Rd.)										
Harry Davis Rd	SR 1448	US 15	3.86	24	80	2	7200	530	B4	1450
SR 1445 (Buckhorn Rd., Faucette Rd.)										
Buckhorn Rd.	Vance Co.	US 15	2.34	18	60	2	7200	1000	MODI H2	2300
Discontinuous										
Faucette Rd	SR 1448	SR 1431	3.59	20	60	2	7400	670	MODI H2	1800
SR 1448 (Pittard Rd)										
Pittard Rd	SR 1445	Virginia	2.00	20	60	2	7400	90	B4	260
SR 1453 (Webb School Rd)										
Webb School Rd	SR 1462	US 15	0.42	20	60	2	7500	x	MODI H2	x
SR 1462 (Watkins Wilkinson Rd.)										
Watkins Wilkinson Rd.	SR 1422	US 15	0.53	24	60	2	7700	450	MODI H2	1500
SR 1501 (Townsville Rd.)										
Townsville Rd.	US 15	SR 1503	2.12	20	60	2	7600	840	MODI H2	1500
Townsville Rd.	SR 1503	Virginia	2.03	20	60	2	7600	550	MODI H2	1500

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			DIST	RDWY	ROW	NUMBER OF	CURRENT CAPACITY	2004	CROSS SECTION	2035
	from:	to:	MI	FT	FT	LANES	VPD	AADT		AADT
SR 1509 (Penn Rd.)										
Penn Rd.	SR 1430	Vance County	2.10	24	60	2	7400	x	B4	x
SR 1513 (Huntsboro Rd.)										
Huntsboro Rd.	Vance Co.	SR 1514	0.69	20	60	2	7200	x	MODI H2	x
SR 1514 (Chewning Rd.)										
Chewning Rd.	Vance Co.	SR 1520	2.02	20	60	2	7200	1100	MODI H2	2200
Chewning Rd.	SR 1520	US 15	3.03	20	60	2	7200	1600	MODI H2	4000
SR 1515 (Horner Siding Rd.)										
Horner Siding Rd.	SR 1514	SR 1522	4.30	20	60	2	7200	360	MODI H2	800
SR 1521 (Huntsboro Rd., Tabbs Creek Rd.)										
Huntsboro Rd.	SR 1514	Flat Creek	0.70	20	60	2	7200	1400	MODI H2	10000
Huntsboro Rd.	Flat Creek	SR 1522	2.60	20	60	2	7200	1800	MODI H2	10000
Tabbs Creek Rd.	SR 1522	US 158	2.36	22	60	2	7400	1800	MODI H2	14000
SR 1522 (Salem Rd.)										
Salem Rd.	US 158 Bus	US 158	0.60	20	60	2	7400	1400	MODI H2	6000
Salem Rd.	US 158	SR 1515	1.25	20	60	2	7400	1400	MODI H2	6000
Salem Rd.	SR 1515	SR 1521	1.26	20	60	2	7400	1400	B4	6000
Salem Rd.	SR 1521	Vance Co.	1.98	18	60	2	7200	1200	B4	2500
SR 1523 (Landis Rd.)										
Landis Rd.	SR 1522	SR 1521	1.39	18	30	2	7200	60	MODI H2	300
SR 1528 (Edgewood Dr.)										
Edgewood Dr.	SR 1522	SR 1532	0.17	20	60	2	7600	240	MODI H1	500
SR 1531 (Holly Dr.)										
Holly Dr.	SR 1532	SR 1530	0.17	18	60	2	7200	80	MODI H1	200
Holly Dr.	SR 1530	NC 1	0.19	24	100	2	7800	80	MODI H1	200

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SR 1532 (Hillside Ave.)										
Hillside Ave.	SR 1528	SR 1531	0.06	18	60	2	7200	210	MODI H1	450
SR 1600 (Antioch Rd.)										
Antioch Rd.	US 158	SR 1606	1.99	18	60	2	7200	2100	MODI H2	5000
Antioch Rd.	SR 1606	SR 1613	2.08	18	60	2	7200	720	MODI H2	1800
SR 1602 (Henderson St., E Front St., Main St.)										
Henderson St.	SR 1646	Raleigh St.	1.00	20	60	2	8500	1050	MODI H1	3000
E Front St.	Raleigh St.	Main St.	0.15	20	60	2	8500	x	MODI H1	3000
Main St.	Front St.	SR 1207	0.19	20	60	2	8500	2100	MODI H1	4000
Main St.	SR 1207	US 158 Bus	0.14	20	60	2	8500	2100	MODI H1	4000
SR 1606 (West Antioch Rd.)										
West Antioch Rd.	SR 1600	Coon Creek	0.74	18	60	2	6500	1100	MODI H2	2000
West Antioch Rd.	Coon Creek	NC 96	1.00	18	60	2	6500	1200	MODI H2	2000
SR 1607 (Knotts Grove Rd.)										
Knotts Grove Rd.	SR 1648	SR 1608	1.31	20	60	2	6800	740	MODI H2	5000
SR 1608 (Knotts Grove Rd.)										
Knotts Grove Rd.	SR 1607	NC 96	0.20	20		2	6800	270	MODI H2	2000
SR 1609 (Fairport Rd.)										
Fairport Rd.	NC 96	SR 1612	1.00	20	x	2	6800	2300	MODI H2	5000
Fairport Rd.	SR 1612	SR 1613	0.67	24	60	2	7800	2100	MODI H2	5000
SR 1613 (Fairport Rd.)										
Fairport Rd.	SR 1609	Vance Co.	4.33	20	60	2	7800	1500	MODI H2	5000
SR 1622 (Cannady Mill Rd.)										
Cannady Mill Rd.	SR 1613	CAMPO MAB	x	18	60	2	7700	870	MODI H2	5000
Cannady Mill Rd.	CAMPO MAB	NC 96	x	18	x	2	7700	560	MODI H2	10000

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	from:	to:	MI	FT	FT	LANES	VPD	AADT		AADT
SR 1639 (N Main St.)										
N Main St.	NC 56	US 15	0.62	20	100	2	7700	2000	B1	10900
SR 1646 (Industry Dr., Henderson St.)										
Industry Dr.	US 15	Oxford SCL	1.00	24	60	2	9500	8300	MODI E2	11600
Industry Dr.	Oxford SCL	NC 96	0.15	36	80	3	9500	9990	MODI E2	25000
Industry Dr.	NC 96	SR 1602	1.01	28	60	2	9500	4750	MODI E2	11000
Henderson St.	SR 1602	US 158	1.06	24	60	2	9500	5100	MODI H1	11300
SR 1647 (Herbert Henley Rd.)										
Herbert Henley Rd.	US 15	Dead End	0.56	20	x	2	7700	x	ADQ	250
Herbert Henley Rd.	Dead End	SR 1646	1.42	24	100	2	7700	x	ADQ	250
SR 1648 (Knotts Grove Rd.)										
Knotts Grove Rd.	US 15	SR 1607	0.80	21	60	2	7700	1150	MODIH2	4200
SR 1649 (New Commerce Dr.)										
New Commerce Dr.	NC 96	Dead End	0.98	20	x	2	11000	240	MODI H2	3800
New Commerce Dr.	Dead End	SR 1607	0.83	24	100	2	11000	x	MODI H2	3800
SR 1650 (Raleigh Rd.)										
Raleigh Rd.	SR 1606	Dead End	0.66	22	x	2	11000	350	MODI H1	950
Raleigh Rd.	Dead End	SR 1652	0.80	24	100	2	11000	x	MODI H1	x
SR 1652 (Tabbs Creek Church Rd.)										
Tabbs Creek Church Rd.	SR 1600	SR 1655	1.01	20	x	2	7500	90	MODI H2	270
SR 1665 (Spring St.)										
Spring St.	US 158 Bus	Parker St.	0.25	20	60	2	6800	1340	MODI H1	4300

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SR 1700 (Brassfield Rd., Church St.)										
Brassfield Rd.	NC 96	SR 1710	2.07	19	60	2	7300	1500	B1	3300
Brassfield Rd.	SR 1710	SR 1702	2.06	19	60	2	7300	1800	B1	4200
Brassfield Rd.	SR 1702	SR 1733	1.89	20	60	2	8500	3700	B1	20500
Brassfield Rd.	SR 1733	Creedmoor ECL	0.13	20	60	2	8500	4400	B1	11100
Brassfield Rd.	Creedmoor ECL	Peachtree St.	0.39	20	60	2	8500	4400	B1	11100
Church St.	Peachtree St.	NC 50	0.46	20	60	2	8500	4400	B1	11100
SR 1702 (Hayes Rd.)										
Hayes Rd.	SR 1700	NC 56	1.46	20	60	2	8500	1300	MODI H2	8700
SR 1709 (Horseshoe Rd)										
Horseshoe Rd	SR 1710	NC 96	2.34	20	60	2	8500	240	B4	420
SR 1710 (Lawrence Rd.)										
Lawrence Rd.	Wake Co.	SR 1711	2.22	20	80	2	8500	731	B4	5800
Lawrence Rd.	SR 1711	SR 1709	0.90	18	60	2	7500	1200	B4	3000
Lawrence Rd.	SR 1709	SR 1700	1.75	18	60	2	7500	800	B4	2000
SR 1711 (Bruce Garner Rd.)										
Bruce Garner Rd.	Wake Co.	SR 1710	2.28	18	60	2	7500	2700	MODI H2	9400
Bruce Garner Rd.	SR 1710	NC 96	3.62	20	60	2	8500	2600	MODI H2	8100
SR 1712 (Bruce Garner Rd.)										
Bruce Garner Rd.	SR 1711	SR 1713	1.14	20	60	2	8400	1900	MODI H2	7400
SR 1713 (Bruce Garner Rd.)										
Bruce Garner Rd.	SR 1712	Franklin Co.	0.27	18	60	2	7500	270	MODI H2	530
SR 1714 (Woodland Church Rd.)										
Woodland Church Rd.	SR 1711	SR 1716	2.34	20	80	2	8500	614	MODI H2	2600
SR 1715 (Hugh Davis Rd.)										
Hugh Davis Rd.	SR 1714	Franklin Co.	1.18	20	80	2	8500	40	B4	300

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	from:	to:	MI	FT	FT	LANES	VPD	AADT		AADT
SR 1716 (Woodland Church Rd.)										
Woodland Church Rd.	SR 1717	Franklin Co.	1.33	20	80	2	11000	40	MODI H2	1600
Woodland Church Rd.	SR 1711	SR 1717	2.28	24	80	3	13500	x	MODI H2	2200
SR 1717 (Woodland Church Rd.)										
Woodland Church Rd.	SR 1716	Wake Co.	2.07	20	80	2	8500	1600	MODI H2	11300
SR 1718 (Rock Springs Church Rd.)										
Rock Springs Church Rd.	SR 1711	Wake Co.	2.29	20	80	2	8500	800	B4	2400
SR 1724 (Northside Rd., Elm St.)										
Northside Rd.	US 15	SR 1725	1.12	18	60	2	7500	950	MODI H1	2600
Northside Rd.	SR 1725	SR 1728	1.14	18	60	2	7500	910	MODI H1	1700
Northside Rd.	SR 1728	Ledge Creek	1.07	19	60	2	7500	2100	MODI H1	5200
Northside Rd.	Ledge Creek	Creedmoor SCL	0.80	19	60	2	7500	1400	MODI H1	3500
Elm St.	Creedmoor SCL	SR 1110	0.72	18	60	2	7500	2100	MODI H1	5400
Elm St.	SR 1110	Fleming Street	0.23	18	60	2	7500	2100	MODI H1	5400
SR 1728 (Cash Rd.)										
Cash Rd.	US 15	SR 1724	0.90	21	60	2	7800	4000	MODI B1	12000
Cash Rd.	SR 1724	SR 1901	1.35	21	60	2	7800	3500	MODI B1	12000
SR 1733 (Hawley School Rd.)										
Hawley School Rd.	SR 1700	NC 56	0.99	21	60	2	7800	1100	MODI H1	2700
SR 1736 (Lake Rd.)										
Lake Rd.	US 15/NC 56	NC 50	0.20	20	30	2	7800	6900	MODI H1	15000
Cherry St.										
Cherry St.	SR 1206	Goshen St.		18	30	2	7500	1860	MODI H1	3200
Cherry St.	Goshen St.	SR 1167	0.57	18	30	2	7500	490	MODI H1	1500
Church St.										
Church St.	NC 50	SR 1724	0.13	20	50	2	8500	3100	MODI H1	7900

GRANVILLE COUNTY STREET APPENDIX

FACILITY & SECTION			EXISTING CONDITIONS						RECOMMENDATIONS	
			DIST	RDWY	ROW	NUMBER OF	CURRENT CAPACITY	2004	CROSS SECTION	2035
	from:	to:	MI	FT	FT	LANES	VPD	AADT		AADT
Dove Rd.										
Dove Rd.	SR 1232	Dead End	0.10	22	60	2	6500	40	ADQ	130
Dove Rd.	Dead End	SR 1170	0.21	24	100	2	7200	40	ADQ	130
Easy St.										
Easy St.	NC 96	Dead End	0.16	36	40	2	7800	100	MODI H1	1000
Easy St.	Dead End	Maple St.	0.15	24	100	2	7500	100	MODI H1	1000
Elm St.										
Elm St.	SR 1724	Fleming St.	x	20	50	2	7200	1000	MODI H1	2700
Fleming St.										
Fleming St.	Elm St.	NC 50	0.04	20	40	2	7200	2100	MODI H1	5400
Goshen St.										
Goshen St.	US 158	SR 1170	x	20	50	2	7200	1400	MODI H1	2800
See SR 1170 (Goshen St.)										
Goshen St.	SR 1232	Cherry St.	0.26	30	50	2	7200	740	MODI H1	1200
Maple St										
Maple St	US 15	Dead End	0.51	29	40	2	7400	100	MODI H1	1600
Maple St	Dead End	SR 1646	0.29	24	100	2	7400	100	MODI H1	1600
McClanahan St.										
McClanahan St.	SR 1004	SR 1206	0.28	52	70	4	12000	2010	MODI H1	3880
Orange St.										
Orange St.	US 15	Spring St.	0.11	29	x	2	8500	x	MODI H1	4900
Orange St.	Spring St.	Sycamore St.	0.10	29	x	2	8500	x	MODI H1	4900
Orange St.	Sycamore St.	W Front St.	0.09	24	100	2	8500	x	MODI H1	4500
Orange St.	W Front St.	5th St.	0.35	22	x	2	8500	x	MODI H1	4000
Orange St.	5th St.	Easy St.	0.06	24	x	2	8500	x	MODI H1	4000

GRANVILLE COUNTY STREET APPENDIX

FACILITY & SECTION			EXISTING CONDITIONS						RECOMMENDATIONS	
			DIST	RDWY	ROW	NUMBER OF	CURRENT CAPACITY	2004	CROSS SECTION	2035
	from:	to:	MI	FT	FT	LANES	VPD	AADT		AADT
Raleigh St.										
Raleigh St.	SR 1646	SR 1602	0.78	24	50	2	8500	3280	MODI H1	4500
Robin Rd.										
Robin Rd.	SR 1167	Dead End	0.16	20	60	2	8500	80	MODI H1	250
Robin Rd.	Dead End	Dove Rd.	0.17	24	100	2	8500	x	MODI H1	250
Robin Rd.	Dove Rd.	SR 1170	0.18	24	100	2	8500	x	MODI H1	250
Spring St.										
Spring St.	US 158	SR 1602	0.81	48	60	2	7400	1340	MODI H1	3100
W Front St.										
W Front St.	Raleigh St.	NC 96	0.30	32	60	2	8500	3060	MODI H1	5000
W Front St.	NC 96	Elm St.	0.20	28	40	2	8500	x	MODI H1	500
W Front St.	Elm St.	Maple St.	0.11	24	100	2	8500	x	MODI H1	500
Creedmoor Connector										
Creedmoor Connector	NC 56	US 15	1.91	x	x	x	x	x	x	16000
Creedmoor Connector	US 15	NC 50	1.10	x	x	x	x	x	x	16000
Creedmoor Connector	NC 50	SR 1700	1.60	x	x	x	x	x	x	23000
Oxford Orphanage Rd. (New Connector)										
Oxford Orphanage Rd	US 15/NC 96	US 158 Bus	1.03	24	100	2	8500	3000	x	6700
Northern Connector (New Connector 1)										
Northern Connector	Oxford Orphange Rd.	US 158	0.87	24	100	2	8500	x	x	200
Northeastern Connector (New Connector 2)										
Northeastern Connector	US 158 Bus	US 158	0.96	24	100	2	8500	x	x	600
Southern Connector (New Connector 3)										
Southern Connector	Maple St.	SR 1646	0.57	24	100	2	8500	x	x	200
Southern Connector	SR 1646	SR 1647 Ext.	0.71	24	100	2	8500	x	x	200

GRANVILLE COUNTY STREET APPENDIX

FACILITY & SECTION			EXISTING CONDITIONS						RECOMMENDATIONS	
			DIST	RDWY	ROW	NUMBER OF	CURRENT CAPACITY	2004	CROSS SECTION	2035
	from:	to:	MI	FT	FT	LANES	VPD	AADT		AADT
NEW LOCATION PROJECTS:										
Roxboro Rd Ext	Roxboro Rd.	US 158	0.96	x	80	N/A	N/A	N/A	MODI H1	N/A
Oxford Northern Connector	Roxboro Rd Ext	US 158	0.83	x	80	N/A	N/A	N/A	MODI H1	N/A
Holly Dr Ext	Holly Dr.	Northeastern Conn	0.30	x	80	N/A	N/A	N/A	MODI H1	N/A
Northeastern Connector	Denard St.	US 158	0.73	x	80	N/A	N/A	N/A	MODI H1	N/A
Maple Dr. Ext	E Industry Dr.	Maple Dr.	0.30	x	80	N/A	N/A	N/A	MODI H1	N/A
6th St Ext	6th St	Maple Dr. Ext.	0.10	x	80	N/A	N/A	N/A	MODI H1	N/A
W Front St Ext	Maple Dr.	Orange St.	0.15	x	80	N/A	N/A	N/A	MODI H1	N/A
Old Weaver Northside Connector	Old Weaver Trail	Northside Rd	0.74	x	100	N/A	N/A	N/A	MODI B1	N/A
Creedmoor Loop C	US 15	Brassfield Rd	2.05	x	120	N/A	N/A	N/A	MODI E2	N/A
Oxford Service Rd Connector	Pulpwood Yard Rd	Tabbs Creek Churc	0.63	x	80	N/A	N/A	N/A	MODI H1	N/A
Butner Western Loop	W B St	Veasey Rd	2.05	x	100	N/A	N/A	N/A	B-1	N/A
Roberts Chapel Rd Relocation	Range Rd	Roberts Chapel	1.13	x	80	N/A	N/A	N/A	MODI H2	N/A
W D St Ext.	Highland Dr.	W D St.	1.18	x	80	N/A	N/A	N/A	MODI H1	N/A
WD St. - WB St. Connector	WB St.	WD St. Ext	0.34	x	80	N/A	N/A	N/A	MODI H1	N/A
Herbert Henley Rd Ext	Herbert Henley Rd.	US 15	1.23	x	80	N/A	N/A	N/A	MODI H1	N/A
Sanders Rd Ext East	US 15	Hester Rd.	1.28	x	80	N/A	N/A	N/A	MODI H2	N/A
Sanders Rd Ext West	Belltown Rd	Old NC 75	1.21	x	80	N/A	N/A	N/A	MODI H2	N/A
24th St. Ext.	E Lyon Station Rd	EC St.	1.28	x	80	N/A	N/A	N/A	MODI H1	N/A
I 85 Service Road	Gate 2 Road	NC 56	2.31	x	80	N/A	N/A	N/A	MODI H1	N/A
Creedmoor Loop A	NC 56	US 15	1.59	x	120	N/A	N/A	N/A	MODI E2	N/A

GRANVILLE COUNTY HIGHWAY PROJECT PROPOSAL

#	PROJECT ID	Cross Reference Project ID	ROUTE	Section	Proposed Cross Section[3]	Project Description	Cross-Sections	Modes	Comment
1	GRAN001-GC		I-85	Durham co. line to Vance Co. line	6 Lane Divided Freeway	Widen to a 6 lane median divided facility to improve safety and capacity	A6	H	
2	GRAN002A-GC		US-15	I-85 to Gate #2 Rd	4 Lane Divided Boulevard	Widen to 4 lane divided median facility. No curb and Gutter. 150' ROW	Modified B-1	H,B,T	
3	GRAN002B-GC		US-15	Gate #2 - Relocated US 15	4 Lane Divided Boulevard	Widen to 4 lane divided median facility. With curb and Gutter. 110' ROW	B1	H,B	
4	GRAN002C-CR		US-15	US 15 Relocation	2-3 Lane Major Thoroughfare	Construct 2-3 Lane Major Thoroughfare to allow for better connection to Creedmoor Loop 100' ROW	Modified H-2	H,B	
5	GRAN002D-GC		US-15	Moss Rd - I-85	4 Lane Divided Boulevard	Widen to 4 lane divided median facility. No curb and Gutter. 150' ROW	Modified B-1	H,B	
6	GRAN002E-GC		US-15	I-85 to Oxford SCL	4 Lane Divided Boulevard	Widen to 4 lane divided median facility. With curb and Gutter. 110' ROW	B1	H,B	
7	GRAN002F-OX		US-15	Hillsboro St. to US 158	2-3 Lane Major Thoroughfare	Two to Three lane highway with center turn lane where necessary. 80' ROW	Modified H-1	H,B	cross section changed based on oxford request
8	GRAN002G-GC		US-15	US-158 to Chewning Rd	4 Lane Divided Boulevard	Widen to 4 lane divided median facility. No curb and Gutter. 150' ROW	Modified B-1	H,B,T	
9	GRAN002H-GC		US-15	Chewning Rd to Simpson Hill	2-3 Lane Major Thoroughfare	Two to Three lane highway with center turn lane where necessary. 100' ROW	Modified H-2	H,B,T	
10	GRAN002I-GC		US-15 realignment	Simpson Hill to Hill Airy	2-3 Lane Major Thoroughfare	Consturct new 2-3 lane highway with center turn lane where necessary. 100' ROW	Modified H-2	H,B,T	

GRANVILLE COUNTY HIGHWAY PROJECT PROPOSAL

#	PROJECT ID	Cross Reference Project ID	ROUTE	Section	Proposed Cross Section[3]	Project Description	Cross-Sections	Modes	Comment
11	GRAN002J-GC		US-15 realignment	Hill Airy to Reavis Rd	2-3 Lane Major Thoroughfare	Consturct new 2-3 lane highway with center turn lane where necessary. 100' ROW	Modified H-2	H,B,T	
12	GRAN002K-GC		US-15	Reavis Rd to Virginia	2-3 Lane Major Thoroughfare	Two to Three lane highway with center turn lane where necessary. 100' ROW	Modified H-2	H,B	
13	GRAN003A-GC		US-158	Person Co. to Cornwall Rd	4 Lane Divided Expressway	Widen to 4 lane divided with 46' median facility. Partially Controlled access. 160' ROW	Modified F1	H,B	
14	GRAN003B-OX		US -158	Cornwall Rd to US-158	4 Lane Divided Expressway	Consturct new 4 lane divided with raised median facility and Curb and Gutter. Partially Controlled access. 110' ROW	Modified E2	H,B	
15	GRAN003C-OX		US -158	US-158 (Oxford outer loop)	4 Lane Divided Expressway	Widen to 4 lane divided with raised median facility and Curb and Gutter. Partially Controlled access. 110' ROW	Modified E2	H,B,T	
16	GRAN003D-OX		US -158	US-158 to US -158 Bus.	4 Lane Divided Expressway	Consturct new 4 lane divided with raised median facility and Curb and Gutter. Partially Controlled access. 110' ROW	Modified E2	H,B,T	
17	GRAN003E-GC		US-158 Bus.	I-85 to Vance Co.	4 Lane Divided Expressway	Widen to 4 lane divided with raised median facility and Curb and Gutter. Partially Controlled access. 110' ROW	Modified E2	T	
18	GRAN004-GC		NC-49	Person Co. to Virginia	4 Lane Divided Boulevard	Widen to 4 lane divided median facility. No curb and Gutter. 150' ROW	Modified B-1	H	
19	GRAN005-GC		NC-50	Wake Co. to Creedmoor Loop	4 Lane Divided Boulevard	Widen to 4 lane divided median facility. No curb and Gutter. 150' ROW	Modified B-1	H,B,T	
20	GRAN006A-CR		NC-56 Revised	New West Lyon Station Rd Extenstion to I-85	4 Lane Divided Boulevard	Widen to 4 lane divided with raised median facility and Curb and Gutter. 110' ROW	B1	H,B	

GRANVILLE COUNTY HIGHWAY PROJECT PROPOSAL

#	PROJECT ID	Cross Reference Project ID	ROUTE	Section	Proposed Cross Section[3]	Project Description	Cross-Sections	Modes	Comment
21	GRAN006B-CR		NC-56	I-85 to US-15	4 Lane Divided Boulevard	Widen to 4 lane divided with raised median facility and Curb and Gutter. 110' ROW	B1	H,B	
22	GRAN006C-CR		NC-56	NC 50 to Hayes Rd	4 Lane Divided Boulevard	Widen to 4 lane divided with raised median facility and Curb and Gutter. 110' ROW	B1	H,B	
23	GRAN006D-GC		NC-56	Hayes Rd to Franklin Co.	4 Lane Divided Boulevard	Widen to 4 lane divided median facility. No curb and Gutter. 150' ROW	Modified B-1	H,B	
24	GRAN007A-GC		NC-96	Franklin CO. to Knotts Grove Rd	4 Lane Divided Boulevard	Widen to 4 lane divided median facility. No curb and Gutter. 150' ROW	Modified B-1	H,B	
25	GRAN007B-GC		NC-96	Knotts Grove Rd to I-85	4 Lane Divided Boulevard	Widen to 4 lane divided with raised median facility and Curb and Gutter. 110' ROW	B1	H,B	
26	GRAN007C-GC		NC-96	Ivey Day Rd to Cornwall Rd.	4 Lane Divided Boulevard	Widen to 4 lane divided with raised median facility and Curb and Gutter. 110' ROW	B1	H,B	
27	GRAN007D-GC		NC-96	Cornwall Rd to NC49	2-3 Lane Major Thoroughfare	Two to Three lane highway with center turn lane where necessary. 100' ROW	Modified H-2	H,B	
28	GRAN008-BU		24th Street Extension	24th Street - Lyon Station Road	2 Lane Minor Thoroughfare	Construct a 2 lane road to connect Butner and Creedmoor. Will include a grade seperation over I-85. 60' ROW	B3	H,B	
29	GRAN009-BU		26th Street Extension	26th Street - Butner Service Road North	2 Lane Minor Thoroughfare	Construct a 2 lane road to connect26th street to Butner service roads. With curb and gutter. 60' ROW	B3	H,B	
30	GRAN010-OX		Alexander Avenue	Alexander Avenue to College Street	2 Lane Minor Thoroughfare	Two lane with paved shoulders. 60' ROW	B-4		
31	GRAN011-0X		Antioch Rd	Fairport Rd to US 158 BUS	2 Lane Minor Thoroughfare	Two lane with paved shoulders. 60' ROW	B4	H,B	
32	GRAN012A-GC	#100	Belltown Road	SR 1004 (Old Route 75) - US 15	2-3 Lane Minor Thoroughfare	Two to Three lane highway with center turn lane where necessary. 100' ROW	Modified H-2	H,B	

GRANVILLE COUNTY HIGHWAY PROJECT PROPOSAL

#	PROJECT ID	Cross Reference Project ID	ROUTE	Section	Proposed Cross Section[3]	Project Description	Cross-Sections	Modes	Comment
33	GRAN013A-GC		Brassfield Rd	Creedmoor Loop to Hayes Rd	4 Lane Divided Boulevard	Widen to 4 lane divided with raised median facility and Curb and Gutter. 110' ROW	B 1	H,B	CAMPO 2035 LRTP
34	GRAN013B-GC		Brassfield Rd	Hayes Rd to NC 96	4 Lane Divided Boulevard	Widen to 4 lane divided median facility. No curb and Gutter. 150' ROW	Modified B-1	H,B	
35	GRAN014GC		Brogden Rd	NC-56 to Tally Ho Rd	2-3 Lane Minor Thoroughfare	Two to Three lane highway with center turn lane where necessary. 80' ROW	Modified H-1	H,B	
36	GRAN015-GC		Bruce Garner Rd	Wake Co. to NC-96	2-3 Lane Minor Thoroughfare	Two to Three lane highway with center turn lane where necessary. 100' ROW	Modified H-2	H,B	
37	GRAN016-GC		Bryans Hill Rd	US 15 to Belltown Rd	2-3 Lane Minor Thoroughfare	Two to Three lane highway with center turn lane where necessary. 100' ROW	Modified H-2	H	
38	GRAN017A-BU	#106	Butner Blvd	W.B St. to Veasey Road	4 Lane Divided Boulevard	Construct a 4 lane divided median facility. No curb and Gutter. 110' ROW	B1	H,B	CAMPO 2035 LRTP
39	GRAN018A-GC		Butner Service Roads	North of Gate 2 Road - NC56	2 Lane Minor Thoroughfare	Construct service roads to serve commerical and residential development. 70' ROW	K	H,B	
40	GRAN018B-GC		Butner Service Roads	Gate 1Road to Gate 2 Road	2 Lane Minor Thoroughfare	Construct service roads to serve commerical and residential development. 70' ROW	K	H,B	
41	GRAN019-GC		Cannadys Mill Rd	NC 96 to Fairport Rd	2 Lane Minor Thoroughfare	Two lane with paved shoulders. 60' ROW	B4	H,B	
42	GRAN020-GC		Cash Rd	Northside Rd to Granville Co line	4 Ln Div Boulevard	Widen to 4 lane divided median facility. No curb and Gutter. 150' ROW	Modified B-1	H,B	
43	GRAN021-GC		Cedar Lane Rd	US 15 to Little Mountain Creek Rd	2-3 Lane Minor Thoroughfare	Two to Three lane highway with center turn lane where necessary. 100' ROW	Modified H-2	H,B	
44	GRAN022-GC		Cherry Street	N. Country Club Drive to Broad Street	2 Lane Minor Thoroughfare	Two lane with paved shoulders. With Curb and Gutter. 60' ROW	B3	H	

GRANVILLE COUNTY HIGHWAY PROJECT PROPOSAL

#	PROJECT ID	Cross Reference Project ID	ROUTE	Section	Proposed Cross Section[3]	Project Description	Cross-Sections	Modes	Comment
45	GRAN023-GC		Chewning Rd	US 15 to Harold Obrien Rd	2-3 Lane Major Thoroughfare	Two to Three lane highway with center turn lane where necessary. 100' ROW	Modified H-2	H	
46	GRAN024-GC		Chewning Rd	Harold Obrien Rd to Vance County	2-3 Lane Major Thoroughfare	Two to Three lane highway with center turn lane where necessary. 100' ROW	Modified H-2	H,B	
47	GRAN025-GC		Cornwall Rd	NC 96 to Grassy Creek Virgilina Rd	2 Lane Minor Thoroughfare	Two lane with paved shoulders. 60' ROW	B4	H,B	
48	GRAN026A-CR		Creedmoor Loop A	NC 56 to US 15	4 Ln Div Boulevard	Construct New 4 lane divided with raised median facility and Curb and Gutter. 110' ROW	B1	H,B	
49	GRAN026B-CR		Creedmoor Loop B	Us-15 to Relocated US 15	4 Ln Div Boulevard	Widen to 4 lane divided with raised median facility and Curb and Gutter. 110' ROW	B1	H,B	
50	GRAN026C-CR		Creedmoor Loop C	Relocated US 15 to Brassfield Road	4 Ln Div Boulevard	Construct new 4 lane divided boulevard section 110' ROW	B1	H,B	
51	GRAN027-GC		Culbreth Road Realignment	Culberth Road to Old Route 75	4 Lane Divided Boulevard	Widen to 4 lane divided median facility. No curb and Gutter. 150' ROW	Modified B-1	H,B	
52	GRAN028-GC		Culbreth Rd (SR 1138)	SR 1004 to US-158	4 Ln Div Boulevard	Widen to 4 lane divided median facility. No curb and Gutter. 150' ROW	Modified B-1	H,B	
53	GRAN029-OX		Dove Rd Extension	Dove Rd to Ivey Day Rd	2 Lane Minor Thoroughfare	Two lane with paved shoulders. 60' ROW	B-4	H	
54	GRAN030A-OX	#73,#74	East Industry Drive	NC-96 to US -15	4 Lane Divided Boulevard	Widen to 4 lane divided with raised median facility and Curb and Gutter. 110' ROW	B1	H,B	
55	GRAN031-CR		East Lyon Station Rd	Gate 2 Road to NC-56	4 Lane Divided Boulevard	Widen to 4 lane divided with raised median facility and Curb and Gutter. 110' ROW	B1	H,B	
56	GRAN032-CR		Easy Street Extension	Easy Street to New Extended Maple Rd	2-3 Lane Minor Thoroughfare	Construct New Two to Three lane highway with center turn lane where necessary. With curb and gutter. 80' ROW	Modified H-1	H,B	
57	GRAN033-GC		Fairport Rd	Vance Co. to NC 96	2 Lane Minor Thoroughfare	Two lane with paved shoulders. 60' ROW	B4	H	

GRANVILLE COUNTY HIGHWAY PROJECT PROPOSAL

#	PROJECT ID	Cross Reference Project ID	ROUTE	Section	Proposed Cross Section[3]	Project Description	Cross-Sections	Modes	Comment
58	GRAN034-OX		Front Street Extension	Elm Street to Maple Drive	2-3 Lane Minor Thoroughfare	Construct New Two to Three lane highway with center turn lane where necessary. With curb and gutter. 80' ROW	Modified H-1	H	
59	GRAN035-GC		Gate 2 Rd (SR 1103)	Northside Rd. to I-85	4 Ln Div Boulevard	Widen to 4 lane divided with raised median facility and Curb and Gutter. 110' ROW	B1	H,B,T	
60	GRAN036-OX		Goshen Street Extension	Cherry Street to McClahanan Street	2 Lane Minor Thoroughfare	Two lane with paved shoulders. 60' ROW	B-4	H,B	
61	GRAN037-GC		Grassy Creek Rd	Little Mountain Creek Rd to Dalton Mill Rd	2 Lane Minor Thoroughfare	Two lane with paved shoulders. 60' ROW	B4	H,B	
62	GRAN038-GC		Grassy Creek Virgilina Rd	Dalton Mill Rd to Cornwall Rd	2 Lane Minor Thoroughfare	Two lane with paved shoulders. 60' ROW	B4	H,B	
63	GRAN039-GC		Hallie Burnette Extension	Lake Devin to Old NC 75	2 Lane Minor Thoroughfare	Two to Three lane highway with center turn lane where necessary. With curb and gutter. 80' ROW	Modified H-1	H	
64	GRAN040-GC		Hayes Road	Brassfield Rd to Nc 56	2-3 Lane Minor Thoroughfare	Two to Three lane highway with center turn lane where necessary. 100' ROW	Modified H-2	H,B	
65	GRAN041-OX		Henderson Street	Oxford Service Rd to Raleigh Street	2 Lane Minor Thoroughfare	Two lane with paved shoulders. With Curb and Gutter. 60' ROW	B3	H	
66	GRAN042-OX		Herbert Henley Extension	Herbert Henley Rd to US-15	2-3 Lane Minor Thoroughfare	Construct New Two to Three lane highway with center turn lane where necessary. With curb and gutter. 80' ROW	Modified H-1	H	
67	GRAN043A-GC		Hester Rd	NC-56 to New Sanders Rd Extension	4 Lane Divided Boulevard	Widen to 4 lane divided median facility. No curb and Gutter. 150' ROW	Modified B-1	H,B	CAMPO 2035 LRTP
68	GRAN043B-GC		Hester Rd	New Sanders Rd Extension to Bogden Rd.	4 Lane Divided Boulevard	Widen to 4 lane divided median facility. No curb and Gutter. 110' ROW	B1	H,B	CAMPO 2035 LRTP
69	GRAN043C-GC		Hester Rd Extension	Hester Rd to Brogden Rd (If new interchange in place)	4 Lane Divided Boulevard	Construct new 4 lane divided boulevard section 110' ROW	B1	H,B	CAMPO 2035 LRTP

GRANVILLE COUNTY HIGHWAY PROJECT PROPOSAL

#	PROJECT ID	Cross Reference Project ID	ROUTE	Section	Proposed Cross Section[3]	Project Description	Cross-Sections	Modes	Comment
70	GRAN044-GC		Horner Siding Rd	Salem Rd to Chewning Rd	2-3 Lane Minor Thoroughfare	Two to Three lane highway with center turn lane where necessary. 100' ROW	Modified H-2	H	
71	GRAN045-GC		Huntsboro Rd	Salem Rd to Vance Co.	2 Lane Minor Thoroughfare	Two lane with paved shoulders. 60' ROW	B4	H,B	
72	GRAN030B-OX	#54	Industry Drive	US-15 to SR 1004	4 Lane Divided Boulevard	Widen to 4 lane divided with raised median facility and Curb and Gutter. 110' ROW	B1	H,B	
73	GRAN030C-OX	#54	Industry Drive	SR 1004 to US 158	4 Lane Divided Boulevard	Widen to 4 lane divided with raised median facility and Curb and Gutter. 110' ROW	B1	H,B	
74	GRAN046-OX		Industry Drive Service Road	Raleigh Street to US-158	2 Lane Minor Thoroughfare	Widen Two lane with paved shoulders service road to serve commerical and residential development. 70' ROW	K	H,B	
75	GRAN047-CR		Joe Peed Rd	W.B. Clark Rd to S.Durham Ave	2-3 Lane Minor Thoroughfare	Two to Three lane highway with center turn lane where necessary. 100' ROW	Modified H-2	H,B	
76	GRAN048-GC		Knotts Grove Rd	NC 96 to US 15	2-3 Lane Minor Thoroughfare	Two to Three lane highway with center turn lane where necessary. 100' ROW	Modified H-2	H	
77	GRAN049-GC		Lawrence Road Realignment	Lawrence Road to Horseshoe road	2-3 Lane Minor Thoroughfare	Consturct new 2-3 lane highway with center turn lane where necessary. 100' ROW	Modified H-2	H,B	
78	GRAN050-GC		Little Mountain Road (SR 1126)	Range Road (SR 1126) - Culbreth Road	4 Lane Divided Boulevard	Widen to 4 lane divided with raised median facility and Curb and Gutter. 110' ROW	B1	H,B	
79	GRAN051-ST		Main Street	US 15 to ECL Stovall	2-3 Lane Minor Thoroughfare	Two to Three lane highway with center turn lane where necessary. With curb and gutter. 80' ROW	Modified H-1	H,B	
80	GRAN052-OX		Maple Drive Extension	Maple Drive to East Industry Drive	2-3 Lane Minor Thoroughfare	Construct New Two to Three lane highway with center turn lane where necessary. With curb and gutter. 80' ROW	Modified H-1	H,B	

GRANVILLE COUNTY HIGHWAY PROJECT PROPOSAL

#	PROJECT ID	Cross Reference Project ID	ROUTE	Section	Proposed Cross Section[3]	Project Description	Cross-Sections	Modes	Comment
81	GRAN053-CR		Moss Road	NC 56 - US 15	2-3 Lane Minor Thoroughfare	Two to Three lane highway with center turn lane where necessary. With curb and gutter. 80' ROW	Modified H-1	H,B	
82	GRAN054A-GC		Northside Road	US 15 to Munns Rd	4 Lane Divided Boulevard	Widen to 4 lane divided median facility. No curb and Gutter. 150' ROW	Modified B-1	H,B	CAMPO 2035 LRTP
83	GRAN054B-GC		Northside Road Extenstion	Munns Rd to Cash Rd	4 Ln Div Boulevard	Construct new 4 lane divided boulevard section 150' ROW	Modified B-1	H,B	CAMPO 2035 LRTP
84	GRAN054C-GC		Old Weaver Rd	New Northside Rd Extension to NC 50	4 Ln Div Boulevard	Construct new 4 lane divided boulevard section 150' ROW	Modified B-1	H,B	
85	GRAN055A-GC		Old Route 75 (SR-1004)	Durham Co. to Julian Daniel Rd	4 Ln Div Boulevard	Widen to 4 lane divided median facility. No curb and Gutter. 150' ROW	Modified B-1	H,B	suggested by scottie
86	GRAN055B-GC		Old Route 75 (SR-1004)	Julian Daniel to Culbreth Road	2-3 Lane Minor Thoroughfare	Two to Three lane highway with center turn lane where necessary. With curb and gutter. 80' ROW	Modified H-1	H,B	
87	GRAN055C-GC		Old Route 75 (SR-1004)	Culbreth Road to Hallie Burnette Rd	4 Lane Divided Boulevard	Widen to 4 lane divided median facility. No curb and Gutter. 150' ROW	Modified B-1	H,B	
88	GRAN055D-GC		Old Route 75 (SR-1004)	Hallie Burnette to Industry Dr	2-3 Lane Minor Thoroughfare	Two to Three lane highway with center turn lane where necessary. With curb and gutter. 80' ROW	Modified H-1	H,B	
89	GRAN056A-GC	STEM WESTERN LOOP	Old Route 75 Bypass (Little Mountain Road)	Culbreth Road to Little Mountain Road	4 Lane Divided Boulevard	Widen to 4 lane divided with raised median facility and Curb and Gutter. 110' ROW	B1	H,B	CAMPO 2035 LRTP
90	GRAN056B-GC	STEM WESTERN LOOP	Old Route 75 Bypass	Little Mountain Rd to Range Road- new location	4 Ln Div Boulevard	Construct New 4 lane divided with raised median facility and Curb and Gutter. 110' ROW	B1	H,B	CAMPO 2035 LRTP
91	GRAN056C-GC	STEM WESTERN LOOP	Old Route 75 Bypass (Range Road)	Range Road to Julian Daniel road	4 Ln Div Boulevard	Widen to 4 lane divided with raised median facility and Curb and Gutter. 110' ROW	B1	H,B	CAMPO 2035 LRTP

GRANVILLE COUNTY HIGHWAY PROJECT PROPOSAL

#	PROJECT ID	Cross Reference Project ID	ROUTE	Section	Proposed Cross Section[3]	Project Description	Cross-Sections	Modes	Comment
92	GRAN057-OX		Oxford Northern Connector	New Extended Roxboro Rd to US 158	2 Lane Minor Thoroughfare	Two lane with paved shoulders. 60' ROW	B-4	H,B	
93	GRAN058A-GC		Robert Chapel Rd	Range Rd (SR1121) to Range Rd SR 1126)	2-3 Lane Minor Thoroughfare	Two to Three lane highway with center turn lane where necessary. 100' ROW	Modified H-2	H,B	
94	GRAN058B-GC		Robert Chapel Rd Extension	Range Road (SR 1121) - Robert Chapel Rd	2-3 Lane Minor Thoroughfare	Construct a new two to three lane highway with center turn lane where necessary. 100' ROW	Modified H-2	H,B	
95	GRAN059-OX		Robin Rd Extension	Robin Rd to Goshen Street	2 Lane Minor Thoroughfare	Two lane with paved shoulders. 60' ROW	B-4	H	
96	GRAN060-ST		Rockwell Rd	ECL Stovall to Vance Co.	2 Lane Minor Thoroughfare	Two lane with paved shoulders. 60' ROW	B4	H,B	
97	GRAN061-OX		Roxboro Rd Extension	College Street to Williamsboro Street	2-3 Lane Minor Thoroughfare	Construct New Two to Three lane highway with center turn lane where necessary. With curb and gutter. 80'	Modified H-1	H,B	
98	GRAN062-GC		Salem Rd	US 158 to Huntsboro Rd	2-3 Lane Minor Thoroughfare	Two to Three lane highway with center turn lane where necessary. 100' ROW	Modified H-2	H	
99	GRAN012B-GC	#32	Sanders Rd	US 15 to Belltown Rd	2-3 Lane Minor Thoroughfare	Two to Three lane highway with center turn lane where necessary. 100' ROW	Modified H-2	H,B	
100	GRAN012C-GC	#32	Sanders Rd Extension (West)	Belltown Road to SR 1004	2-3 Lane Minor Thoroughfare	Construct a Two to Three Lane Road to complete a northern bypass of Stem. With Curb and Gutter.	Modified H-1	H,B	NEW Location project list
101	GRAN012D-GC	#32	Sanders Rd Extension (East)	US 15 to Hester Road	2-3 Lane Minor Thoroughfare	Extend Sanders Road south of US 15 to Hester Road. Construct Two to Three lane highway with center turn lane where necessary. 100' ROW	Modified H-2	H,B	
102	GRAN063-GC		Smith Rd	US 15 to Belltown Rd	2-3 Lane Minor Thoroughfare	Two to Three lane highway with center turn lane where necessary. 100' ROW	Modified H-2	H,B	
103	GRAN064-GC		Shock Overton Road Extension	Shock Overton Road to Belltown Road	2-3 Lane Minor Thoroughfare	Construct New Two to Three lane highway with center turn lane where necessary. 100' ROW	Modified H-2	H,B	

GRANVILLE COUNTY HIGHWAY PROJECT PROPOSAL

#	PROJECT ID	Cross Reference Project ID	ROUTE	Section	Proposed Cross Section[3]	Project Description	Cross-Sections	Modes	Comment
104	GRAN065A-GC		Tabbs Creek Rd	Salem Rd to Tabbs Creek Road	2-3 Lane Minor Thoroughfare	Two to Three lane highway with center turn lane where necessary. With curb and gutter. 80' ROW	Modified H-1	H,B	
105	GRAN065B-GC		Tabbs Creek Rd Extension	Tabbs Creek Rd to US-158	2-3 Lane Minor Thoroughfare	Construct New Two to Three lane highway with center turn lane where necessary. 100' ROW	Modified H-1	H,B	
106	GRAN018B-BU	#38	Veasey Road	New Butner Blvd to SR 1004 (Old NC 75)	4 Lane Divided Boulevard	Construct New 4 lane divided with raised median facility and Curb and Gutter. 110' ROW	B1	H,B	part of Butner Blvd (038)
107	GRAN066-BU		W. Lyon Station Rd	New Location NC 56 to Existing West Lyon Station Rd	2-3 Lane Minor Thoroughfare	Construct new 2-3 Lane facility allow for better movement around I-85/NC 56 interchange 80' ROW.	Modified H-1	H,B	
108	GRAN067-BU		W. Lyon Station Rd	Existing West Lyon Station Road at NC 56 to Brogden Rd.	2-3 Lane Minor Thoroughfare	Two to Three lane highway with center turn lane where necessary. With curb and gutter. 80' ROW	Modified H-1	H,B	
109	GRAN068-GC		Watkins Wilkinson Rd	NC 96 to US 15	2 Lane Minor Thoroughfare	Two to Three lane highway with center turn lane where necessary. With curb and gutter. 80' ROW	Modified H-1	H,B	
110	GRAN069-GC		Woodland Church Rd	Bruce Garner Rd to Wake Co.	2-3 Lane Minor Thoroughfare	Two to Three lane highway with center turn lane where necessary. 100' ROW	Modified H-2	H	CAMPO 2035 LRTP
111	GRAN070-GC		I-85	Bwteen Exit 191 (NC-56) and Exit 202 (US-15)		Interchange Study Segment			

Definitions / Abbreviations

COA = Control of Access - adjacent land access is not allowed

Ln = Lane (usually 12 feet wide)

Rd = Road

Div. = Divided (usually with a median)

Freeway = Full control of access facility (no driveways) with entrances only at interchanges

Expressway = Limited/No Driveway Access Encouraged with entrances at intersections or

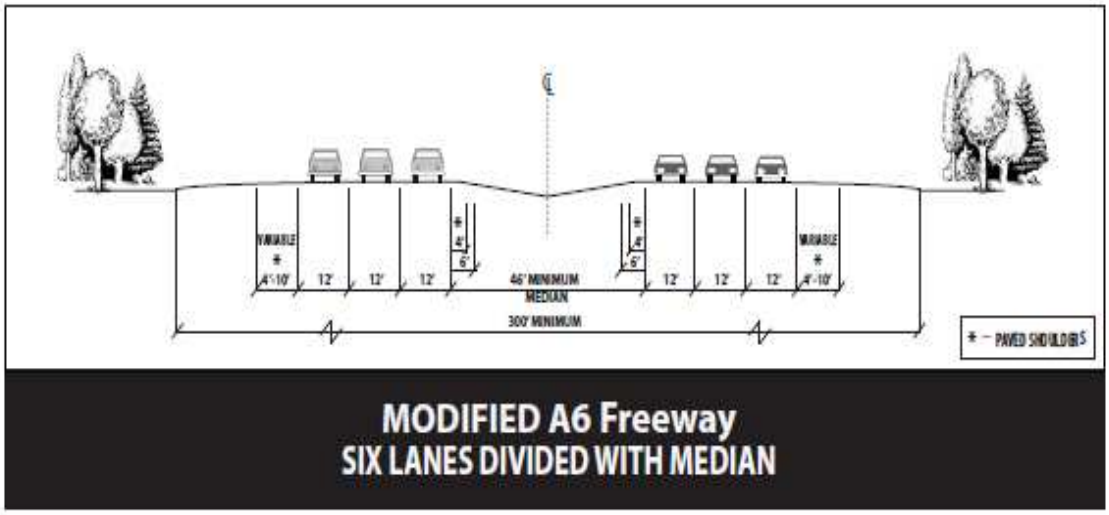
Boulveard = Limited Driveways Allowed but Access may be Restricted to Right-in/Right-out; Major Driveways may

APPENDIX D

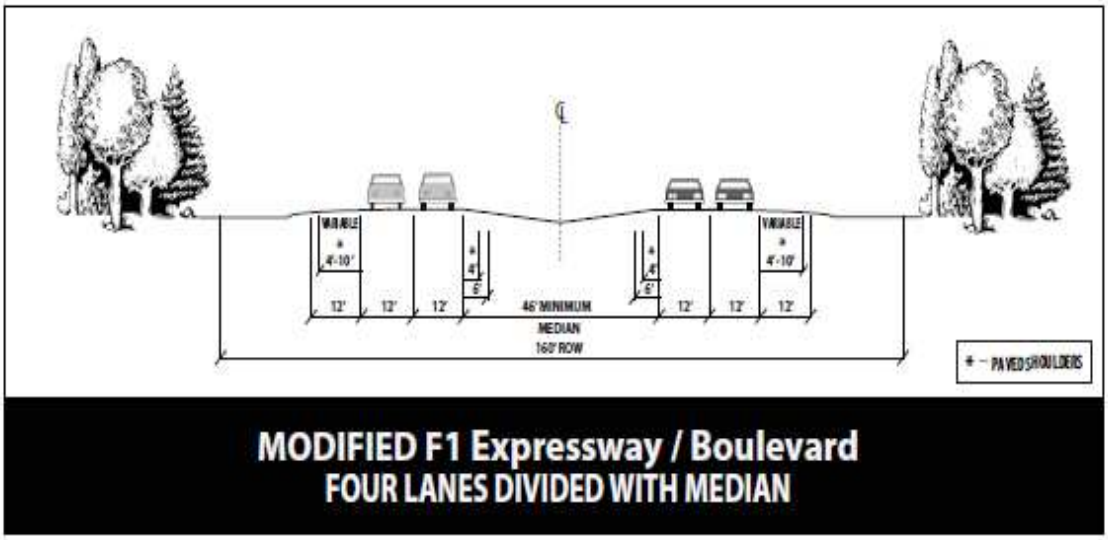
Granville
County
Cross Sections

Appendix D: Granville County Cross Sections

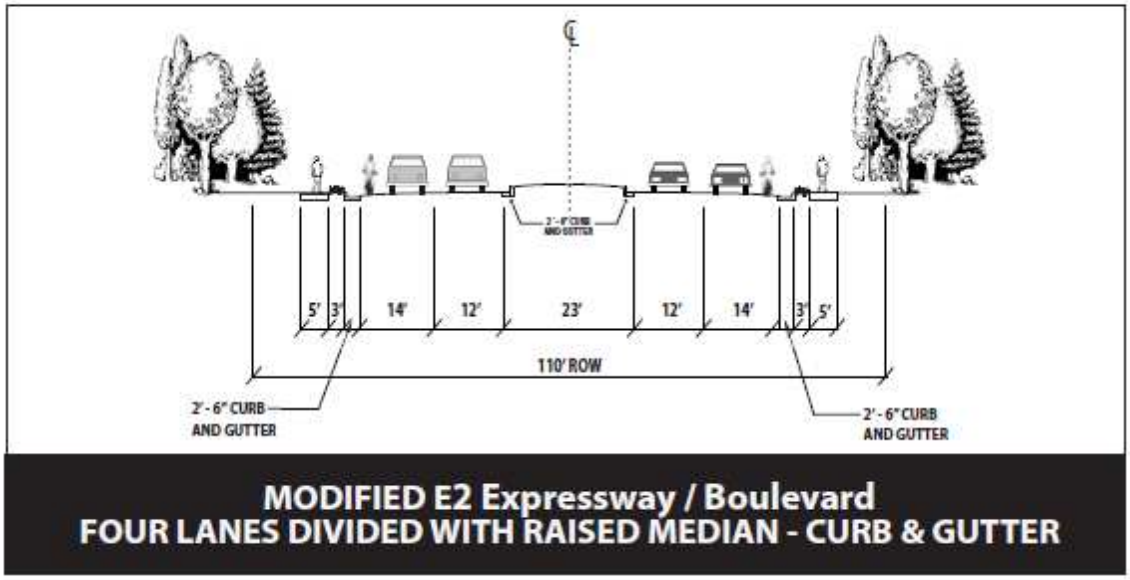
A6 (Freeway): Six-lane divided highway in rural area with fully controlled access and 46' minimum median. ROW 300' minimum.



Modified F1 (Expressway/Boulevard): Four-lane divided with 46' median. Partially controlled access 160' ROW.

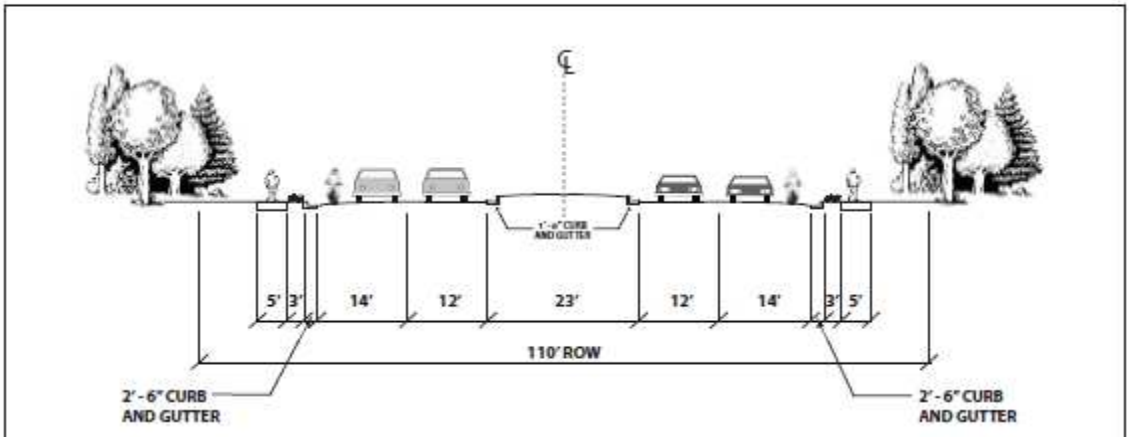


Modified E-2 (Expressway/Boulevard): Four-lane divided with Raised Median and Curb and Gutter with minimum 16' median (23' Median Recommended). Partially controlled access. 110' ROW



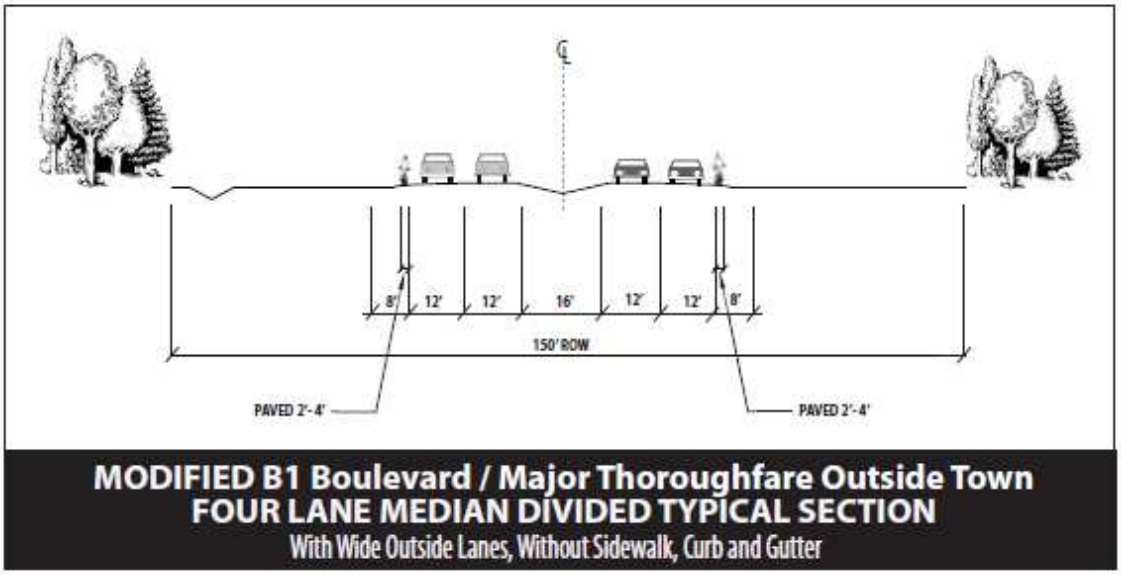
MODIFIED E2 Expressway / Boulevard
FOUR LANES DIVIDED WITH RAISED MEDIAN - CURB & GUTTER

B1 (Boulevard / Major Thoroughfare Inside Town): Four-lane divided with Raised Median and Curb and Gutter and 16-ft median (23' Median Recommended). 110' ROW



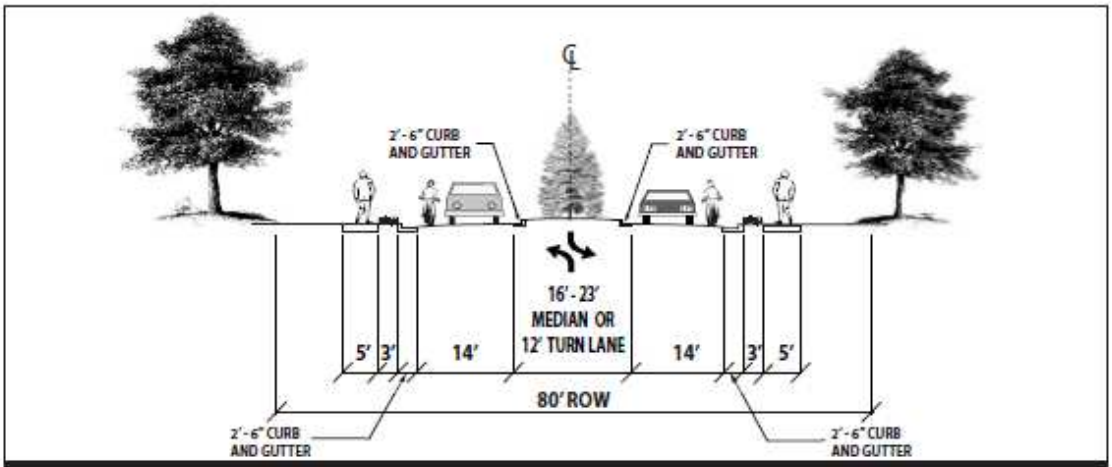
B1 Boulevard / Major Thoroughfare Inside Town
FOUR LANE MEDIAN DIVIDED TYPICAL SECTION
With Wide Outside Lanes

Modified B-1 (Boulevard / Major Thoroughfare Outside Town): Four-lane Divided with Median. No curb and gutter. 150' ROW



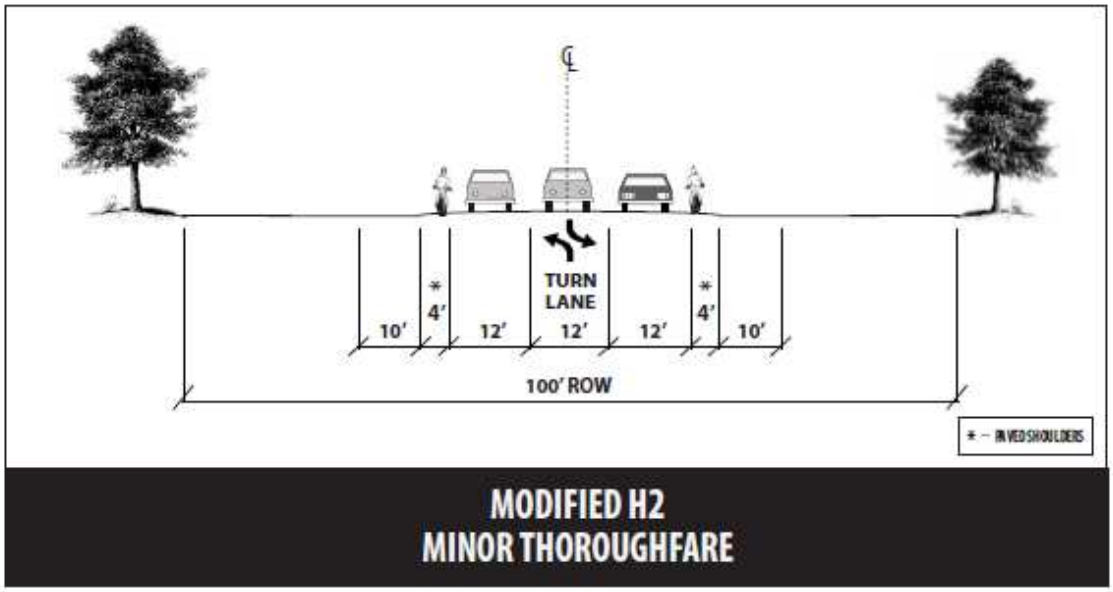
MODIFIED B1 Boulevard / Major Thoroughfare Outside Town
FOUR LANE MEDIAN DIVIDED TYPICAL SECTION
With Wide Outside Lanes, Without Sidewalk, Curb and Gutter

Modified H-1 (Minor Thoroughfare Inside Town): Two-lane Highway with 12' center turning lane or with 16'-23' Median with sidewalk and curb and gutter. 80' ROW

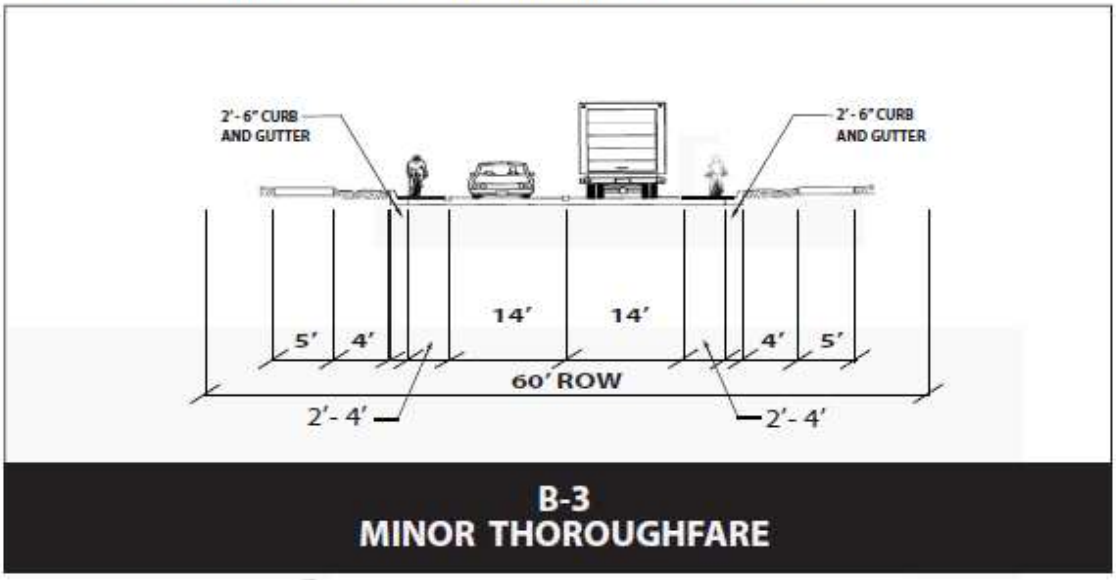


MODIFIED H1
URBAN MINOR THOROUGHFARE

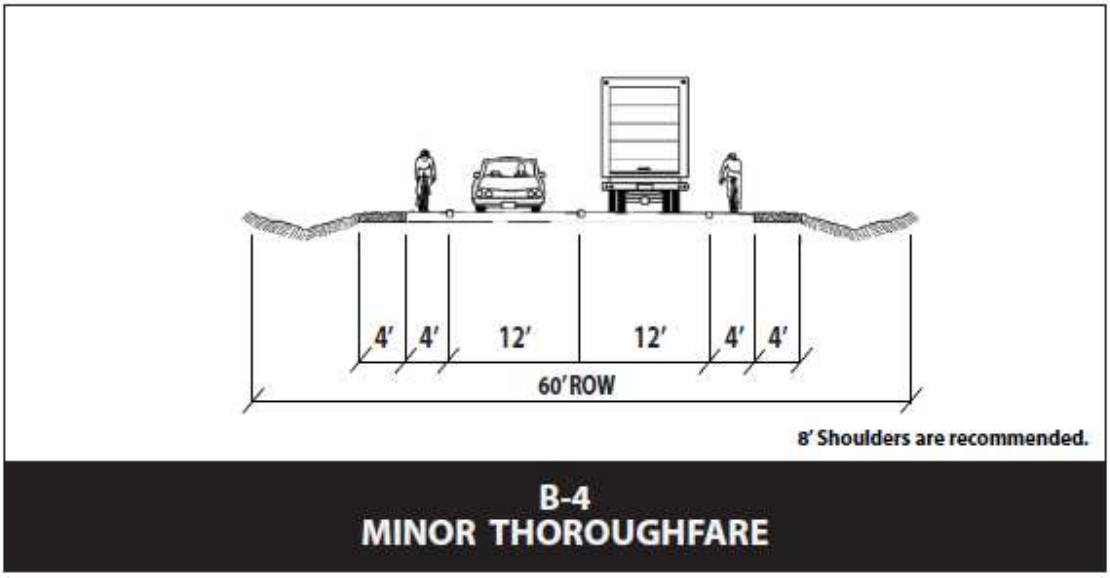
Modified H-2 (Minor Thoroughfare Outside Town): Two to Three-Lane Highway with Center turn lane where necessary with Paved Shoulders. 100' ROW



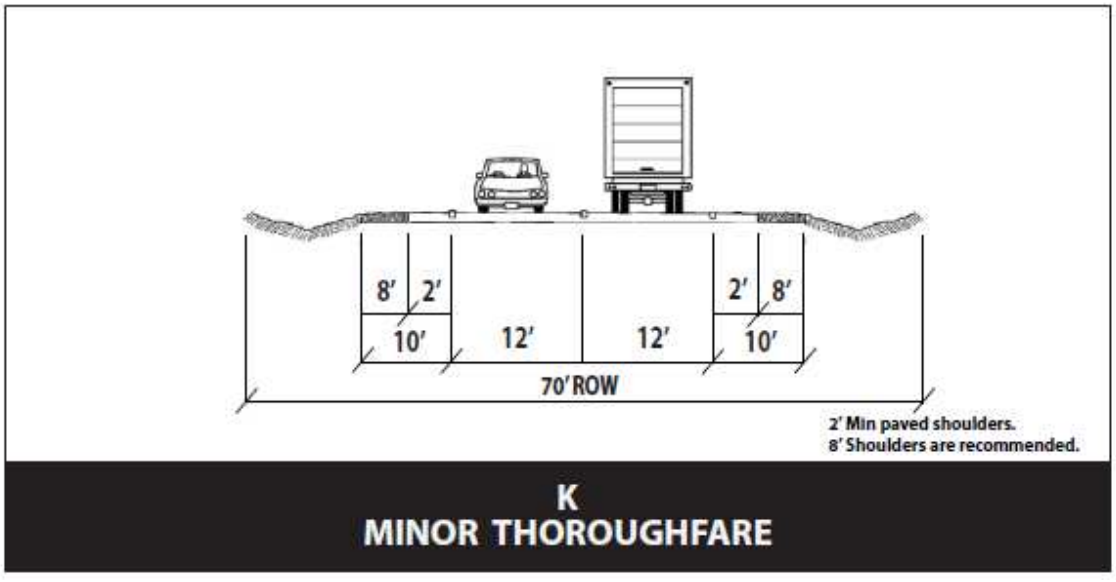
B-3 (Minor Thoroughfare): Two-lane with curb and gutter and sidewalks. 60' ROW



B-4 (Minor Thoroughfare): Two-lane with paved shoulders. 60' ROW



K (Minor Thoroughfare): Two-lane with paved shoulders. 70' ROW

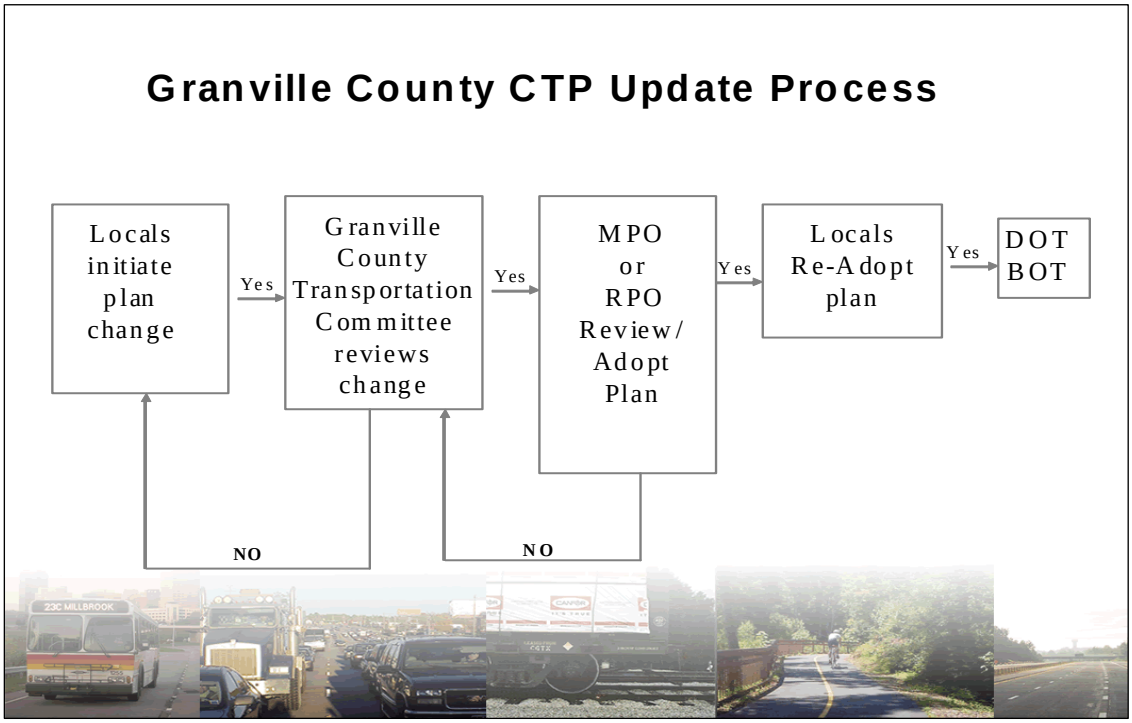


APPENDIX E

Comprehensive Transportation Plan Modification/ Update Record

Appendix E: CTP Plan Modification/Update Record

The Granville County CTP committee adopted the following process on 08/29/07 for changing or updating the CTP.



The following changes have been made since the creation of this report in October 2009.

Type of Edit	Date of Edit	Summary of Changes