

I. Recommendations

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

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

Several facilities in Jackson County are part of the North Carolina Strategic Highway Corridors (SHC) initiative: US 74/US 23, NC 107, US 441 and US 64. The North Carolina Department of Transportation, in collaboration with the Department of Commerce and Department of Environment and Natural Resources created the SHC initiative. The SHC initiative represents a timely effort to protect and maximize the mobility and connectivity on a core set of highway corridors throughout North Carolina, while promoting environmental stewardship through maximizing the use of existing facilities to the extent possible, and fostering economic prosperity through the quick and efficient movement of people and goods. The primary purpose of the Strategic Highway Corridors initiative is to provide a network of high-speed, safe, reliable highways throughout North Carolina.

Initially, a set of criteria was developed to guide the Corridor selection process. These criteria focused on mobility, connectivity to activity centers, and connectivity to interstates, interstate relief routes, major hurricane evacuation routes, and corridors that are part of a national or statewide highway system. Activity centers include urban areas with a population of 20,000 or greater, state seaports, major airports, major intermodal terminals, major military installations, University of North Carolina system campuses, trauma centers, and major tourist attractions. Input from public forums and from members of the North Carolina Board of Transportation (BOT) and NCDOT Operations staff have also been instrumental in further refining and improving this concept. The result is a long-range highway planning vision for the state, illustrated by a vision map with the proposed facility types and documented as a set of recommended Corridors. The 5400 miles of designated Strategic Highway Corridors, which include existing and proposed interstates, account for only 7% of the State's Highway System, but carry 45% of the traffic. The Strategic Highway Corridors concept was adopted by the North Carolina Board of Transportation on September 2, 2004, as a part of North Carolina's Long-Range, Multimodal Statewide Transportation Plan. Following adoption, a formal

policy statement on the initiative was endorsed by the Departments of Commerce, Environment and Natural Resources, Transportation, and the Governor's Office.

Individual Comprehensive Transportation Plans, such as this one for Jackson County, will incorporate the long-term vision of each Corridor.

- Projects along Corridors will be developed in a manner to achieve the long-term vision and goals of the initiative.
- From the local jurisdictions, consistent and compatible land use decisions are needed to support the goals of the initiative.
- Managing development along the Corridors is essential for achieving the long-term vision for each facility. Tools, techniques, and strategies will be identified for protecting the Corridors, such as the use of access management.
- All driveway permits and traffic signal requests along the Corridors will be carefully examined for consistency with the long-term vision for the corridor. Driveway consolidation and sharing will be highly encouraged, and alternative solutions to traffic signals will be sought.

Jackson County Facilities on the Strategic Highway Corridor Vision Plan:

US 74/US 23

US 74/US 23 is recommended to be a freeway throughout Jackson County

NC 107

NC 107 is recommended to be a boulevard from US 23 Business to Cullowhee and then system improvements for the remainder of NC 107.

US 441

US 441/US 23 is recommended to be an expressway from US 74 to the county line.

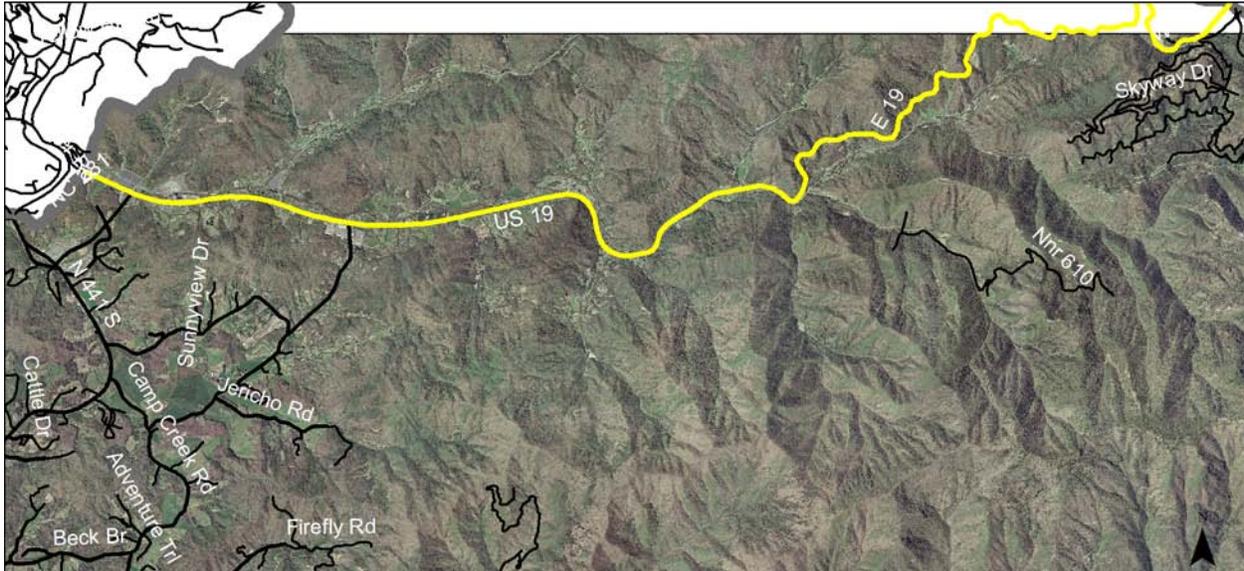
US 441 is recommended to be a boulevard from US 74 to the Qualla Boundary.

US 64

Improvements to the facility are recommended.

Following are problem statements or project descriptions for each CTP recommendation (including SHC recommendations), organized by CTP modal element.

Note: "LOS" stands for Level of Service and is a measure used by traffic engineers to determine the operation level of a road. A LOS D is when speeds are somewhat reduced and is similar to a busy shopping corridor in the middle of a weekday.



Problem Statement

To upgrade this facility from Qualla Boundary EBCI to the Haywood County line to accommodate projected traffic (2035 Design Year) by maintaining a LOS D.

Project Description:

Currently, this section of US 19 is 20-ft wide. It is recommended to upgrade this facility to three lanes from US-441 to Old Mission Road. The remainder of the facility is recommended to be a 24-ft facility, two 12-ft lanes. Volumes are approaching 24,000 vpd in the peak season.

Supporting Information:

History of the project (documented background):

- Proposed improvements along US 19 from US-441 to Old Mission Road are referenced in the Cherokee Long Range Transportation Plan ratified by Tribal Council in July 2008. Several parts of US 19 are already being improved.

Land Use Patterns:

- The majority of US 19 in Jackson County runs through Qualla Boundary EBCI. It has mixed uses along it.

Natural & Human Environmental Context:

- A detailed field investigation is recommended prior to construction in this area.

Multi-modal considerations:

- This route is a recreational bike route in the area. The primary CBD area of Cherokee is located along US 19 and US 441.

Linkages within the overall CTP, other community/state plans, other projects:

- US 19 is a minor arterial on the Federal Functional Classification System.
- This roadway is an important east-west route through the northern portion of Jackson County.
- Improvements are recommended in the Cherokee Long Range Transportation Plan of September 2008.

Identification of overall CTP study area and any sub-area relevant to the project:

- 2009 Jackson County CTP
- Tribal Lands occupied by members of the Eastern Band of Cherokee Indians (EBCI) in western North Carolina.

Context sensitive concepts:

- None at this time.

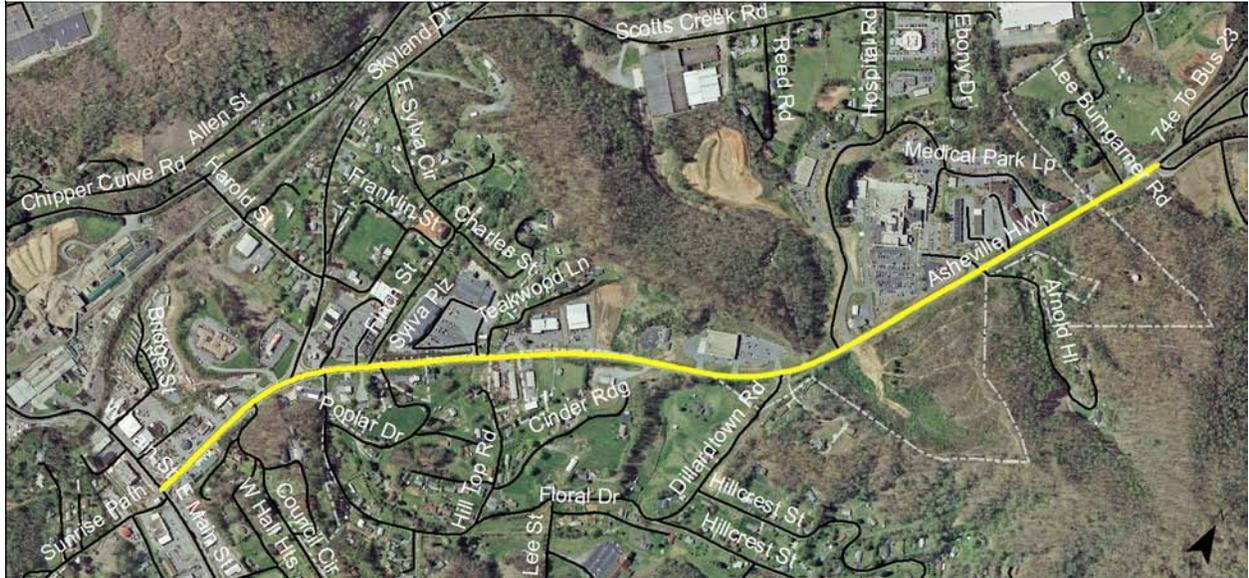
Documentation of public/stakeholder involvement process (project specific):

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

Crash Data

- While NCDOT data did not have any recorded data of significant crash data for US 19, the Cherokee Long Range Transportation Plan included data from the EBCI Police Department that covered a 12-month period ending January 31, 2008. Below is a list of locations the five or more crashes investigated by the EBCI police:
 1. US 19 at US 441 Business – 15 crashes
 2. US 19 at US 441 – 11 crashes
 3. US 19 at Harrah's Driveway -9 crashes
 4. US 19 at Stillwell Branch Road – 6 crashes
 5. US 19 at Acquoni Road – 5 crashes
 6. US 19 at Whitewater Road – 5 crashes

For the data shown above, the majority of the crash rates along US 19 are above the statewide average.



Problem Statement

To accommodate projected traffic (2035 Design Year) by maintaining a LOS D on Asheville Highway.

Project Description:

Widen Asheville Highway from a 2-lane facility to a 4-lane divided boulevard facility with a median from NC 107 to US 23. Volumes are expected to range between 12,200 to 20,200 by 2035.

The proposed improvements to Asheville Highway (US 23) will help to reduce congestion going into downtown Sylva. Harris Regional Hospital is also off this facility, and this improvement will aide access to the hospital.

The NC 107/US 23 Business intersection is the busiest in the planning area and needs improving to safely handle the various movements.

Supporting Information:

History of the project (documented background):

- Proposed improvements to Asheville Highway have not been identified on any prior transportation plan.

Land Use Patterns:

- This corridor has non-residential land-use development along it.
- Mobility on this proposed 4-lane facility can be maximized by limiting driveway access. Future land use plan amendments and land use decisions should consider the functionality of this corridor.

Natural & Human Environmental Context:

- Based on available GIS data, none of the natural and human environmental features examined as a part of this study were identified in the immediate vicinity of the project.

Air Quality Context:

- This project is not located within an air quality non-attainment area.

Multi-modal considerations:

- Freight mobility is expected to be improved by the proposed Asheville Highway improvements. The wider, divided facility will aid freight traffic as will the NC 107 Connector by offering freight traffic an alternative route.
- Sidewalk is recommended along the north side of this section of Asheville Highway

Linkages within the overall CTP, other community/state plans, other projects:

- Asheville Highway is a principal arterial on the Federal Functional Classification System.
- This roadway is an east-west facility connecting US 74 with NC 107.

Identification of overall CTP study area and any sub-area relevant to the project:

- 2009 Jackson County CTP

Context sensitive concepts (if applicable to problem statement):

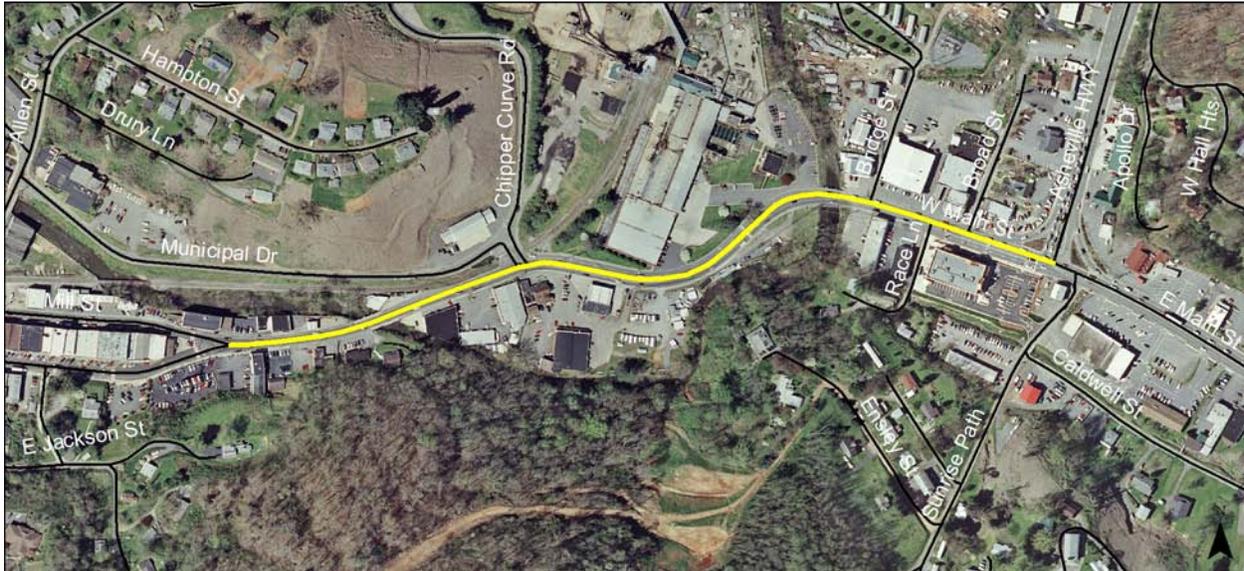
- None known at this time

Documentation of public/stakeholder involvement process (project specific):

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

Crash Data (if applicable to problem statement):

- The intersection of Hospital Road and Asheville Highway has had 6 accidents in the last three years.



Problem Statement

To accommodate projected traffic (2035 Design Year) by maintaining a LOS D on US 23 Business (W. Main Street).

Project Description:

Improving the current 3-lanes facility. There is currently a feasibility study (FS-0814A) to investigate ways to improve traffic conditions along existing NC 107 and US 23 Business in Sylva.

US 23 Business is fronted with commercial development and is the primary route through downtown Sylva. The operation of this facility is hampered by the large number of turning movements associated with the adjacent commercial development. Portions of US 23 Business are currently operating at a less than desirable level for users during peak hours.

This widening is intended to improve the capacity and safety on the existing roadway. Currently, the portion of US 23 Business from Chipper Curve Road to Mill Street (start of one-way pair) is over capacity at peak periods during the day. Daily volumes are expected to reach up to 14,000 vehicles per day.

Supporting Information:

History of the project (documented background):

- Capacity issues on US 23 Business were identified in the 1994 Sylva/Dillsboro Thoroughfare. At that time a closer in Sylva Loop was recommended to offer the needed relief to US 23 Business.
- A feasibility study of potential improvements is in the current State Transportation Improvement Program.

Land Use Patterns:

- Much of the land along this corridor has already been developed.
- The rail line is to the north of this facility.
- Scott's Creek crosses this facility and parallels it.
- Mobility on facility can be maximized by limiting driveway access. Future land use plan amendments and land use decisions should consider the functionality of this corridor.

Natural & Human Environmental Context:

- Scott Creek and the railroad line run parallel to this section of roadway and will make improvements difficult. The bridge over Scott Creek has been labeled as deficient so will need replacing.
- Several businesses are along the road in the section, and they will be impacted by improvements.

Air Quality Context:

- This project is not located within an air quality non-attainment area.

Multi-modal considerations:

- Sidewalks exist on portions of this project. Sidewalks are recommended along both sides of US 23 Business through downtown Sylva.
- It is also recommended to include a bikeway along this facility.

Linkages within the overall CTP, other community/state plans, other projects:

- US 23 Business is a minor arterial on the Federal Functional Classification System.
- It is the major east-west route connecting downtown Sylva and Dillsboro.
- There is currently a feasibility study (FS-0814A) to investigate ways to improve traffic conditions along existing NC 107 and US 23 Business in Sylva.

Identification of overall CTP study area and any sub-area relevant to the project:

- 2009 Jackson County CTP

Context sensitive concepts (if applicable to problem statement):

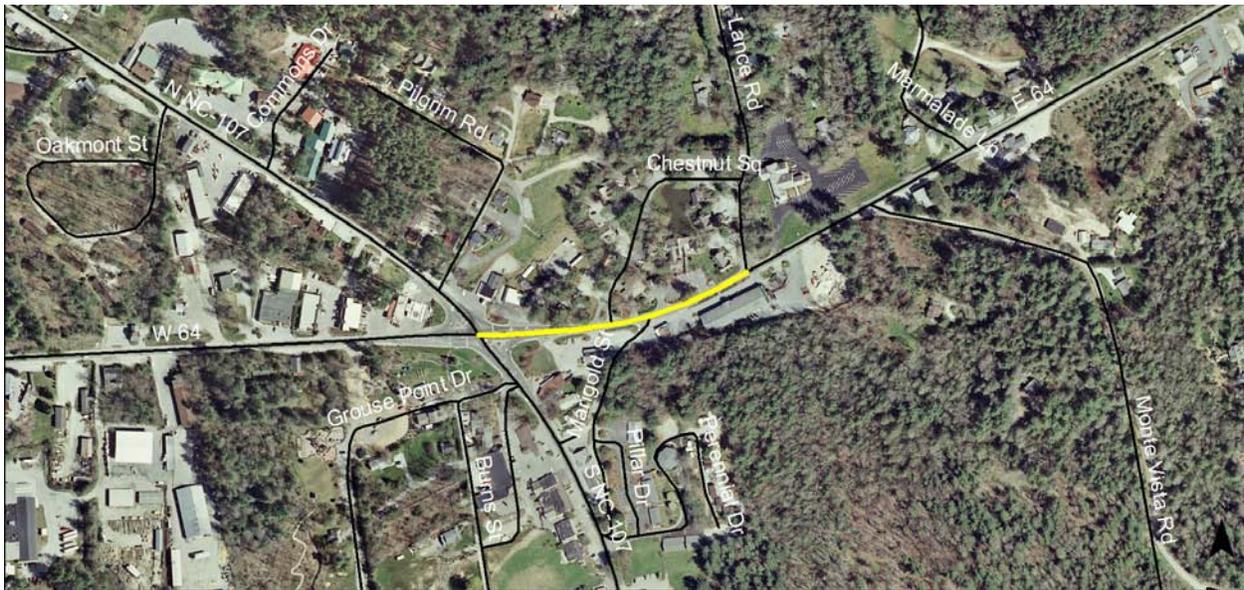
- None at this time. There may be some that come from the feasibility study.
- It should be noted that US 23 Business is not only used for through trips, but is also the primary route for those going to downtown Sylva.

Documentation of public/stakeholder involvement process (project specific):

- At this point, there has not been much comment on the proposal to upgrade US 23 Business. Much of the public input has been on the need, or lack of need, for a connector to relieve traffic on NC 107. The public will have more opportunities to comment on specific improvement recommendations during the feasibility study.

Crash Data (if applicable to problem statement):

- This portion of US 23 Business does not have any high crash intersections.



Problem Statement

To accommodate projected traffic (2035 Design Year) by maintaining a LOS D on US 64.

Project Description:

Widen US 64 from 2-lanes to a 3-lane cross-section from NC 107 to SR 1117 (Lance Road) with a roundabout at the NC 107 intersection.

The proposed improvements to US 64 will help to reduce congestion in downtown Cashiers. This area continues to develop as a retirement and vacation community. Volumes are expected to approach 20,000vpd, but the road only has a capacity of 15,800vpd.

A roundabout has been suggested for the NC 107/US 64 intersection. It is currently signalized.

Supporting Information:

History of the project (documented background):

- The 1994 Jackson County Thoroughfare plan recommended widening this portion of US 64 in Cashiers to three lanes.
- Project identified in the Mountain Landscapes Initiative Cashiers Charrette.

Land Use Patterns:

- This portion of US 64 has primarily commercial development along it.
- Mobility on this proposed 4-lane facility can be maximized by limiting driveway access. Future land use plan amendments and land use decisions should consider the functionality of this corridor.

Natural & Human Environmental Context:

- Based on available GIS data, none of the natural and human environmental features examined as a part of this study were identified in the immediate vicinity of the project. A detailed field investigation is recommended prior to construction in this area.

Air Quality Context:

- This project is not located within an air quality non-attainment area.

Multi-modal considerations:

- Freight mobility is expected to be improved by the proposed US 64 widening.
- Sidewalks are recommended for this section of roadway.

Linkages within the overall CTP, other community/state plans, other projects:

- US 64 is a minor arterial on the Federal Functional Classification System.
- This roadway is an east-west facility traversing the southern portion of Jackson County.

Identification of overall CTP study area and any sub-area relevant to the project:

- 2009 Jackson County CTP

Context sensitive concepts (if applicable to problem statement):

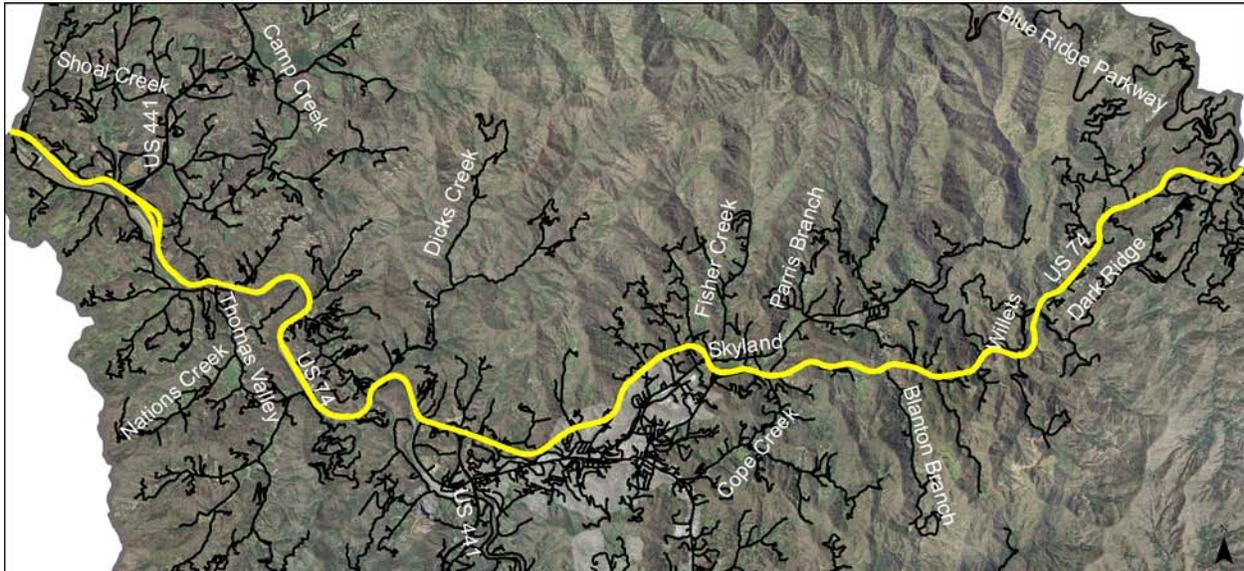
- Not applicable

Documentation of public/stakeholder involvement process (project specific):

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

Crash Data (if applicable to problem statement):

- A significant numbers of severe crashes have occurred over this portion of road from 2005-2007.



Problem Statement

To help provide a network of high-speed, safe, reliable highways throughout North Carolina as part of the North Carolina Strategic Highway Corridor Initiative.

Project Description:

US 74 is a major east-west route that traverses the northern portion of Jackson County connecting Jackson County to Asheville, Gastonia, and Charlotte in the east and to Chattanooga, Tennessee in the west. US 74 is part of the North Carolina Strategic Highway Corridors initiative and is recommended to be upgraded to freeway standards.

Supporting Information:

History of the project (documented background):

- On September 2, 2004, as part of the North Carolina's Long-Range, Multimodal Statewide transportation Plan, the Strategic Highway Corridors concept was adopted by the North Carolina Board of Transportation.

Land Use Patterns:

- Development along this facility is a mix of residential and commercial with some at grade intersections.

Natural & Human Environmental Context:

- A detailed field investigation is recommended prior to construction in this area.

Air Quality Context:

- This project is not located within an air quality non-attainment area.

Multi-modal considerations:

- Not applicable

Linkages within the overall CTP, other community/state plans, other projects:

- North Carolina Strategic Highway Corridors Initiative
- US 74 is an other principal arterial on the Federal Functional Classification System.

Identification of overall CTP study area and any sub-area relevant to the project:

- 2009 Jackson County CTP

Context sensitive concepts (if applicable to problem statement):

- None at this time.

Documentation of public/stakeholder involvement process (project specific):

- No significant issues associated with this project were identified during the public/stakeholder involvement process. There is concern over losing direct access to US 74 that now exists at at-grade intersections.

Crash Data (if applicable to problem statement):

- There are several high crash locations along this corridor, primarily at at-grade intersections Skyland Drive, Steeple Road (Cope Creek Road), Haywood Road, and Sunset Farm Road. The interchange of US 23 Business and US 74 is also a high crash location.



Problem Statement

To accommodate traffic from US 23 Business desiring to go west on US 74.

Project Description:

Currently all traffic desiring to go westbound on US 74 from US 23 Business must go east on US 74 and then make a u-turn at Scott's Creek Church Road (SR 1527) or go to the Grindstaff/US 74 exit or the US 74/US 441 exit. To use either of the other exits, traffic travels westbound on Business US 23 through Sylva which is already experiencing capacity deficiencies. Scott's Creek Church Road is a high crash intersection location.

Supporting Information:

History of the project (documented background):

- The 1994 Sylva/Dillsboro Thoroughfare Plan recommended an interchange at US 23/74 and Scott's Creek Church Road (SR 1527) to more safely handle turning movements.

Land Use Patterns:

- Development is primarily residential around the current interchange.

Natural & Human Environmental Context:

- A detailed field investigation is recommended prior to construction in this area.

Air Quality Context:

- This project is not located within an air quality non-attainment area.

Multi-modal considerations:

- Not applicable

Linkages within the overall CTP, other community/state plans, other projects:

- US 74 is an other principal arterial on the Federal Functional Classification System.

Identification of overall CTP study area and any sub-area relevant to the project:

- 2009 Jackson County CTP

Context sensitive concepts (if applicable to problem statement):

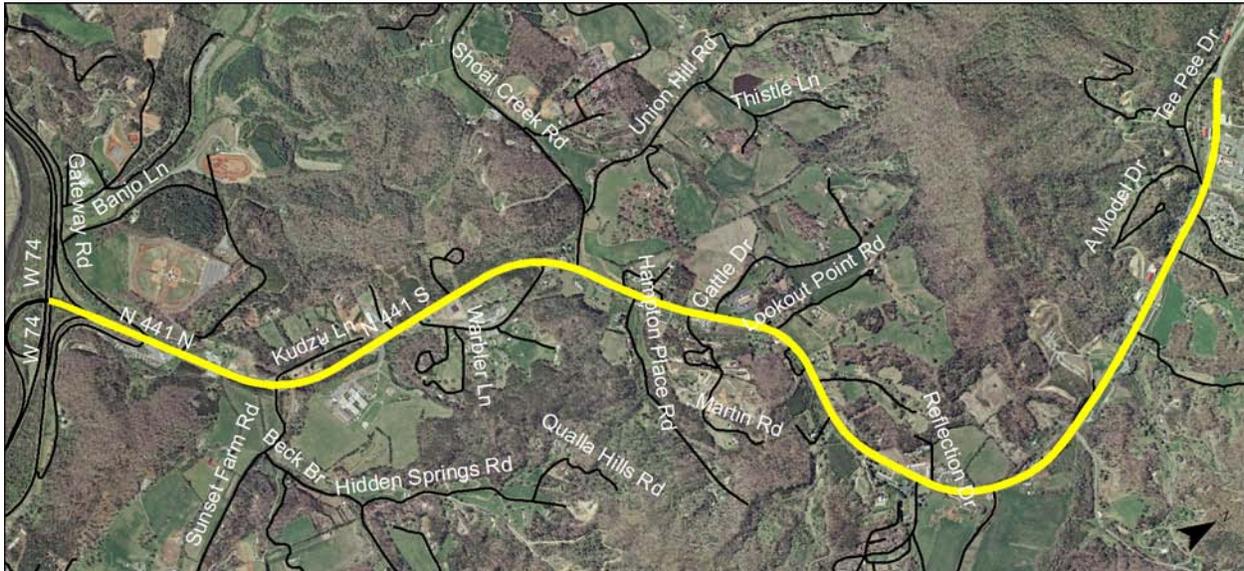
- None at this time.

Documentation of public/stakeholder involvement process (project specific):

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

Crash Data (if applicable to problem statement):

- This interchange is on the list of significant crash accidents as is the intersection of US 74/23 and Scott's Creek Church Road.



Problem Statement

To reconfigure this facility from its current 5 lanes to a 4-lane divided boulevard from US 74 to Qualla EBCI to more safely accommodate projected traffic (2035 Design Year).

Project Description:

Currently, this section of US 441 is five lanes with the center turn lane. A four lane divided boulevard would be safer.

Supporting Information:

History of the project (documented background):

- Proposed improvements along US 441 have not been identified on any prior transportation plan.

Land Use Patterns:

- US 441 has mixed use along it: residential, commercial, and service. Smokey Mountain Elementary School is located off this facility.

Natural & Human Environmental Context:

- Based on available GIS data, none of the natural and human environmental features examined as a part of this study were identified in the immediate vicinity of the project. A detailed field investigation is recommended prior to construction in this area.

Air Quality Context:

- This project is not located within an air quality non-attainment area.

Multi-modal considerations:

- There is a proposed greenway along this route.

Linkages within the overall CTP, other community/state plans, other projects:

- US 441 is a minor arterial on the Federal Functional Classification System.
- This roadway is an important connector between US 74, the Qualla Boundary, and US 19.

Identification of overall CTP study area and any sub-area relevant to the project:

- 2009 Jackson County CTP
- Core component of the Jackson County US 441 Small Area Plan

Context sensitive concepts (if applicable to problem statement):

- None at this time.

Documentation of public/stakeholder involvement process (project specific):

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

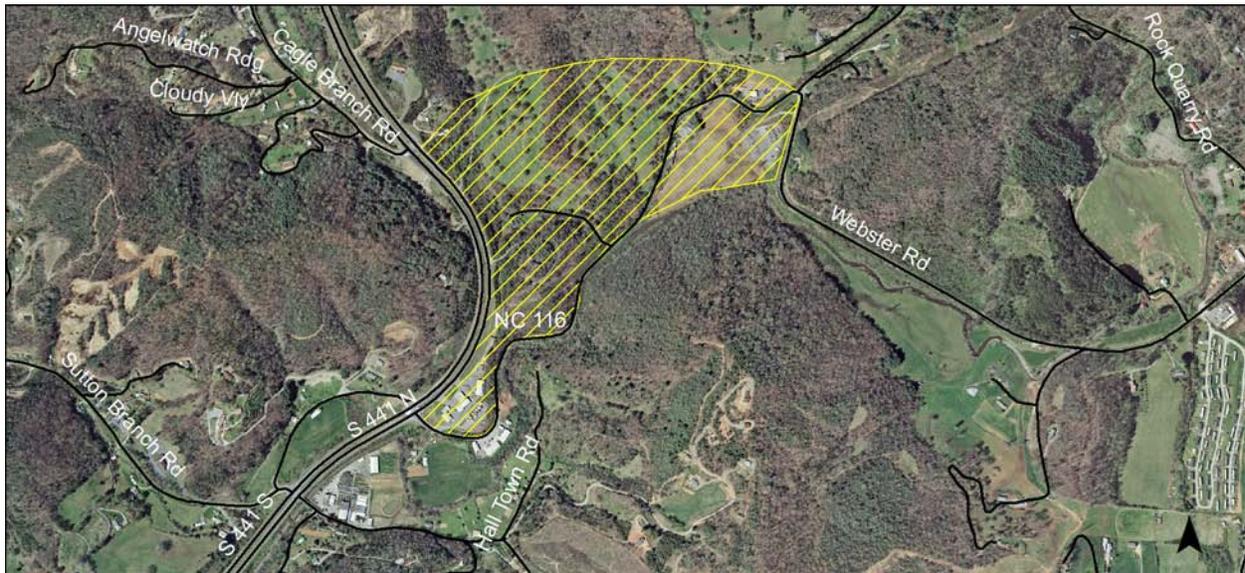
Crash Data (if applicable to problem statement):

- There is one high crash accident intersection located along this corridor (US 441 and Olivet Church Road).

US 441 and NC 116 intersection
Replace intersection with an interchange (may
require new location)

ID No: Jack0008-H

Last updated on: 8/24/10



Problem Statement

To accommodate traffic desiring to go south on US 441 from NC 116.

Project Description:

Currently, all traffic from NC 116 desiring to go south on US 441 must make a right turn and then make a u-turn about a half of a mile at Cagle Branch Road. It has been suggested to relocate this intersection at a place where an interchange could be built. Hall Town Road is another alternative for those desiring to go south on US 441. It comes out at an intersection with US 441 where a vehicles can turn left to go south on US 441. Volumes along NC 116 are expected to be around 5400 vehicles per day (vpd) by 2035. US 441 may have approximately 29,000 vpd with a fairly even directional split.

North River Road congestion is a result of the current configuration. Western Carolina University staff, faculty, and students use this route on a daily basis as do other residents.

Supporting Information:

History of the project (documented background):

- Proposed improvements at this interchange have not been identified on any prior transportation plan.

Land Use Patterns:

- Not applicable

Natural & Human Environmental Context:

- A detailed field investigation is recommended prior to construction in this area as there may be issues because of new location.
- Preservation of farmland is local priority.

Air Quality Context:

- This project is not located within an air quality non-attainment area.

Multi-modal considerations:

- Not applicable

Linkages within the overall CTP, other community/state plans, other projects:

- US 441 is an other principal arterial on the Federal Functional Classification System and NC 116 is a major collector.

Identification of overall CTP study area and any sub-area relevant to the project:

- 2009 Jackson County CTP

Context sensitive concepts (if applicable to problem statement):

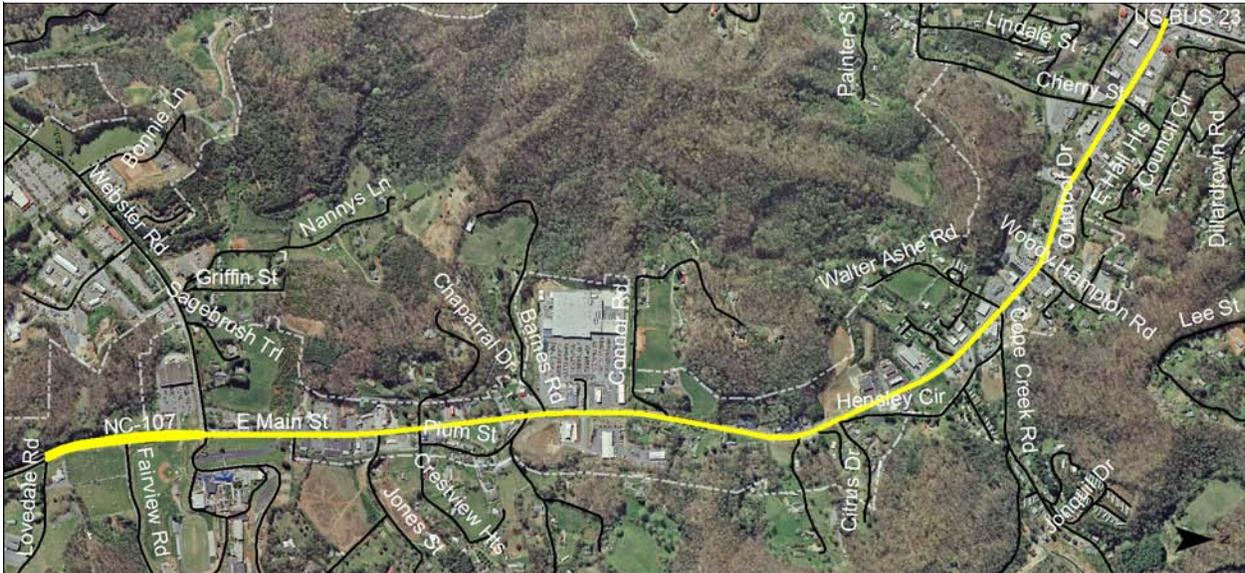
- None at this time.

Documentation of public/stakeholder involvement process (project specific):

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

Crash Data (if applicable to problem statement):

- This intersection has had 9 low accident severity crashes from 2005-2008.



Problem Statement

To accommodate projected traffic (2035 Design Year) by maintaining a LOS D on NC 107.

Project Description:

The northern portion of NC 107 is fronted with commercial development. NC 107 is currently operating at a less than desirable level for users during peak hours.

Improving the current 5-lane divided facility to divided boulevard facility with median from US 23 Business to south of Lovedale Road. Intersections would also be improved during this upgrade. It is recommended to update the traffic signals timing along this corridor.

This widening is intended to improve the capacity and safety on the existing roadway. This project is also needed to improve the north-south transportation link between US 74 & US 23 and the southern portion of Jackson County, including access to Western Carolina University. Currently, the portion of NC 107 from US 23 Business (Asheville Highway) to NC 116 (Webster Road) is over capacity at peak periods during the day. From NC 116 to the end of the 5-lane section, NC 107 is approaching capacity and will be over capacity by the end of this planning period, the year 2035. There is a significant amount of business development along this facility with many driveway access points which decreases capacity. The local high school and the community college are off this facility. Many of Jackson County high accident intersections are along this corridor. The recommended improvements also meet the NCDOT goal of moving people and goods more efficiently.

2035 daily volumes are expected to be between 31,000 to 36,000 with the current capacity of the road at 22,300 vehicles per day.

Supporting Information:

History of the project (documented background):

- Improvements to NC 107 were identified in the previously adopted 1994 thoroughfare plans in Sylva/Dillsboro and Jackson County.
- Improvements to this route have been a consistent priority of the County, and a feasibility study of potential improvements is in the current State Transportation Improvement Program (FS-0814A).

Land Use Patterns:

- Much of the land along this corridor has already been developed. Connectivity between businesses along the same side of the road should be looked at as driveway entrances and exits will be right-in/right-out only with the medium, except at intersections.
- Mobility on facility can be maximized by limiting driveway access. Future land use plan amendments and land use decisions should consider the functionality of this corridor.

Natural & Human Environmental Context:

- Based on available GIS data, none of the natural environmental features examined as a part of this study were identified in the immediate vicinity of the project. Improvements will have an impact on some businesses along the corridor.

Air Quality Context:

- This project is not located within an air quality non-attainment area.

Multi-modal considerations:

- Freight mobility is expected to be improved along NC 107 by the proposed NC 107 Connector by giving truck traffic an alternative route other than NC 107. The NC 107 Connector would be designated as NC 107 while existing NC 107 becomes NC 107 Business.
- Sidewalks along this facility are recommended to accommodate visitors staying in hotels along this route and local residents.
- 107 is a major route for Jackson County transit. It is recommended to continue to put transit stops along this facility to the retail and employment centers. Bus pullouts are also recommended.
- Bicycle connection is desired in the future.

Linkages within the overall CTP, other community/state plans, other projects:

- NC 107 is a principal arterial on the Federal Functional Classification System.
- NC 107 is part of a North Carolina Strategic Highway Corridor: Corridor 05 - Anderson, SC to Knoxville, TN (NC 107, US 74, US 441). The northern portion of

NC 107 is recommended to be a boulevard (4-lanes with a median and limited control of access).

- It is the major north-south route providing direct access points north of Sylva to points south of Sylva.
- There is currently a feasibility study (FS-0814A) to investigate ways to improve traffic conditions along existing NC 107 between Sylva and Western Carolina University.

Identification of overall CTP study area and any sub-area relevant to the project:

- 2009 Jackson County CTP

Context sensitive concepts (if applicable to problem statement):

- None at this time. There may be some that come from the feasibility study.

Documentation of public/stakeholder involvement process (project specific):

- At this point, there has not been much comment on the proposal to upgrade NC 107 to a four-lane divided facility. Much of the public input has been on the need, or lack of need, for a connector to relieve traffic on NC 107. Many of the comments on the Goals and Objectives Survey did note traffic congestion along NC 107 as a major concern.

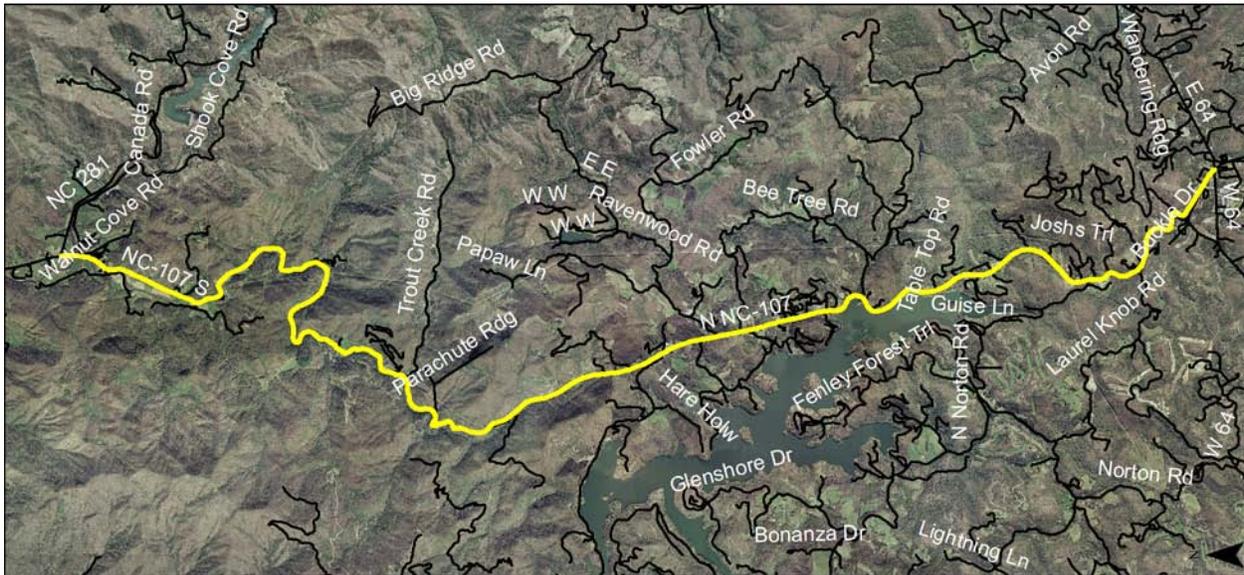
Crash Data (if applicable to problem statement):

- This portion of NC 107 has fourteen high crash intersections.

Alternatives tested with the travel demand model during this CTP study:

Because NC 107 is the major north-south facility through Jackson County and several municipalities within the county, it is crucial that its ability to function is not diminished by congestion. Several new facility alternatives were tested when looking for ways to improve safety and traffic flow along NC 107. Much of the congestion along NC 107 is due to the land use in the area (large retail center, the community college, and a high school) so no specific alternative tested, other than removing all drive-way accesses along NC 107 and making it a 4-lane divided facility, completely relieved congestion expected over the next 25 years. However, the addition of a new connector between US 74/23 and NC 107 would help preserve the integrity of NC 107 without having to widen the facility to six lanes.

See the NC 107 Connector for a summary of NC 107 Connector alternatives tested. It should be noted that if a new connector were built, the NC 107 designation would move to that facility, and the existing NC 107 would become Business NC 107. Alternatives that connected to NC 107 north of NC 116 did not offer much relief to NC 107 because most people continued to travel to the northern portion of NC 107 due to land use in the area. A new facility further south of the business district seems to remove the through traffic off of the northern portion of NC 107. Approximately 5000 to 6000 vehicles per day would shift from existing NC 107 to the new NC 107 Connector.



Problem Statement

To implement safety improvements and climbing lanes from NC 281 to US 64 to more safely accommodate projected traffic (2035 Design Year) on NC107.

Project Description:

Upgrade the facility and add climbing lanes. NC 107 is a major north-south route through Jackson County. Many trucks use this facility. Addition of climbing lanes will increase the capacity and safety of the facility. Volumes are expected to be 6000 to 11,500 vehicles per day.

Supporting Information:

History of the project (documented background):

- Proposed improvements were identified in the 1994 Thoroughfare plan.

Land Use Patterns:

- Rural with mix of residential and commercial land use.

Natural & Human Environmental Context:

- Based on available GIS data, none of the natural and human environmental features examined as a part of this study were identified in the immediate vicinity of the project. A detailed field investigation is recommended prior to construction in this area as there may be issues because of new location.

Air Quality Context:

- This project is not located within an air quality non-attainment area.

Multi-modal considerations:

- Sidewalk is recommended north of US 64 in the Cashiers area.

Linkages within the overall CTP, other community/state plans, other projects:

- NC 107 is a principal arterial/minor arterial on the Federal Functional Classification System.
- North Carolina Strategic Highway Corridors Initiative

Identification of overall CTP study area and any sub-area relevant to the project:

- 2009 Jackson County CTP

Context sensitive concepts (if applicable to problem statement):

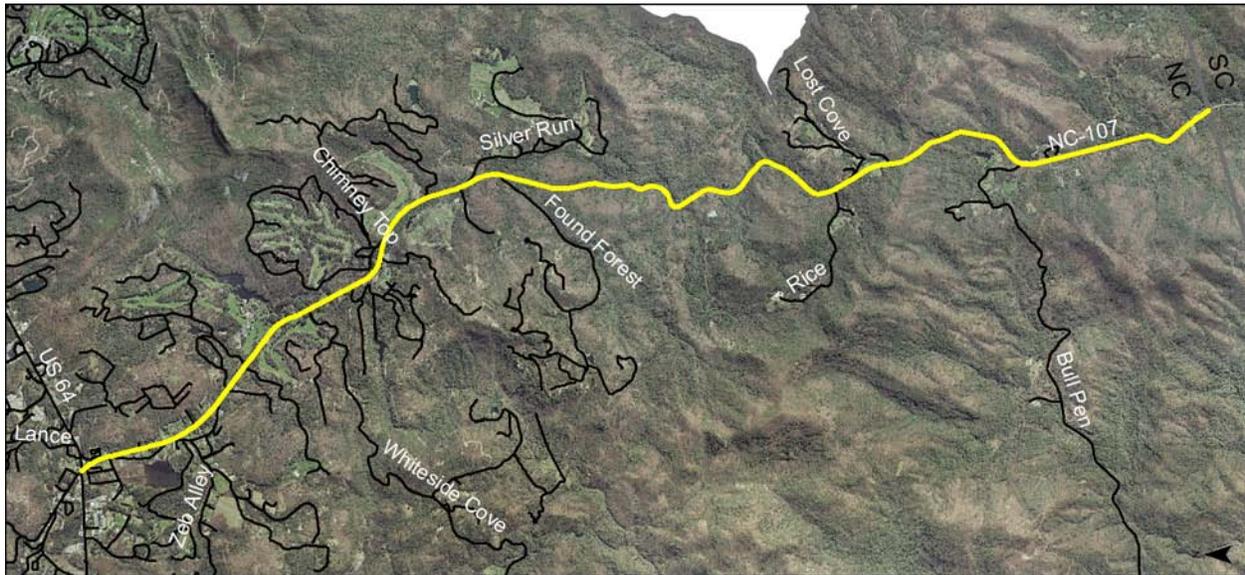
- This facility is highly constrained by geography throughout sections which prohibit the ideal width of the facility.

Documentation of public/stakeholder involvement process (project specific):

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

Crash Data (if applicable to problem statement):

- There are seven high crash intersections along this portion of NC 107.



Problem Statement

To help provide a network of high-speed, safe, reliable highways throughout North Carolina as part of the North Carolina Strategic Highway Corridor Initiative.

Project Description:

NC 107 is a major north-south route through Jackson County. Many trucks use this facility. NC 107 is part of the North Carolina Strategic Highway Corridors initiative and is recommended to be upgraded.

Supporting Information:

History of the project (documented background):

- On September 2, 2004, as part of the North Carolina's Long-Range, Multimodal Statewide transportation Plan, the Strategic Highway Corridors concept was adopted by the North Carolina Board of Transportation. NC 107 is part of this initiative and designated as

Land Use Patterns:

- Development is a mix of residential and business with some at grade intersections.

Natural & Human Environmental Context:

- A detailed field investigation is recommended prior to construction in this area.

Air Quality Context:

- This project is not located within an air quality non-attainment area.

Multi-modal considerations:

- Not applicable

Linkages within the overall CTP, other community/state plans, other projects:

- NC 107 is a minor arterial on the Federal Functional Classification System.
- North Carolina Strategic Highways Corridors Initiative

Identification of overall CTP study area and any sub-area relevant to the project:

- 2009 Jackson County CTP

Context sensitive concepts (if applicable to problem statement):

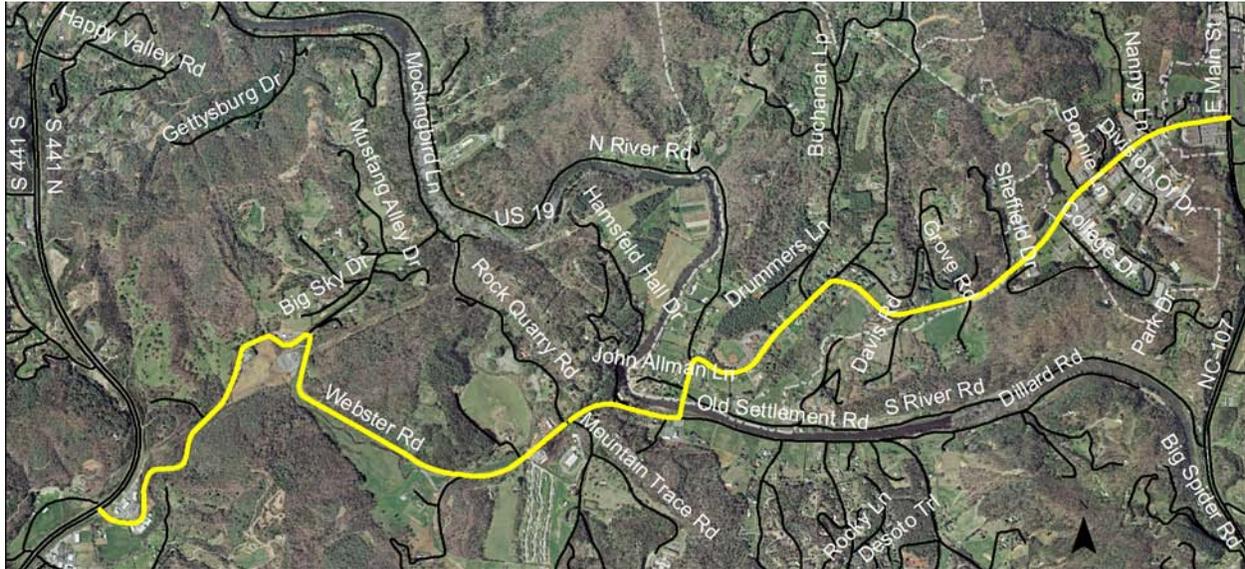
- None at this time.

Documentation of public/stakeholder involvement process (project specific):

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

Crash Data (if applicable to problem statement):

- None at this time.



Problem Statement

To upgrade this facility and straighten to more safely accommodate projected traffic (2035 Design Year) by maintaining a LOS D on NC 116.

Project Description:

Widen and straighten NC 116 (Webster Road) from NC 107 to US 441. Pavement is currently 18' wide. NC 116 not only serves those living and working along this facility, but it also serves as a connector between NC 107 and US 441. Widening the pavement to 11' lanes would help this facility handle the traffic more safely. Volumes are expected to range from 5900 to 10,800 vehicles per day (vpd) in 2035. The capacity along this facility is 10,400 to 11,500 vpd. Widening is not recommended in the city limits of Webster as it may be difficult with the residential and historical development.

Supporting Information:

History of the project (documented background):

- Proposed improvements to NC 116 have been identified in the 1994 Jackson County Thoroughfare Plan.

Land Use Patterns:

- NC 116 has both commercial and residential development along it.

Natural & Human Environmental Context:

- There may be natural and human environmental features that are of concern with this project. There are several historic sites on the National Register in Webster. NC 116 crosses the Tuckasegee River, and parallels Savannah Creek in some locations.

Air Quality Context:

- This project is not located within an air quality non-attainment area.

Multi-modal considerations:

- Freight mobility is expected to be improved by the proposed improvements.
- Sidewalk already exists from NC 107 to John Allman Lane.
- A bikeway (2' paved shoulders) is recommended along NC 116.

Linkages within the overall CTP, other community/state plans, other projects:

- NC 116 is a minor arterial/major collector on the Federal Functional Classification System.
- This roadway is an important connector between US 441 and NC 107.

Identification of overall CTP study area and any sub-area relevant to the project:

- 2009 Jackson County CTP

Context sensitive concepts (if applicable to problem statement):

- Not at this time, but their may need to be some developed depending on some of the natural and human environmental issues mentioned above.

Documentation of public/stakeholder involvement process (project specific):

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

Crash Data (if applicable to problem statement):

- There are three high crash intersection locations along this proposed project.



Problem Statement

To upgrade this facility to 10' lanes to more safely accommodate projected traffic (2035 Design Year) by maintaining a LOS D on Cope Creek Road. The eastern portion to NC 107 is currently being upgraded, and it is recommended to continue the upgrade for the remainder of Cope Creek Road.

Project Description:

Widen and straighten Cope Creek Road to a 20' cross-section with 10' lanes for safety improvements.

Cope Creek Road not only serves those living along this facility, but it also serves as a "short cut" between US 23 Business and NC 107. Widening to 10' lanes would help this facility handle the traffic more safely. If a new connector between US 74/US 23 and NC 107 is not built, Cope Creek Road volumes may reach up to 9700 vehicles per day due to traffic avoiding congestion along US 23 Business and NC 107.

Supporting Information:

History of the project (documented background):

- Proposed improvements Cope Creek Road have not been identified on any prior transportation plan.

Land Use Patterns:

- Cope Creek is primarily residential.

Natural & Human Environmental Context:

- Based on available GIS data, none of the natural and human environmental features examined as a part of this study were identified in the immediate vicinity of the project. But physical constraints and development do limit widening the road more than 10' lanes.

Air Quality Context:

- This project is not located within an air quality non-attainment area.

Multi-modal considerations:

- As a residential collector that connects a residential area to a business area, sidewalks and paved shoulders to accommodate bikes are recommended along this facility.

Linkages within the overall CTP, other community/state plans, other projects:

- Cope Creek Road is a collector on the Federal Functional Classification System.
- This roadway is an important connector between US 74/US 23 and NC 107.

Identification of overall CTP study area and any sub-area relevant to the project:

- 2009 Jackson County CTP

Context sensitive concepts (if applicable to problem statement):

- The ideal upgrade to this facility would be 12' lanes. Due to the existing restraints current upgrades from NC 107 to E Cope Creek Road have been to 10' lanes to fit the community context. The remainder of the upgrades from E Cope Creek Road to US 74 should also consider the community context.

Documentation of public/stakeholder involvement process (project specific):

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

Crash Data (if applicable to problem statement):

- The intersections with NC 107 and US74/US 23 are both sites of significant crash accidents.



Problem Statement

To upgrade this facility to a minimum cross-section of 22' to more safely accommodate projected traffic (2035 Design Year).

Project Description:

Widen Old Settlement Road to a minimum 22' cross-section with 11' lanes.

This road is currently 16' wide and should be widened. With the Tuckasegee River next to this facility, the road is subject to flooding in some locations during periods of rain.

Supporting Information:

History of the project (documented background):

- Proposed improvements to Old Settlement Road were proposed in the 1994 Jackson County Thoroughfare Plan.

Land Use Patterns:

- Development along Old Settlement is primarily residential.

Natural & Human Environmental Context:

- The Tuckasegee River runs parallel to Old Settlement Road. A detailed field investigation is recommended prior to construction in this area.
- The ideal upgrade to this facility would be 12' lanes. Due to the existing restraints current upgrades from NC 107 to E Cope Creek Road have been to 10' lanes to fit the community context. The remainder of the upgrades from E Cope Creek Road to US 74 should also consider the community context.

Air Quality Context:

- This project is not located within an air quality non-attainment area.

Multi-modal considerations:

- A bikeway is recommended along this facility.

Linkages within the overall CTP, other community/state plans, other projects:

- Old Settlement Road is a collector on the Federal Functional Classification System.
- This roadway is an important connector for residents between NC 116 and NC 107.

Identification of overall CTP study area and any sub-area relevant to the project:

- 2009 Jackson County CTP

Context sensitive concepts (if applicable to problem statement):

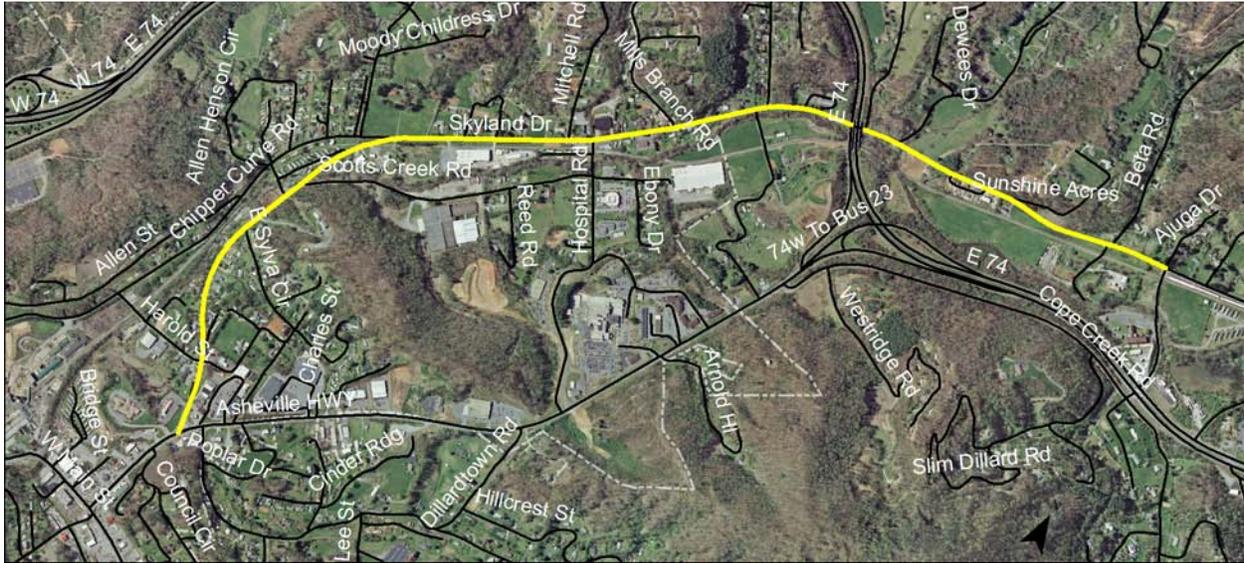
- The ideal upgrade to this facility would be 12' lanes. Due to the existing topographical, environmental, and community constraints 11' lanes might have to suffice.

Documentation of public/stakeholder involvement process (project specific):

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

Crash Data (if applicable to problem statement):

- The intersection of NC 107 and Old Settlement Road is a high crash intersection location.



Problem Statement

To upgrade this facility to a minimum cross-section of 22' to more safely accommodate projected traffic (2035 Design Year).

Project Description:

Widen Skyland Drive to a minimum 22' cross-section with 11' lanes. This road is currently 16' wide with 8' lanes and should be widened. It is estimated that 8000 vehicles per day will use this facility by 2035. The paper mill has trucks that regularly use this route. Skyland Drive is also a recreational bicycle route.

Supporting Information:

History of the project (documented background):

- Proposed improvements to Skyland Drive were proposed in the 1994 Jackson County Thoroughfare Plan.

Land Use Patterns:

- Development along Skyland Drive is primarily residential on the eastern portion and commercial on the western portion.

Natural & Human Environmental Context:

- Based on available GIS data, none of the natural and human environmental features examined as a part of this study were identified in the immediate vicinity of the project. A detailed field investigation is recommended prior to construction in this area.

Air Quality Context:

- This project is not located within an air quality non-attainment area.

Multi-modal considerations:

- A sidewalk is recommended along Skyland Drive from the McDonalds at Ginger Snap Lane to Mills Branch Road.
- A bikeway is recommended along Skyland Drive.

Linkages within the overall CTP, other community/state plans, other projects:

- Skyland Drive is a collector on the Federal Functional Classification System.
- This roadway is an important connector for residents north of downtown Sylva.

Identification of overall CTP study area and any sub-area relevant to the project:

- 2009 Jackson County CTP

Context sensitive concepts (if applicable to problem statement):

- The ideal upgrade to this facility would be 12' lanes. Due to the existing topographical, environmental, and community constraints 11' lanes might have to suffice.

Documentation of public/stakeholder involvement process (project specific):

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

Crash Data (if applicable to problem statement):

- The intersection of NC 107 and Skyland Drive is a high crash intersection location.



Problem Statement

To upgrade this facility to a minimum cross-section of 22' to more safely accommodate projected traffic (2035 Design Year).

Project Description:

Widen Speedwell Road to a minimum 22' cross-section with 11' lanes. This road is currently 18' wide and should be widened. It is estimated that 1400 vehicles per day will use this facility by 2035. It is less than one mile from Western Carolina University, and college students use this road on a daily basis. It is narrow with blind spots, and citizens do not feel safe walking along it on the left side. Residents would like to be able to safely walk to the general store.

Supporting Information:

History of the project (documented background):

- Proposed improvements to Speedwell Road have not been part of past thoroughfare plans. But in 1986, the County Commissioners proposed to improve this road.

Land Use Patterns:

- Development along Speedwell Road is primarily residential.

Natural & Human Environmental Context:

- Based on available GIS data, none of the natural and human environmental features examined as a part of this study were identified in the immediate vicinity of the project. A detailed field investigation is recommended prior to construction in this area.

Air Quality Context:

- This project is not located within an air quality non-attainment area.

Multi-modal considerations:

- Sidewalk is recommended along Speedwell Road.

Linkages within the overall CTP, other community/state plans, other projects:

- Speedwell Road is not on the Federal Functional Classification System.

Identification of overall CTP study area and any sub-area relevant to the project:

- 2009 Jackson County CTP

Context sensitive concepts (if applicable to problem statement):

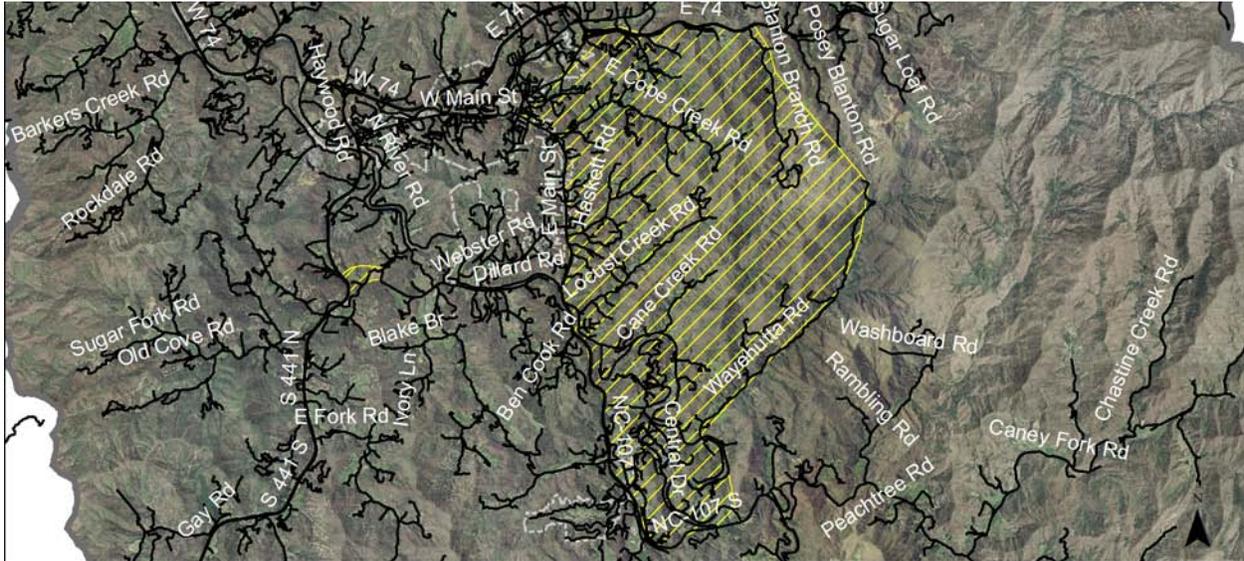
- The ideal upgrade to this facility would be 12' lanes. Due to the existing topographical, environmental, and community constraints 11' lanes might have to suffice.

Documentation of public/stakeholder involvement process (project specific):

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

Crash Data (if applicable to problem statement):

- The intersection of NC 107 and Speedwell/Cullowhee Mountain Road is a high crash intersection location.



Problem Statement

To provide an alternative north-south route through the urban area of Jackson County that eases congestion along NC 107 (making NC 107 safer), serves as a more direct route for traffic on US 74/US 23 who desire to go to Western Carolina University and points beyond, and increases north-south mobility through Jackson County.

Project Description:

This facility is recommended to be a 2-lanes facility on 4-lanes of right of way (ultimately to be a 4-lanes divided facility), complete control-of-access facility with a posted speed of 55 or 60 mph (to be determined during design phase). *It should be noted that there are two alternatives using existing roads that were tested at lower posted speeds and not as complete control-of-access facilities: Blanton Branch / Cane Creek Roads and Cope Creek Road.*

This project is also needed to improve the north-south transportation link between US 74 & US 23 and the southern portion of Jackson County, including access to Western Carolina University. Currently, NC 107 from US 23 Business (Asheville Highway) to NC 116 (Webster Road) is over capacity at peak periods during the day. From NC 116 to the end of the 5-lane section, NC 107 is approaching capacity and will be over capacity by the end of this planning period, the year 2035. There is a significant amount of business development along existing NC 107 with many driveway access points which decreases capacity. A new facility would offer an alternative route for those wishing to travel north and south of the congested areas.

2035 daily volumes are expected to be between 12,700-15,000 as a 2-lanes facility (13,600-17,900 as a 4-lanes facility) depending on the location of the finalized design.

Supporting Information:

History of the project (documented background):

- A new connector between US74/US23 and NC 107 was identified in the previously adopted 1994 thoroughfare plan for Sylva/Dillsboro. This project is in the current State Transportation Improvement Program for 2009-2015 as R-4745.
- Timeline of events are as follows:
 - 1/94: Jackson County Thoroughfare Plan approved.
 - 2/94: Sylva-Dillsboro Thoroughfare Plan Approved by NCDOT. Plan includes Sylva-Dillsboro Loop.
 - 9/7/00: Jackson County Board of Commissioners passed resolution requesting an investigation of options to relieve traffic congestion on NC 107.
 - 5/19/03: Feasibility Study (FS-0114C) for Sylva-Dillsboro Southern Loop completed.
 - 3/08: Project Development Studies initiated for TIP Project R-4745.
 - 4/24/08: Jackson County Transportation Task Force Project Presentation. Arcadis (Consultant) and Derrick Lewis (NCDOT Feasibility Studies Unit).
 - 9/25/08: Jackson County Transportation Forum: Drew Joyner, PE (Human Environment Unit Manager) gave overview of NCDOT Project Planning Process.
 - 12/4/08: Citizen's Informational Workshop held

Land Use Patterns:

- Land in potential corridors is primarily rural farmlands and residents.
- Mobility on the new facility must be maximized by limiting this facility to a controlled access only. Future land use plan amendments and land use decisions should consider the functionality of this corridor.

Natural & Human Environmental Context:

- Because it is new construction there will be impacts to existing development in the corridor and the natural surroundings. More specifics will be identified in the project study that is part of R-4745.

Air Quality Context:

- This project is not located within an air quality non-attainment area.

Multi-modal considerations:

- Freight mobility is expected to be improved along NC 107 by the proposed NC 107 Connector by giving truck traffic an alternative route other than NC 107.

Linkages within the overall CTP, other community/state plans, other projects:

- It will be a new, major north-south route providing direct access points north of Sylva to points south of Sylva.

Identification of overall CTP study area and any sub-area relevant to the project:

- 2009 Jackson County CTP

Context sensitive concepts (if applicable to problem statement):

- None at this time. There may be some that come from the feasibility study.

Documentation of public/stakeholder involvement process (project specific):

- At this point, there has been much input from the local community. There have been several public meetings about this project in addition to the CTP public input meeting. There are citizens who would like to see this project built, and citizens who do not feel it is necessary.

Crash Data (if applicable to problem statement):

- Not applicable.

Alternatives tested with the travel demand model during this CTP study:

Below is a summary of alternatives tested with the travel demand model during the CTP study. All alternatives except the Blanton Branch/Cane Creek were tested as a complete control of access facility. The alternatives that offered significant relief to NC 107/US 23 Business were alternatives #1, #4, #5, #6 and #7. The alternatives seem to be sensitive to the design speed with 50-55mph speed limit drawing more traffic than a speed of 40-45mph. Alternatives that connected to NC 107 north of NC 116 did not offer much relief to NC 107 because most people continued to travel to the northern portion of NC 107 due to land use in the area. A new facility further south of the business district seems to remove the through traffic off of the northern portion of NC 107.

Note: All volumes listed are ##### vpd (vehicles per day). New facilities were tested as complete control of access facilities.

Alternatives tested with the travel demand model during this CTP study:

Because NC 107 is the major north-south facility through Jackson County and several municipalities within the county, it is crucial that its ability to function is not diminished by congestion. Several new facility alternatives were tested when looking for ways to improve safety and traffic flow along NC 107. Much of the congestion along NC 107 is due to the land use in the area (large retail center, the community college, and a high school) and no specific alternative tested, other than removing all drive-way accesses along NC 107 and making it a 4-lane divided facility, completely relieved the congestion expected over the next 25 years. However, the addition of a new connector between US 74/23 and NC 107 would help preserve the integrity of NC 107 without having to widen the facility to six lanes.

Below is the summary of NC 107 Connector alternatives tested. It should be noted that if a new connector were built, the NC 107 designation would move to that facility, and

the existing NC 107 would become Business NC 107. All alternatives except the improvement of Blanton Branch / Cane Creek roads and Cope Creek Road were tested as a complete control of access facility. Blanton Branch, Cane Creek, and Cope Creek roads have existing driveways along the facilities, and their access was kept intact. The alternatives that offered significant relief to NC 107/US 23 Business were alternatives #1, #4, #5, #6 and #7. The alternatives seem to be sensitive to the design speed with 50-55mph speed limit drawing more traffic than a speed of 40-45mph. Alternatives that connected to NC 107 north of NC 116 did not offer much relief to NC 107 because most people continued to travel to the northern portion of NC 107 due to land use in the area. A new facility further south of the business district seems to remove the through traffic off of the northern portion of NC 107.

Note: All volumes listed are ##### vpd (vehicles per day). New facilities were tested as complete control of access facilities.

1. NC 107 Connector connecting to NC 107 south of NC 116 – estimated volumes are as follows: 2-lanes/55mph estimated volumes of 12,700 (2035 volumes on NC 107 between US 23 Business and South River Road range from 25,900 to 32,000); 2-lanes/45mph estimated volumes of 10,700 (2035 volumes on NC 107 between US 23 Business and South River Road range from 25,900 to 32,400); 2-lanes/50mph estimated volumes of 11,600 (2035 volumes on NC 107 between US 23 Business and South River Road range from 26,000 to 32,500); 4-lanes/55mph estimated volumes of 17,900 (2035 volumes on NC 107 between US 23 Business and South River Road range from 25,500 to 31,800); 4-lanes/45mph estimated volumes of 13,900 (2035 volumes on NC 107 between US 23 Business and South River Road range from 25,800 to 32,200); 4-lane/60mph – estimated volumes at 20,100 (2035 volumes on NC 107 between US 23 Business and South River Road range from 25,400 to 31,500).
2. Improving Blanton Branch/Cane Creek so they form a 40mph facility between US 23 and NC 107. Estimated volumes are 7400 vpd. 2035 volumes on NC 107 between US 23 Business and South River Road range from 30,400 to 33,700.
3. Improve Cope Creek Road to 45mph. Estimated volumes are 12,300 vpd which would put it over capacity, and it would need to be widened to 4-lanes. 2035 volumes on NC 107 between US 23 Business and South River Road range from 29,000-36,200.
4. NC 107 Connector connecting to NC 107 at Old Cullowhee Road – estimated volumes are as follows: 2-lanes/45mph estimated volumes of 9000 (2035 volumes on NC 107 between US 23 Business and South River Road range from 29,000 to 32,900); and 2-lanes/55mph estimated volumes of 11,800 (2035 volumes on NC 107 between US 23 Business and South River Road range from 25,100 to 32,100).
5. NC 107 Connector (2-lanes/55mph) with a new 55 mph spur going from the NC 107 Connector to Old Cullowhee Road – estimated volume of 15,000 between US 23 and spur to Old Cullowhee; estimated volume of 9800 on spur to Old Cullowhee Road; and estimated volume of 5200 from spur to NC 107). 2035 volumes on NC 107 between US 23 Business and South River Road range from 25,000 to 32,000.

6. NC 107 Connector (2-lanes/55mph) with a new 35 mph spur going from the NC 107 Connector to Old Cullowhee Road – estimated volume of 13,400 between US 23 and spur to Old Cullowhee; estimated volume of 7300 on spur to Old Cullowhee Road; and estimated volume of 6100 from spur to NC 107). 2035 volumes on NC 107 between US 23 Business and South River Road range from 25,500 to 32,400.
7. NC 107 Connector east of Blanton Branch and connecting to Old Cullowhee Road (versus connecting with NC 107) – estimated volumes are as follows:
2-lanes/55mph estimated volumes of 12,300 (2035 volumes on NC 107 between US 23 Business and South River Road range from 24,300 to 31,400); 2-lanes/45mph (estimated volumes of 8700 (2035 volumes on NC 107 between US 23 Business and South River Road range from 24,800 to 32,900); 4-lanes/55mph estimated volumes of 13,600 (2035 volumes on NC 107 between US 23 Business and South River Road range from 24,100 to 31.400); and 4-lanes/45mph estimated volumes of 9500. (2035 volumes on NC 107 between US 23 Business and South River Road range from 24,800 to 32,600).
8. NC 107 Connector connecting north of NC 116 (1994 thoroughfare plan location) (2-lanes/45mph estimated volumes of 8500). 2035 volumes on NC 107 between US 23 Business and South River Road range from 29,600 to 38,900.
9. NC 107 Connector connecting north of NC 116 and continuing to US 441(1994 thoroughfare plan location) (2-lanes/45mph estimated volumes of 8400 and southside connector from NC 107 to US 441 has estimated volumes of 3300). 2035 volumes on NC 107 between US 23 Business and South River Road range from 27,900 to 39,100.
10. Southern Connector between NC 107 and US 441 in 1994 thoroughfare plan location at 2-lanes; 45mph with estimated volume of 4700 vpd. 2035 volumes on NC 107 between US 23 Business and South River Road range from 29,000 to 37,200.
11. Southern Connector from NC 107 to US 441 using a portion of Little Savannah Road only had an estimated 4500 vpd using it. 2035 volumes on NC 107 between US 23 Business and South River Road range from 26,600 to 35,700.

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Figure 1