2017 Jackson County
Comprehensive Transportation Plan

2017 Jackson County
Comprehensive Transportation Plan

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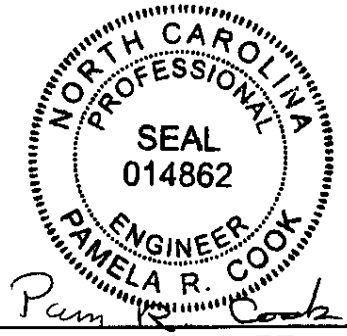
N.C. Department of Transportation

In Cooperation with: Jackson County
Town of Dillsboro
Town of Sylva
Town of Webster
Village of Forest Hills
Southwestern Rural Planning Organization

Published: October 2017



Pam R. Cook, PE

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Executive Summary

In July of 2014, the Transportation Planning Branch of the North Carolina Department of Transportation (NCDOT) and Jackson County initiated a study to cooperatively develop the Jackson County Comprehensive Transportation Plan (CTP), which includes Dillsboro, Sylva, Webster, and Forest Hills. It also includes the unincorporated Village of Cashiers and Cullowhee (Western Carolina University). This is a long range multi-modal transportation plan that covers transportation needs through 2040. Modes of transportation evaluated as part of this plan include: highway, public transportation and rail, bicycle, and pedestrian. This plan does not cover routine maintenance or minor operations issues. Refer to Appendix A for contact information on these types of issues.

Findings of this CTP study were based on an analysis of the transportation system, environmental screening and public input, which are detailed in Chapter 1. Figure 1 shows the CTP maps, which were mutually adopted by NCDOT in 2017. Descriptive information and definitions for designations depicted on the CTP maps can be found in Appendix B. Implementation of the plan is the responsibility of the county, its municipalities, and NCDOT. Refer to Chapter 2 for information on the implementation process.

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

HIGHWAY

- **US 23 Business (Asheville Highway):** Widen to a four lane boulevard (median divided facility) from NC 107 to US 23/74.

- **NC 107/ US 23 Business, TIP Project R-5600:** Upgrade NC 107 to a four lane boulevard from US 23 Business to 0.1 miles east of Fairview Road (SR 1724), upgrade US 23 Business from Chipper Curve Road (SR 1429) to NC 107; and includes upgrading US 23 Business to Skyland Drive (SR 1432).

- **US 441:** Widen to a four lane boulevard from US 74 to Casino Trail (US 441 Business).

- **Ledbetter Road Extension:** Extend existing Ledbetter Road (SR 1337) from the end of the facility to Monteith Gap Road (SR 1336).

- **Cashiers:** Improvements to US 64 and NC 107 through the Village of Cashiers and the addition of new connector roads between US 64 and NC 107 in the northeast and southeast areas of Cashiers.

BICYCLE / PEDESTRIAN

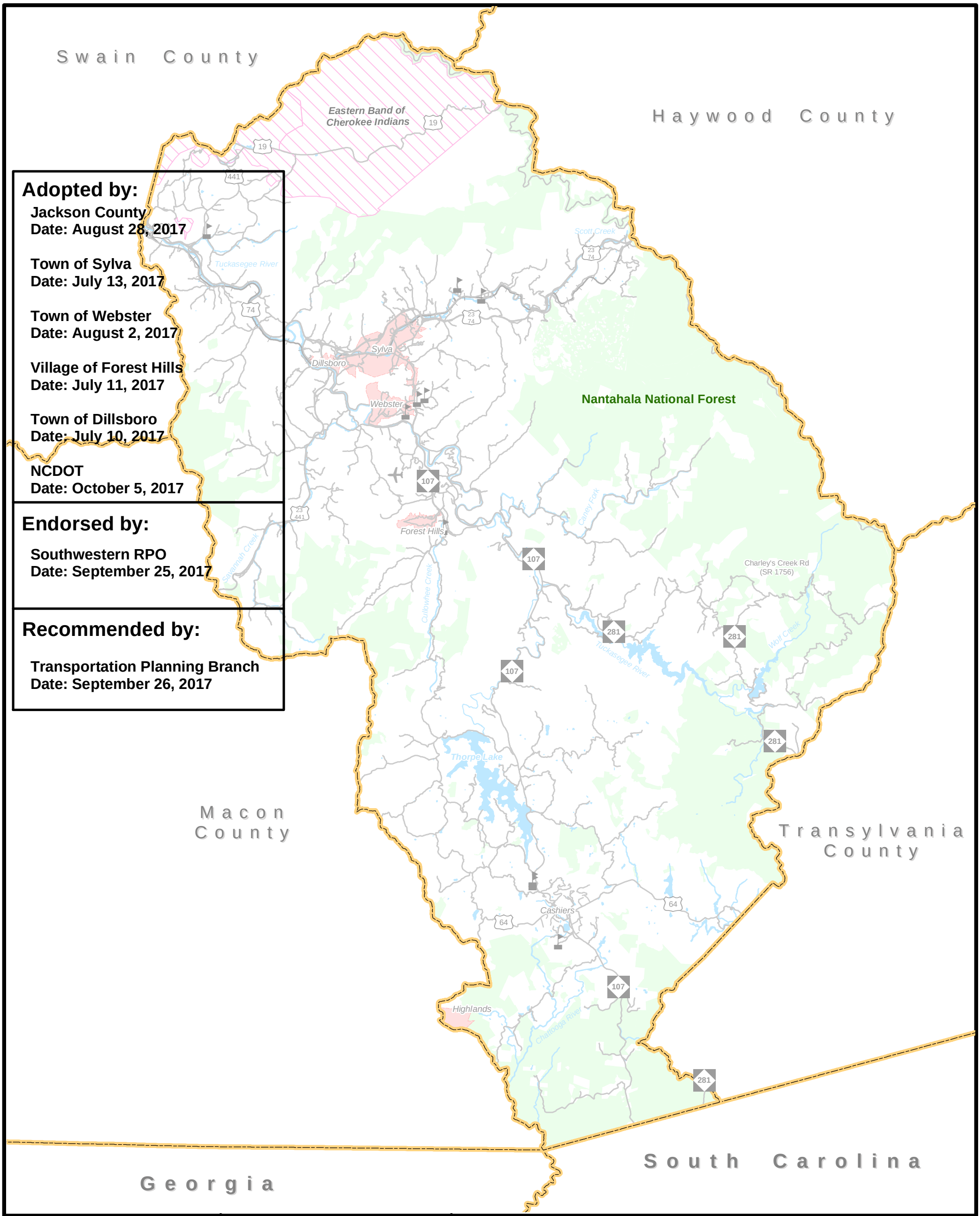
- **Tuckasegee Multi-Use Path:** Extend the current multi-use path along the Tuckasegee River in Cullowhee north to Dillsboro with a new bicycle/pedestrian bridge east of US 23/441 and south through Western Carolina University campus to Old Cullowhee Road (SR 1002).

- Multi-use Paths to Scotts Creek Elementary School, Cullowhee Valley School, Summit Charter School, Blue Ridge School, and High Hampton Community.

PUBLIC TRANSPORTATION

- A new transit route that connects Dillsboro, Webster, Forest Hills and Cullowhee.

- A proposed deviated-fixed transit route to serve Cashiers.



Adopted by:

Jackson County
Date: August 28, 2017

Town of Sylva
Date: July 13, 2017

Town of Webster
Date: August 2, 2017

Village of Forest Hills
Date: July 11, 2017

Town of Dillsboro
Date: July 10, 2017

NCDOT
Date: October 5, 2017

Endorsed by:

Southwestern RPO
Date: September 25, 2017

Recommended by:

Transportation Planning Branch
Date: September 26, 2017

Legend

- Airports
- Schools
- Roads
- Railroads
- Rivers and Streams
- Bodies of Water
- Public Lands
- County Boundary
- Municipal Boundary
- Eastern Band of Cherokee Indians

N
W E
S

Miles
0 1 2 4

Sheet 1 of 5

Base map date: 11-04-2014

Refer to CTP document for more details

Adoption Map

Jackson County

Comprehensive Transportation Plan

Plan date: June 8, 2017

Swain County

Haywood County

Macon County

Transylvania County

Georgia

South Carolina

Eastern Band of Cherokee Indians

Nantahala National Forest

Inset A

Inset B

Inset C

Shoal Creek Rd (SR 1416)

Old Mission Rd (SR 1427)

Blue Ridge Parkway

Camp Creek Rd (SR 1406)

Sunset Farm Rd (SR 1405)

Thomas Valley Rd (SR 1397)

Skyland Dr (SR 1432)

Scott Creek

Tuckasegee River

Dillsboro

Sylva

Webster

Little Savannah Rd (SR 1367)

Forest Hills

Caney Fork

Caney Fork Rd (SR 1737)

Charley's Creek Rd (SR 1756)

Tilley Creek Rd (SR 1001)

Cullowhee Creek

Cullowhee Mtn Rd (SR 1157)

Wolf Creek

Wolf Mountain Rd (SR 1760)

Thorpe Lake

Pine Creek Rd (SR 1163)

North Norton Rd (SR 1145)

Cashiers

Highlands

Whiteside Cove Rd (SR 1107)

Chattooga River

Old Cullowhee Rd (SR 1002)

Old Settlement Rd (SR 1340)

Monteith Gap Rd

Ledbetter Rd (SR 1337)

South Painter Rd (SR 1338)

Cullowhee

Centennial Dr (SR 1325)

Forest Hills Rd (SR 1330)

Old Cullowhee Rd (SR 1002)

N. Country Club Dr (SR 1330)

Speedwell Rd (SR 1001)

S Country Club Dr (SR 1507)

Lance Rd (SR 1117)

Slab Town Rd (SR 1141)

NE Quad Connector

Monte Vista Rd (SR 1116)

Burns St

Frank Allen Rd (SR 1176)

SE Quad Connector

Miles 0 0.9

Miles 0 0.6

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
- Interchange Needs Improvement
- Existing Grade Separation
- Proposed Grade Separation

N W E S

Miles 0 1 2 4

Sheet 2 of 5

Base map date: 11-04-2014

Refer to CTP document for more details

Highway Map

Jackson County

Comprehensive Transportation Plan

Plan date: June 8, 2017

Nantahala National Forest
Dillsboro
Sylva
Webster
Tuckasegee River
Savannah Creek
Mill St
W Main St (US 23 BUS)
Muncipal Dr
Haywood Rd (SR 1514)
Thornhill Dr (SR 1383)
Dills Cove Rd (SR 1380)
Grindstaff Cove Rd (SR 1513)
Chipper Curve Rd (SR 1429)
Skyland Dr (SR 1432)
Allens Branch Rd (SR 1439)
Monteith Branch Rd (SR 1443)
Hospital Rd (SR 1437)
Savannah Dr (SR 1356)
Yellow Bird Branch Rd (SR 1358)
N River Rd (SR 1359)
Mockingbird Ln (SR 1360)
Rock Quary Rd (SR 1581)
River Rd (SR 1345)
Success Ave (SR 1586)
Fairview Rd (SR 1724)
Cope Creek Rd (SR 1449)
Old Cullowhee Rd (SR 1002)
Old Settlement Rd (SR 1340)
Little Savannah Rd (SR 1367)
74
23
23 Bus
23 74
23 441
107
116

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
- Interchange Needs Improvement
- Existing Grade Separation
- Proposed Grade Separation

N
W E
S

0 0.5 1 Miles

Sheet 2A of 5

Base map date: 11-04-2014

Refer to CTP document for more details

Highway Map Inset A

Jackson County

Comprehensive Transportation Plan

Plan date: June 8, 2017

Swain County

Haywood County

Eastern Band of Cherokee Indians

Nantahala National Forest

Macon County

Transylvania County

Georgia

South Carolina

Inset A

Inset B

Bus Routes
- Existing
- Needs Improvement
- Recommended

Rail Corridor
- Active
- Inactive
- Recommended

Multimodal Connector
- Existing
- Recommended

Fixed Guideway
- Existing
- Needs Improvement
- Recommended

High Speed Rail Corridor
- Existing
- Recommended

Park and Ride Lot
- Existing
- Recommended

Operational Strategies
- Existing
- Needs Improvement
- Recommended

- Existing Grade Separation
- Proposed Grade Separation

N W E S

0 1 2 4 Miles

Sheet 3 of 5

Base map date: 11-04-2014

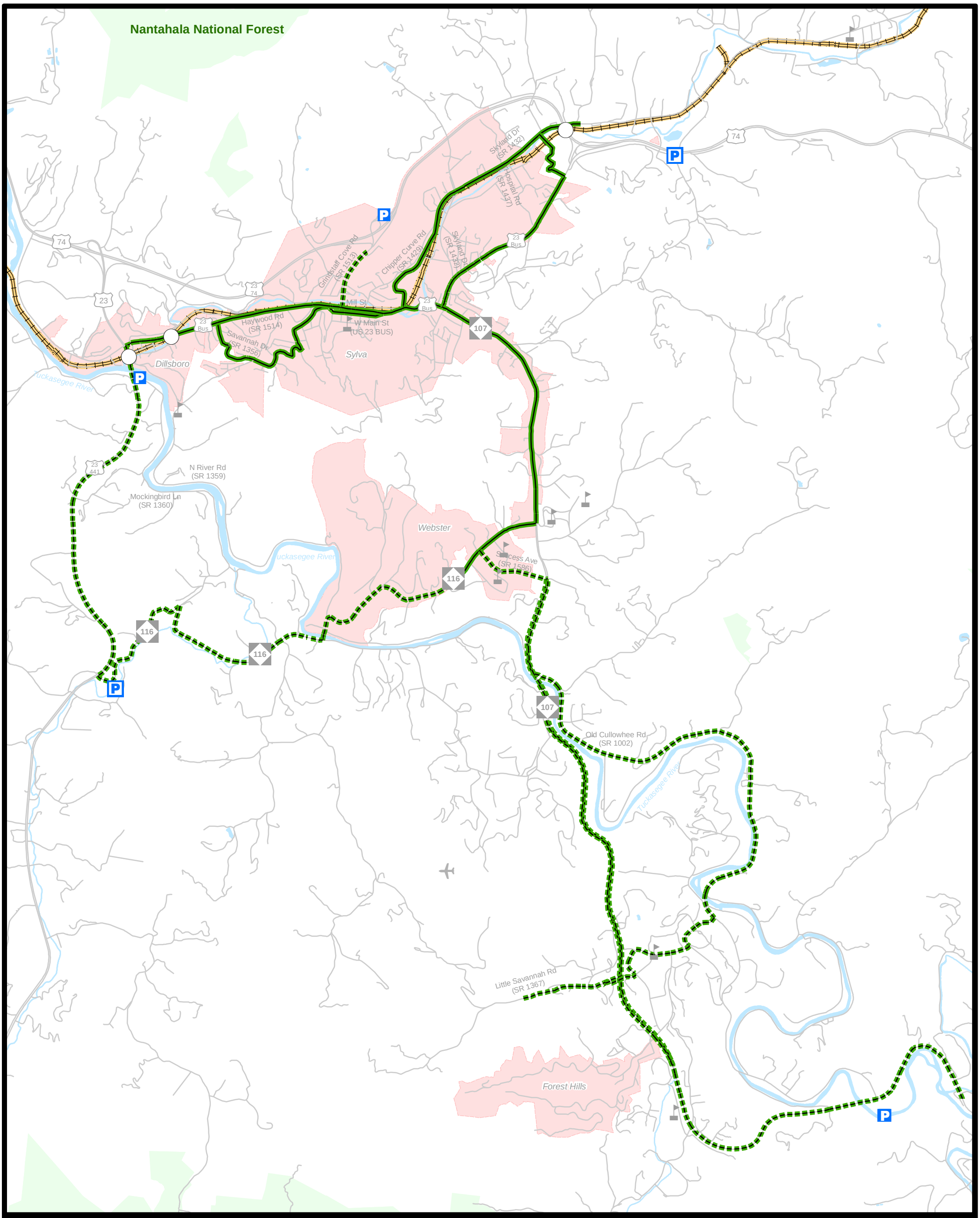
Refer to CTP document for more details

Public Transportation and Rail Map

Jackson County

Comprehensive Transportation Plan

Plan date: June 8, 2017



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

Existing Grade Separation

Proposed Grade Separation

Multimodal Connector
- Existing
- Recommended

Park and Ride Lot
- Existing
- Recommended

N W E S

0 0.5 1 Miles

Sheet 3A of 5

Base map date: 11-04-2014

Refer to CTP document for more details

Public Transportation and Rail Map Inset A

Jackson County

Comprehensive Transportation Plan

Plan date: June 8, 2017

Swain County

Haywood County

Eastern Band of Cherokee Indians

Nantahala National Forest

Transylvania County

Macon County

Georgia

South Carolina

Inset A

Inset B

Inset C

Sylva

Dillsboro

Webster

Cashiers

Highlands

Forest Hills

Thorpe Lake

Scott Creek

Tuckasegee River

Wolf Creek

Caney Fork

Chattooga River

Shoal Creek Rd (SR 1416)

Old Mission Rd (SR 1427)

Camp Creek Rd (SR 1406)

Sunset Farm Rd (SR 1405)

Thomas Valley Rd (SR 1397)

Little Savannah Rd (SR 1367)

Old Cullowhee Rd (SR 1002)

Caney Fork Rd (SR 1737)

Tilley Creek Rd (SR 1001)

Cullowhee Creek

Cullowhee Mtn Rd (SR 1157)

Charley's Creek Rd (SR 1756)

Wolf Mountain Rd (SR 1760)

Pine Creek Rd (SR 1163)

North Norton Rd (SR 1145)

Slab Town Rd (SR 1141)

Frank Allen Rd (SR 1176)

Zeb Alley Rd (SR 1110)

Riverbend Rd (SR 1493)

Monteith Gap Rd (SR 1336)

Ledbetter Rd (SR 1337)

South Painter Rd (SR 1338)

Centennial Dr (SR 1325)

Catamount Rd

Forest Hills Rd (SR 1330)

Speedwell Rd (SR 1001)

N Country Club Dr (SR 1330)

S Country Club Dr (SR 1507)

Lyle Wilson Rd (SR 1329)

19 441 74 23 441 107 64 281 2

0 0.9 Miles

0 0.5 Miles

0 1 2 4 Miles

N W E S

On-road

- Existing
- Needs Improvement
- Recommended

Multi-Use Paths

- Existing
- Needs Improvement
- Recommended

Off-road

- Existing
- Needs Improvement
- Recommended

- Existing Grade Separation
- Proposed Grade Separation

Sheet 4 of 5

Base map date: 11-04-2014

Refer to CTP document for more details

Bicycle Map

Jackson County

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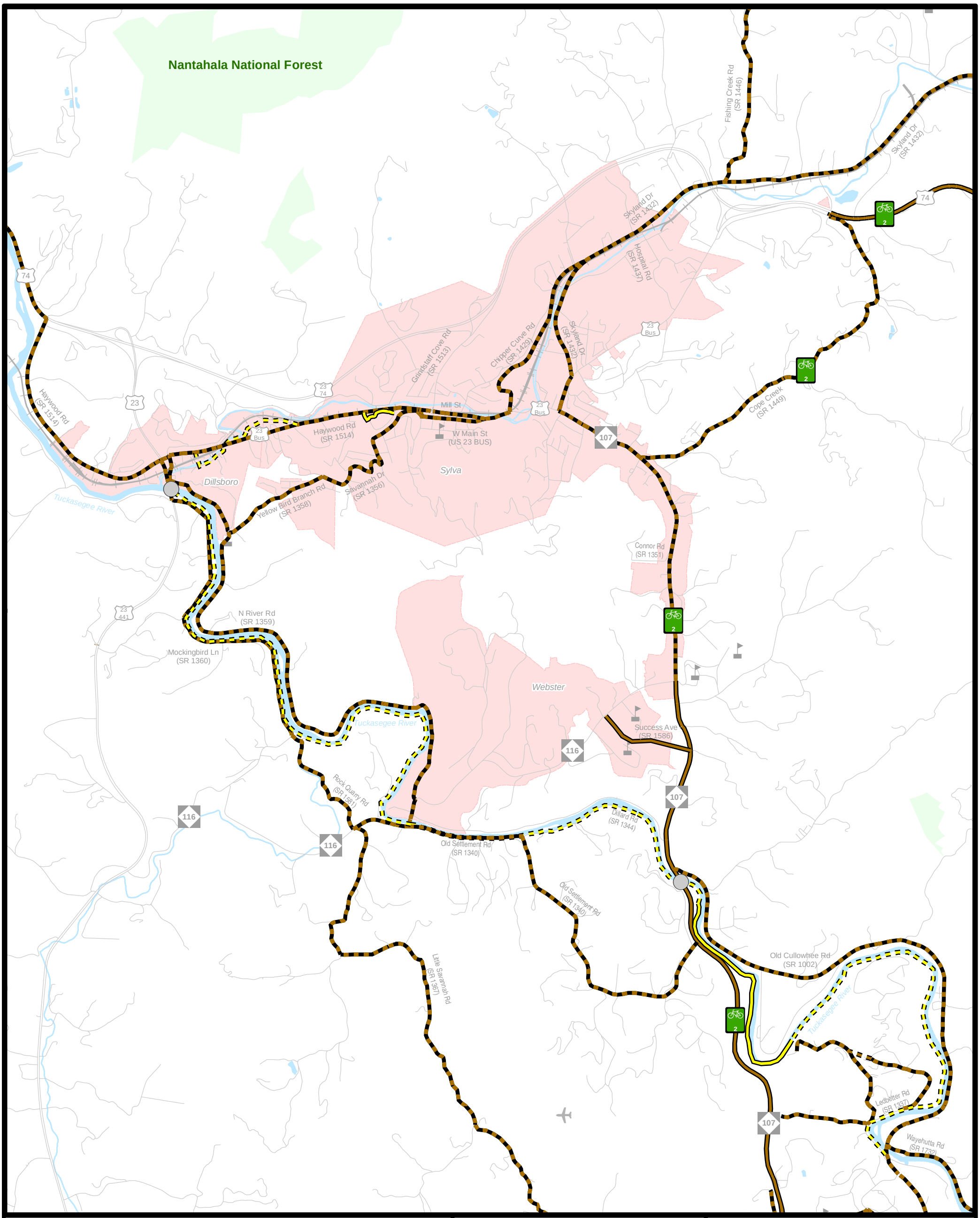


On-road
- Existing
- Needs Improvement
- Recommended

Multi-Use Paths
- Existing
- Needs Improvement
- Recommended

Off-road
- Existing
- Needs Improvement
- Recommended

- Existing Grade Separation
- Proposed Grade Separation

N W E S

0 0.5 1 Miles

Sheet 4A of 5

Base map date: 11-04-2014

Refer to CTP document for more details

Bicycle Map Inset B

Jackson County

Comprehensive Transportation Plan

Plan date: June 8, 2017

Swain County

Haywood County

Eastern Band of Cherokee Indians

Nantahala National Forest

Macon County

Transylvania County

Georgia

South Carolina

Inset A

Inset B

Inset C

Sylva

Dillsboro

Webster

Cashiers

Highlands

Scott Creek

Thorpe Lake

Tuckasegee River

Wolf Creek

Caney Fork

Chattooga River

Shoal Creek Rd (SR 1416)

Old Mission Rd (SR 1427)

Camp Creek Rd (SR 1406)

Sunset Farm Rd (SR 1405)

Thomas Valley Rd (SR 1407)

Little Savannah Rd (SR 1367)

Old Cullowhee Rd (SR 1002)

Caney Fork Rd (SR 1737)

Charley's Creek Rd (SR 1756)

Tilley Creek Rd (SR 1001)

Cullowhee Mtn Rd (SR 1157)

Wolf Mountain Rd (SR 1760)

Pine Creek Rd (SR 1157)

Pine Creek Rd (SR 1165)

North Norton Rd (SR 1145)

Slab Town Rd (SR 1141)

Frank Allen Rd (SR 1176)

Zeb Alley Rd (SR 1111)

Riverbend Rd (SR 1493)

Monteith Gap Rd (SR 1336)

Ledbetter Rd (SR 1337)

South Painter Rd (SR 1338)

Centennial Dr (SR 1325)

Central Dr (SR 1169)

Forest Hills Rd (SR 1330)

Catamount Rd

Pinclushion Rd

N Country Club Dr (SR 1330)

Forest Hills Country Club Dr (SR 1507)

Lyle Wilson Rd (SR 1329)

Speedwell Rd (SR 1001)

Miles
0 0.85

Miles
0 0.55

Sidewalks

- Existing
- Needs Improvement
- Recommended

Multi-Use Paths

- Existing
- Needs Improvement
- Recommended

Off-road

- Existing
- Needs Improvement
- Recommended

- Existing Grade Separation
- Proposed Grade Separation

N W E S

Miles
0 1 2 4

Sheet 5 of 5

Base map date: 11-04-2014

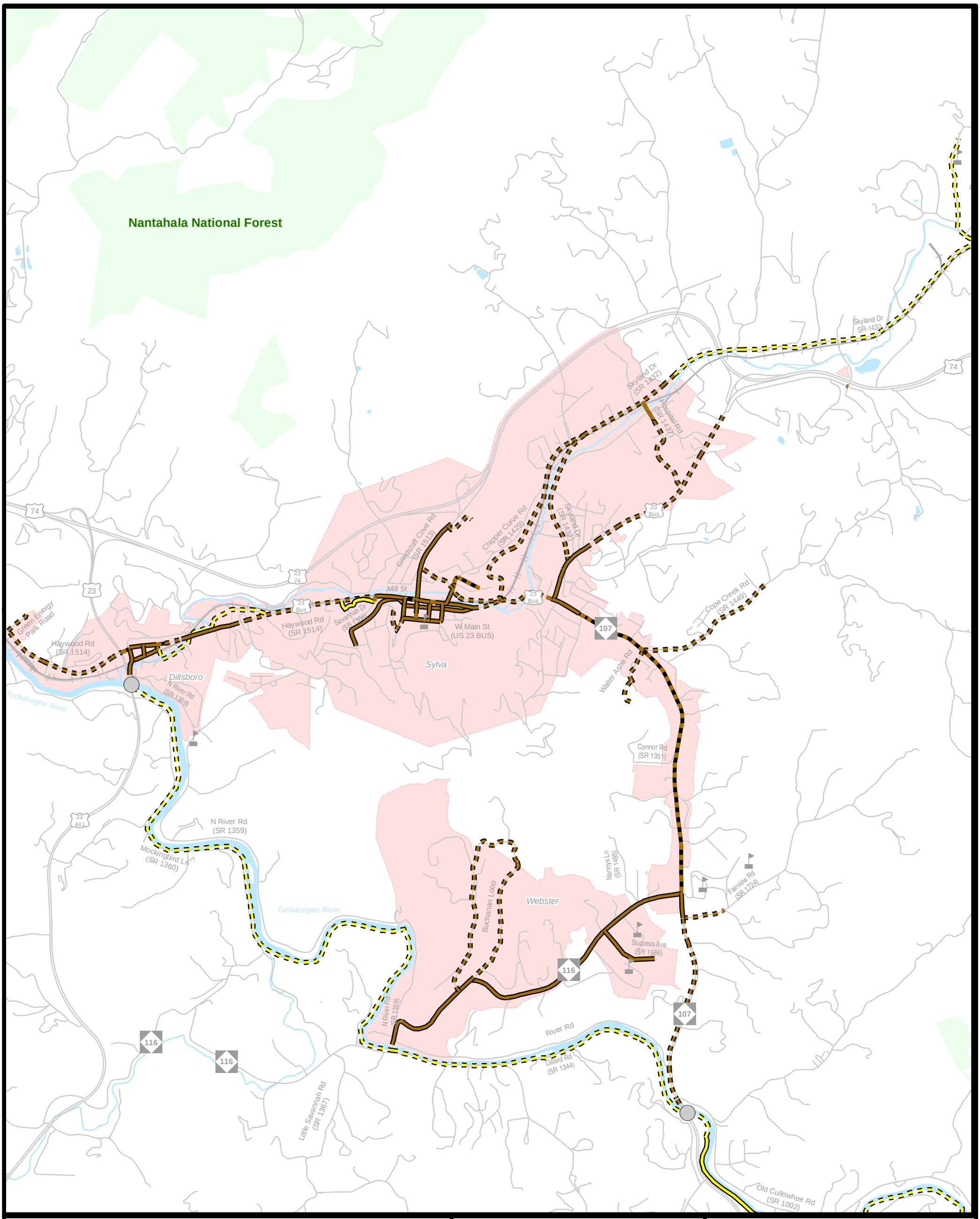
Refer to CTP document for more details

Pedestrian Map

Jackson County

Comprehensive Transportation Plan

Plan date: June 8, 2017



Sidewalks
- Existing
- Needs Improvement
- Recommended

Multi-Use Paths
- Existing
- Needs Improvement
- Recommended

Off-road
- Existing
- Needs Improvement
- Recommended

- Existing Grade Separation
- Proposed Grade Separation

N
W E
S

Miles
0 0.375 0.75

Sheet 5A of 5

Base map date: 11-04-2014

Refer to CTP document for more details

Pedestrian Map
Inset B

Jackson County

Comprehensive Transportation Plan

Plan date: June 8, 2017

1. Analysis of the Existing and Future Transportation System

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

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

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

1.1 Analysis Methodology and Data Requirements

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

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

Roadway System Analysis

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

One of those statewide initiatives is the Strategic Transportation Corridors (STC)[1] adopted by the Board of Transportation on March 4, 2015.
The STC identify a network of critical multimodal transportation corridors considered the backbone of the state's transportation system. These 25 corridors move most of our

[1] *For more information on the STC, go to:*
https://connect.ncdot.gov/projects/planning/Pages/NCTransportationNetwork.aspx

freight and people, link critical centers of economic activity to international air and sea ports, and support interstate commerce. They must operate well to help North Carolina attract new businesses, grow jobs and catalyze economic development.

The primary purpose of the STC is to provide North Carolina with a network of high-priority, multimodal transportation corridors and facilities that connect statewide and regional activity centers to enhance economic development, promote highly-reliable, efficient mobility and connectivity, and support good decision-making. The primary goal to support this purpose is to create a greater consensus towards the development of a genuine vision for each corridor that establishes the statewide or regional importance of facilities and the need for maintaining high capacity and travel speed. During the development of CTPs, the STC network should be cross-referenced to ensure plan consistency. Incorporating the statewide and regional mobility goals set forth in the STC network should be done in a manner that fits with the character and vision for the community or county. If this cannot be achieved through the use of existing facilities, an alternative solution should be sought.

In the development of this plan, travel demand was projected from 2012 to 2040 using a travel demand model in the more urban area of Jackson County and trend line analysis based on Annual Average Daily Traffic (AADT) for the remainder of the county. Travel demand models are developed to replicate travel patterns on the existing transportation system as well as to estimate travel patterns for 2040. In addition, local land use plans and growth expectations were used to develop future growth rates and patterns. The established future growth rates were endorsed by the Jackson County Board of Commissioners (November 3, 2016), Dillsboro Board of Aldermen (November 14, 2016), Village of Forest Hills Council (December 6, 2016), Town of Sylva Board of Commissioners (November 3, 2016), and Town of Webster Board of Commissioners (December 7, 2016). Refer to Appendix G for more detailed information on growth expectations and the socio-economic data forecasting methodology.

Existing and future travel demand is compared to existing roadway capacities. Capacity deficiencies occur when the traffic volume of a roadway exceeds the roadway's capacity. Roadways are considered near capacity when the traffic volume is at least eighty percent of the capacity. Refer to Figures 2 and 3 for existing and future capacity deficiencies. The 2040 traffic volumes in Figure 3 are an estimate of the traffic volume in 2040 with only existing plus committed projects assumed to be in place, where committed is defined as projects programmed for construction in the 2016 – 2025 Transportation Improvement Program[2] (TIP).

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

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

- Geometry of the road (including number of lanes), horizontal and vertical alignment, and proximity of perceived obstructions to safe travel along the road;
- Typical users of the road, such as commuters, recreational travelers, and truck traffic;
- Access control, including streets and driveways, or lack thereof, along the roadway;
- Development along the road, including residential, commercial, agricultural, and industrial developments;
- Number of traffic signals along the route;
- Peaking characteristics of the traffic on the road;
- Characteristics of side-roads feeding into the road; and
- Directional split of traffic or the percentages of vehicles traveling in each direction along a road at any given time.

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

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

Traffic Crash Assessment

Traffic crashes are often used as an indicator for locating congestion and roadway problems. Crash patterns obtained from an analysis of crash data can lead to the identification of improvements that will reduce the number of crashes. The Traffic Safety Unit of NCDOT's Transportation Mobility and Safety Division identifies high frequency crashes at intersections and along roadway sections during a five year period. The high frequency crash locations examined during the development of the Jackson County CTP occurred between January 1, 2007 and December 31, 2011. During this period, a total of twelve intersections and thirty-four roadway sections were identified as having a high frequency of crashes as illustrated in Figure 4. Contact information for the Transportation Mobility and Safety Division can be found in Appendix A.

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

Bridge Deficiency Assessment

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

The NCDOT Structures Management Unit inspects all bridges in North Carolina at least once every two years. Bridges having the highest priority are replaced as federal and state funds become available. Forty-four deficient bridges were identified on roads evaluated as part of the CTP and are illustrated in Figure 5. Of these, seven are scheduled for replacement in the 2016 – 2025 STIP and three are part of STIP projects. Additionally, 18 others occur along roadways recommended for improvement in the CTP. As deficient bridges are replaced, every consideration should be given to proposed CTP recommendation and cross section associated with the recommendation. Table 3 in Appendix F gives a listing of the deficient bridges identified in the CTP and the ID number associated with CTP project proposal. Refer to Appendix F for more detailed bridge deficiency information.

Swain County

Haywood County

Macon County

Transylvania County

Georgia

South Carolina

Nantahala National Forest

Inset A

16,000
26,800

5,500
11,700

1,000
9,500

17,000
30,800

2,500
10,500

12,000
53,200

600
8,300

400
10,400

400
9,400

19,000
53,200

19,000
53,200

1,600
9,500

23,000
53,200

16,000
30,800

7,700
10,200

8,900
14,000

1,000
11,100

1,400
8,200

200
10,300

2,800
9,800

600
6,300

4,200
9,800

200
8,200

600
6,300

4,700
9,800

4,400
11,100

2,600
9,800

1,200
6,300

7,400
10,100

2,900
8,800

4,100
6,200

Shoal Creek Rd (SR 1416)
Old Mission Rd (SR 1427)
Camp Creek Rd (SR 1406)
Sunset Farm Rd (SR 1405)
Thomas Valley Rd (SR 1397)
Skyland Dr (SR 1432)
Little Savannah Rd (SR 1367)
Old Cullowhee Rd (SR 1002)
Caney Fork Rd (SR 1737)
Charley's Creek Rd (SR 1756)
Tilley Creek Rd (SR 1001)
Cullowhee Mtn Rd (SR 1157)
Worlf Mountain Rd (SR 1760)
Pine Creek Rd (SR 1157)
Pine Creek Rd (SR 1163)
North Norton Rd (SR 1145)
Whiteside Cove Rd (SR 1107)

Tuckasegee River
Caney Fork
Wolf Creek
Thorpe Lake
Chattooga River

Dillsboro
Sylva
Webster
Forest Hills
Cashiers
Highlands

19
441
74
23
107
64
281

Legend

- Schools
- Airports
- Rivers and Streams
- Roads
- Network Roads
- Railroad
- County Boundary

2012 Volume
2012 Capacity

- Near Capacity
- Over Capacity
- Municipal Boundary
- Public Lands
- EBCI

N
W E
S

Miles
0 1 2 4

Sheet 1 of 2

Base map date: 11-04-2014

2012 Volumes and Capacity Deficiencies Map

Jackson County Comprehensive Transportation Plan

Figure 2

Nantahala National Forest

5,600
9,400

15,000
53,200

2,000
9,300

1,600
9,500

6600
9400

14,000
23,000

13,000
13,800

14,000
13,800

5,300
10,400

6,900
9,500

7,600
9,500

1,700
9,000

22,000
25,100

2,900
9,500

9,000
10,100

32,000
22,700

5,600
5,600

14,000
9,800

17,000
17,000

30,000
22,700

31,000
22,700

7,400
12,700

21,000
26,700

16,000
43,900

Skyland Dr (SR 1432)
Hospital Rd (SR 1437)
Grindstaff Cove Rd (SR 1513)
Chipper Curve Rd (SR 1429)
Skyland Dr (SR 1432)
Muncipal Dr
Main St
W Main St (US 23 Bus)
Haywood Rd (SR 1514)
Cope Creek Rd (SR 1449)
Savannah Dr (SR 1356)
Yellow Bird Br Rd (SR 1358)
N River Rd (SR 1359)
Mockingbird Ln (SR 1360)
Dillsboro
Sylva
Webster
Tuckasegee River

74
23 Bus
23 74
23 441
107
116

Legend

- Schools
- Airports
- Rivers and Streams
- Roads
- Network Roads
- Railroad
- County Boundary

2012 Volume
2012 Capacity

- Near Capacity
- Over Capacity
- Municipal Boundary
- Public Lands
- EBCI

N
W E
S

0 0.325 0.65 Miles

Sheet 2 of 2

Base map date: 11-04-2014

2012
Volumes and Capacity Deficiencies Map

Jackson County
Comprehensive Transportation Plan

Figure 2
Inset A

Swain County

Haywood County

Macon County

Transylvania County

Georgia

South Carolina

Nantahala National Forest

Inset A

18,200
26,800

6,200
8,800

1,100
9,200

20,000
30,800

3,100
10,500

21,100
53,200

800
8,300

1,000
10,400

500
9,400

32,900
53,200

31,700
53,200

4,400
9,500

32,900
53,200

20,000
43,900

9,300
10,200

10,300
14,000

1,900
11,100

1,700
8,200

300
10,300

3,300
9,800

1,100
6,300

5,700
9,800

1,000
8,200

800
6,300

11,000
6,200

7,900
11,100

4,600
9,800

1,400
6,300

13,200
10,100

8,000
9,000

5,400
6,200

3,500
8,800

Shoal Creek Rd (SR 1416)

Old Mission Rd (SR 1427)

Camp Creek Rd (SR 1406)

Sunset Farm Rd (SR 1405)

Thomas Valley Rd (SR 1397)

Skyland Dr (SR 1432)

Little Savannah Rd (SR 1367)

Old Cullowhee Rd (SR 1002)

Caney Fork Rd (SR 1737)

Charley's Creek Rd (SR 1756)

Tilley Creek Rd (SR 1001)

Cullowhee Mtn Rd (SR 1157)

Wolf Mountain Rd (SR 1760)

Pine Creek Rd (SR 1157)

Pine Creek Rd (SR 1163)

North Norton Rd (SR 1145)

Norton Rd (SR 1144)

Whiteside Cove Rd (SR 1107)

Sylva

Dillsboro

Webster

Forest Hills

Cashiers

Highlands

Thorpe Lake

Tuckasegee River

Caney Fork

Wolf Creek

19

441

74

23
74

107

281

64

23
441

Legend

2040 Volume

2012 Capacity
Existing + Committed*

- Schools
- Airports
- Rivers and Streams
- Roads
- Network Roads
- Railroad
- County Boundary
- Near Capacity
- Over Capacity
- Municipal Limits
- Public Lands
- EBCI

*Existing + Committed includes projects that are funded in the 2016-2025 Transportation Improvement Program

N
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0 1 2 4 Miles

Sheet 1 of 2

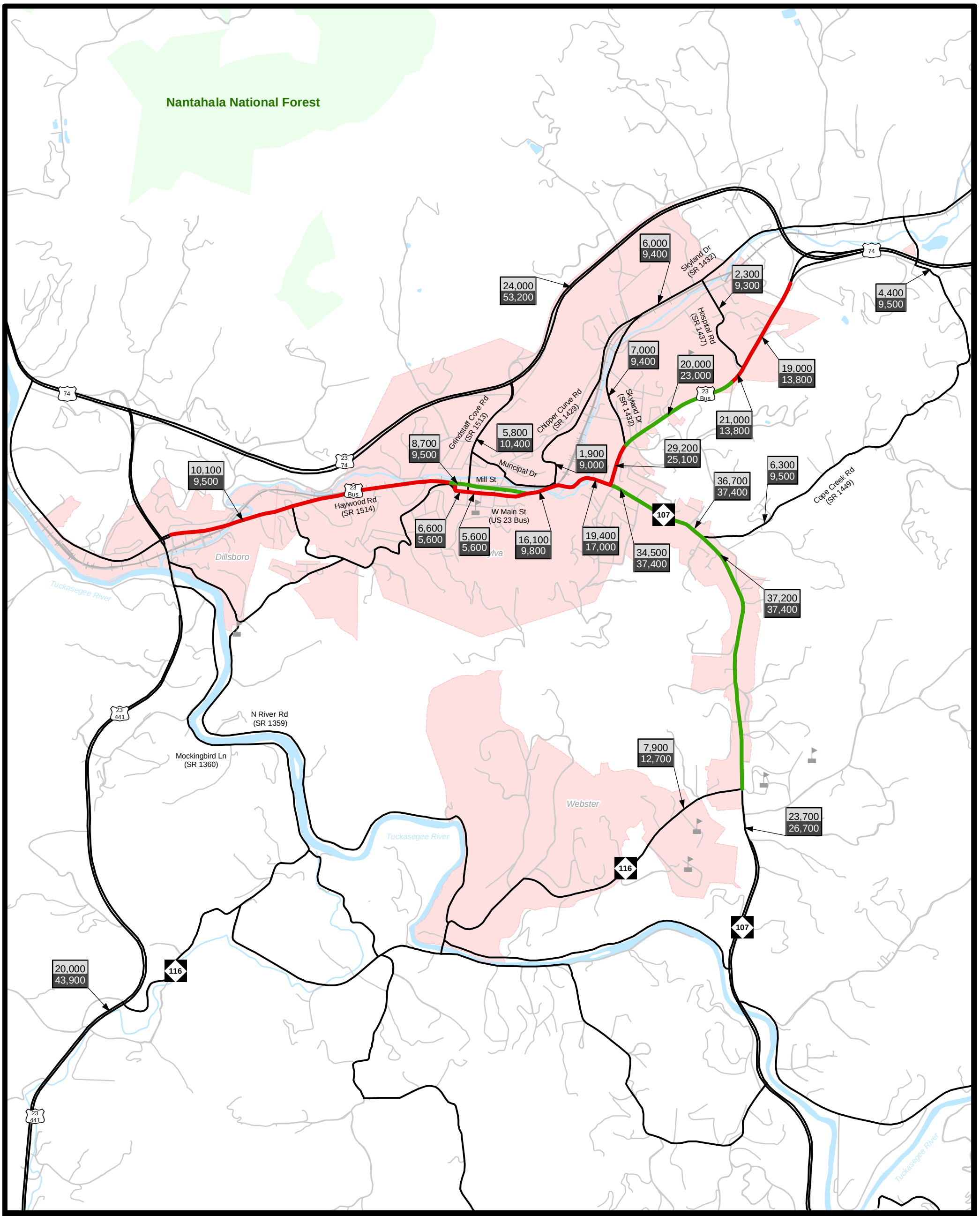
Base map date: 11-04-2014

2040 Volumes and Capacity Deficiencies Map

Jackson County

Comprehensive Transportation Plan

Figure 3



Legend

- Schools
- Airports
- Rivers and Streams
- Roads
- Network Roads
- Railroad
- County Boundary

2040 Volume

2012 Capacity
Existing + Committed*

- Near Capacity
- Over Capacity
- Municipal Limits
- Public Lands
- EBCI

*Existing + Committed includes projects that are funded in the 2016-2025 Transportation Improvement Program

N
W E
S

0 0.3 0.6 Miles

Sheet 2 of 2

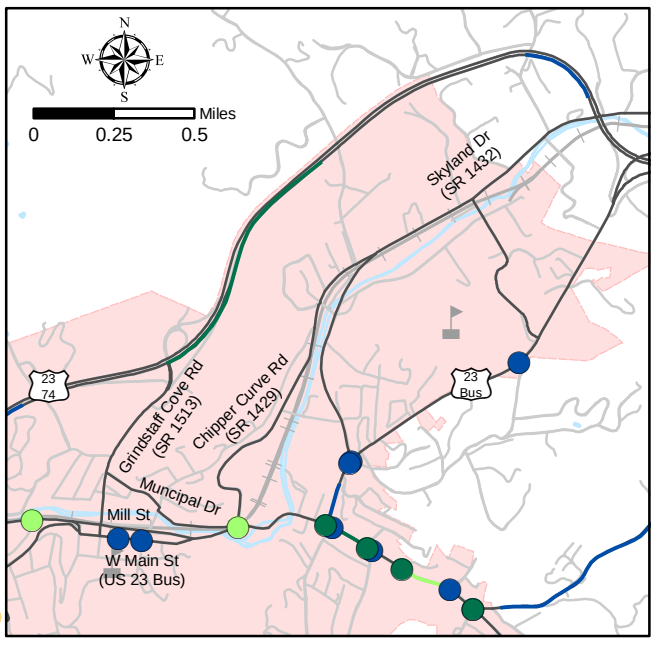
Base map date: 11-04-2014

2040 Volumes and Capacity Deficiencies Map

Jackson County

Comprehensive Transportation Plan

Figure 3
Inset A



Sylva

Swain County

Haywood County

Macon County

Transylvania County

Georgia

South Carolina

Sylva

Dillsboro

Webster

Forest Hills

Cashiers

Highlands

19

441

74

116

23
441

64

281

107

Shoal Creek Rd (SR 1416)

Old Mission Rd (SR 1427)

Camp Creek Rd (SR 1406)

Thomas Valley Rd (SR 1397)

Skyland Dr (SR 1432)

Blanton Br Rd (SR 1709)

Cane Cr Rd (SR 1709)

Old Cullowhee Rd (SR 1002)

Little Savannah Rd (SR 1367)

Caney Fork Rd (SR 1737)

Tilley Creek Rd (SR 1001)

Cullowhee Mtn Rd (SR 1157)

Charley's Creek Rd (SR 1756)

Pine Creek Rd (SR 1163)

North Norton Rd (SR 1145)

Whiteside Cove Rd (SR 1107)

Scott Creek

Savannah Creek

Cullowhee Creek

Caney Fork

Wolf Creek

Tuckasegee River

Thorpe Lake

Legend

- Schools
- Airports
- Rivers and Streams
- Roads
- Network Roads
- Railroad
- County Boundary
- Municipal Boundary
- Public Lands
- EBCI

Crash Intersections

- 20 to 29
- 10 to 19
- 4 to 9

Crash Sections

- 50 and above
- 40 to 49
- 30 to 39
- 20 to 29
- 10 to 19
- 4 to 9

N
W
E
S

Miles
0 1.25 2.5 5

Sheet 1 of 1

Base map date: 11-04-2014

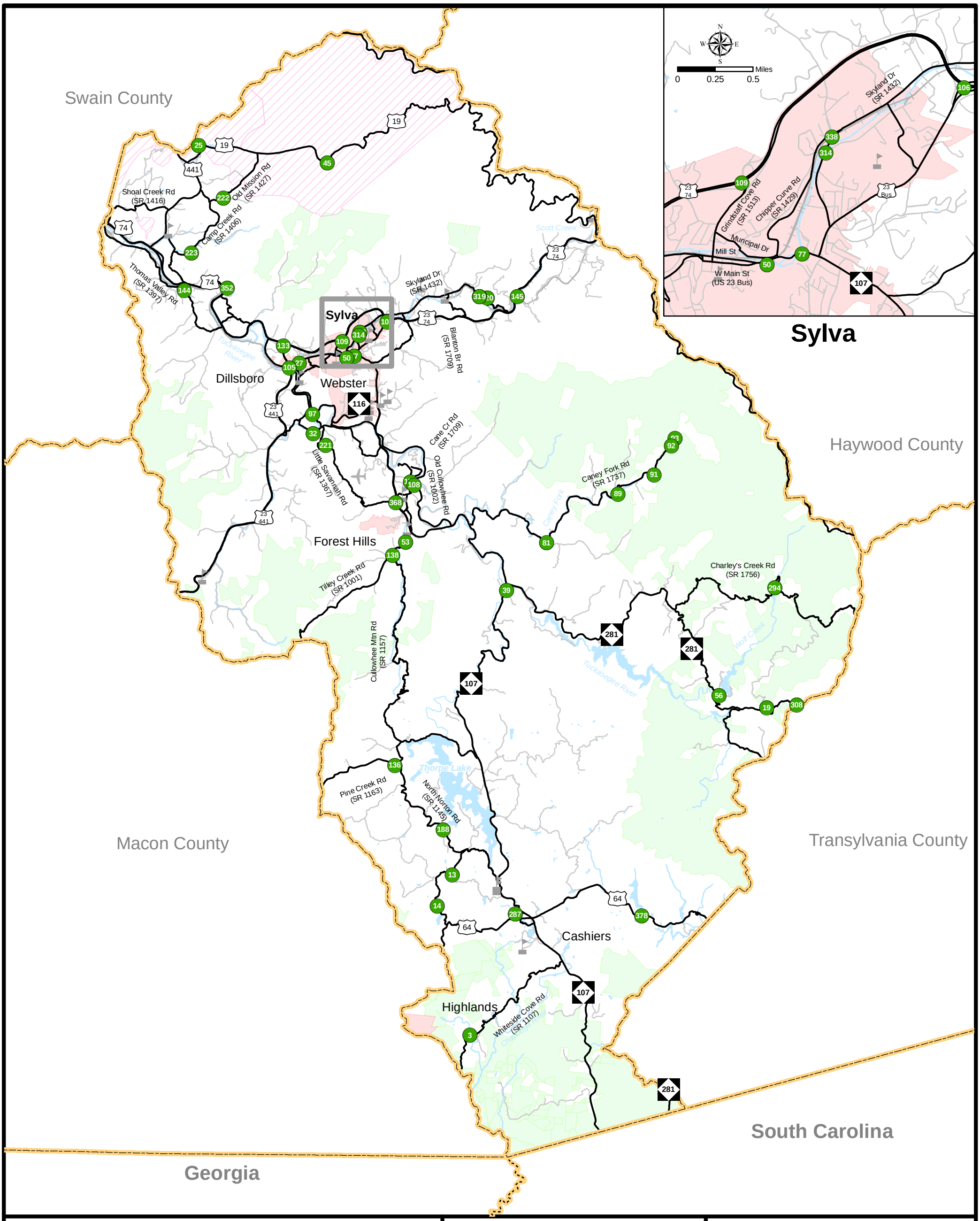
Crash Location Map

(January 1, 2007 - December 31, 2011)

Jackson County

Comprehensive Transportation Plan

Figure 4



Sylva

Legend

- Schools
- Airports
- Rivers and Streams
- Roads
- Network Roads
- Railroad
- County Boundary
- Municipal Boundary
- Deficient Bridges (# Bridge Number)
- Public Lands
- EBCI

Sheet1 of 1

Base map date: 11-04-2014

Deficient Bridges

Jackson County

Comprehensive Transportation Plan

Figure 5

Public Transportation and Rail

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

Public Transportation

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

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

An inventory of existing and planned fixed public transportation routes for the planning area is presented on Sheet 3 of Figure 1. Jackson County has a fully coordinated, public transportation system that operates as Jackson County Transit. It provides transportation for the general public, human service agencies, the elderly, and people with disabilities. Jackson County Transit also offers a deviated fixed route, paratransit service, and a demand response service between 7:00 am and 5:00 pm, Monday through Friday, except for holidays. The current deviated fixed service served by the Jackson Trolley has fourteen fixed bus stops along the route. It runs from Dillsboro to Southwestern Community College, Monday through Friday and limited Saturday service. With advance scheduling, limited service is available to Asheville, Waynesville, Franklin, and Bryson City. All recommendations for public transportation were coordinated with the local

governments. Refer to Appendix A for contact information for the Public Transportation Division.

Rail

Today North Carolina has 3,245 miles of railroad tracks throughout the state. There are two types of trains that operate in the state, passenger trains and freight trains.

Intercity passenger service is provided by Amtrak which currently operates six passenger services daily in or through North Carolina serving 16 cities across the state. Five of the services are interstate (Crescent, Palmetto, Silver Meteor, Silver Star, and Carolinian passenger trains) and one service (Piedmont passenger train) operates exclusively within North Carolina. In addition to the six passenger services mentioned, Amtrak also operates its Auto Train service which passes through North Carolina but does not make any stops. Amtrak ridership demand has been on a rise in the state. In 2010 ridership was 840,000 and increased to 896,292 passengers in 2016.

The North Carolina Department of Transportation sponsors two passenger trains, the Carolinian and Piedmont. The Carolinian runs between Charlotte and New York City, while the Piedmont train carries passengers from Raleigh to Charlotte and back every day. However, no passenger trains operate over the rail line from High Point that dead ends at Asheboro or over the rail line that runs from Gulf, NC to Greensboro. Combined, the Carolinian and Piedmont carry more than 300,000 passengers each year.

There are two major freight railroad companies that operate in North Carolina, CSX Transportation and Norfolk Southern Corporation. Also, there are more than 17 smaller freight railroads, known as shortlines.

An inventory of existing and planned rail facilities for the planning area is presented on Sheet 3 of Figure 1. Blue Ridge Southern Railroad (BLU) has a short line owned by Watco in Jackson County. The entire length of the BLU Murphy to Dillsboro line is 47 miles. There is currently freight service in Jackson County from Haywood County to Dillsboro (17.79 miles in length). The Great Smoky Mountains Railroad (GSMR) owns 53 miles of track between Sylva and Andrews. GSMR hauls freight on demand at the interchange with BLU in Sylva. GSMR also provides excursion service from Bryson City in Swain County to Dillsboro and back. There are no recommended improvements associated with the railroad transportation mode. There are 34 public rail crossings in Jackson County. Twenty-five are at-grade crossings, and there are no proposed rail crossing closings in Jackson County. There are also 43 private at-grade crossings in Jackson County. Refer to Appendix A for contact information for the Rail Division.

Bicycles & Pedestrians

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

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

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

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

Inventories of existing and planned bicycle and pedestrian facilities for the planning area are presented on Sheets 4 and 5 of Figure 1. The 2013 Blue Ridge Bicycle Plan, the 2008 Jackson County Comprehensive Greenway Plan, the 2013 Jackson County Recreation Master plan, Cashiers Transportation Plan (2012), and the Sylva Pedestrian Plan (2010) were utilized in the development of these elements of the CTP. The NC 2, Mountains to Sea, statewide bike route traverses Jackson County. It goes through Cullowhee to NC 107 and then along US 23/74 to the Blue Ridge Parkway. While the current NC 2 route is along NC 107 north of River Road, the 2013 Blue Ridge Bike Plan recommends that it be re-routed to River Road. All recommendations for bicycle and pedestrian facilities were coordinated with the local governments and the NCDOT Division of Bicycle and Pedestrian Transportation. Refer to Appendix A for contact information for the Division of Bicycle and Pedestrian Transportation.

Aviation

Jackson County Airport is a publicly-owned airport situated on a ridge about three miles southeast of Sylva. It is accessed by Airport Road and Little Savannah Road. There is one runway (Runway 15/33) and no control tower. It operates twenty-four hours/day. Approximately 85 aircrafts use the facility each week with 56% being transient general aviation; 36% local general aviation; 4% military, and 3% air taxi (for 12-month period ending July 27, 2014).

Land Use

G.S. §136-66.2 requires that local areas have a current (less than five years old) land development plan prior to adoption of the CTP. For this CTP, the 2017 Jackson County Comprehensive Plan[3] was used to meet this requirement. It was developed simultaneously with this CTP.

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

- Residential: Land devoted to the housing of people, with the exception of hotels and motels which are considered commercial.
- Commercial: Land devoted to retail trade including consumer and business services and their offices; this may be further stratified into retail and special retail classifications. Special retail would include high-traffic establishments, such as fast food restaurants and service stations; all other commercial establishments would be considered retail.
- Industrial: Land devoted to the manufacturing, storage, warehousing, and transportation of products.
- Public: Land devoted to social, religious, educational, cultural, and political activities; this would include the office and service employment establishments.
- Agricultural: Land devoted to the use of buildings or structures for the raising of non-domestic animals and/or growing of plants for food and other production.
- Mixed Use: Land devoted to a combination of any of the categories above.

Anticipated future land development is, in general, a logical extension of the present spatial land use distribution. Locations and types of expected growth within the planning area help to determine the location and type of proposed transportation improvements.

The land uses in Jackson County are primarily residential, agricultural, commercial, industrial, institutional, and conservation. Residential, including second homes for seasonal residents/visitors, is the most prominent land use in the county. The largest concentration of second homes is in southern Jackson County in the Cashiers area. There is also approximately 74,000 acres of federal park/forest land located in Jackson County.

[3] To view this plan, go to: https://www.jacksonnc.org/planning.html.

With many natural constraints in the county, existing commercial land uses are mainly along US 23/74, US 23 Business, NC 107, US 64, and US 441. Most of the industrial development is in the Sylva area near the railroad and US 23/74. NC 107 serves the towns of Sylva, Webster, Forest Hills, Southwestern Community College, Western Carolina University, Cullowhee, and the Village of Cashiers. US 441 serves one of the fastest growing areas in Jackson County, the community of Whittier, and the Eastern Band of Cherokee Indians (EBCI). Jackson County is a popular destination for tourists and second home owners.

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

1.2 Consideration of Natural and Human Environment

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

A full listing of environmental features that are typically examined as a part of a CTP study is shown in the following tables. Environmental features occurring within Jackson County are shown in Figure 6 and are shown in bold text in Table 1.

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

Table 1 – Environmental Features

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

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

1.3 Public Involvement

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

A meeting was held with the Jackson County Board of Commissioners in September 2014 to formally initiate the study, provide an overview of the transportation planning process, and to gather input on area transportation needs.

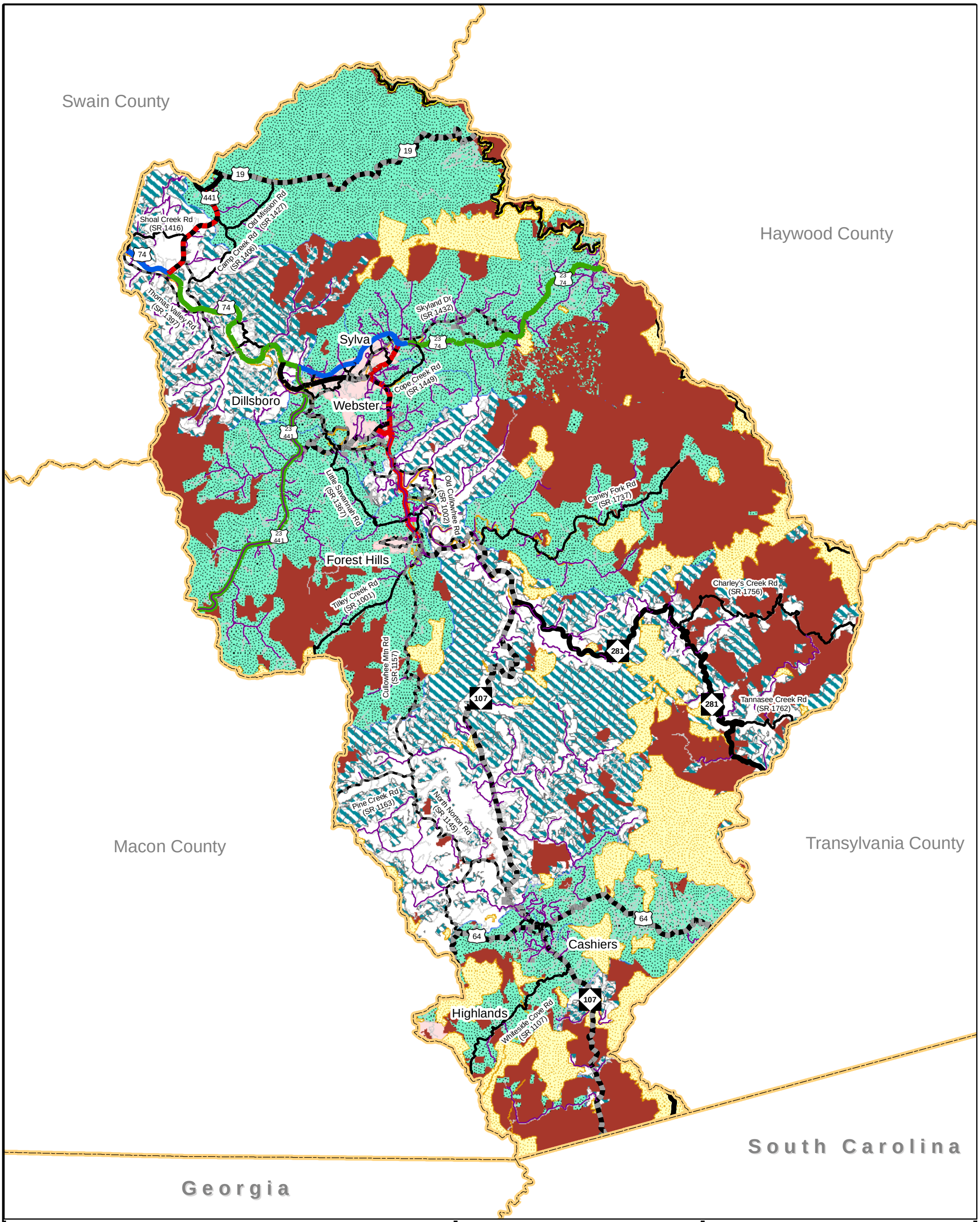
Throughout the course of the study, the NCDOT Transportation Planning Branch cooperatively worked with the Jackson County CTP Steering Committee, which included a representative from each municipality, county staff, the Southwestern Rural Planning Organization (SWRPO) and others. The committee provided information on current local plans, developed transportation vision and goals, discussed population and employment projections, and developed proposed CTP recommendations. Refer to Appendix H for detailed information on the vision statement, the public input survey and a listing of committee members.

The public involvement process included holding 5 public drop-in sessions in Jackson County to present the proposed CTP to the public and solicit comments. The first meeting was held on November 29, 2016 at the Department on Aging in Sylva; the second meeting was held on December 5, 2016 at Tuckasegee VFW in Tuckasegee, the third meeting was held on December 6, 2016 at the Qualla Community Building in Whittier, the fourth meeting was held on December 12, 2016 at the Cashiers Library in Cashiers, and the fifth meeting was held on December 13, 2016 at the Savannah Community Building in Sylva. Each session was publicized in the local newspaper and was held from 5:00 P.M. to 7:00 P.M. A total of 14 comments were received during the public outreach. See Appendix H for a summary of the comments received.

Jackson County and the municipalities within the county each held meetings where the plan recommendations were discussed and further input from the public solicited. The CTP was adopted during each of these meetings.

Jurisdiction	Adoption date of CTP
Jackson County	August 28, 2017
Town of Dillsboro	July 10, 2017
Town of Sylva	July 13, 2017
Village of Forest Hills	July 11, 2017
Town of Webster	August 2, 2017

The Southwestern RPO endorsed the CTP on September 25, 2017. The North Carolina Department of Transportation mutually adopted the Jackson County CTP on October 5, 2017.



Legend

- Hydrography Areas
- Colleges and Universities
- Schools
- Airport Boundary
- Managed Areas
- Significant Natural Heritage Areas
- Local Watersheds-EEP
- Roads
- Municipal Boundary
- County Boundary

N
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0 1 2 4 Miles

Sheet 1 of 4

Base map date: 11-04-2014

Environmental Features Map

Jackson County Comprehensive Transportation Plan

Figure 6

Swain County

Haywood County

Macon County

Transylvania County

Georgia

South Carolina

Sylva

Dillsboro

Webster

Forest Hills

Cashiers

Highlands

19

441

74

23
74

23
441

64

281

107

Shoal Creek Rd
(SR 1416)

Old Mission Rd
(SR 1427)

Camp Creek Rd
(SR 1406)

Thomas Valley Rd
(SR 1397)

Skyland Dr
(SR 1432)

Cope Creek Rd
(SR 1449)

Little Savannah Rd
(SR 1367)

Old Cullowhee Rd
(SR 1002)

Caney Fork Rd
(SR 1737)

Tilley Creek Rd
(SR 1001)

Cullowhee Mtn Rd
(SR 1157)

Charley's Creek Rd
(SR 1756)

Tannasee Creek Rd
(SR 1762)

Pine Creek Rd
(SR 1163)

North Norton Rd
(SR 1145)

Whiteside Cove Rd
(SR 1107)

Legend

- Churches & Cemeteries
- Roads
- Colleges and Universities
- Schools
- Hospitals
- Historic Resource Sites
- 24k Hydro Lines
- Critical Habitat (Appalachian Elktoe)
- Conservation Tax Credit Properties
- Historic Resources Areas
- National Wetlands Inventory
- Unique Wetlands
- Municipal Boundary
- NCDOT Maintained Mitigation Sites
- County Boundary

N

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0 1 2 4 Miles

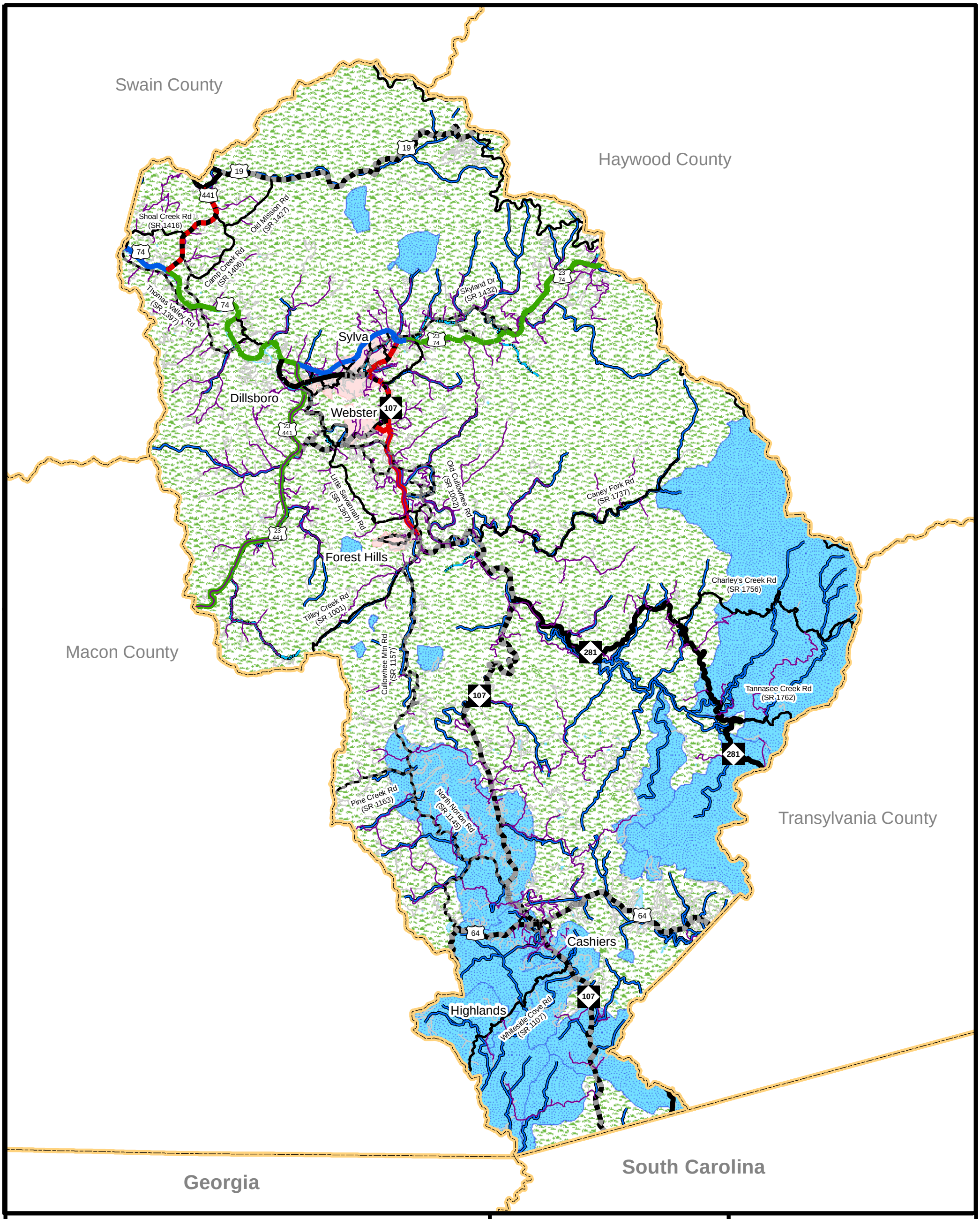
Sheet 2 of 4

Base map date: 11-04-2014

Environmental Features Map

Jackson County Comprehensive Transportation Plan

Figure 6



Legend

- 303D Streams
- Trout Streams DWQ
- High Quality Waters
- Natural Heritage Element Occurrences
- Roads
- Municipal Boundary
- County Boundary

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Miles
0 1 2 4

Sheet 3 of 4

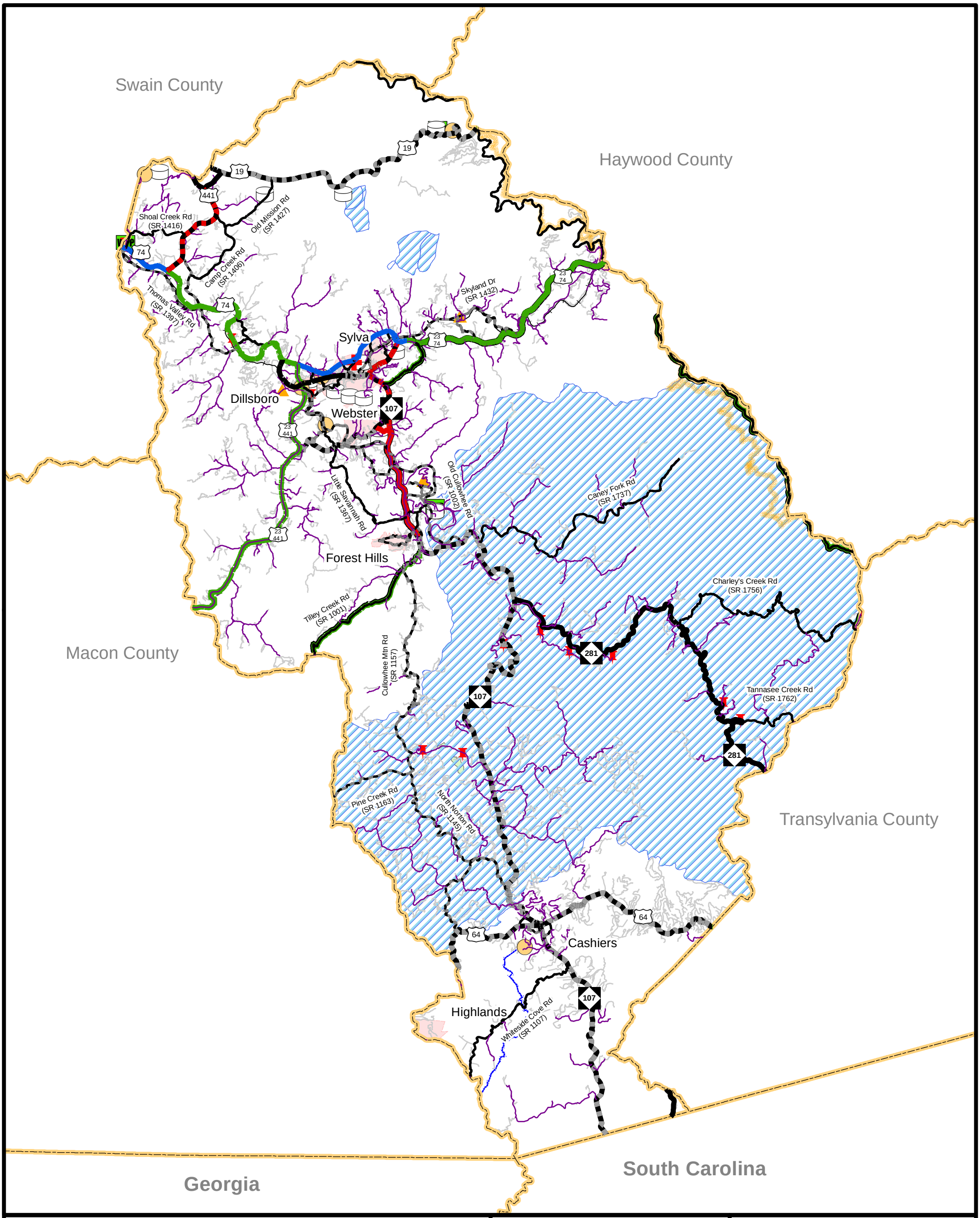
Base map date: 11-04-2014

Environmental Features Map

Jackson County

Comprehensive Transportation Plan

Figure 6



Legend

- Boating Access
- Emergency Operation Centers
- Hazard Substance Disposal Sites
- Sewer Treatment Plants
- Water Distribution Tanks
- Water Distribution Treatment Plants (WTP)
- Bicycle Routes
- Regional Trails
- State Natural and Scenic Rivers
- Railroads
- Roads
- Water Supply Watersheds
- Land_and_Water_Conservation_Funds
- Municipal Boundary
- County Boundary

N W E S

0 1 2 4 Miles

Sheet 4 of 4

Base map date: 11-04-2014

Environmental Features Map

Jackson County

Comprehensive Transportation Plan

Figure 6

2. Recommendations

This chapter presents recommendations for each mode of transportation in the 2017 CTP as shown in Figure 1. More detailed information on each recommendation is tabulated in Appendix C.

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

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

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

As discussed in Chapter 1, p. 1-3, for the capacity deficiency analysis of the highway element of the CTP, the annual average daily traffic (AADT) in 2012 and the projected vehicles per day (vpd) in 2040 were compared to the 2012 Level of Service (LOS) D capacity for each facility. The future year analysis assumed that projects listed in the 2016 – 2025 State Transportation Improvement Program (STIP) were built. These projects include:

- Success Avenue, TIP No. R-5000: New Route from NC 116 to NC 107 in Webster. This facility was opened to traffic in 2016.
- NC 107, TIP No. R-5600: US 23 Business to NC 116. Upgrade to a four lane, median divided facility with right-of-way acquisition in FY 2019 and construction FY 2020-2022. Sidewalk and bicycle accommodations are also recommended.
- NC 107, TIP No. R-4753: Old Cullowhee Road (SR 1002) to NC 281. Upgrade existing roadway in FY 2017-18.

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

- SR 1449 (Cope Creek Road), TIP No. R-5206: Cope Creek Road (SR 1710) to US 23/74. Safety improvements and widening to 10 foot lanes (FY 2016).

Also, the Village of Cashiers while unincorporated, has an active council that contracted with Fuss & O'Neill to develop a transportation plan and strategy, Cashiers Transportation Priority Plan, for their community in 2011. During the development of this CTP, the Cashiers Village Council stated that the overall concepts of that plan were still valid today. The Cashiers Transportation Priority Plan[2] can be found on the Jackson County Planning Department website. Cashiers is located at the intersection of US 64 and NC 107. The year round population averages 1,700 people, but during the summer months, the population reaches over 10,000 people. Many of the connections listed in the Cashiers Transportation Priority Plan are smaller connections between local roads and communities. CTPs do not generally capture these types of facilities. But the plan was referenced during this study and key connections are included. The other connections between small, local roads and businesses, bicycle accommodations, off-road paths, and sidewalks shown in the Cashiers Transportation Priority Plan includes additional alternative routes to the congested US 64 and NC 107 in the area for local residents.

2.1 Unaddressed Deficiencies

The following deficiency was identified during the development of the CTP but remains unaddressed.

US 23 Business connects Dillsboro and Sylva and goes through the central business district of both towns. The section through Dillsboro to Sylva is approaching its capacity of 10,100 vehicles per day (vpd) with volumes between 7,600 to 9,000 vpd. These volumes are projected to be between 10,100 to 10,300 vpd by 2040. US 23 Business is a one-way pair through Sylva: Mill Street (US 23 Business westbound) and Main Street (US 23 Business eastbound). With volumes projected to be around 8,700 vpd in 2040, Mill Street is approaching its capacity of 9,500 vpd. Main Street has parking on both sides and serves the downtown shops of Sylva in addition to through trips. While it is two lanes, one lane primarily serves as a continuous left turn lane. It is projected to be over its capacity of 5,600 vpd by 2040 with volumes expected to reach 7,100 vpd. Capacity is impacted on Main Street and Mill Street due to the low speed limit, traffic signals, pedestrian traffic and on-street parking. US 23 Business through downtown Dillsboro and Sylva needs to move traffic and serve the central business districts. In addition, traffic from the NC 107 area of Sylva travels along Mill Street to access US 74 westbound since the interchange with US 23 Business (Asheville Avenue) and US 74 does not support this movement. Grindstaff Cove Road provides access to westbound US 74. Also, between January 1, 2007 and December 31, 2011 there were 23 crashes along the one-way pair.

[2] To view the Fuss O'Neill plan, go to: http://www.planning.jacksonnc.org/pdfs/Trans-Plan-03-12.pdf.

Neither town wants to impact businesses by widening the facility. It is also desirable to keep the on-street parking on Main Street and Mill Street in Sylva. The Congestion Management Section of NCDOT analyzed potential changes that did not remove on-street parking which could help improve the movement of traffic along Mill Street and Main Street. Three alternatives were identified and analyzed that restricted traffic movement along the north/south streets of Schulman Street, Walnut Street, and Spring Street, or eliminated traffic signals with stop controls for the side streets. None of the alternatives fully addressed the capacity deficiencies but did offer some benefits that are worth further discussion and consideration by the town of Sylva. Refer to Appendix I for more information on the alternatives that were studied.

2.2 Implementation

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

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

Recommended improvements shown on the CTP map represents an agreement of identified transportation deficiencies and potential solutions to address the deficiencies. While the CTP does propose recommended solutions, it may not represent the final location or cross section associated with the improvement. All CTP recommendations are based on high level systems analyses that seek to minimize impacts to the natural and human environment. Prior to implementing projects from the CTP, additional analysis will be necessary to meet the National Environmental Policy Act (NEPA) or the North Carolina (or State) Environmental Policy Act[3] (SEPA). During the NEPA/SEPA process, the specific project location and cross section will be determined based on environmental analysis and public input. This CTP may be used to support

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

transportation decision making and provide transportation planning data in the NEPA/SEPA process.

2.3 Problem Statements

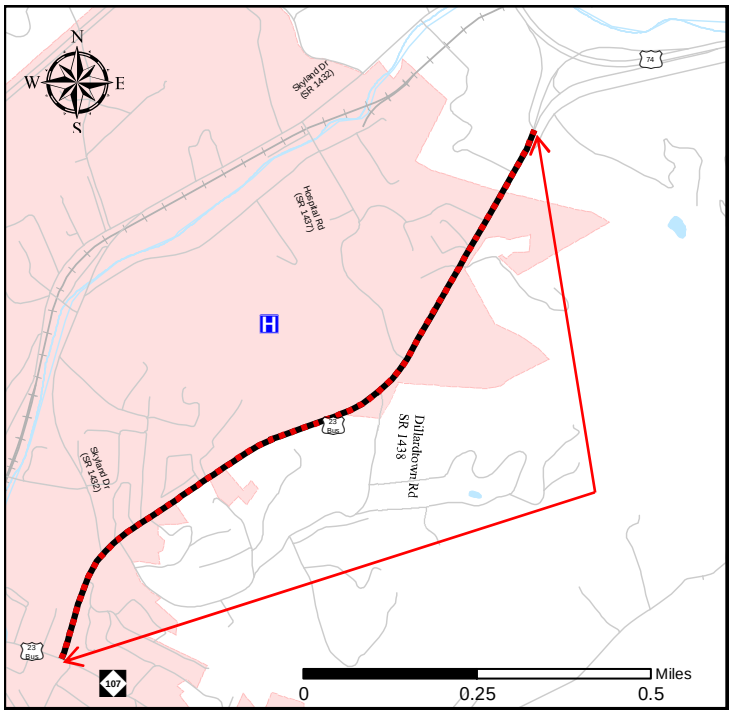
Problem statements describe the transportation system deficiencies identified during the CTP process and recommend improvements to alleviate the deficiencies. The following pages contain problem statements for each recommendation, organized by CTP modal element. The information provided in the problem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

HIGHWAY

US 23 Business (Asheville Highway), Proposed Improvements from NC 107 to US 23/74	**Local ID: JACK0001-H** **Last Updated: 7/6/17**

Identified Problem

US 23 Business (Asheville Highway) from 0.1 miles north of Skyland Drive (SR 1432) to the US 23/74 interchange is currently approaching capacity or over capacity and is expected to be over capacity by 2040. Improvements are needed to accommodate projected traffic at a level of service (LOS) D.



Justification of Need

US 23 Business (Asheville Highway) is the primary facility into Sylva and Western Carolina University (WCU) when travelling from US 23/US 74 east of Sylva. Harris Regional Hospital, which is one of two hospitals serving the four most western counties of NC, is located off this facility. The hospital is also one of the largest employers in the county.

Currently, US 23 Business (Asheville Highway) has three 12 foot lanes between US 23/74 and 0.2 miles south of Dillard Town Road (SR 1438). In 2012, the Annual Average Daily Traffic (AADT) volumes were 13,000 to 14,000 vehicles per day (vpd) with an existing capacity of 13,800 vpd. By 2040, traffic is projected to be 19,000 to 21,000 vpd in this section. From that point, the roadway varies from four to five lanes to NC 107, and volumes are projected to reach up to 29,200 vpd by 2040 compared to the current capacity of 23,000 to 25,100 vpd..

The intersection with NC 107 is the busiest in the county and had 24 crashes between January 1, 2007 and December 31, 2011. The intersection with Skyland Drive (SR 1432) and Hospital Road (SR 1437) each had 11 crashes during this time period. The intersection of US 23 Business and Dillard Town Road (SR 1438) had 11 crashes. The

section of US 23 Business between NC 107 and Skyland Drive (SR 1432) had 11 crashes.

Community Vision and Problem History

One of the goals of the CTP is to provide efficient movement of all transportation modes. US 23 Business (Asheville Highway) was also identified as needing improvement in the 2010 Jackson County CTP.

CTP Project Proposal

Project Description and Overview

It is proposed to widen US 23 Business (Asheville Highway) to a four lane divided boulevard (cross-section 4D) that will balance mobility and land access in this high-growth corridor. Sidewalks are recommended for both sides of the facility. Bicycle accommodations are recommended for the section between NC 107 and Skyland Drive (SR 1432).

Natural & Human Environmental Context

US 23 Business (Asheville Highway) crosses two tributaries of Scott Creek. No homes are impacted by this project. There is 100-150' of right-of-way along US 23 Business (Asheville Highway) which is sufficient for the proposed project.

Relationship to Land Use Plans

This corridor has non-residential land use development along it and is a high growth corridor in Jackson County. Harris Regional Hospital, other medical facilities, a grocery store, several restaurants, and several other businesses are located along the facility.

Linkages to Other Plans and Proposed Project History

US 23 Business (Asheville Highway) is classified as a principal arterial on the Federal Functional Classification System. It was also identified as needing improvement in the 2010 Jackson County CTP and recommended to be widened to a four lane divided boulevard.

Multi-modal Considerations

There is sidewalk along the southern end of this facility near NC 107. Sidewalks are proposed on both sides of US 23 Business (Asheville Highway) to Cope Creek. Bicycle accommodations are recommended for the section between NC 107 and Skyland Drive (SR 1432).

Public/ Stakeholder Involvement

No comments were received from the public concerning this project during the five public meetings held in November and December of 2016.

US 23 / US 23 Business (Asheville Highway) / NC 107, TIP No. R-5600

NC 107 from US 23 Business to NC 116 is currently over capacity (22,700 vpd) with 2012 volumes between 30,000 - 32,000 vpd. Future volumes are projected to be between 34,500 - 37,200 vpd by 2040. It is a primary commercial district in the county, provides access to Western Carolina University, Southwestern Community College, and Smoky Mounty High School. The 2016 – 2025 State Transportation Improvement Program (STIP) includes project R-5600 that is intended to address this problem.

TIP Project R-5600 includes:

- upgrading US 23 Business from Chipper Curve Road (SR 1429) to NC 107;
- upgrading NC 107 to a four lane median divided facility from US 23 Business (Asheville Highway) to 0.1 miles east of Fairview Road (SR 1724); and,
- upgrading US 23 Business (Asheville Highway) from NC 107 to 0.1 miles north of Skyland Drive (SR 1432). This part of the project was formerly included in the STIP as project R-5715.

Sidewalk and bicycle accommodations are also recommended along the proposed project.

This project is programmed for right-of-way in State Fiscal Year (FY) 2019 and construction FY 2021-2023. For additional information about this project, including the Purpose and Need, contact NCDOT's Project Development and Environmental Analysis Branch (PDEA). In addition, the Southwestern Rural Planning Organization completed an NC 107 Corridor Study Report[4] in December 2012 where the local vision for this corridor was documented.

US 64, TIP No. R-2409

The 2016 – 2025 STIP includes safety improvements and climbing lanes at selected locations along US 64 from NC 107 at Cashiers to US 178 at Rosman.

The land around the intersection of US 64 and NC 107 is the primary business district of Cashiers. This area continues to develop as a retirement and vacation community. The portion of US 64 east of NC 107 in Cashiers experiences capacity issues during the summer months when volumes are estimated to reach 11,900 vpd. The current capacity ranges from 10,100 vpd to 11,100 vpd. The 2040 traffic volumes are projected to reach 13,200 vpd off season and up to 21,200 vpd during the summer months when tourists and second home owners frequent the area.

In addition, there were 24 crashes from Merrell Road (SR 1116) to Laura Road, 16 crashes from Laura Road to Cedar Creek Road (SR 1120), 11 crashes from Cedar Creek Road (SR 1120) to Lonesome Valley Road, 15 crashes from Spring Forest Road to Country Club, 13 crashes from Deer Run to Sapphire Post Office Road (SR 1119),

[4] To view this report, go to: http://www.regiona.org/wp-content/uploads/2011/06/NC-107-Corridor-Study-Report.pdf.

and 27 crashes between Sapphire Post Office Road (SR 1119) and Transylvania County. There were also 12 crashes at the intersection with NC 107.

In the 1994 Jackson County Thoroughfare Plan, this section of US 64 was recommended to be widened to three lanes. The 2010 Jackson County CTP recommended a three lane facility with bicycle and pedestrian accommodations. A round-about at the intersection of NC 107 and US 64 was also recommended in the 2010 CTP.

While the recommended cross-section (2E) from Slab Town Road (west of NC 107) to Pebble Creek Drive is a two lane cross-section with sidewalks and bicycle accommodations, additional lanes or traffic operations may be needed to handle the projected 2040 traffic volumes.

For additional information about this project contact NCDOT Division 14.

US 441, Local ID: JACK0002-H

US 441 from US 74 to Casino Trail (US 441 Business) is projected to be one of the high growth corridors in Jackson County. The proposed project is to improve mobility as development occurs along the corridor.

The 2012 Annual Average Daily Traffic (AADT) volumes ranged from 15,000-17,000 vehicles per day (vpd) and are projected to increase to 22,400 vpd by 2040. Additionally, from January 1, 2007 through December 31, 2011 there were 15 crashes along US 441 from US 74 to Sunset Farm Road (SR 1405), 13 crashes between Martin Road (SR 1425) and Camp Creek Road (SR 1406), and 13 crashes between Olivet Church Road (SR 1424) and Old Soco Road (SR 1422). There were also 7 crashes at the intersection with Olivet Church Road (SR 1424).

This roadway is an important connector between US 74, the Qualla Boundary of the EBCI and US 19. It is a minor arterial on the Federal Functional Classification System. From US 74, US 441 is the primary route to the Town of Cherokee, one of the major destinations in the Eastern Band of the Cherokee Nation US 441 has Smokey Mountain Elementary School located off it, several roads serving residential communities, and businesses. The EBCI also has plans to build another hotel tower and convention center in the town. With the mixed use along this corridor, it is important to balance local access and mobility.

It is proposed to improve this section of US 441 from its current five lanes to a four lane divided boulevard. This recommendation was part of the 2010 Jackson County CTP. Bicycle accommodations are also recommended as this is a popular cycling route.

Part of the CTP vision is to provide efficient movement of all transportation modes. Improving US 441 for safety was identified in the 2010 Jackson County CTP. In 2008, Kimley-Horn and Associates, Inc. completed a US 441 Small Area Plan.[5] It was adopted April 21, 2008 by the Jackson County Board of Commissioners. This plan supports the upgrade of US 441 to a boulevard. US 441 is specifically mentioned in the Comprehensive Plan / Comprehensive Transportation Plan Goal 7 (Maintain and enhance County transportation corridors) with an objective to create corridor plans for different segments of US 441.

NC 107, TIP No. R-4753

NC 107 from Old Cullowhee Road (SR 1002) to NC 281 is currently a substandard facility with existing lane widths less than 10 feet wide, overall shoulder widths less than 4 feet in many locations and paved shoulders that are intermittent and too narrow when present. The 2016 – 2025 STIP includes project R-4753 that will address this problem.

This project includes upgrading this section of NC 107 to current design standards, and to provide a safer, wider, and better delineated facility. Right-of-way is currently underway for this project and construction is programmed for State FY 2018 and 2019. For additional information about this project, including the Purpose and Need, contact NCDOT's Project Development and Environmental Analysis Branch (PDEA).

NC 107, Local ID: JACK0003-H

NC 107 from south of Laurel Knob Road (SR 1142) to Valley Road (SR 1114) through Cashiers is currently approaching its capacity of 6,200 vpd with an average daily traffic of 6,100 vpd. Those volumes are projected to reach 11,000 vpd by 2040. These volumes are higher during peak summer seasons. While a two lane cross-section (2E) with sidewalk and bicycle accommodations in the business district of Cashiers is recommended to minimize impacts to existing businesses and the parking, a larger cross-section or other operational improvements may be needed to efficiently move traffic in the area.

Cashiers Northeast Quadrant Connector, Local ID: JACK0004-H

The Cashiers Transportation Priority Plan[6] also recommends a connector between US 64 and NC 107 in the northeast quadrant. This facility is recommended to provide an alternate route for local access and an alternative to US 64 and NC 107. Sidewalks and bicycle accommodations are recommended along the facility. The Southeast Quadrant Connector, Northeast Quadrant Connector, Frank Allen Road and Slab Town Road (SR 1141) allow local and seasonal residents of Cashiers to access local businesses and other facilities without going through the already congested intersection of US 64 and NC 107. See the Cashiers Transportation Priority Plan for other local road recommendations that will enhance mobility in the area.

[5] To view the US 441 Small Area Plan, go to: https://drive.google.com/file/d/0B5PerLAZGwvddUlhc053Mlh0M28/view.

[6] To view the Fuss O'Neill plan, go to: http://www.planning.jacksonnc.org/pdfs/Trans-Plan-03-12.pdf.

Cashiers Southeast Quadrant Connector, Local ID: JACK0005-H

The Fuss & O'Neill Village of Cashiers Transportation Priority Plan recommends a connector between US 64 and NC 107 in the southeast quadrant. This facility is recommended to provide an alternate route for local access and an alternative to US 64 and NC 107. Sidewalks and bicycle accommodations are recommended along the facility. The Southeast Quadrant Connector, Northeast Quadrant Connector, Frank Allen Road and Slab Town Road (SR 1141) allows local and seasonal residents of Cashiers to access local businesses and other facilities without going through the already congested intersection of US 64 and NC 107. See the Cashiers Transportation Priority Plan for other local road recommendations that will enhance mobility in the area.

MINOR WIDENING IMPROVEMENTS:

The following facilities are not expected to exceed capacity but were identified as candidates for upgrading to NCDOT design standards to improve mobility, safety and/or to accommodate bicycles, especially on uphill sections of two lane facilities. Additionally, some facilities may require improvements to the vertical and/or horizontal alignment. Implementation of the proposed projects should be coordinated through NCDOT's Highway Division 14 office (refer to Appendix A for contact information).

- **US 19, Local ID: JACK0007:** From US 441 Business (Casino Trail) to Jenkins Creek Road with accommodations for bicycles. This need was also identified in the public outreach survey conducted as part of the CTP development (see Appendix H).
- **US 19, TIP No. R-5747:** From Jenkins Creek Road to Haywood County with accommodations for bicycles. This project continues into Haywood Count to Fie Top Road (SR 1304) at Ghost Town USA. This need was also identified in the public outreach survey conducted as part of the CTP development (see Appendix H).
- **US 64, Local ID: JACK0008-H:** From Macon County to NC 107. Between January 1, 2007 and December 31, 2011 there were 19 crashes from Macon County to Norton Road (SR 1143), and 22 crashes from Norton Road (SR 1143) to Knollwood Lane.
- **NC 107, TIP No. R-5841:** R-5841 includes widening the pavement to 24 feet with 5 feet paved shoulders from NC 281 to Shoal Creek at the end of the climbing lane. There is currently a feasibility study (FS-1214C) underway for the portion of NC 107 from NC 281 to approximately 1.0 mile north of Pine Creek Road (SR 1157) that is evaluating widening the road to 24 foot pavement with 5 foot paved shoulders. Accommodation for bicycles is also recommended. This need was also identified in the public outreach survey conducted as part of the CTP development and ranked second (30.22% of survey responders) among projects to support (see Appendix H).
- **NC 107, Local ID: JACK0009-H:** From Shoal Creek to Laurel Knob Road (SR 1142). Accommodation for bicycles is also recommended.

- **NC 107, Local ID: JACK0010-H:** From Valley Road (SR 1114) to South Carolina. Accommodation for bicycles is also recommended.
- **NC 116 (Webster Road), Local ID: JACK0011-H:** From US 23/441 to SR 1530 (Southwestern Community College). This need was also identified in the public outreach survey conducted as part of the CTP development and ranked third (28.51% of survey responders) among projects to support (see Appendix H).
- **Barkers Creek Road (SR 1392), Local ID: JACK0012-H:** From Thomas Valley Road (SR 1397) to US 74/US 441. Bicycle accommodations are recommended. This need was also identified in the public outreach survey conducted as part of the CTP development which can be found in Appendix H.
- **Chipper Curve Road (SR 1429), Local ID: JACK0036-H:** From US 23 Business (W Main Street) to Skyland Drive (SR 1432). Bicycle and pedestrian accommodations are recommended along this facility.
- **Cullowhee Mountain Road (SR 1001, SR 1157), Local ID: JACK0013-H:** From NC 107 to Pine Creek Road (SR 1145). Bicycle accommodations are recommended. Between January 1, 2007 and December 31, 2011 there were 14 crashes between Tilley Creek Road (SR 1001) and White Rock Road (SR 1164). There were 7 crashes at the intersection with NC 107. This need was also identified in the public outreach survey conducted as part of the CTP development.
- **Frank Allen Road (SR 1176/SR 1182), Local ID: JACK0014-H:** From US 64 to NC 107. This facility provides access to a library, community center, recreation center and Cashiers Fire Department. There is also a history of flooding from Cashiers Creek after heavy rains. A study of the problem and potential solutions has been done, but other changes have occurred or are planned, e.g. the sediment pond along the facility now planned to be filled in, that warrant a new feasibility study of potential solutions. Bicycle, pedestrian, and public transportation accommodations are recommended along this facility.
- **Ledbetter Road, Local ID: JACK0015-H:** From Monteith Gap Road (SR 1336) to the end of the facility. Sidewalks are also recommended.
- **Mineral Springs Road (SR 1456), Local ID: JACK0016-H:** From US 23/74 to Skyland Drive (SR 1432)
- **Mockingbird Lane (SR 1360), Local ID: JACK0017-H:** From US 23/441 to NC 116 (Webster Road). Multi-use path/Bicycle accommodations are recommended from US 23/441 to Rock Quarry Road (SR 1581) parallel to the Tuckasegee River.
- **Monteith Gap Road (SR 1336), Local ID: JACK0018-H:** From Old Cullowhee Road (SR 1002) to end of facility. idewalks are also recommended.
- **Municipal Drive, Local ID: JACK0019-H:** From Grindstaff Cove Road (SR 1513) to Allen Street and from Allen Street to Chipper Curve Road (SR 1429). Sidewalks are also recommended.

- **N. Country Club Drive, Local ID: JACK0020-H:** From NC 107 to South Country Club Drive with sidewalks recommended from NC 107 to Pincushion Road.
- **North Norton Road (SR 1145), Local ID: JACK0021-H:** From Pine Creek Road (SR 1163) to NC 107. Accommodations for bicycles are also recommended. Between January 1, 2007 and December 31, 2011 there were 14 crashes between Bumgarner Road (SR 1144) to NC 107. This need was also identified in the public outreach survey conducted as part of the CTP development which can be found in Appendix H.
- **N. River Road (SR 1359), Local ID: JACK0022-H:** From Yellow Bird Branch Road (SR 1358) to NC 116 (Webster Road). Accommodations for bicycles are also recommended. Between January 1, 2007 and December 31, 2011 there were 24 crashes between NC 116 and River Chase Road (SR 1567). This need was also identified in the public outreach survey conducted as part of the CTP development.
- **Norton Road (SR 1144), Local ID: JACK0023-H:** From North Norton Road (SR 1145) to US 64. This need was also identified in the public outreach survey conducted as part of the CTP development.
- **Old Cullowhee Road (SR 1002), Local ID: JACK0024-H:** From NC 107 to NC 107S. Accommodations for bicycles are also recommended. Between January 1, 2007 and December 31, 2011 there were 12 crashes between Weyehutta Road (SR 1732) and SR 1729 (Stephens Road). There were also 24 crashes at the intersection with NC 107, both the north end and the south end.
- **Old Settlement Road (SR 1340), Local ID: JACK0025-H:** From NC 116 to NC 107). Accommodations for bicycles are also recommended. This need was also identified in the public outreach survey conducted as part of the CTP development and ranked third (28.51% of survey responders) among projects to support (see Appendix H for specifics).
- **Pine Creek Road (SR 1163/1145/1157), Local ID: JACK0026-H:** From Macon County to Cullowhee Mountain Road (SR 1157). Between January 1, 2007 and December 31, 2011 there were 18 crashes between Cullowhee Mountain Road (SR 1157) and NC 107. Accommodations for bicycles are also recommended.
- **Skyland Drive (SR 1432), Local ID: JACK0027-H:** From US 23 Business to US 23/74 with sidewalk and multi-use path/bicycle accommodations. This need was also identified in the public outreach survey conducted as part of the CTP development.
- **S. Country Club Drive, Local ID: JACK0028-H:** From N Country Club Drive to N Country Club Drive. Sidewalks are also recommended from the eastern intersection with N. Country Club Drive to 1.0 mile west.
- **S. Painter Road (SR 1338), Local ID: JACK0029-H:** From Monteith Gap Road (SR 1336) to the end of the facility. Sidewalks are also recommended.
- **S. River Road (SR 1345), Local ID: JACK0030-H:** From NC 116 (Webster Road) to NC 107. Between January 1, 2007 and December 31, 2011, there were

14 crashes between NC 107 and NC 116 and 7 crashed at the intersection with NC 107. It is recommended to evaluate the intersection with NC 107 to see if safety improvements can be made. A multi-use path is also recommended along the Tuckasegee River. This need was also identified in the public outreach survey conducted as part of the CTP development.

- **Speedwell Road (SR 1001), Local ID: JACK0031-H:** From NC 107 South to Forest Hills Road (SR 1330). Bicycle accommodations and sidewalks (or a multi-use path) are also recommended. Between January 1, 2007 and December 31, 2011 there were 9 crashes between SR 1544 to N. Country Club Drive (SR 1330). There were 7 crashes at the intersection with NC 107. This need was also identified in the public outreach survey conducted as part of the CTP development. One suggestion was to make Speedwell Road (SR 1001) one-way and use the other lane as a bicycle/pedestrian lane.
- **Sunset Farm Road (SR 1405 / SR 1406), Local ID: JACK0032-H:** From US 441 South to Bradley Branch Road (SR 1404) with bicycle accommodations.
- **Thomas Valley Road (SR 1397), Local ID: JACK0033-H:** From US 74 to Barkers Creek Road (SR 1397) with bicycle accommodations. Between January 1, 2007 and December 31, 2011 there were 9 crashes along this facility.
- **Wilmont Road (SR 1534), Local ID: JACK0034-H:** From US 74/441 to Thomas Valley Road (SR 1397). The at-grade intersection with US 74 was mentioned several times during the public involvement outreach as needing improvements. Between January 1, 2007 and December 31, 2011 there were 7 crashes at this intersection.
- **Yellow Bird Branch Road (SR 1358), Local ID: JACK0035-H:** From Savannah Drive (SR 1356) to N. River Road (SR 1359). This need was also identified in the public outreach survey conducted as part of the CTP development which can be found in Appendix H.

PUBLIC TRANSPORTATION & RAIL

A public transportation and rail assessment was completed during the development of the CTP. There are no recommended rail improvements and no proposed rail crossing closings in Jackson County. The public transportation recommendations for the CTP are shown in Figure 1, Sheet 3 and detailed below.

- **Local ID: JACK0001-T:** A new transit route that connects Dillsboro, Webster, Forest Hills and Cullowhee by utilizing US 441S, NC 116, NC 107, Old Cullowhee Road (SR 1002) and Little Savannah Road (SR 1367).
- **Local ID: JACK0002-T:** A proposed deviated-fixed transit route to serve the citizens and seasonal visitors in Cashiers is proposed via US 64, Slab Town Road (SR 1141), Frank Allen Road (SR 1176), and NC 107.
- **Local ID: JACK0003-T:** A proposed linkage to the Jackson County Justice and Administration Center using Grindstaff Cove Road (SR 1513).

There are several existing Park-and Ride lots in Jackson County. Three new Park-and-Ride facilities are proposed at the following locations:

- **Local ID: JACK0004-T:** North Norton Road (SR 1145) and NC 107
- **Local ID: JACK0005-T:** NC 116 near US 441S, and
- **Local ID: JACK0006-T:** Cope Creek Road near US 23/ US 74.

BICYCLE

The bicycle element of the Jackson County CTP is shown in Figure 1, Sheets 4 and 4A. In accordance with American Association of State Highway and Transportation Officials (AASHTO), roadways identified as bicycle routes should incorporate the following standards as roadway improvements are made and funding is available:

- Curb & gutter sections require a minimum 5 foot bike lanes or 14 foot wide shoulder lanes.
- Shoulder sections require a minimum of 4 foot paved shoulder.
- All bridges along the roadways where bike facilities are recommended shall be equipped with 54 inch railings.

Currently there is approximately 6 miles of bike lanes that have been installed in Jackson County and includes a 3 mile section from the town line of Sylva to the entrance to Western Carolina University (WCU). The planned widening of NC 107 from south of the WCU campus (R-4753) will also include a bike lane. The Blue Ridge Parkway traverses northeastern Jackson County.

The State bicycle route NC 2, Mountains to Sea, will connect Murphy to Manteo and goes through Jackson County. It is currently routed along US 23/74 and US 19/23 through Jackson County. In the 2013 Blue Ridge Bike Plan (BRBP)[7] , it is recommended to re-route part of NC 2 along N. River Road (SR 1359) and S. River Road (SR 1345).

The 2013 Blue Ridge Bike Plan (BRBP) is a seven county bicycle plan and includes Jackson County. The following recommendations are in this CTP come from the BRBP:

- US 74 from Sunset Farm Road (SR 1405) to Haywood Road (*Note*: BRBP has Corridor 1 going along US 74 from US 441 (Exit 81) to US 23/441 (Exit 74), but at the time of the CTP Sunset Farm Road from US 441 to US 74 was deemed a better route for cyclists as did Haywood Road from US 74 to US 23/441.)

[7] *To view the 2013 Blue Ridge Bike Plan, go to:* https://connect.ncdot.gov/municipalities/PlanningGrants/Documents/Blue%20Ridge%20Bike%20Plan.pdf.

- River Road (SR 1359) from US 23/441 to NC 107. This CTP reflects the desire for a multi-use path to follow the Tuckasegee River and N River/S River Road to NC 107.
- US 23/74 from Blue Ridge Parkway to Steeple Road/Cope Creek Road (Part of State Bicycle Route 2)
- NC 107 from US 23 Business to NC 116
- NC 107 from NC 281 to US 64 (Cashiers)
- Skyland Drive/Willets Road/Dark Ridge Road from US 23 Business to US 23/74

In addition, the 2014 Western Carolina University Campus (WCU) Master Plan[8] was referenced. Below is a list of facilities with recommended bicycle accommodations recommended in the plan that are included in the CTP:

- Little Savannah Road (SR 1367) to SR 1552
- SR 1552
- Killian Road (SR 1331)
- New WCU entrance off NC 107 across from Little Savannah Road (SR 1356)
- University Way from Centennial Drive to Memorial Drive
- Long Branch Road (SR 1325) from Memorial Drive past the Catamount Sport Complex
- Central Drive from Buzzard Roost Road (SR 1333) to Merlite Court
- Centennial Drive from Central Drive to University Way
- Catamount Road from Centennial Drive to Forest Hills Road
- Forest Hills Road from N Country Club Drive to Centennial Drive

Additionally, during the development of the CTP the following facilities were identified as recommended bicycle routes and will need improvement:

- **US 19, Local ID: JACK0007-H / R-5747:** From Swain County to Haywood County
- **US 23 Business, Local ID: JACK0001-H (Sylva):** From NC 107 to Skyland Drive (SR 1432)
- **US 23/441S, Local ID: JACK0001-B (Dillsboro):** From Haywood Road (SR 1514) to Mockingbird Lane (SR 1360)
- **US 64, Local ID: JACK0008-H (Cashiers):** From Norton Road (SR 1144) to NC 107
- **US 441N, JACK0002-B / JACK0002-H:** From Swain County to Sunset Farm Road (SR 1405).

[8] To view the 2014 Western Carolina University Campus (WCU) Master Plan, go to: https://ccnt3.wcu.edu/webfiles/pdfs/WCU_2014CampusMasterPlan_HighRes.pdf

- **NC 107, TIP No. R-4753:** From Old Cullowhee Road (SR 1002) to NC 281
- **NC 107, FS-1214C:** From NC 281 to approximately 1 mile north of Pine Creek Road (SR 1157)
- **NC 107, Local ID: JACK0003-H/JACK0009-H:** From 1 mile north of Pine Creek Road (SR 1157) to the multi-use path to Summit Charter School off Mitten Lane.
- **Beck Branch Road (SR 1409): Local ID JACK0003-B:** From Sunset Farm Road (SR 1405) to Camp Creek Road (SR 1406)
- **Cabin Flat Road (SR 1701), Local ID: JACK0004-B:** From Old Balsam Road (SR 1705) to US 23/74
- **Camp Creek Road (SR 1406), Local ID: JACK0005-B:** From US 441 to Sunset Farm Road (SR 1405)
- **Chipper Curve Road (SR 1429), Local ID: JACK0036-H (Sylva):** From W. Main Street (US 23 Business) to Skyland Drive (SR 1432)
- **Cope Creek Road (SR 1449), Local ID: JACK0007-B (Sylva):** From NC 107 to US 23/74
- **Fisher Creek Rd (SR 1446), Local ID: JACK0008-B:** From Skyland Drive (SR 1432) to Pinnacle Park at the end of the facility.
- **Forest Hills Road (SR 1330), Local ID: JACK0009-B** from Centennial Drive (SR 1325) to Speedwell Road (SR 1001)
- **Frank Allen Road, Local ID: JACK0014-H (Cashiers):** From NC 107 to US 64
- **Haywood Road, Local ID: JACK0010-B (Dillsboro/Sylva):** From US 74 to W. Main Street
- **Mill Street (US 23 Business westbound), Local ID: JACK0011-B (Sylva):** From W. Main Street to W. Main Street
- **North Norton Road (SR 1145), Local ID JACK0021-H:** From Pine Creek Road (SR 1163) to NC 107. This need was also noted in several survey responses.
- **Old Balsam Depot Road, Local ID: JACK0012-B:** From Dark Ridge Road (SR 1705) to Cabin Flats Road (SR 1701)
- **Savannah Drive (SR 1356), Local ID: JACK0013-B:** From Yellow Bird Branch Road (SR 1358) to US 23 NB (Main Street)
- **Shoal Creek Road (SR 1416), Local ID: JACK0014-B:** From Highway 19-A to US 441
- **Skyland Drive (SR 1432/1707), Local ID: JACK0027-H / BRBP (Sylva):** From US 23 Business (Asheville Highway) to US 23/74 and Sugar Loaf Road (SR 1707). This need was also identified in the public outreach survey conducted as part of the CTP development.
- **Speedwell Road (SR 1001), Local ID JACK0031-H (Cullowhee):** From NC 107 to Forest Hills Road (SR 1330)
- **Sunset Farm Road (SR 1405/1406), Local ID: JACK0032-H:** From US 441S to Bradley Branch Road

- **Thomas Valley Road (SR 1397), Local ID: JACK0033-H:** From US 74 to Barkers Creek Road (SR 1392)
- **Tilley Creek Road (SR 1001), Local ID: JACK0015B:** From Macon County to Cullowhee Mountain Road (SR 1157)
- **W. Main Street, Local ID: JACK0016-B:** From Haywood Road (SR 1514) to Chipper Curve Road (SR 1429)
- **Webster Street (Dillsboro), Local ID: JACK0017-B:** From Haywood Road (SR 1514) to N. River Road (SR 1359)
- **Wilmont Road (SR 1534), Local ID: JACK0034-H:** From US 74 to Thomas Valley Road
- **Yellow Bird Branch Road (SR 1358), Local ID: JACK0035-H:** From Savannah Drive to N. River Road (SR 1359)

Jackson County also adopted a Comprehensive Greenway Plan in 2008. It includes a 4.5 mile stretch of greenway from NC 107 to campus which will connect to a trail network under development at WCU.

The Village of Cashiers' Transportation Plan and Strategy developed by Fuss & in 2011 was also referenced. There are many small trails and connections shown in that plan. Only major connections are included. The other connections between small, local roads and businesses, bicycle accommodations, off-road paths, and sidewalks shown in the Cashiers Transportation Priority Plan would offer additional alternative routes to the congested US 64 and NC 107 in the area for local residents.

The CTP recommends the following multi-use paths to improve connectivity and mobility in the greenway system as shown in Figure 1, Sheets 4 and 4A and Sheets 5 and 5A (note that since these proposals are multi-use paths, the same projects are also highlighted in the Pedestrian project section below):

- **Parris Branch Road (SR 1452) / Skyland Drive (1432), Local ID: JACK0001-M:** From Scotts Creek Elementary School to Sylva town limits
- **Tuckasegee River, Local ID: JACK0002-M:** From W. Main Street (US 23 Business in Sylva) at Hometown Place (SR 1381), through Dillsboro where a bicycle/pedestrian bridge is recommended to cross the Tuckasegee River between N. River Road (SR 1359) to Mockingbird Lane (SR 1360), along the Tuckasegee River to NC 107, and then from Old Cullowhee Road (SR 1002) to the existing 1.2 mile greenway and from existing greenway through WCU campus along Monteith Gap Road (SR 1336) to Old Cullowhee Road (SR 1002).
- **Depot Street (SR 1558) / Hemlock Street / Hometown Place Road (SR 1381), Local ID: JACK0003-M (Dillsboro):** From US 23 Business (East Haywood Road) to Hemlock Street, along Hemlock Street, next to Scott Creek, and then along Hometown Place Road to US 23 Business (Main Street).

- **NC 107 / Cullowhee Valley School, Local ID: JACK0004-M (Cullowhee/Forest Hills):** From N. Country Club Drive to the existing off-road trail around Cullowhee Valley School. This multi-use path would provide an off-road option for children from the Forest Hills area who attend Cullowhee Valley School.
- **Speedwell Road (SR 1001), Local ID: JACK0005-M (Cullowhee):** From Forest Hills Drive to NC 107. Speedwell Road (SR 1001) provides access to WCU. It would also link to Jackson County Recreation Complex that is off Cullowhee Mountain Road on the other side of NC 107.
- **Northwest Cashiers Greenway, Local ID: JACK0006-M:** Along NC 107, from Frank Allen Road to Cashiers School Road (SR 1112), along Zeb Alley Road (SR 1110) and Mitten Lane to Summit Charter School. It is the desire of the residents in Cashiers for children to be able to walk and ride bicycles to school.
- **Southwest Cashiers Greenway, Local ID: JACK0007-M:** From US 64 to NC 107 and then along NC 107 to Blue Ridge School. This facility would allow children to bike or walk to school from the Cashiers area.
- **Cashiers to High Hampton Greenway, Local ID: JACK0-0008-M:** From Cashiers School Road (SR 1112) to Whiteside Cove Road (SR 1107). This multi-use path would connect this large community and the historical properties of Cashiers to the business district.

PEDESTRIAN

During the development of this CTP, the Town of Sylva Comprehensive Pedestrian Plan (Town of Sylva CPP) prepared by The Louis Berger Group, Inc. in 2010 was referenced. The recommendations from that plan are included in the CTP Pedestrian Map, Figure 1, Sheet 5, but are not discussed further in this plan.

Those facilities include the following:

- **Municipal Drive, Local ID: JACK0019-H:** From Grindstaff Cove Road (SR 1513) to Chipper Curve Road (SR 1429)
- **Chipper Curve Road (SR 1429):** From W. Main Street (US 23 Business) to Skyland Drive (SR 1432)
- **Skyland Drive (SR 1432), Local ID: JACK0027-H:** US 23 Business (Asheville Highway) to Hospital Road. Parris Branch Road (SR 1452). This need was also identified in the public outreach survey conducted as part of the CTP development.
- **Hospital Road (SR 1437):** From US 23 Business (Asheville Highway) to Skyland Drive (SR 1432)
- **US 23 Business (Asheville Highway), Local ID: JACK0001-H (Sylva):** From Poplar Drive (SR 1717) to Hospital Drive (SR 1437)
- **NC 107, TIP No. R-5600:** From US 23 Business to NC 116
- **Cope Creek Road (SR 1449):** From NC 107 to Slo Gait Road

The Cashiers Transportation Priority Plan was also referenced. There are many pedestrian facilities shown along local facilities in that plan. While they are supported by the Cashiers Village Council, only facilities recommended along larger facilities are reflected in the CTP. Please refer to the Cashiers Transportation Priority Plan for more information.

The following are new pedestrian facilities that are proposed and shown in Figure 1, Sheets 5 and 5A:

Cashiers:

- **US 64, Local ID: JACK0005-H / R-2409:** From Slab Town Road (SR 1141) to Pebble Creek Drive
- **NC 107, Local ID: JACK0003-H / JACK0010-H:** From Slab Town Road (SR 1141) to Cashiers School Road (SR 1112)
- **Cashiers School Road (SR 1112), Local ID: JACK0001-P:** From NC 107 to Zeb Alley Road (SR 1111)
- **Frank Allen Road (SR 1176), Local ID: JACK0014-H:** From NC 107 to recommended Multi-Use path to Cashiers/Glenville Recreation Center
- **Slab Town Road (SR 1141), Local ID: JACK0002-P:** From NC 107 to US 64
- **Zeb Alley Road (SR 1110), Local ID: JACK0003-P:** From Cashiers School Road (SR 1112) to approximately 0.5 miles west

Cullowhee:

- **NC 107, Local ID: JACK0017-P:** From Fairview Road (SR 1724) to Old Cullowhee Road (SR 1002) and the existing Jackson County Greenway. Sidewalks are needed in this area to provide pedestrian linkage between Western Carolina University and Sylva. This need was also identified in the public outreach survey conducted as part of the CTP development which can be found in Appendix H.
- **Ledbetter Road (SR 1337), Local ID: JACK0015-H:** From Monteith Gap Road (SR 1336) to the end of the facility. Sidewalks are also recommended. This need was also identified in the public outreach survey conducted as part of the CTP development.
- **Ledbetter Road Extension, Local ID: JACK0006-H:** From Ledbetter Road (SR 1337) to Monteith Gap Road (SR 1336)
- **Monteith Gap Road (SR 1336), Local ID: JACK0018-H**: From Old Cullowhee Road (SR 1002) to end of facility. This need was also identified in the public outreach survey conducted as part of the CTP development.
- **Old Cullowhee Road (SR 1002), Local ID: JACK0024-H:** From Central Drive (SR 1169) to north of Toad Road
- **S. Painter Road, Local ID: JACK0029-H:** From Monteith Gap Road (SR 1336) to the end of the facility.

Dillsboro:

- **US 23 Business/Haywood Street, Local ID: JACK0004-P**: From Depot Street (SR 1558) to Hometown Place (SR 1381)
- **Green Energy Park Road, Local ID: JACK0005-P:** From Green Energy Park to Haywood Road (SR 1514)
- **Haywood Road (SR 1514), Local ID: JACK0007-P:** From Green Energy Park Road to Webster Street (SR 1556)

Forest Hills:

- **N. Country Club Drive (SR 1507), Local ID: JACK0020-H:** From NC 107 to Pincushion Road
- **S. Country Club Drive (SR 1330), Local ID: JACK0028-H**: From the eastern intersection with N. Country Club Drive to 1.0 mile west

Sylva

- **US 23 Business, Local ID: JACK0008-P:** From end of existing sidewalk west of Savannah Drive (SR 1356) to Mark Watson Park
- **US 23 Business (Asheville Highway), Local ID: JACK0001-H:** From Hospital Drive (SR 1437) to Cope Creek Road (SR 1449)
- **US 23 Business, Local ID: R-5600 / JACK0009-P:** From Main Street / Mill Street split to NC 107. The railroad on the north side limits where sidewalk can be installed.
- **Mill Street / US 23 Business westbound, Local ID: JACK0010-P:** Gaps along the downtown area of Mill Street where sidewalk does not exist on both sides of the street.
- **Allen Street, Local ID: JACK00011-P (Sylva):** From Municipal Drive to Hampton Street
- **Fairview Avenue (SR 1724), Local ID: JACK0012-P:** From NC 107 to Smoky Mountain High School and Fairview Elementary School access road
- **Hampton Street, Local ID: JACK0006-P (Sylva):** From Allen Street to end of the facility
- **Jackson Plaza Driveway, Local ID: JACK0013-P:** From Grindstaff Cove Road (SR 1513) to Jackson Plaza parking lot
- **Keener Street, Local ID: Local ID: JACK0014-P:** From Jackson Street to the Jackson County Public Library
- **Mark Watson Park Road, Local ID: JACK0015-P:** From W. Main Street to existing multi-use path.
- **Skyland Drive (SR 1432), Local ID: JACK0027-H:** Hospital Road (SR 1437) to Parris Branch Road (SR 1452).

Webster

- **Buchanan Loop (SR 1348), Local ID: JACK0016-P:** From NC 116 (Webster Road) to NC 116 (Webster Road)

APPENDICES

Appendix A
Resources and Contacts

Local Planning Organization

Southwestern Rural Planning Organization
(http://regiona.org/our-work/transportation-planning/)
Contact the RPO for information on long-range multi-modal planning services.
125 Bonnie Lane Sylva, NC 28779 (828) 586-1962

North Carolina Department of Transportation

Customer Service Office
Contact information for other units within the NCDOT that are not listed in this appendix is available by calling the Customer Service Office or by visiting the NCDOT directory:

1-877-DOT-4YOU (1-877-368-4968) *http://www.ncdot.gov/contact/*

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

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

Highway Division 14 *(https://apps.dot.state.nc.us/dot/directory/authenticated/ToC.aspx)*
253 Webster Road Sylva, NC 28779 (828) 586-2141

Contact the Highway Division with questions concerning NCDOT activities within each Division.

Contact the following NCDOT divisions and units[1] for:

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

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

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

Other State Government Offices

Department of Commerce – Division of Community Assistance

Contact the Department of Commerce for resources and services to help realize economic prosperity, plan for new growth and address community needs.

http://www.nccommerce.com/cd

Appendix B
Comprehensive Transportation Plan Definitions

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

Highway Map

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

Facility Type Definitions

- **Freeways**
  - Functional purpose – high mobility, high volume, high speed
  - Posted speed – 55 mph or greater
  - Cross section – minimum four lanes with continuous median
  - Multi-modal elements – High Occupancy Vehicles (HOV)/High Occupancy Transit (HOT) lanes, busways, truck lanes, park-and-ride facilities at/near interchanges, adjacent shared use paths (separate from roadway and outside ROW)
  - Type of access control – full control of access
  - Access management – interchange spacing (urban – one mile; non-urban – three miles); at interchanges on the intersecting roadway, full control of access for 1,000ft or for 350ft plus 650ft island or median; use of frontage roads, rear service roads
  - Intersecting facilities – interchange or grade separation (no signals or at-grade intersections)
  - Driveways – not allowed

- **Expressways**
  - Functional purpose – high mobility, high volume, medium-high speed
  - Posted speed – 45 to 60 mph
  - Cross section – minimum four lanes with median
  - Multi-modal elements – HOV lanes, busways, very wide paved shoulders (rural), shared use paths (separate from roadway but within ROW)
  - Type of access control – limited or partial control of access;
  - Access management – minimum interchange/intersection spacing 2,000ft; median breaks only at intersections with minor roadways or to permit U-turns; use of frontage roads, rear service roads; driveways limited in location and number; use of acceleration/deceleration or right turning lanes
  - Intersecting facilities – interchange; at-grade intersection for minor roadways; right-in/right-out and/or left-over or grade separation (no signalization for through traffic)
  - Driveways – right-in/right-out only; direct driveway access via service roads or other alternate connections

❖ **Boulevards**

- Functional purpose – moderate mobility; moderate access, moderate volume, medium speed
- Posted speed – 30 to 55 mph
- Cross section – two or more lanes with median (median breaks allowed for U-turns per current NCDOT *Driveway Manual*
- Multi-modal elements – bus stops, bike lanes (urban) or wide paved shoulders (rural), sidewalks (urban - local government option)
- Type of access control – limited control of access, partial control of access, or no control of access
- Access management – two lane facilities may have medians with crossovers, medians with turning pockets or turning lanes; use of acceleration/deceleration or right turning lanes is optional; for abutting properties, use of shared driveways, internal out parcel access and cross-connectivity between adjacent properties is strongly encouraged
- Intersecting facilities – at grade intersections and driveways; interchanges at special locations with high volumes
- Driveways – primarily right-in/right-out, some right-in/right-out in combination with median leftovers; major driveways may be full movement when access is not possible using an alternate roadway

❖ **Other Major Thoroughfares**

- Functional purpose – balanced mobility and access, moderate volume, low to medium speed
- Posted speed – 25 to 55 mph
- Cross section – four or more lanes without median *(US and NC routes may have less than four lanes)*
- Multi-modal elements – bus stops, bike lanes/wide outer lane (urban) or wide paved shoulder (rural), sidewalks (urban)
- Type of access control – no control of access
- Access management – continuous left turn lanes; for abutting properties, use of shared driveways, internal out parcel access and cross-connectivity between adjacent properties is strongly encouraged
- Intersecting facilities – intersections and driveways
- Driveways – full movement on two lane roadway with center turn lane as permitted by the current NCDOT *Driveway Manual*

❖ **Minor Thoroughfares**

- Functional purpose – balanced mobility and access, moderate volume, low to medium speed
- Posted speed – 25 to 55 mph
- Cross section – ultimately three lanes (no more than one lane per direction) or less without median
- Multi-modal elements – bus stops, bike lanes/wide outer lane (urban) or wide paved shoulder (rural), sidewalks (urban)
- ROW – no control of access

- Access management – continuous left turn lanes; for abutting properties, use of shared driveways, internal out parcel access and cross-connectivity between adjacent properties is strongly encouraged
- Intersecting facilities – intersections and driveways
- Driveways – full movement on two lane with center turn lane as permitted by the current NCDOT *Driveway Manual*

Other Highway Map Definitions

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

Public Transportation and Rail Map

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

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

- **Operational Strategies** – Plans geared toward the non-single occupant vehicle. This includes but is not limited to HOV lanes or express bus service.
- **Rail Corridor** – Locations of railroad tracks that are either active or inactive tracks. These tracks were used for either freight or passenger service.
  - Active – rail service is currently provided in the corridor; may include freight and/or passenger service
  - Inactive – right of way exists; however, there is no service currently provided; tracks may or may not exist
  - Recommended – It is desirable for future rail to be considered to serve an area.
- **High Speed Rail Corridor** – Corridor designated by the U.S. Department of Transportation as a potential high speed rail corridor.
  - Existing – Corridor where higher-speed rail service (over 79 mph) is provided or a corridor that is officially designated by FRA to run higher speed trains in the future. There is currently one federally designated high-speed rail corridor in North Carolina - The Southeast High Speed Rail Corridor.
  - Recommended – Proposed corridor for higher speed rail service.
- **Rail Stop** – A railroad station or stop along the railroad tracks.
- **Multimodal Connector** - A location where more than one mode of transportation meet such as where light rail and a bus route come together in one location. (NOTE- intermodal refers to two or more modes that transfer the same cargo unit-like 40' shipping container from ship to train or truck); multimodal is the transfer of people/cargo between two or more modes and in NC is used in public transit settings i.e. Charlotte Multimodal Station)
- **Park and Ride Lot** – A strategically located parking lot that provides commuters connections to transit or carpools.
- **Existing Grade Separation** – Locations where existing rail facilities are physically separated from existing highways or other transportation facilities. These may be bridges, culverts, or other structures.
- **Proposed Grade Separation** – Locations where rail facilities are recommended to be physically separated from existing or recommended highways or other transportation facilities. These may be bridges, culverts, or other structures.

Bicycle Map

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

- **On Road-Recommended** – At the systems level, it is desirable for **a recommended** highway facility to accommodate bicycle transportation. The highway should be designed and built to safely accommodate cyclists.

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

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

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

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

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

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

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

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

Pedestrian Map

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

- **Sidewalk-Needs Improvement** – Improvements are needed to provide paved paths on both sides of a highway facility. The highway facility may or may not need improvements. Improvements do not include re-paving or other maintenance activities but may include: filling in gaps, widening sidewalks, or meeting ADA (Americans with Disabilities Act) requirements.

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

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

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

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

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

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

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

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

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

Appendix C
CTP Inventory and Recommendations

Assumptions/ Notes:

- **Local ID:** If a TIP project number exists it is listed as the ID. Otherwise, the following system is used to create a code for each recommended improvement: the first 4 letters of the county name is combined with a 4 digit unique numerical code followed by '-H' for highway, '-T' for public transportation, '-R' for rail, '-B' for bicycle, '-M' for multi-use paths, or '-P' for pedestrian modes. If a different code is used along a route it indicates separate projects will probably be requested. Also, upper case alphabetic characters (i.e. 'A', 'B', or 'C') are included after the numeric portion of the code if it is anticipated that project segmentation or phasing will be recommended.
- **Jurisdiction:** Jurisdictions listed are based on municipal limits, county boundaries, and MPO Metropolitan Planning Area Boundaries (MAB), as applicable.
- **Existing Cross-Section:** Listed under 'Total Width (ft)' is the approximate width of the roadway from edge of pavement to edge of pavement and under 'Lane Width (ft)' is the approximate width of a single lane based on centerline/ edge line markings. Listed under 'Lanes' is the total number of lanes, with 'D' if the facility is divided, and 'OW' if it is a one-way facility.
- **Existing ROW:** The estimated existing right-of-way is based on NCDOT GIS data layers and the NCDOT Roadway Pavement Conditions database data. These right-of-way amounts are approximate and may vary.
- **Existing and Proposed Capacity:** The estimated capacities are given in vehicles per day (vpd) based on LOS D for existing facilities and LOS C for new facilities. These capacity estimates were developed based on the 2000 Highway Capacity Manual using the Transportation Planning Branch's LOS D Standards for Systems Level Planning, as documented in Chapter 1.
- **Existing and Proposed Volumes**, given in vehicles per day (vpd), are estimates only based on a systems-level analysis. The '2040 Volume E+C' is an estimate of the volume in 2040 with only existing plus committed projects assumed to be in place, where committed is defined as projects programmed for construction in the 2016 - 2025 Transportation Improvement Program (TIP). The '2040 Volume with CTP' is an estimate of the volume in 2040 with all proposed CTP improvements assumed to be in place. **The '2040 Volume with CTP' is shown in bold if it exceeds the proposed capacity, indicating an unmet need.** For additional information about the assumptions and techniques used to develop the AADT volume estimates, refer to Chapter 1.
- **Proposed Cross-section:** The CTP recommended cross-sections are listed by code; for depiction of the cross-section, refer to Appendix D. An entry of 'ADQ' indicates the existing facility is adequate and there are no improvements recommended for the given mode as part of the CTP.
- **CTP Classification:** The CTP classification is listed, as shown on the adopted CTP Maps (see Figure 1). Abbreviations are F= freeway, E= expressway, B= boulevard, Maj= other major thoroughfare, Min= minor thoroughfare.

- **Tier:** Tiers are defined as part of the North Carolina Multimodal Investment Network (NCMIN). Abbreviations are Sta= statewide tier, Reg= regional tier, Sub= subregional tier.
- **Proposals for Other Modes:** If there is an improvement recommended for another mode of transportation that relates to the given recommendation, it is indicated by an alphabetic code (H= highway, T= public transportation, R= rail, B= bicycle, P= pedestrian, and M= multi-use path).

CTP INVENTORY AND RECOMMENDATIONS

HIGHWAY																			
		Section				2012 Existing System							2040 Proposed System						
Local ID	Facility	From	To	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2012 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)	CTP Classifi-cation	Proposals for Other Modes
	US 19	Swain County	Casino Trail	EBCI	0.4	50	4	12	100	35	22200	12000	15700	15700	22200	ADQ	ADQ	Maj	B
JACK0007-H	US 19	Casino Trail	Old Mission Rd (SR 1427)	EBCI	1.7	21	2	10	100	35	8800	5500	6200	6200	12100	2B	ADQ	Maj	B
JACK0007-H	US 19	Old Mission Rd (SR 1427)	Blue Wing Rd (BIA Rte 419)	EBCI	2.0	21	2	10	100	45	8800	5500	6200	6200	12100	2B	ADQ	Maj	B
JACK0007-H	US 19	Blue Wing Rd (BIA Rte 4190	Jenkins Creek Rd	EBCI	1.5	20	2	10	100	55	11700	5500	6200	6200	12100	2A	ADQ	Maj	B
R-5747	US 19	Jenkins Creek Rd	Haywood County	EBCI Jackson Co	5.8	20	2	10	-	55	11100	5500	6200	6200	12100	2A	100	Maj	B
	US 19/US 441 Bus	Swain County	US 441 Bus	EBCI	0.4	44	4	11	50	35	29300	7700	11400	11400	29300	ADQ	ADQ	Maj	
	US 23/US 74	US 23/US 441	Grindstaff Cove Rd (SR 1513)	Sylva / Jackson Co	2.1	48	4D	12	350	60	53200	19000	27400	27400	53200	ADQ	ADQ	F	
	US 23/US 74	Grindstaff Cove Rd (SR 1513)	US 23 Bus	Sylva / Jackson Co	2.0	48	4D	12	350	60	53200	15000	24900	24900	53200	ADQ	ADQ	F	
	US 23/US 74	US 23 Bus	Steeple Dr (SR 1527)	Sylva	0.5	48	4D	12	350	55	53200	23000	36000	36000	53200	ADQ	ADQ	E	
	US 23/US 74	Steeple Dr (SR 1527)	0.3 miles E of Racking Cove Rd	Jackson Co	1.1	48	4D	12	350	55	53200	21000	33300	33300	53200	ADQ	ADQ	E	
	US 23/US 74	0.3 miles E of Racking Cove Rd	Mineral Springs Rd (SR 1456)	Jackson Co	1.2	48	4D	12	150	55	53200	20500	33300	33300	53200	ADQ	ADQ	E	
	US 23/US 74	Mineral Springs Rd (SR 1456)	Skyland Dr (SR 1432)	Jackson Co	1.7	48	4D	12	150	55	53200	20000	32400	32400	53200	ADQ	ADQ	E	
	US 23/US 74	Skyland Dr (SR 1432)	0.1 miles W of Balsam Loop Rd	Jackson Co	2.9	48	4D	12	150	55	53200	19000	32900	32900	53200	ADQ	ADQ	E	
	US 23/US 74	0.1 miles W of Balsam Loop Rd	Haywood County	Jackson Co	0.6	48	4D	12	260	55	53200	19000	32900	32900	53200	ADQ	ADQ	E	
	US 23/US 441	US 23/74	0.3 miles N of US 23 Bus/Haywood Rd (SR 1514)	Jackson County	0.4	48	4D	12	300	55	31600	14000	18600	18600	31600	ADQ	ADQ	E	P

HIGHWAY																				
		Section				2012 Existing System							2040 Proposed System					CTP Classifi-cation	Proposals for Other Modes
Local ID	Facility	From	To	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2012 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)		
	US 23/US 441	0.3 miles N of US 23 Bus/Haywood Rd (SR 1514)	US 23 Bus/Haywood Rd (SR 1514)	Dillsboro	0.3	48	4D	12	300	35	24500	14000	18600	18600	24500	ADQ	ADQ	E	P
	US 23/US 441	US 23 Bus/Haywood Rd (SR 1514)	N River Rd (SR 1359)	Dillsboro	0.1	60	5	12	150	35	24500	13000	17000	17000	24500	ADQ	ADQ	E	P, B
	US 23/US 441	N River Rd (SR 1359)	Mockingbird Ln/Old Franklin Rd (SR 1360)	Dillsboro	0.1	60	5	12	150	35	24500	14500	18400	18400	24500	ADQ	ADQ	E	P, B
	US 23/US 441	Mockingbird Ln/Old Franklin Rd (SR 1360)	0.2 miles S of Mockingbird Ln/Old Franklin Rd (SR 1360)	Jackson County	0.2	60	5	12	150	35	24500	15000	19000	19000	24500	ADQ	ADQ	E	P
	US 23/US 441	0.2 miles S of Mockingbird Ln/Old Franklin Rd (SR 1360)	0.2 miles S of Leatherwood Rd (SR 1364)	Jackson County	1.0	48	4D	12	200	55	43900	16000	20200	20200	43900	ADQ	ADQ	E	P
	US 23/US 441	0.2 miles S of Leatherwood Rd (SR 1364)	NC 116	Jackson County	1.2	48	4D	12	250	55	43900	17000	21500	21500	43900	ADQ	ADQ	E	P
	US 23/US 441	NC 116	0.1 miles S of Tatham Rd (SR 1310)	Jackson County	3.1	48	4D	12	250	55	43900	16000	20000	20000	43900	ADQ	ADQ	E	
	US 23/US 441	0.1 miles S of Tatham Rd (SR 1310)	0.3 miles N of Pumpkin Town Rd (SR 1300)	Jackson County	1.8	48	4D	12	360	55	43900	13000	16400	16400	43900	ADQ	ADQ	E	
	US 23/US 441	0.3 miles N of Pumpkin Town Rd (SR 1300)	Macon County	Jackson County	2.4	48	5	12	300	55	43900	12000	15200	15200	43900	ADQ	ADQ	E	
	US 23 Bus	US 23/US 441	0.3 miles E of US 23/US 441	Dillsboro	0.3	24	2	10	-	20	9500	8700	10100	**10100**	9500	NA	NA	Maj	B
	US 23 Bus	0.3 miles E of US 23/US 441	Savannah Dr (SR 1356)	Dillsboro	0.4	20	2	10	-	35	10100	9000	10100	**10100**	10100	NA	NA	Maj	B
	US 23 Bus	Savannah Dr (SR 1356)	Dillsboro Rd (SR 1382)	Sylva	0.6	20	2	10	-	35	10100	9000	10200	**10200**	10100	NA	NA	Maj	B,P
	US 23 Bus	Dillsboro Rd (SR 1382)	US 23 Bus Split	Sylva	0.1	22	2	10	-	25	10100	7600	10300	**10300**	10100	NA	NA	Maj	B

HIGHWAY																			
		Section				2012 Existing System							2040 Proposed System						
Local ID	Facility	From	To	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2012 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)	CTP Classification	Proposals for Other Modes
	US 23 Bus NB (Main St)	US 23 Split	Savannah Dr (SR 1356)	Sylva	0.1	24	1OW	9	-	20	5600	5600	6600	**6600**	5600	NA	NA	Maj	B
	US 23 Bus NB (Main St)	Savannah Dr (SR 1356)	Schulham St	Sylva	0.1	30	1OW	9	-	20	5600	4900	5600	**5600**	5600	NA	NA	Maj	B
	US 23 Bus NB (Main St)	Schulman St	Mill St	Sylva	0.3	30	1OW	9	-	20	5600	6000	7100	**7100**	5600	NA	NA	Maj	B
	US 23 Bus SB (Mill St)	Grindstaff Cove Rd (SR 1513)	US 23 Bus Split	Sylva	0.1	20	2OW	10	-	20	9500	7600	8700	**8700**	9500	ADQ	ADQ	Maj	B
	US 23 Bus SB (Mill St)	US 23 Split	Grindstaff Cove Rd (SR 1513)	Sylva	0.3	18	2OW	9	-	20	9500	6900	7700	**7700**	9500	ADQ	ADQ	Maj	B
	US 23 Bus	US 23 Split	Chipper Curve Rd (SR 1429)	Sylva	0.2	24	2	12	60	35	9800	14000	16100	16100	9800	NA	NA	Maj	B, P
	US 23 Bus	Chipper Curve Rd (SR 1429)	Bridge St	Sylva	0.1	24	2	12	60	35	9800	14000	16100	16100	23000	4Lane, undivided	ADQ	Maj	P
R-5600	US 23 Bus	Chipper Cove Rd (SR 1429)	NC 107	Sylva	0.3		3-4		60	35	17000	17000	19400	19400	23000	4Lane, undivided	ADQ	Maj	P
JACK0001-H	US 23 Bus	NC 107	Skyland Dr (SR 1432)	Sylva	0.2	59	5	11	100	35	25100	22000	29200	29200	30000	4D	110	Maj	B, P
JACK0001-H	US 23 Bus	Skyland Dr (SR 1432)	0.2 miles SW of Dillardtown Rd (SR 1438)	Sylva	0.4	48	4	12	150	35	23000	14000	20000	20000	30000	4D	ADQ	Maj	P
JACK0001-H	US 23 Bus	0.2 miles SW of Dillardtown Rd (SR 1438)	Hospital Rd (SR 1437)	Sylva	0.3	36	3	12	150	45	13800	14000	21000	21000	40000	4D	ADQ	Maj	P
JACK0001-H	US 23 Bus	Hospital Rd (SR 1437)	Cope Creek Rd (SR 1449) - US 23 / US 74 Interchange	Sylva	0.4	36	3	12	150	45	13800	13000	19000	19000	40000	4D	ADQ	Maj	P
JACK0008-H	US 64	Macon County	Norton Rd (SR 1143)	Jackson County	1.4	23	2	11	100	35	8800	2900	3500	3500	12100	2A	ADQ	Maj	
JACK0008-H	US 64	Norton Rd (SR 1143)	1.1 miles E of Norton Rd (SR 1143)	Jackson County	1.1	23	2	11	100	35	8800	3000	3600	3600	12100	2A	ADQ	Maj	B

HIGHWAY																			
		Section				2012 Existing System							2040 Proposed System						
Local ID	Facility	From	To	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2012 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)	CTP Classification	Proposals for Other Modes
JACK0008-H	US 64	1.1 miles E of Norton Rd (SR 1143)	Slab Town Rd (SR 1141)	Jackson County	1.6	23	2	11	100	45	12100	3000	3600	3600	12100	2A	ADQ	Maj	B
JACK0008-H	US 64	Slab Town Rd (SR 1141)	0.5 miles W of NC 107	Jackson County	0.2	23	2	11	100	45	12100	2700	3300	3300	12100	2E	ADQ	Maj	B, P, T
JACK0008-H	US 64	0.5 miles W of NC 107	NC 107	Cashiers	0.5	23	2	11	100	35	10100	4000/ 6500*	4600/ 7500*	4600/ 7500*	12100	2E	ADQ	Maj	B, P, T
R-2409	US 64	NC 107	0.5 miles E of NC 107	Cashiers	0.5	23	2	11	100	35	10100	7400/ 11900*	13200/ 21200*	**13200/ 21200***	12100	2E	ADQ	Maj	P,T
R-2409	US 64	0.5 miles E of NC 107	Pebble Creek Dr	Jackson County	0.8	23	2	11	100	40	11100	4400/ 7100*	7900/ 12700*	7900/ 12700*	12100	2E	ADQ	Maj	P,T
R-2409	US 64	Pebble Creek Dr	0.5 miles W of Transylvania County	Jackson County	5.8	23	2	11	100	40	11100	4400	7900	7900	11100	ADQ	ADQ	Maj	
R-2409	US 64	0.5 miles W of Transylvania County	Transylvania County	Jackson County	0.5	23	2	11	100	30	9800	2600	4600	4600	9800	ADQ	ADQ	Maj	
	US 74/US 441	Swain County	Highway 19-A (SR	Jackson	0.1	48	4D	12	400	60	53200	12000	21100	21100	53200	ADQ	ADQ	F	
	US 74/US 441	Highway 19-A (SR 1531)	US 441	Jackson County	1.8	48	4D	12	400	60	53200	14000	22800	22800	53200	ADQ	ADQ	F	
	US 74/US 441	US 441 - Sunset Farm Rd (SR 1405)	Sunset Farm Rd (SR 1405)	Jackson County	1.9	48	4D	12	200	55	53200	19000	27700	27700	53200	ADQ	ADQ	E	
BRBP**	US 74/US 441	Sunset Farm Rd (SR 1405)	Piney Mtn Rd (SR 1391)	Jackson County	1.6	48	4D	12	210	55	53200	21000	29400	29400	53200	ADQ	ADQ	E	B
BRBP	US 74/US 441	Piney Mtn Rd (SR 1391)	S Pines Mtn Rd (SR 1390)	Jackson County	1.1	48	4D	12	210	55	53200	21000	29300	29300	53200	ADQ	ADQ	E	B
BRBP	US 74/US 441	S Pines Mtn Rd (SR 1390)	Barkers Creek Rd (SR 1392)	Jackson County	0.1	48	4D	12	210	55	53200	21000	29300	29300	53200	ADQ	ADQ	E	B
BRBP	US 74/US 441	Barkers Creek Rd (SR 1392) - Dicks	Dicks Creek Rd (SR 1388)	Jackson County	1.5	48	4D	12	210	55	53200	23000	31700	31700	53200	ADQ	ADQ	E	B
BRBP	US 74/US 441	Dicks Creek Rd (SR 1388)	Haywood Rd (SR 1514)	Jackson County	0.8	48	4D	12	200	55	53200	23000	31700	31700	53200	ADQ	ADQ	E	B
	US 74/US 441	Haywood Rd (SR 1514)	US 23/US 441	Jackson County	0.5	48	4D	12	200	55	53200	21000	31800	31800	53200	ADQ	ADQ	E	
	US 441	Swain County	US 441 Bus (Cassino Trail)	EBCI	0.5	64	5	12	100	45	26800	16000	18200	18200	26800	ADQ	ADQ	Maj	B

HIGHWAY																			
		Section				2012 Existing System							2040 Proposed System						
Local ID	Facility	From	To	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2012 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)	CTP Classifi-cation	Proposals for Other Modes
JACK0002-H	US 441	US 441 Bus (Cassino Trail)	0.3 miles N of Olivet Church Rd (SR 1424)	Jackson County	0.5	64	5	12	150	45	26800	16000	22400	22400	41400	4B	ADQ	B	B
JACK0002-H	US 441	0.3 miles N of	Camp Creek Rd	Jackson	0.5	64	5	12	150	50	30800	16000	22400	22400	41400	4B	ADQ	B	B
JACK0002-H	US 441	Camp Creek Rd (SR 1406)	Shoal Creek Rd (SR 1416)	Jackson County	1.2	62	5	12	150	50	30800	17000	20000	20000	41400	4B	ADQ	B	B
JACK0002-H	US 441	Shoal Creek Rd (SR 1416)	Sunset Farm Rd (SR 1405)	Jackson County	0.8	62	5	12	150	50	30800	16000	20000	20000	41400	4B	ADQ	B	B
JACK0002-H	US 441	Sunset Farm Rd (SR 1405)	US 74/US 441	Jackson County	0.6	62	5	12	150	50	30800	15000	19700	19700	41400	4B	ADQ	B	
	US 441 Bus	US 19/US 441 Bus	0.1 miles S of US 19/US 441 Bus	EBCI	0.1	64	5	12	100	45	26800	12000	17800	17800	25200	ADQ	ADQ	Maj	
	US 441 Bus	0.1 miles S of US	US 441	EBCI	0.7	64	5	12	100	55	30800	12000	17800	17800	25200	ADQ	ADQ	Maj	
R-5600	NC 107	US 23 Bus	Cherry St (SR 1354)	Sylva	0.2	50	5	10	70	35	22700	30000	34500	34500	37400	4D	110	B	B,P,T
R-5600	NC 107	Cherry St (SR 1354)	Cope Creek Rd (SR 1449)	Sylva	0.4	50	5	10	70	35	22700	32000	36700	36700	37400	4D	110	B	B,P,T
R-5600	NC 107	Cope Creek Rd (SR 1449)	Barnes Rd (SR 1350)	Sylva	0.8	50	5	10	70	35	22700	31000	37200	37200	37400	4D	110	B	B,P,T
R-5600	NC 107	Barnes Rd (SR 1350)	NC 116	Sylva	0.5	50	5	10	70	35	22700	30000	36000	36000	37400	4D	110	B	B,P,T
R-5600	NC 107	NC 116	0.1 mile east of Fairview Rd (SR 1724)	Jackson County	0.2	64	5	11	100	45	26700	23000	26900	26900	41400	4D	110	B	B,P,T
	NC 107	0.1 mile east of Fairview Rd (SR 1724)	Lovedale Church Rd (SR 1790)	Jackson County	0.1	64	5	11	100	45	26700	21000	23700	23700	26700	ADQ	ADQ	B	
	NC 107	Lovedale Church Rd (SR 1790)	S River Rd (SR 1345)	Jackson County	0.7	48	4D	10	160	45	41300	24600	30300	30300	41400	ADQ	ADQ	B	
	NC 107	S River Rd (SR 1345)	Old Cullowhee Rd (SR 1002)	Jackson County	0.2	48	4D	10	160	55	43200	28300	30000	30000	43900	ADQ	ADQ	B	
	NC 107	Old Cullowhee Rd (SR 1002)	Old Settlement Rd (SR 1340)	Jackson County	0.4	48	4D	10	300	55	43200	15000	19200	19200	43900	ADQ	ADQ	B	B,M
	NC 107	Old Settlement Rd (SR 1340)	Centennial Dr (SR 1325)	Cullowhee	1.8	48	4D	10	300	55	43200	17000	21800	21800	43900	ADQ	ADQ	B	B,M
	NC 107	Centennial Dr (SR 1325)	Little Savannah Rd (SR 1367)	Cullowhee	0.1	48	4D	10	300	45	41300	17800	22000	22000	41400	ADQ	ADQ	B	B

HIGHWAY																				
		Section				2012 Existing System							2040 Proposed System					CTP Classifi-cation	Proposals for Other Modes
Local ID	Facility	From	To	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2012 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)		
	NC 107	Little Savannah Rd (SR 1367)	Forest Hills Rd (SR 1330)	Cullowhee	0.5	48	4D	10	300	45	41300	17800	22000	22000	41400	ADQ	ADQ	B	B
	NC 107	Forest Hills Rd (SR 1330)	0.2 miles S of Forest Hill Rd (SR 1330)	Cullowhee	0.2	48	4D	10	300	45	41300	8200	10300	10300	41400	ADQ	ADQ	B	B
	NC 107	0.2 miles S of Forest Hills Rd (SR 1330)	Cullowhee Mtn Rd (SR 1001)	Cullowhee	0.5	24	2	12	100	55	14000	8900	10300	10300	14000	ADQ	ADQ	Maj	B,M
	NC 107	Cullowhee Mtn Rd (SR 1001)	Old Cullowhee Rd (SR 1002)	Cullowhee	1.1	24	2	12	100	55	14000	5100	5600	5600	14000	ADQ	ADQ	Maj	B,M
R-4753	NC 107	Old Cullowhee Rd (SR 1002)	0.2 miles N of Shirt Tail Ridge Rd (SR 1736)	Jackson County	0.8	24	2	10	100	45	11100	3800	4400	4400	14000	2A	ADQ	Maj	B
R-4753	NC 107	0.2 miles N of Shirt Tail Ridge Rd (SR 1736)	Moody Bridge Rd (SR 1172)	Jackson County	1.5	20	2	9	60	45	9800	3500	4100	4100	14000	2A	ADQ	Maj	B
R-4753	NC 107	Moody Bridge Rd (SR 1172)	NC 281	Jackson County	2.3	20	2	10	60	55	11700	3500	4100	4100	14000	2A	ADQ	Maj	B
FS-1214C / R-5841	NC 107	NC 281	Pine Creek Rd (SR 1157)	Jackson County	8.2	18	2	9	50	45	9800	2800	3300	3300	14000	2A	60	Maj	B
JACK009-H	NC 107	Pine Creek Rd (SR 1157)	Bee Tree Rd (SR 1124)	Jackson County	0.7	18	2	9	50	45	9800	4200	5700	5700	14000	2A	60	Maj	B
JACK009-H	NC 107	Bee Tree Rd (SR 1124)	0.7 miles N of N Norton Rd (SR 1145)	Jackson County	4.0	18	2	9	50	40	9800	4500	7200	7200	14000	2A	60	Maj	B
JACK009-H	NC 107	0.7 miles N of N Norton Rd (SR 1145)	N Norton Rd (SR 1145)	Jackson County	0.7	18	2	9	50	55	11000	4500	7200	7200	14000	2A	60	Maj	B
JACK009-H	NC 107	N Norton Rd (SR 1145)	0.3 miles S of Laurel Knob Rd	Jackson County	0.9	18	2	9	50	45	9800	4700	7500	7500	14000	2A	60	Maj	B
JACK0003-H	NC 107	0.3 miles S of Laurel Knob Rd (SR 1142)	0.1 miles N of US 64	Jackson County	0.9	18	2	9	60	35	6200	6100/ 9800*	11000/ 17700*	11000/ 17700*	14000	2A	60	Maj	B
JACK0003-H	NC 107	0.1 miles N of US 64	US 64	Cashiers	0.1	19	2	9	60	35	6200	5600/ 9000*	11000/ 17700*	11000/ 17700*	12100	2E	60	Maj	B,P,T
JACK0003-H	NC 107	US 64 - Valley Rd (SR 1114)	Valley Rd (SR 1114)	Cashiers	0.3	19	2	9	60	20	6200	4300/ 6900*	8000/ 12800*	8000/ 12800*	12100	2E	60	Maj	B,P,T
JACK0010-H	NC 107	Valley Rd (SR 1114)	Cashiers School Rd (SR 1112)	Cashiers	0.4	19	2	9	60	35	6200	4100/ 6600*	5400/ 8700*	5400/ 8700*	14000	2A	60	Maj	B,T,M

HIGHWAY																				
		Section				2012 Existing System							2040 Proposed System							
Local ID	Facility	From	To	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2012 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)	CTP Classification	Proposals for Other Modes
JACK0010-H	NC 107	Cashiers School Rd (SR 1112)	South Carolina	Jackson County	7.5	19	2	9	60	45	9800	2700	2800	2800	14000	2A	60	Maj	M
JACK0011-H	NC 116	US 23/US 441	Mockingbird Ln/Old Franklin Rd (SR 1360)	Jackson County	0.9	20	2	10	60	35	8200	4000	5000	5000	14000	2B	ADQ	Maj	T
JACK0011-H	NC 116	Mockingbird Ln/Old Franklin Rd (SR 1360)	Rock Quarry Rd (SR 1581)	Jackson County	1.0	20	2	10	100	55	11100	4200	5000	5200	14000	2B	ADQ	Maj	T
JACK0011-H	NC 116	Rock Quarry Rd (SR 1581)	Little Savannah Rd (SR 1367)	Jackson County	0.1	20	2	10	100	55	11100	5000	5900	6800	14000	2B	ADQ	Maj	B,T
JACK0011-H	NC 116	Little Savannah Rd (SR 1367)	Old Settlement Rd (SR 1340)	Jackson County	0.3	22	2	11	100	45	12100	5600	6600	6800	14000	2B	ADQ	Maj	B,T
JACK0011-H	NC 116	Old Settlement Rd (SR 1340)	S River Rd (SR 1345)	Webster	0.1	22	2	11	100	35	11100	5600	6600	6800	12100	2B	ADQ	Maj	B,T
JACK0011-H	NC 116	S River Rd (SR 1345)	N River Rd (SR 1359)	Webster	0.1	22	2	11	100	25	11000	5900	7300	7300	12100	2B	ADQ	Maj	B,T
JACK0011-H	NC 116	N River Rd (SR 1359)	Buchanan Loop Rd (SR 1348)	Webster	0.5	22	2	11	100	25	11000	5900	7100	7100	12100	2B	ADQ	Maj	T
JACK0011-H	NC 116	Buchanan Loop Rd (SR 1348)	0.2 miles E of Buchanan Loop Rd (SR 1348)	Webster	0.2	20	2	10	100	25	10100	6200	7400	7400	12100	2B	ADQ	Maj	T
JACK0011-H	NC 116	0.2 miles E of Buchanan Loop Rd (SR 1348)	0.2 miles W of Southwest Community College (SR 1509)	Webster	0.3	20	2	10	100	35	10100	6800	7600	7600	12100	2B	ADQ	Maj	T
JACK0011-H	NC 116	0.2 miles W of Southwest Community College (SR 1509)	Southwest Community College (SR 1509)	Webster	0.2	20	2	10	100	35	10100	7400	7900	7900	12100	2B	ADQ	Maj	T
	NC 116	Southwest Community College (SR 1509)	0.2 miles W of NC 107	Webster	0.3	33	3	11	100	45	12700	7400	7900	7900	12100	ADQ	ADQ	Maj	
	NC 116	0.2 miles W of NC 107	NC 107	Sylva	0.2	33	3	11	100	35	11700	7800	7900	7900	9100	ADQ	ADQ	Maj	

HIGHWAY																			
		Section				2012 Existing System							2040 Proposed System						
Local ID	Facility	From	To	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2012 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)	CTP Classifi-cation	Proposals for Other Modes
	NC 281	NC 107	0.2 miles NW of Charleys Creek Rd (SR 1756)	Jackson County	8.1	20	2	10	100	35	8200	1400	1700	1700	8200	ADQ	ADQ	Maj	B
	NC 281	Charleys Creek Rd (SR 1756)	Wolf Mountain Rd (SR 1760)	Jackson County	4.3	20	2	10	60	35	8200	500	1000	1000	8200	ADQ	ADQ	Maj	B
	NC 281	Wolf Mountain Rd (SR 1760)	Transylvania County	Jackson County	4.7	16	2	8	60	35	8200	200	500	500	8200	ADQ	ADQ	Maj	B
JACK0012-H	Barkers Creek Rd (SR 1392)	Thomas Valley Rd (SR 1397)	US 74/US 441	Jackson County	0.2	18	2	9	-	55	10300	1600	1800	1800	12100	2A	60	Min	B
	Beck Branch Rd (SR 1409)	Sunset Farm Rd (SR 1405)	Camp Creek Rd (SR 1406)	Jackson County	1.3	18	2	9	50	35	10300	500	1000	1000	10300	ADQ	ADQ	Min	B
	Camp Creek Rd (SR 1406)	US 441	Old Mission Rd (SR 1427)	Jackson County	0.5	16	2	8	-	35	8300	1400	1800	1800	8300	ADQ	60	Min	B
	Camp Creek Rd (SR 1406)	Old Mission Rd (SR 1427)	Sunset Farm Rd (SR 1405)	Jackson County	2.8	16	2	8	-	35	8300	600	800	800	8300	ADQ	60	Min	B
JACK0004-H	Cashiers NE Quadrant Connector	US 64	NC 107	Jackson County (Cashiers)	0.4	-	-	-	-	-	-	-	-	-	9500	2C	50	Min	
JACK0005-H	Cashiers SE Quadrant Connector	US 64	NC 107	Jackson County (Cashiers)	0.7	-	-	-	-	-	-	-	-	-	9500	2C	50	Min	
	Centennial Dr (SR 1325)	NC 107	Centennial Dr (SR 1550)	Cullowhee	0.1	56	4D		200	20	20300	12500	14600	14600	20300	ADQ	ADQ	Min	P
	Centennial Dr (SR 1330)	Memorial Dr (SR 1325)	Forest Hills Rd (SR 1330)	Cullowhee	0.4	40	2-3	12	60	20	11100	3000	6000	6000	11100	ADQ	ADQ	Min	
	Central Dr (SR 1169)	Old Cullowhee Rd (SR 1002)	Centennial Dr (SR 1325)	Cullowhee	0.3	24	2	12	-	30	10400	5900	7400	7400	10400	ADQ	ADQ	Min	
	Charley's Creek Rd (SR 1756)	NC107	Transylvania County	Jackson County	10.3	18	2	9	0	25-55	8300	150	190	190	8300	ADQ	ADQ	Min	

HIGHWAY																			
		Section				2012 Existing System							2040 Proposed System						
Local ID	Facility	From	To	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2012 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)	CTP Classification	Proposals for Other Modes
JACI0036-H	Chipper Curve Rd (SR 1429)	Skyland Dr (SR 1432)	US 23 Bus	Sylva	1.1	18	2	9	-	25	9000	1700	1900	1900	9000	2B	60	Min	B,P
	Cope Creek Rd (SR 1449)	Steeple Rd (SR 1527)	E Cope Creek Rd (SR 1710)	Jackson County	1.2	22	2	10	-	35	9500	1600	4400	2700	9500	ADQ	ADQ	Min	B
	Cope Creek Rd (SR 1449)	E Cope Creek Rd (SR 1710)	NC 107	Jackson County	1.1	22	2	10	-	35	9500	2900	6300	4500	9500	ADQ	ADQ	Min	B
JACK0013-H	Cullowhee Mtn Rd (SR 1157)	Pine Creek Rd (SR 1163)	Tailhook Ln	Jackson County	2.5	18	2	9	60	35	9000	1000	1200	1200	10200	2C	ADQ	Min	B
JACK0013-H	Cullowhee Mtn Rd (SR 1157)	Tailhook Ln	0.1 mi N of Wolf Knob Rd	Jackson County	4.5	18	2	9	60	25	8300	1000	1200	1200	10000	2C	ADQ	Min	B
JACK0013-H	Cullowhee Mtn Rd (SR 1157)	0.1 mi N of Wolf Knob Rd	Tilley Creek Rd (SR 1001)	Jackson County	1.3	18	2	9	60	35	9000	1000	1200	1200	10200	2C	ADQ	Min	B
JACK0013-H	Cullowhee Mtn Rd (SR 1001)	Tilley Creek Rd (SR 1001)	NC 107	Jackson County	1.1	18	2	9	60	35	9000	4000	5000	5000	10200	2C	ADQ	Min	B
	Dicks Creek Rd (SR 1388)	Piney Mtn Rd (SR 1390)	US 74/US 441	Jackson County	0.1	18	2	9	60	35	9000	1100	1200	1200	9000	ADQ	ADQ	Min	
	Forest Hills Rd (SR 1330)	Centennial Dr (SR 1325)	Speedwell Rd (SR 1001)	Cullowhee	0.4	24	2	12	60	20	9000	3700	5000	5000	9000	ADQ	ADQ	Min	B
	Forest Hills Rd (SR 1330)	Speedwell Rd (SR 1001)	NC 107	Cullowhee	0.2	24	2	12	60	20	9000	1500	2700	2700	9000	ADQ	ADQ	Min	
JACK0014-H	Frank Allen Rd (SR 1176/SR 1182)	US 64	NC 107	Cashiers	0.8	22	2	10	50	20	9000	-	-	-	9000	2E	60	Min	T,B,P
	Grindstaff Cove Rd (SR 1513)	US 23/US 74	Municipal Dr	Sylva	0.4	24	2	12	60	35	10400	5300	5800	10000	10400	ADQ	ADQ	Min	T
	Grindstaff Cove Rd (SR 1513)	Municipal Dr	US 23 Bus SB (Mill St)	Sylva	0.2	24	2	12	60	35	10400	5300	5800	5900	10400	ADQ	ADQ	Min	T
	Haywood Rd (SR 1514)	US 74/US 441	Jackson Landfill (SR 1539)	Jackson County	0.8	24	2	12	150	55	14600	890	1200	1200	14600	ADQ	ADQ	Maj	B

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		Section				2012 Existing System							2040 Proposed System							
Local ID	Facility	From	To	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2012 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)	CTP Classification	Proposals for Other Modes
	Haywood Rd (SR 1514)	Jackson Landfill (SR 1539)	US 23/US 441	Dillsboro	0.6	24	2	12	60	35	10400	2000	1300	1300	10400	ADQ	ADQ	Maj	B
	Highway 19-A (SR 1531)	Shoal Creek Rd (SR 1416)	Main St (SR 1415)	Jackson County	0.6	20	2	10	60	55	13600	3400	4100	4100	13600	ADQ	ADQ	Min	
	Highway 19-A (SR 1531)	Main St (SR 1415)	US 74	Jackson County	0.4	24	2	12	150	55	14600	3600	4100	4100	14600	ADQ	ADQ	Min	
	Hospital Rd (SR 1437)	Skyline Dr (SR 1432)	0.1 miles S of Streeter Rd (SR 1476)	Sylva	0.3	20	2	10	60	25	9300	2000	2300	2300	9300	ADQ	ADQ	Min	P
	Hospital Rd (SR 1437)	0.1 miles S of Streeter Rd (SR 1476)	US 23 Bus	Sylva	0.1	24	2	12	60	25	10000	3300	3600	3600	10000	ADQ	ADQ	Min	P
	Ledbetter Rd (SR 1337)	Monteith Gap Road (SR 1336)	Universtiy Heights Rd (SR 1512)	Cullowhee	0.6	16	2	8	60	25	8000	4000	4700	3400	8000	ADQ	ADQ	Min	B,P
JACK0015-H	Ledbetter Rd (SR 1337)	Universtiy Heights Rd (SR 1512)	End of Facility	Cullowhee	0.2	16	2	8	60	25	8000	900	1000	1200	8000	ADQ	ADQ	Min	
	Little Savannah Rd (SR 1367)	NC 116	Blake Branch Rd (SR 1321)	Jackson County	0.8	18	2	9	60	55	12600	1800	2200	2200	12600	ADQ	ADQ	Min	B
	Little Savannah Rd (SR 1367)	Blake Branch Rd (SR 1321)	Roscoe Lewis Rd (SR 1324)	Jackson County	1.5	18	2	9	60	55	12600	500	600	600	12600	ADQ	ADQ	Min	B
	Little Savannah Rd (SR 1367)	Roscoe Lewis Rd (SR 1324)	0.3 miles E of Wake Robin Dr (SR 1551)	Jackson County	1.8	18	2	9	60	35	9200	500	600	600	9200	ADQ	ADQ	Min	B
	Little Savannah Rd (SR 1367)	0.3 miles E of Wake Robin Dr (SR 1551) - NC 107	NC 107	Jackson County	0.7	24	2	12	60	35	10200	7700	9300	9300	10200	ADQ	ADQ	Min	
JACK0016-H	Mineral Springs Rd (SR 1456)	Skyland Dr (SR 1432)	Morris Rd (SR 1455)	Jackson County	0.1	16	2	8	-	20	8000	1100	1400	1400	9300	2C	60	Min	
JACK0016-H	Mineral Springs Rd (SR 1456)	Morris Rd (SR 1455)	US 23/US 74	Jackson County	1.2	18	2	8	-	25	8000	1000	1300	1300	9300	2C	60	Min	

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		Section				2012 Existing System							2040 Proposed System					CTP Classifi-cation	Proposals for Other Modes
Local ID	Facility	From	To	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2012 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)		
JACK0017-H	Mockingbird Ln/Old Franklin Rd (SR 1360)	US 23/US 441	Rock Quarry Road (SR 1581)	Jackson County	2.0	16-20	2	8-9	-	20-40	8000	900	1600	1600	10000	2B	60	Min	BM
JACK0017-H	Mockingbird Ln/Old Franklin Rd (SR 1360)	Rock Quarry Rd (SR 1581)	NC 116	Jackson County	0.5	16	2	8	-	35	8000	210	300	300	10000	2B	60	Min	
JACK0018-H	Monteith Gap Rd (SR 1336)	Ledbetter Road	End of facility	Jackson County	0.9	16	2	8	50	25	8000	500	600	1900	9700	2B	60	Min	B,P
JACK0018-H	Monteith Gap Rd (SR 1336)	Old Cullowhee Rd (SR 1002)	Ledbetter Road	Jackson County	0.3	16	2	8	50	25	8000	4700	5300	5300	9700	2B	60	Min	B,P,M
JACK0019-H	Muncipal Dr	Grindstaff Cove Rd (SR 1513)	Allen Street	Sylva	0.2	18	2	9	-	25	9000	2000	2200	2200	9300	2C	60	Min	P
JACK0019-H	Muncipal Dr	Allen Street	Chipper Cove Rd (SR 1429)	Sylva	0.3	18	2	9	-	25	9000	2000	2200	2200	9300	2C	60	Min	P
JACK0020-H	N Country Club Dr (SR 1330)	S. Country Club Dr	NC 107	Forest Hills	1.5	20	2	9	60	25	9000	2800	5000	5000	9700	2B	ADQ	Min	P
JACK0021-H	N Norton Rd (SR 1145)	Pine Creek Rd (SR 1163)	Toby Bryson Rd (SR 1147)	Jackson County	4.4	18	2		60	35	6300	600	800	800	12100	2B	ADQ	Min	B
JACK0021-H	N Norton Rd (SR 1145)	Toby Bryson Rd (SR 1147)	NC 107	Jackson County	3.5	18	2		-	35	6300	1200	1400	1400	12100	2B	60	Min	B
	N River Rd (SR 1359)	US 23/441	Yellow Bird Branch Rd (SR 1358)	Dillsboro	0.5	18	2	9	60	20-35	7000	1600	2900	2900	7000	ADQ	ADQ	Min	B
JACK0022-H	N River Rd (SR 1359)	Yellow Bird Branch Rd (SR 1358)	0.6 miles N of NC 116	Jackson County	2.3	18	2	9	50	40	8300	1900	3400	3400	12100	2B	60	Min	B
JACK0022-H	N River Rd (SR 1359)	0.6 miles N of NC 116	NC 116	Webster	0.6	18	2	9	-	35	7400	1900	3400	3400	9800	2B	60	Min	B
JACK0023-H	Norton Rd (SR 1143)	N Norton Rd (SR 1145)	US 64	Jackson County	1.9	16	2	8	-	30	6200	600	800	800	12100	2B	60	Min	

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Local ID	Facility	From	To	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2012 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)	CTP Classification	Proposals for Other Modes
JACK0024-H	Old Cullowhee Rd (SR 1002)	NC 107	Central Dr (SR 1169)	Jackson County	3.3	24	2	11	60-100	50	11700	5800	7000	7000	12100	2A	ADQ	Min	B
JACK0024-H	Old Cullowhee Rd (SR 1002)	Central Dr (SR 1169)	NC 107	Jackson County	2.4	20	2	10	60	45	11100	1000	1900	1900	12100	2A	ADQ	Min	B,P
	Old Mission Rd (SR 1427)	US 19	Olivet Church Rd (SR 1424)	Jackson County	1.1	18	2	9	-	45	10500	2500	3100	3100	10500	ADQ	ADQ	Min	B
	Old Mission Rd (SR 1427)	Olivet Church Rd (SR 1424)	Camp Creek Rd (SR 1406)	Jackson County	1.3	18	2	9	60	35	9200	800	1000	1000	9200	ADQ	ADQ	Min	B
JACK0025-H	Old Settlement Rd (SR 1340)	NC 116	0.1 miles W of NC 107	Jackson County	2.1	18	2	9	-	35-45	9200	2000	2300	2300	10100	2B	60	Min	B,M
JACK0025-H	Old Settlement Rd (SR 1340)	0.1 miles W of NC 107	NC 107	Jackson County	0.1	24	2	11	60	35	9900	2800	3400	3400	10100	2B	ADQ	Min	B,M
JACK0026-H	Pine Creek Rd (SR 1163)	Macon County	N Norton Rd (SR 1145)	Jackson County	2.9	18	2	9	60	35	6300	900	1100	1100	12100	2B	ADQ	Min	B
JACK0026-H	Pine Creek Rd (SR 1145)	N Norton Rd (SR 1145)	Cullowhee Mountain Rd (SR 1157)	Jackson County	0.8	18	2	9	60	35	6300	600	800	800	12100	2B	ADQ	Min	B
	Piney Mtn Rd (SR 1391)	US 74/US 441	Piney Mtn Rd (SR 1390)	Jackson County	1.0	18	2	9	60	55	8300	300	400	400	8300	ADQ	ADQ	Min	
	Piney Mtn Rd (SR 1390)	Piney Mtn Rd (SR 1391)	Dicks Creek Rd (SR 1388)	Jackson County	0.8	18	2	9	60	55	8300	300	400	400	8300	ADQ	ADQ	Min	
	Rock Quarry Rd (SR 1581)	Mockingbird Ln/Old Franklin Rd (SR 1360)	NC 116	Jackson County	0.7	18	2	9	60	55	9800	500	550	550	9800	ADQ	ADQ	Min	
	Savannah Dr (SR 1356)	US 23 Bus	Yellow Bird Branch Rd (SR 1358)	Sylva	0.5	18	2	9	60	25	9000	1000	1300	1300	9000	ADQ	ADQ	Min	
	Savannah Dr (SR 1356)	Yellow Bird Branch Rd (SR 1358)	0.2 miles E of Yellow Bird Branch Rd (SR 1358)	Sylva	0.2	18	2	9	60	35	9200	1000	1300	1300	9200	ADQ	ADQ	Min	B

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Local ID	Facility	From	To	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2012 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)	CTP Classifi-cation	Proposals for Other Modes
	Savannah Dr (SR 1356)	0.2 miles E of Yellow Bird Branch Rd (SR 1358)	0.4 miles W of US 23 Bus NB (Main St)	Sylva	0.4	18	2	9	60	20	8900	1000	1300	1300	8900	ADQ	ADQ	Min	B
	Savannah Dr (SR 1356)	0.4 miles W of US 23 Bus NB (Main St)	US 23 NB (Main St)	Sylva	0.4	24	2	11	60	25	10000	1400	1700	1700	10000	ADQ	ADQ	Min	B
	Shoal Creek Rd (SR 1416)	Highway 19-A (SR 1531)	0.2 miles W of Union Hill Rd (SR 1411)	Jackson County	2.0	18	2	9	-	35	9200	900	1100	1100	9200	ADQ	ADQ	Min	B
	Shoal Creek Rd (SR 1416)	0.2 miles W of (SR 1411)	US 441	Jackson County	0.3	20	2	10	60	35	9500	1000	1200	1200	9500	ADQ	ADQ	Min	B
JACK0027-H	Skyland Dr (SR 1432)	US 23 Bus	0.1 miles N of US 23 Bus	Sylva	0.1	24	2	11	100	35	9400	6600	7000	7000	10100	2B	ADQ	Min	B,P
JACK0027-H	Skyland Dr (SR 1432)	0.1 miles N of US 23 Bus	Chipper Cove Rd (SR 1429)	Sylva	0.7	20	2	10	100	35	9400	6600	7000	7000	10100	2B	ADQ	Min	B,P
JACK0027-H	Skyland Dr (SR 1432)	Chipper Cove Rd (SR 1429)	Hospital Rd (SR 1437)	Sylva	0.4	20	2	10	100	35	9400	5600	6000	6000	10100	2B	ADQ	Min	B,P
JACK0027-H	Skyland Dr (SR 1432)	Hospital Rd (SR 1437)	Sylva Ciry Limits	Sylva	0.2	20	2	10	100	45	11400	2400	2800	2800	11800	2B	ADQ	Min	B,P
JACK0027-H	Skyland Dr (SR 1432)	Sylva Ciry Limits	Steeple Rd (SR 1527)	Jackson County	0.9	20	2	10	100	45	11400	2800	2800	2800	11800	2B	ADQ	Min	B,M
JACK0027-H	Skyland Dr (SR 1432)	Steeple Rd (SR 1527)	Parris Branch Road (SR 1452)	Jackson County	0.9	20	2	10	100	45	11400	3900	4300	4300	11800	2B	ADQ	Min	B,M
JACK0027-H	Skyland Dr (SR 1432)	Steeple Rd (SR 1527)	Black Rock Ranch Rd (SR 1453)	Jackson County	0.4	20	2	10	100	45	11400	3900	4300	4300	11800	2B	ADQ	Min	B
JACK0027-H	Skyland Dr (SR 1432)	Black Rock Ranch Rd (SR 1453)	Mineral Springs Rd (SR 1456)	Jackson County	0.4	20	2	10	100	35	9400	1600	1700	1700	10100	2B	ADQ	Min	B
JACK0027-H	Skyland Dr (SR 1432)	Mineral Springs Rd (SR 1456)	US 23/US 74	Jackson County	3.0	20	2	10	100	35	9400	400	500	500	10100	2B	ADQ	Min	B
JACK0028-H	S. Country Club Dr (SR 1507)	N Country Club Dr (SR 1330)	N Country Club Dr (SR 1330)	Forest Hills	1.7	18	2	9	-	25	9000	-	-	-	9700	2B	60	Min	P
JACK0029-H	S Painter Rd (SR 1338)	Monteith Gap Rd (SR 1336)	End of Facility	Jackson County	0.5	18	2	9	60	25	9000	200	260	260	9000	ADQ	ADQ	Min	P

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JACK0030-H	S River Rd (SR 1345)	NC 116	0.3 miles E of NC 116	Webster	0.3	20	2	10	-	40	8300	2100	3600	3600	12100	2B	60	Min	M
JACK0030-H	S River Rd (SR 1345)	0.3 miles E of NC 116	0.3 miles W of NC 107	Jackson County	1.0	20	2	10	-	55	8300	1900	3300	3300	12100	2B	60	Min	M
JACK0030-H	S River Rd (SR 1345)	0.3 mile W of NC 107	NC 107	Jackson County	0.3	20	2	10	-	35	8300	1900	3300	3300	12100	2B	60	Min	M
JACK0031-H	Speedwell Rd (SR 1001)	Forest Hills Rd (SR 1330)	0.1 miles S of Forest Hills Rd (SR 1330)	Cullowhee	0.1	20	2	9	60	30	10000	2300	7300	7300	9500	ADQ	ADQ	Min	B,P,M
JACK0031-H	Speedwell Rd (SR 1001)	0.1 miles S of Forest Hills Rd	0.2 miles N of NC 107	Jackson County	0.6	18	2	9	60	30	10000	1100	2200	2200	9500	ADQ	ADQ	Min	B,P,M
JACK0031-H	Speedwell Rd (SR 1001)	0.2 miles N of NC 107	NC 107	Jackson County	0.2	24	2	11	60	30	10000	1100	2200	2200	9500	ADQ	ADQ	Min	B,P,M
	Steeple Rd (SR 1527)	Skyland Dr (SR 1432)	US 23/US 74	Jackson County	0.2	22	2	11	-	55	14100	2300	2800	2800	14100	ADQ	ADQ	Min	
	Steeple Rd (SR 1527)	US 23/US 74	Cope Creek Rd (SR 1449)	Jackson County	0.1	22	2	11	-	55	14100	2300	2800	2800	14100	ADQ	ADQ	Min	
	Success Avenure	NC 116	NC 107	Jackson County	0.6	35	2D	13	80	35	NA	NA	1500	1500	16900	ADQ	ADQ	B	
JACK0032-H	Sunset Farm Rd (SR 1405/SR 1406)	US 441S	Bradley Branch Rd (SR 1404)	Jackson County	2.1	20	2	10	60	55	10400	400	1000	1000	12100	2B		Min	B
JACK0033-H	Thomas Valley Rd (SR 1397)	Swain County	Wilmont Cemetary Rd (SR 1534)	Jackson County	3.8	20	2	10	60	55	11600	NA	NA	NA	12100	2A	ADQ	Min	
JACK0033-H	Thomas Valley Rd (SR 1397)	Wilmont Cemetary Rd (SR 1534)	Barkers Creek Rd (SR 1392)	Jackson County	2.1	20	2	10	60	40	8800	1300	1700	1700	12100	2A	ADQ	Min	
	Tilley Creek Rd (SR 1001)	Cullowhee Mtn Rd (SR 1157)	0.1 miles S of Carland Ashe Rd (SR 1165)	Jackson County	1.3	18	2	9	60	45	10300	600	1000	1000	10300	ADQ	ADQ	Min	B

HIGHWAY																				
		Section				2012 Existing System							2040 Proposed System					CTP Classifi-cation	Proposals for Other Modes
Local ID	Facility	From	To	Jurisdiction	Dist. (mi)	Total Width (ft)	Lanes	Lane Width (ft)	ROW (ft)	Speed Limit (mph)	Existing Capacity (vpd	2012 Volume	2040 Volume E+C	2040 Volume with CTP	Proposed Capacity (vpd)	Cross-Section	ROW (ft)		
	Tilley Creek Rd (SR 1001)	0.1 miles S of Carland Ashe Rd (SR 1165)	Macon County	Jackson County	3.4	18	2	9	60	55	10300	200	300	300	10300	ADQ	ADQ	Min	B
	Whiteside Cove Rd (SR 1107)	Macon County	NC 107	Jackson County	7.1	18	2	9	60	35	7400	370	500	500	7400	ADQ	ADQ	Min	
JACK0034-H	Wilmont Rd (SR 1534)	US 74/US 441	Thomas Valley Rd (SR 1397)	Jackson County	0.1	20	2	10	60	55	8800	1300	1700	1700	12100	2A	ADQ	Min	B
JACK0035-H	Yellow Bird Branch Rd (SR 1358)	N River Rd (SR 1359)	Savannah Rd (SR 1356)	Jackson County	0.7	18	2	9	60	35	7400	800	900	900	12100	2A	ADQ	Min	B

a factored to reflect heavier summer traffic

b - Blue Ridge Bike Plan

PUBLIC TRANSPORTATION AND RAIL

PUBLIC TRANSPORTATION[1]							
			Speed		Existing System	Proposed System	
Local ID	Facility/ Route	Section (From - To)	Limit (mph)	Distance (mi)	Type	Type	Other Modes
JACK0001-T	Sylva, Dillsboro, WCU Fixed Route Bus Service	US 441S, NC 116, NC 107, Old Cullowhee Road (SR 1002), Little Savannah Road (SR 1367)	Varies	27	Bus	Bus	H,B,P,M
JACK0002-T	Cashiers	US 64, Slab Town Road (SR 1141), Frank Allen Road (SR 1176), NC 107	Vaires	6		Bus	H,B,P,M
JACK0003-T	Justice Center Link	US 23 Business (Mill Street/Main Street)-339 Grindstaff Cove Road (SR 1513)	35	0.3		Bus	

[1] Only major public transportation routes and proposals are shown here. For further documentation of the public transportation system, refer to *https://www.jacksoncountytransit.com* .

RAIL												
				Speed		Existing System			Proposed System			
Local ID	Facility/ Route	Section (From - To)	Class	Limit (mph)	Distance (mi)	Type	ROW (ft)	Trains per day	Type	ROW (ft)	Trains per day	Other Modes
	Blue Ridge Southern Railroad (BLU)/Short Line	Dillsboro - Haywood County		10-30	17.9	Freight	200	0-5				
	Great Smoky Mountains Railroad	Sylva		NA	varies	Freight	200	On demand				
	Great Smoky Mountains Railroad	Bryson City, Swain County - Dillsboro		NA	16	Passen-ger	200	2				

BICYCLE AND PEDESTRIAN [1]

BICYCLE								
				Existing System		Proposed System		
			Distance	Cross-Section				
Local ID	Facility/ Route	Section (From - To)	(mi)	(ft)	lanes	Type	Cross-Section	Other Modes
JACK0007-H	US 19	Swain County - Haywood County	Concurrent with US 19 - See Highway Table					H
JACK0001-H	US 23 Business	NC 107 - Skyland Drive (SR 1432)	Concurrent with US 23 Business - See Highway Table					H
JACK0001-B	US 23/441 S	Haywood Road (SR 1514) - Mockingbird Lane (SR 1360)	0.2	48	4	On Road	2A	
JACK0008-H	US 64	Norton Road (SR 1144) - NC 107	Concurrent with US 64 - See Highway Table					H
JACK0002-B	US 441N	Swain County - US 441 Business (Cassino Trail)	3.9	62-64	5	On Road	2A	H
JACK0002-H	US 441N	US 441 Business (Cassino Trail) - Sunset Farm Road (SR 1405)	Concurrent with US 441 - See Highway Table					H
R-5600	NC 107	US 23 Business - NC 116	Concurrent with R-5600 - See Highway Table					H,P
R-4753	NC 107	Old Cullowhee Road (SR 1002) - NC 281	4	20-48	2-4	On Road	4A	H
FS-1214C	NC 107	NC 281 - approximately 1 mile north of Pine Creek Road (SR 1157)	Concurrent with FS-1214C - See Highway Table					H
JACK0003-H / JACK009-H	NC 107	1 mile north of Pine Creek Road (SR 1157) - multi-use path (JACK0003-M) at Zeb Alley Road (SR 1111)	Concurrent with NC 107 - See Highway Table					H,P
JACK0003-B	Beck Branch Road (SR 1409)	Sunset Farm Road (SR 1405) - Camp Creek Road (SR 1406)	1.3	18	2	On Road	2A	
JACK0004-B	Cabin Flats Road / Candlestick Lane (SR 1701)	Old Balsam Depot Road (SR 1705) - US 23/74	0.5	16	2	On Road	2A	
JACK0005-B	Camp Creek Road (SR 1406)	US 441 - Sunset Farm Road (SR 1405)	3.3	16	2	On Road	2A	
JACI0036-H	Chipper Curve Road (SR 1429)	W. Main Street (US 23 Business) - Skyland Drive SR 1432)	1.1	18	2	On Road	2A	P
JACK0007-B	Cope Creek Road (SR 1449)	NC 107 - US 23/74	2.3	18-22	2	On Road	2A	P
JACK0008-B	Fisher Creek Road (SR 1446)	Skyland Drive (SR 1432) - Pinnacle Park	2.4	16	2	On Road	2A	
JACK0009-B	Forest Hills Road (SR 1330)	Centennial Drive (SR 1325)- Speedwell Road (SR 1001)	0.3	24	2	On Road	2A	
JACK0014-H	Frank Allen Road (SR 1176/SR 1182)	NC 107 - US 64	Concurrent with Frank Allen Road - See Highway Table					H,P
JACK0010-B	Haywood Road (SR 1514)	US 74 - W. Main Street (US 23 Business)	2.1	24	2	On Road	2A	P
JACK0011-B	Little Savannah Road (SR 1367)	NC 116 - 0.3 miles E of Wake Robin Drive (SR 1551)	4.9	18-24	2	On Road	2A	
JACK0013-B	Mill Street	W. Main Street - W. Main Street	0.3	18-20	2	On Road	2E	

BICYCLE								
				Existing System		Proposed System		
			Distance	Cross-Section				
Local ID	Facility/ Route	Section (From - To)	(mi)	(ft)	lanes	Type	Cross-Section	Other Modes
JACK0021-H	North Norton Road (SR 1145)	Pine Creek Road (SR1163) - NC 107	Concurrent with N. Norton Road - See Highway Table					H
JACK0012-B	Old Balsam Depot Road (SR 1472)	Dark Ridge Road (SR 1705) - Cabin Flats Road	0.4	20	2	On Road	2A	
JACK0013-B	Savannah Drive (SR 1356)	Yellow Bird Branch Road (SR 1358) to US 23 NB (Main Street)	0.5	18	2	On Road	2A	
JACK0014-B	Shoal Creek Road (SR 1416)	Highway 19-A - US 441	2.3	18-20	2	On Road	2A	
JACK0027-H	Skyland Drive (SR1432/1707)	US 23 Business - US 23/74 and Sugar Loaf Road (SR 1707)	Concurrent with Skyland Drive - See Highway Table					H,P,M
JACK0031-H	Speedwell Road (SR 1001)	NC 107 - Forest Hills Road	Concurrent with Speedwell Road - See Highway Table					H,M
JACK0032-H	Sunset Farm Road (SR 1405/1406)	US 441S - Bradley Branch Road	Concurrent with Sunset Road - See Highway Table					H
JACK0033-H	Thomas Valley Road (SR 1397)	US 74 - Ubarkers Creek Road (SR 1392)	Concurrent with Thomas Valley Road - See Highway Table					H
JACK0015-B	Tilley Creek Road (SR 1001)	Macon County - Cullowhee Mountain Road (SR 1157)	5.3	18	2	On Road	2A	
JACK0016-B	W. Main Street (US 23 Business)	Haywood Road (SR 1514) - Chipper Curve Road (SR 1429)	1.4	24-30	2	On Road	ADQ	P
JACK0017-B	Webster Street (SR 1556)	Haywood Road (SR 1514) - N. River Road (SR 1359)	0.1	20	2	On Road	2E	
JACK0034-H	Wilmont Road (SR 1534)	US 74 - Thomas Valley Road (SR 1397)	Concurrent with Wilmont Road - See Highway Table					
JACK0035-H	Yellow Bird Branch Road (SR 1358)	Savannah Drive (SR 1356) - N. River Road (SR 1359)	Concurrent with Yellow Bird Branch Road - See Highway Table					

PEDESTRIAN								
				Existing System		Proposed System		Other
			Distance		Side of			
Local ID	Facility/ Route	Section (From - To)	(mi)	Type	Street	Type	Side of Street	Modes
JACK0004-P	US 23 Business / Haywood Street	Depot Street (SR 1514) - Hometown Place (SR 1381)	0.6	--	--	Sidewalk	Both	B
JACK0008-P	US 23 Business	End of existing sidewalk west of Savannah Drive (SR 1356) - Mark Watson Park	0.5	Sidewalk	South	Sidewalk	North	B
JACK0001-H	US 23 Business	Hospital Drive (SR 1437) - Cope Creek Road (SR 1449)	0.4	--	--	Sidewalk	Both	H
R-5600 / JACK0010-P	US 23 Business	Main Street/Mill Street split - NC 107	0.5	Sidewalk	Varies	Sidewalk	Both where possible	H,B

PEDESTRIAN								
				Existing System		Proposed System		
			Distance	Cross-Section				
Local ID	Facility/ Route	Section (From - To)	(mi)	(ft)	lanes	Type	Cross-Section	Other Modes
JACK0005-H R-2409	US 64	Slab Town Road (SR 1141) - Pebble Creek Drive	1.5	--	--	Sidewalk	Both	H,B
JACK0017-P	NC 107	Fairview Road (SR 1724) - Old Cullowhee Road (SR 1002) and the existing Jackson County Greenway	2	--	--	Sidewalk	East	B,T
JACK0003-H / JACK0010-H	NC 107	Slab Town Road (SR 1141) to Cashiers School Road (SR 1112)	0.9	--	--	Sidewalk	Both	H,B
JACK0011-H	Allen Street	Municipal Drive to Hampton Street	0.1	Sidewalk	East	Sidewalk	West	
JACK0016-P	Buchanan Loop (SR 1348)	NC 116 (Webster Road) to NC 116 (Webster Road)	1.8	--	--	Sidewalk	Both	
JACK0001-P	Cashiers School Road (SR 1112)	NC 107 to Zeb Alley Road (SR 1111)	0.1	--	--	Sidewalk	Both	
JACK0036-H	Chipper Curve Road (SR 1429)	Skyland Dr (SR 1432) to US 23 Bus	1.1	--	--	Sidewalk	Both	H,B
JACK0012-P	Fairview Avenue (SR 1724)	NC 107 to Smoky Mountain High School and Fairview Elementary School access road	0.2	--	--	Sidewalk	Both	
JACK0014-H	Frank Allen Road (SR 1176)	NC 107 to recommended Multi-Use path to Casheirs/Glenville Recreation Center	0.3	--	--	Sidewalk	Both	B
JACK0005-P	Green Energy Park Road	Green Energy Park to Haywood Road (SR 1556)	0.1	--	--	Sidewalk	Both	
JACK0006-P	Hampton Street	Allen Street to end of the facility	0.2	--	--	Sidewalk	Both	
JACK0007-P	Haywood Road (SR 1514)	Green Energy Park Road to Webster Street (SR 1556)	0.7	--	--	Sidewalk	Both	B
JACK0013-P	Jackson Plaza Driveway	Grindstaff Cove Road (SR 1513) to Jackson Plaza parking lot	0.1	--	--	Sidewalk	Both	
JACK0014-P	Keener Street	Jackson Street to the Jackson County Public Library	0.1	Sidewalk	East	Sidewalk	West	
JACK0015-H	Ledbetter Road (SR 1337)	Monteith Gap Road (SR 1336) to the end of the facility	0.8	--	--	Sidewalk	Both	H
JACK0015-P	Mark Watson Park Road	W. Main Street to existing multi-use path	0.1	--	--	Sidewalk	Both	
JACK0010-P	Mill Street / US 23 Business Westbound	Main Street/Mill Street split to Main Street	0.4	Sidewalk	Varies	Sidewalk	Varies	B
JACK0018-H	Monteith Gap Road (SR 1336)	Old Cullowhee Road (SR 1002) to end of facility	1.2	--	--	Sidewalk	Both	H,B
JACK0020-H	N. Country Club Drive (SR 1330)	NC 107 to Pincushion Road	0.6	--	--	Sidewalk	Both	
JACK0024-H	Old Cullowhee Road (SR 1002)	Central Drive (SR 1169) to north of Toad Road	0.5	--	--	Sidewalk	Both	B

PEDESTRIAN								
				Existing System		Proposed System		
			Distance	Cross-Section				
Local ID	Facility/ Route	Section (From - To)	(mi)	(ft)	lanes	Type	Cross-Section	Other Modes
JACK0027-H	Skyland Drive (SR 1432)	Hospital Road (SR 1437) to Parris Branch Road (SR 1452)	2	--	--	Sidewalk	Both	H,B
JACK0002-P	Slab Town Road (SR 1141)	NC 107 to US 64	0.6	--	--	Sidewalk	Both	
JACK0028-H	S. Country Club Drive (SR 1507)	N. Country Club Drive (SR 1330) to 1.0 mile west	1.0	--	--	Sidewalk	Both	
JACK0029-H	S. Painter Road (SR 1338)	Monteith Gap Road (SR 1336) to the end of the facility	0.5	--	--	Sidewalk	Both	H
JACK0003-P	Zeb Alley Road (SR 1110)	Cashiers School Road (SR 1112) to approximately 0.5 miles west	0.5	--	--	Sidewalk	Both	

MULTI-USE PATH								
				Existing System		Proposed System		Other
Local ID	Facility/ Route	Section (From - To)	Distance (mi)	Side of Street	Cross-Section	Side of Street	Cross-Section	Modes
JACK0002-M	Bicycle/Pedestrian Bridge	Mockingbird Lane (SR 1360) - N. River Road (SR 1359) - Existing Greenway	0.1	--	--	East of US 441 S	--	H
JACK0008-M	Cashiers High Hampton Greenway	Cashiers School Road (SR 1112) - Whiteside Cove Road (SR 1107)	0.8	--	--	West	MA	H
JACK0003-M	Depot Street (SR 1558) / Hemlock Street/Hometown Place Road (SR 1381)	East Haywood Road / US 23 Business - Main Street / US 23 Business	0.7	--	--	South of Scott Creek	MA	
JACK0004-M	NC 107/Cullowhee Valley School	N. Country Club Drive - Cullowhee Valley Sch	0.5	--	--	West	MA	H
JACK0006-M	Northwest Cashiers Greenway	Frank Allen Road - Summit Charter School	1.8	--	--	West	MA	H
JACK0001-M	Skyland Drive (SR 1432), Parris Branch Road (SR 1452)	Sylva Town limits -Scott Creek Elementary School	2.4	--	--	Varies	MA	B
JACK0005-M	Speedwell Road (SR 1001)	Forest Hills Road (SR 1330) - NC 107	0.9	--	--	East	Use existing pavement if Speedwell Road is made 1-way	H
JACK0007-M	Southwest Cashiers Greenway	US 64 - NC 107	1	--	--	Varies	MA	H

MULTI-USE PATH								
				Existing System		Proposed System		
			Distance	Cross-Section				
Local ID	Facility/ Route	Section (From - To)	(mi)	(ft)	lanes	Type	Cross-Section	Other Modes
JACK0002-M	Tuckasegee River Greenway	W. Main Street / US 23 Business (Dillsboro) - Old Cullowhee Road (SR 1002)	9.5 (1.0 mile existing)	South Side of Tuckasegee River	--	South side of Tuckasegee River	MA	H

[1] Only major routes and proposals are shown here. For further documentation of bicycle and pedestrian facilities and proposals, refer to *the Blue Ridge Bike Plan (BRBP), 2014 Western Carolina University Campus Master Plan, 2008 Jackson County Comprehensive Greenway Plan, 2010 Town of Sylva*

Appendix D
Typical Cross Sections

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

The comprehensive planning and design "typical" highway cross sections, as depicted on the following pages, were updated on May 5, 2014 in response to the Strategic Transportation Investments[1] (STI) law (House Bill 817) and are also consistent with SPOTOn!ine (used for project prioritization[2]), NCDOT's GIS-based web application for providing automated, near real-time prioritization scores and project costs. This guidance establishes design elements that emphasize safety, mobility, complete streets[3], and accessibility for multiple modes of travel. These "typical" highway cross sections should be used as guidelines for comprehensive transportation planning, project planning and project design activities. The specific and final cross section details and right of way limits for projects will be established through the preparation of the National Environmental Policy Act[4] (NEPA) documentation and through final design preparation.

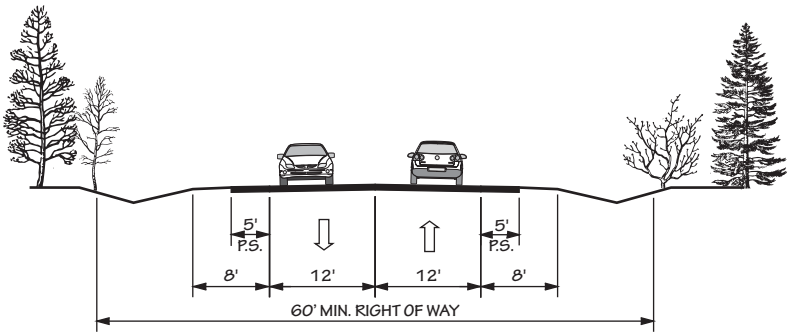
On all existing and proposed roadways delineated on the CTP, adequate right-of-way should be protected or acquired for the recommended cross sections. In addition to cross section and right-of-way recommendations for improvements, Appendix C may recommend ultimate needed right-of-way for the following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

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

[1] *For more information on STI, go to:* http://www.ncdot.gov/strategictransportationinvestments/.
[2] *For more information on prioritization, go to:* https://connect.ncdot.gov/projects/planning/Pages/StrategicPrioritization.aspx.
[3] *For more information on Complete Streets, go to:* http://www.completestreetsnc.org/.
[4] *For more information on NEPA, go to:* http://ceq.hss.doe.gov/.

FIGURE 7
"TYPICAL" HIGHWAY CROSS SECTIONS

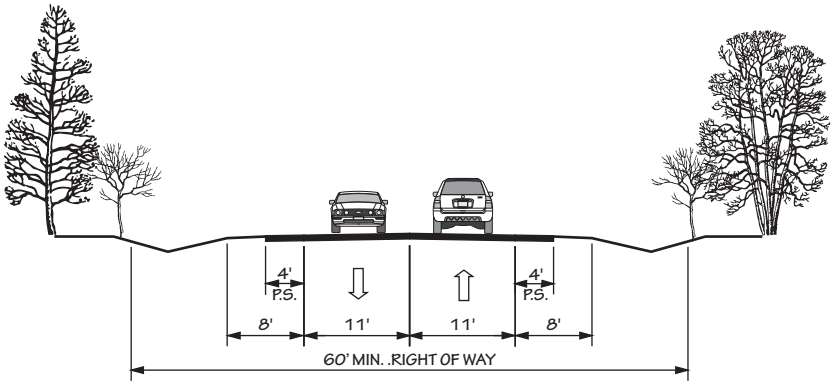
2A



2 LANE UNDIVIDED WITH PAVED SHOULDERS

POSTED SPEED 55 MPH

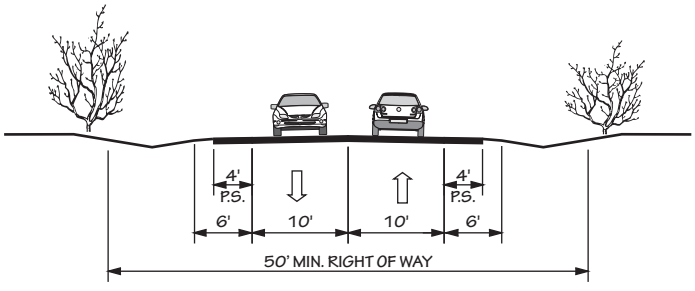
2B



2 LANES UNDIVIDED

POSTED SPEED 45 MPH OR LESS

2C



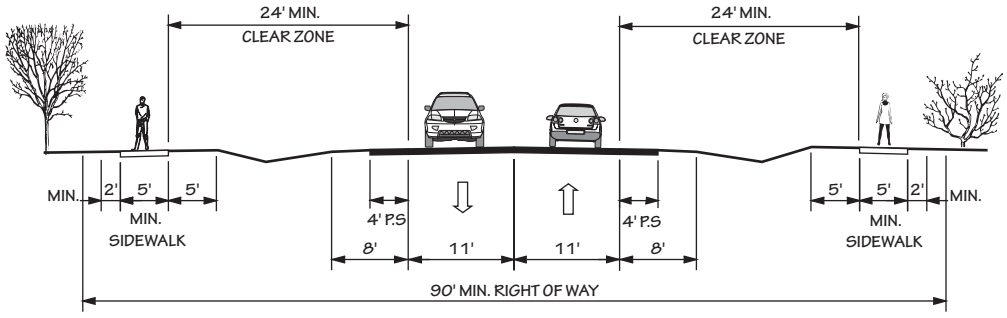
2 LANE UNDIVIDED WITH PAVED SHOULDERS

POSTED SPEED 25 - 35 MPH

Revised 05/05/2014

"TYPICAL" HIGHWAY CROSS SECTIONS

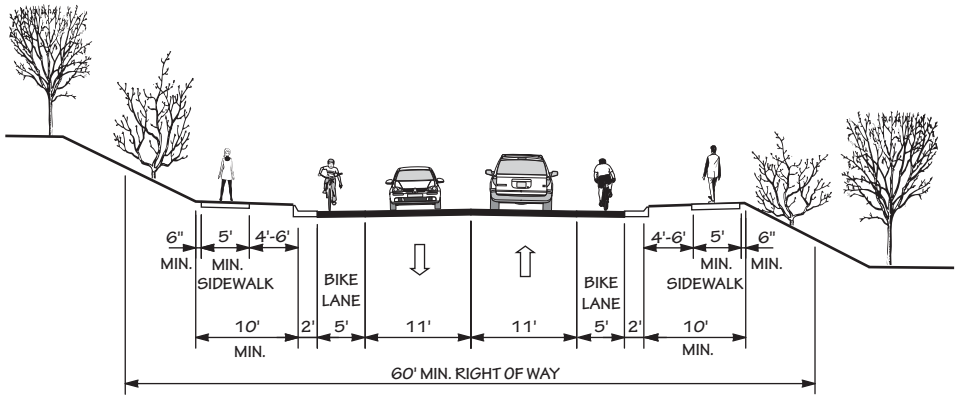
2D



2 LANE UNDIVIDED WITH PAVED SHOULDERS AND SIDEWALKS

POSTED SPEED 25-45 MPH

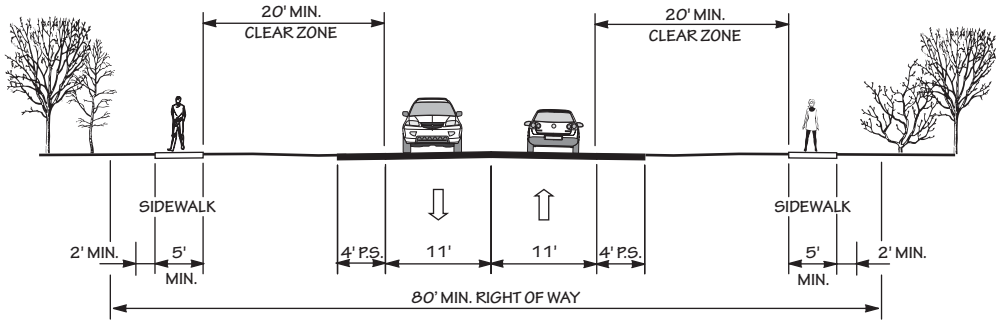
2E



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

POSTED SPEED 25-45 MPH

2F



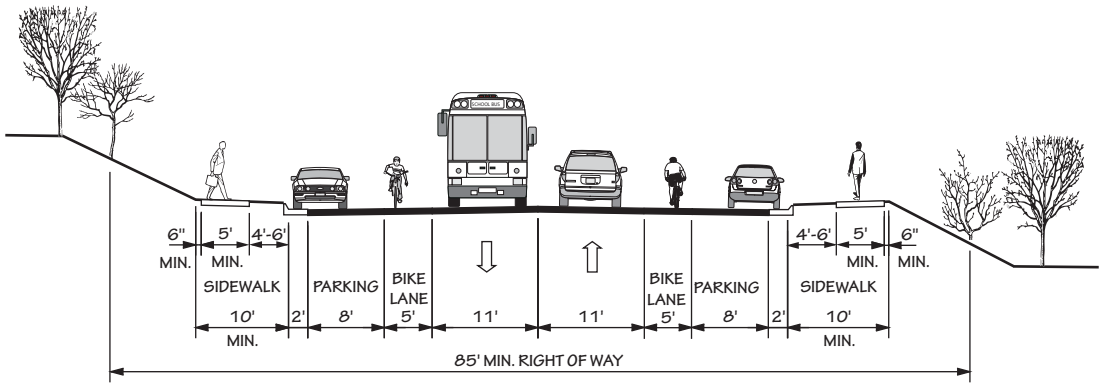
2 LANE UNDIVIDED WITH PAVED SHOULDERS AND SIDEWALKS
IN CAMA COUNTIES

POSTED SPEED 25-45 MPH

Revised 05/05/2014

"TYPICAL" HIGHWAY CROSS SECTIONS

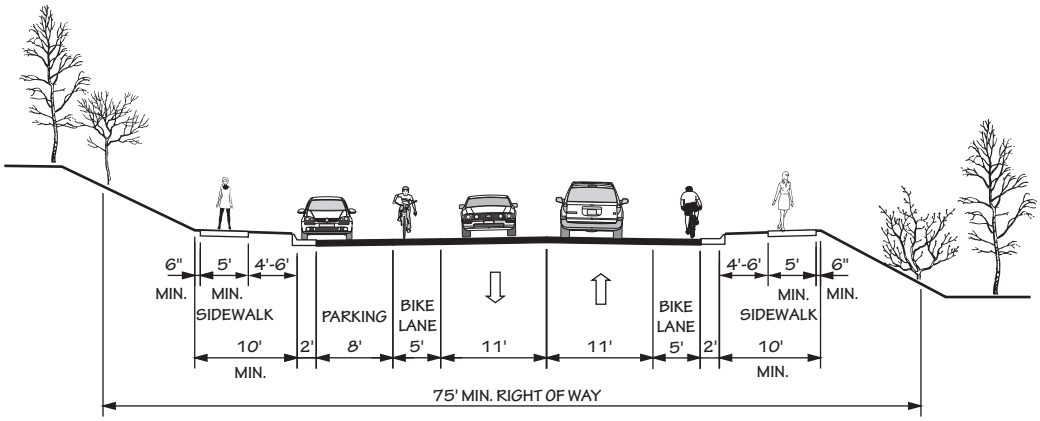
2G



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

POSTED SPEED 25-45 MPH

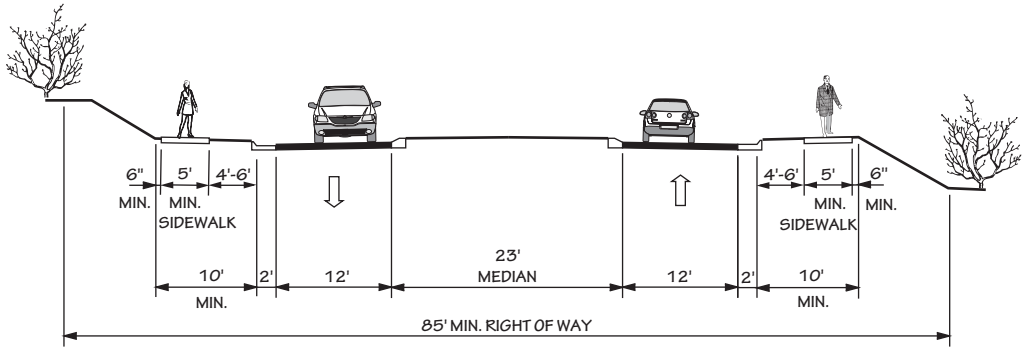
2H



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

POSTED SPEED 25-45 MPH

2I



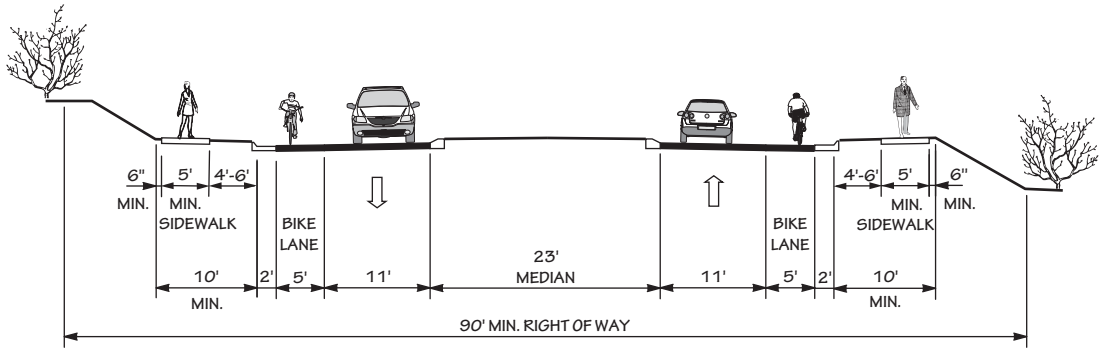
2 LANE DIVIDED (23' RAISED MEDIAN) WITH CURB & GUTTER AND SIDEWALKS

POSTED SPEED 25-45 MPH

Revised 05/05/2014

"TYPICAL" HIGHWAY CROSS SECTIONS

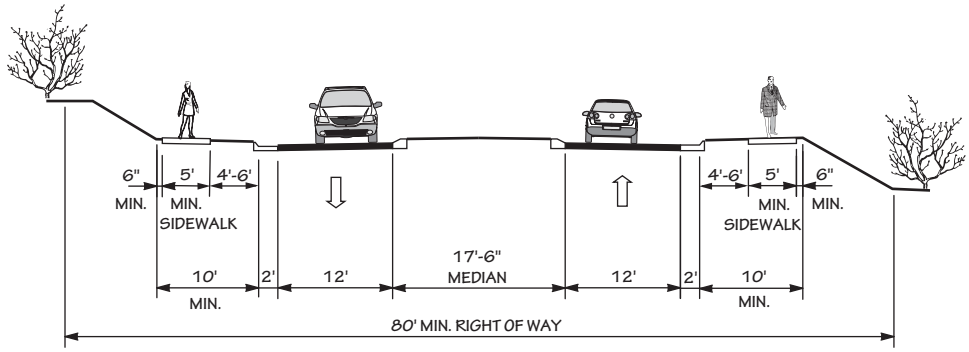
2J



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

POSTED SPEED 25-45 MPH

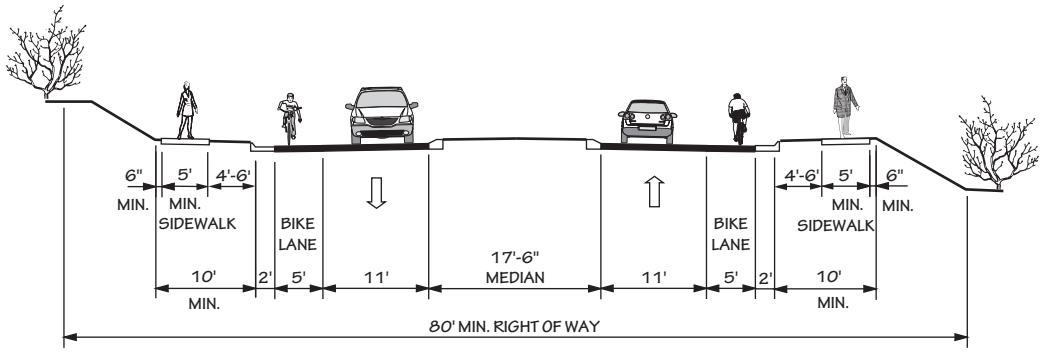
2K



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

POSTED SPEED 25-45 MPH

2L



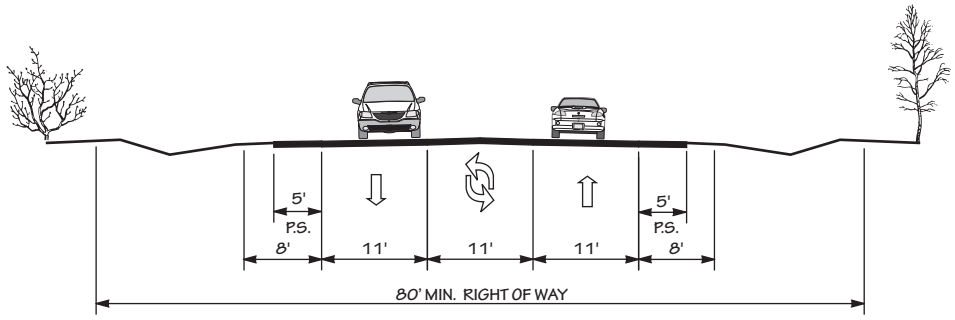
2 LANE DIVIDED (17'-6" RAISED MEDIAN) WITH CURB & GUTTER, BIKE LANES, AND SIDEWALKS

POSTED SPEED 25-45 MPH

Revised 05/05/2014

"TYPICAL" HIGHWAY CROSS SECTIONS

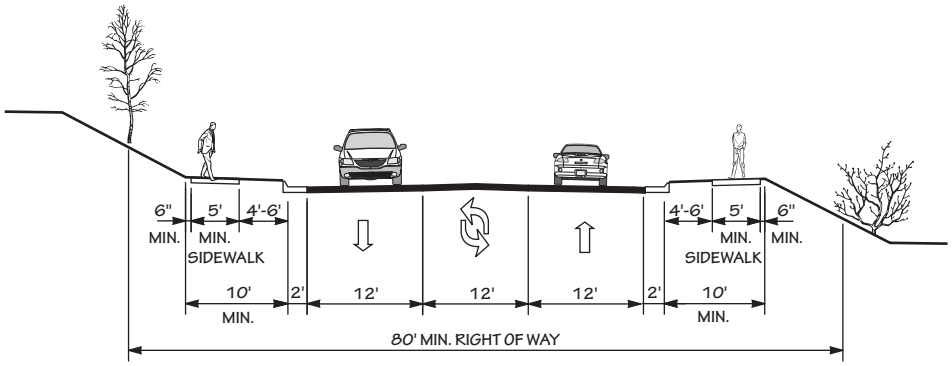
3A



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

POSTED SPEED 25-55 MPH

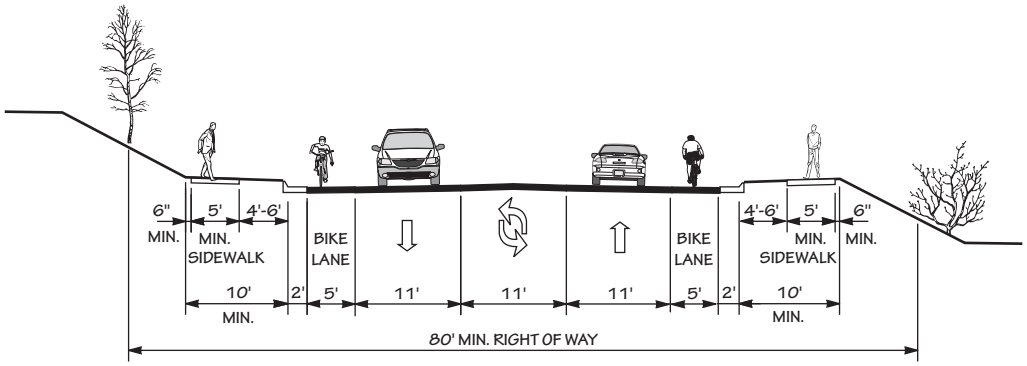
3B



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

POSTED SPEED 25-45 MPH

3C

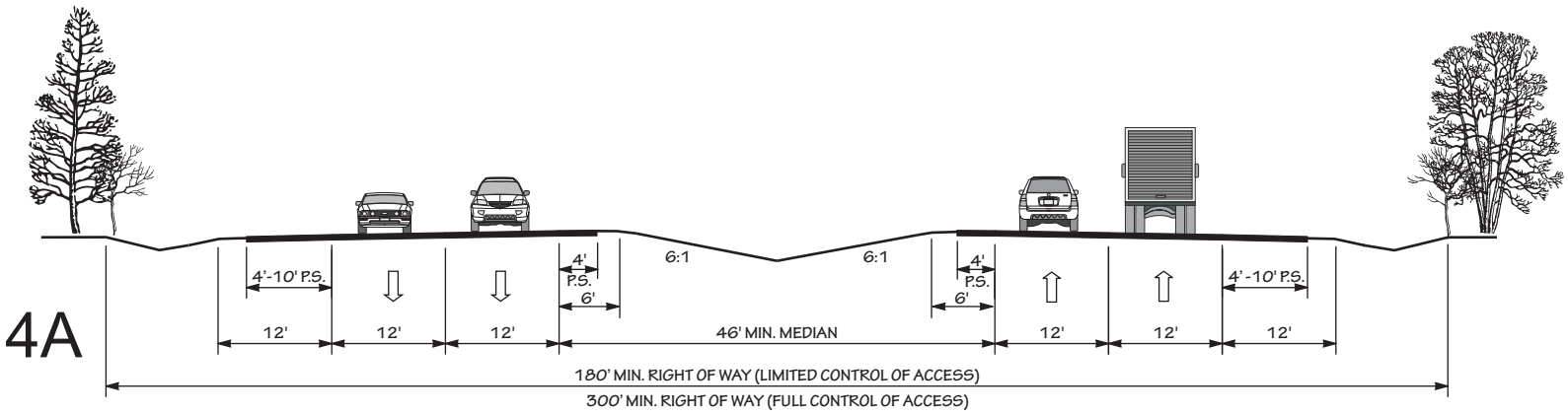


2 LANE WITH TWO WAY LEFT TURN LANE, CURB & GUTTER, BIKE LANES, AND SIDEWALKS

POSTED SPEED 25-45 MPH

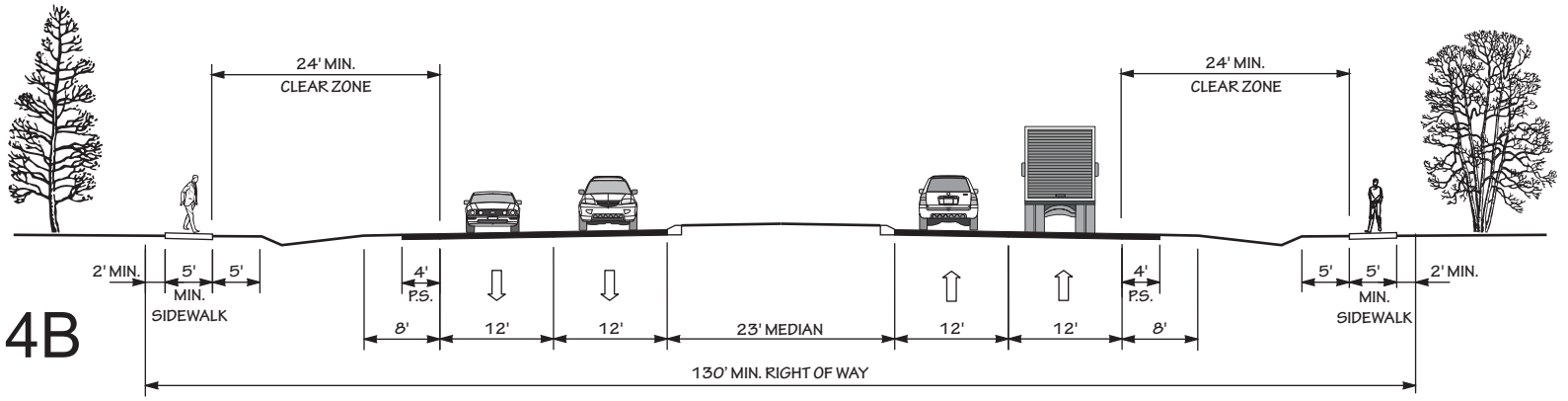
Revised 05/05/2014

"Typical" Highway Cross Sections



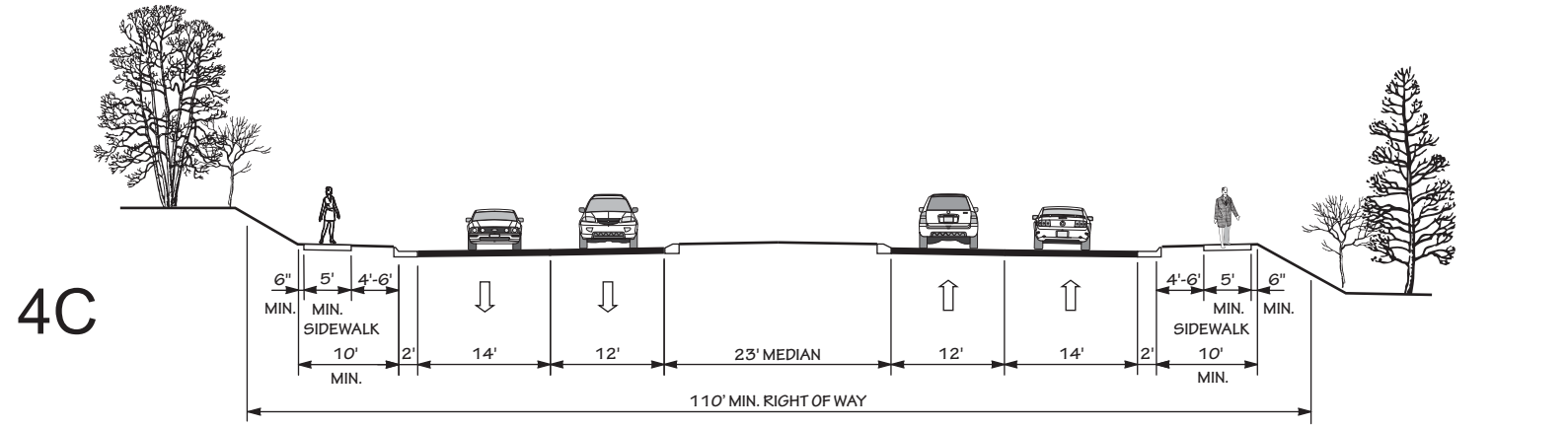
4 LANE DIVIDED (46' DEPRESSED MEDIAN) WITH PAVED SHOULDERS

POSTED SPEED 45-70 MPH



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

POSTED SPEED 35-55 MPH



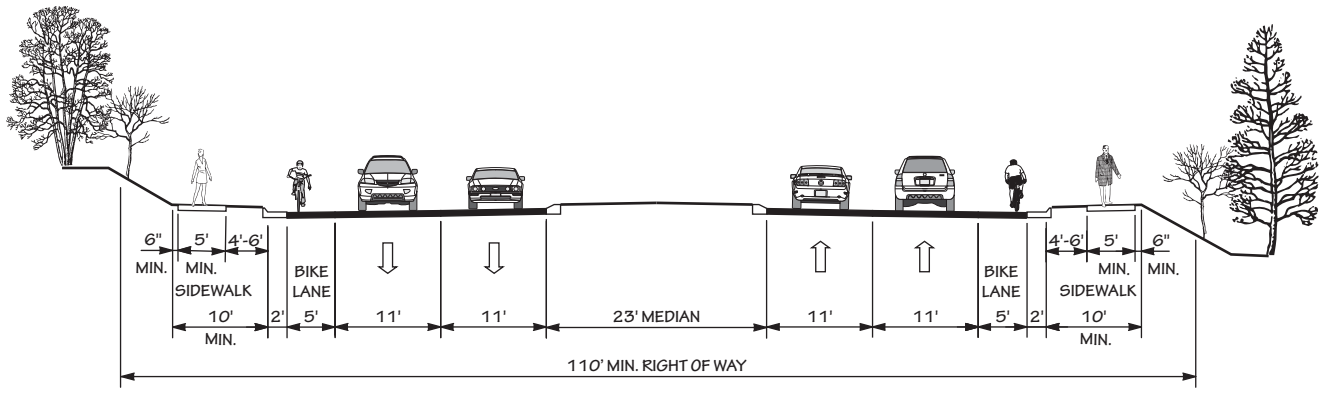
4 LANE DIVIDED (23' RAISED MEDIAN) WITH CURB & GUTTER, WIDE OUTSIDE LANES, AND SIDEWALKS

POSTED SPEED 35-45 MPH

Revised 05/05/2014

"Typical" Highway Cross Sections

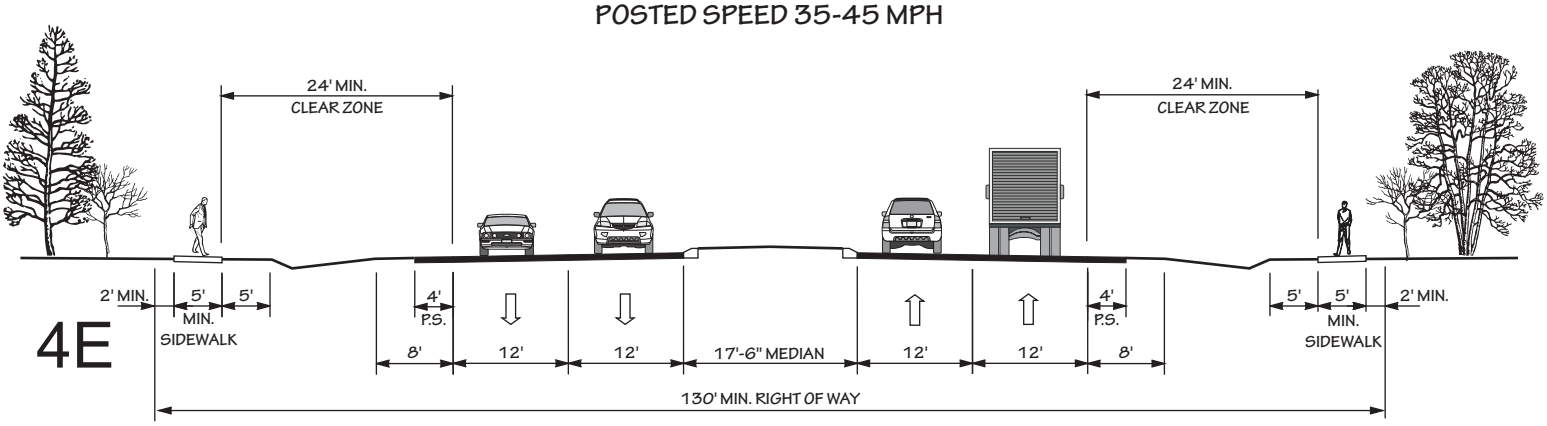
4D



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

POSTED SPEED 35-45 MPH

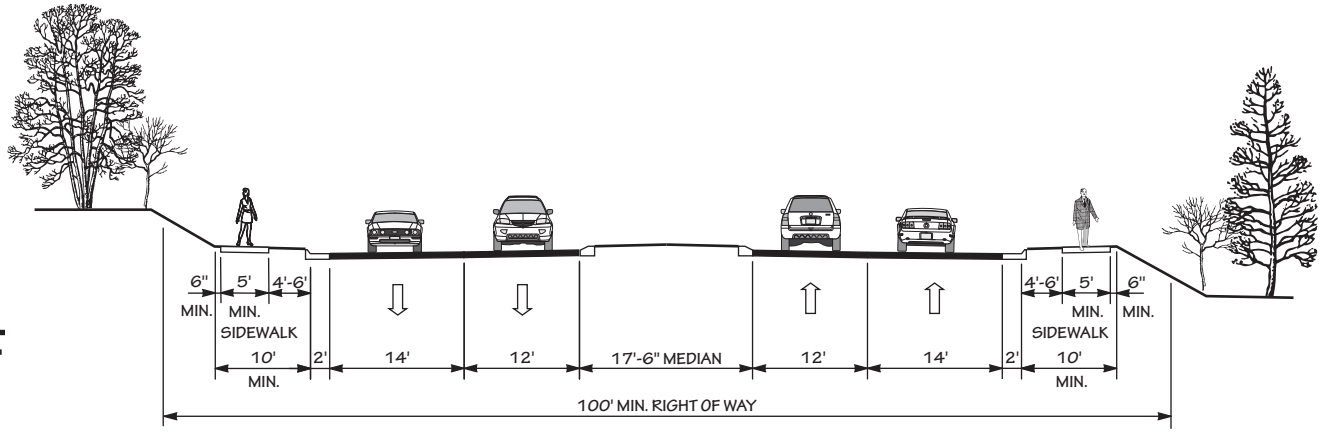
4E



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

POSTED SPEED 35-55 MPH

4F



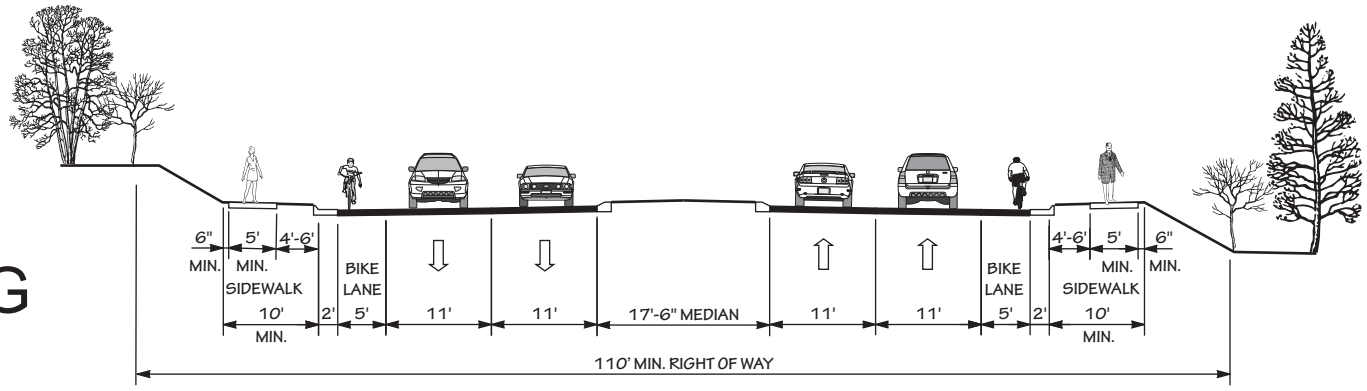
4 LANE DIVIDED (17'-6" RAISED MEDIAN) WITH CURB & GUTTER, WIDE OUTSIDE LANES AND SIDEWALKS

POSTED SPEED 35-45 MPH

Revised 05/05/2014

"TYPICAL" HIGHWAY CROSS SECTIONS

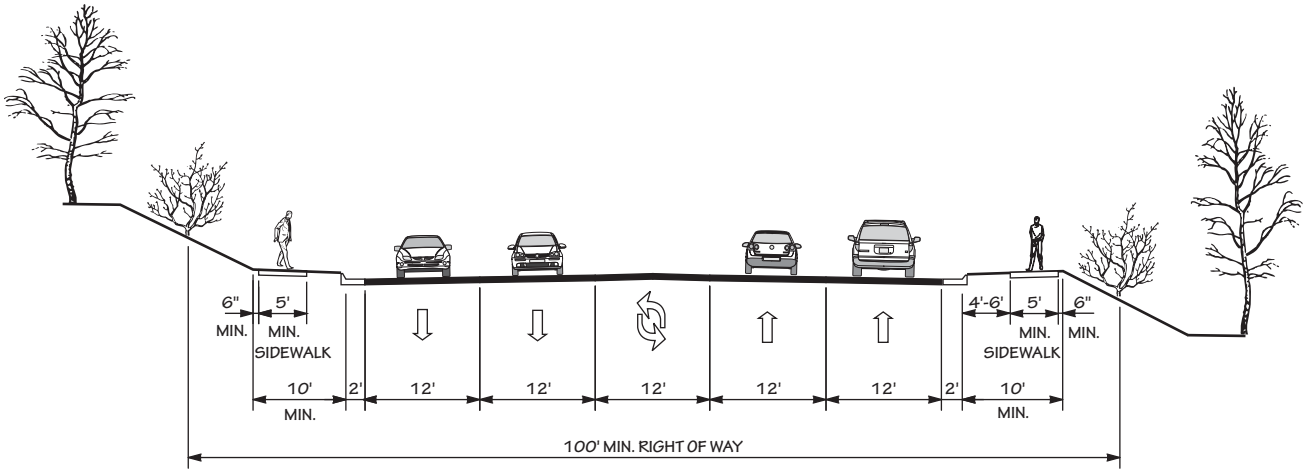
4G



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

POSTED SPEED 35-45 MPH

5A

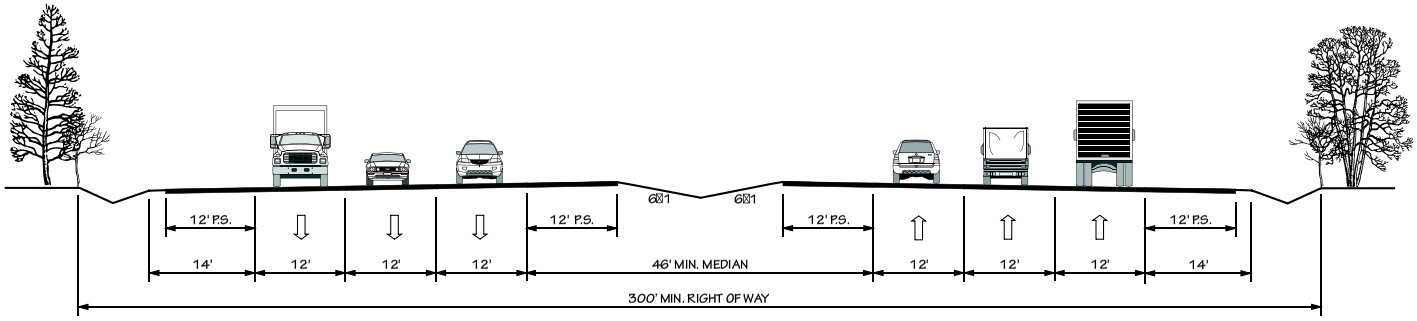


4 LANE WITH TWO WAY LEFT TURN LANE, CURB & GUTTER, AND SIDEWALKS

POSTED SPEED 35-45 MPH

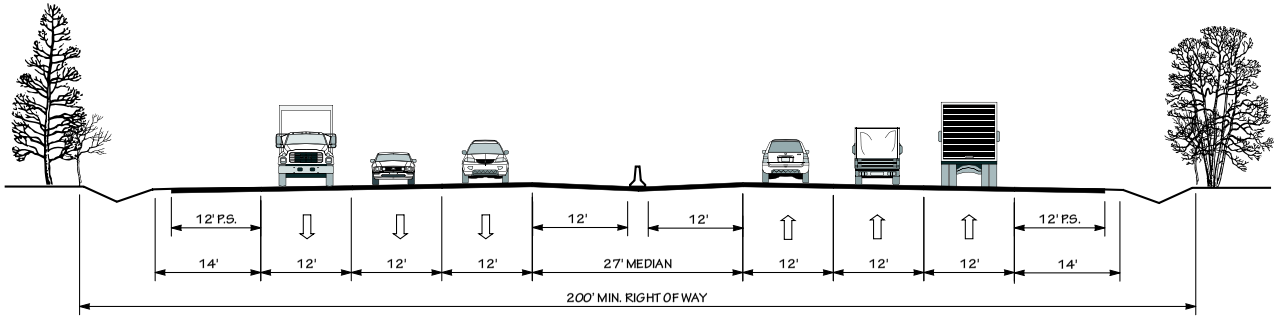
Revised 05/05/2014

"TYPICAL" HIGHWAY CROSS SECTIONS



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

POSTED SPEED 45-70 MPH

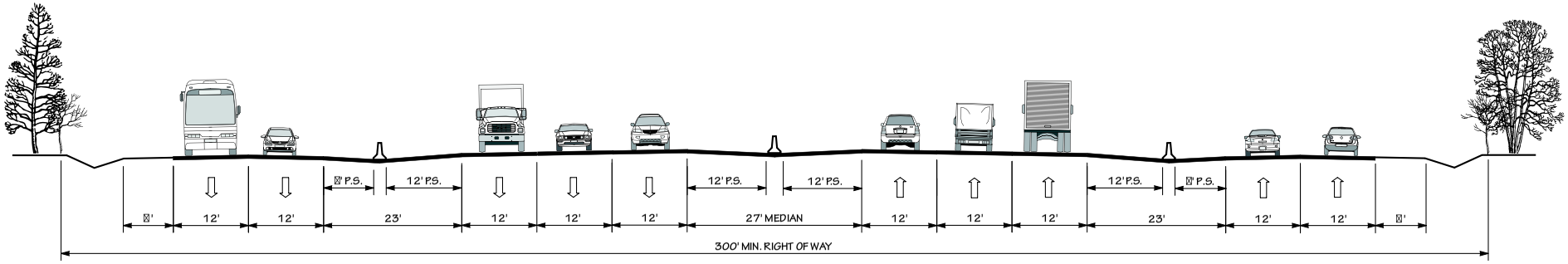


6B 6 LANE DIVIDED (27' MEDIAN WITH JERSEY BARRIER) WITH PAVED SHOULDERS

POSTED SPEED 55-70 MPH

Revised 05/05/2014

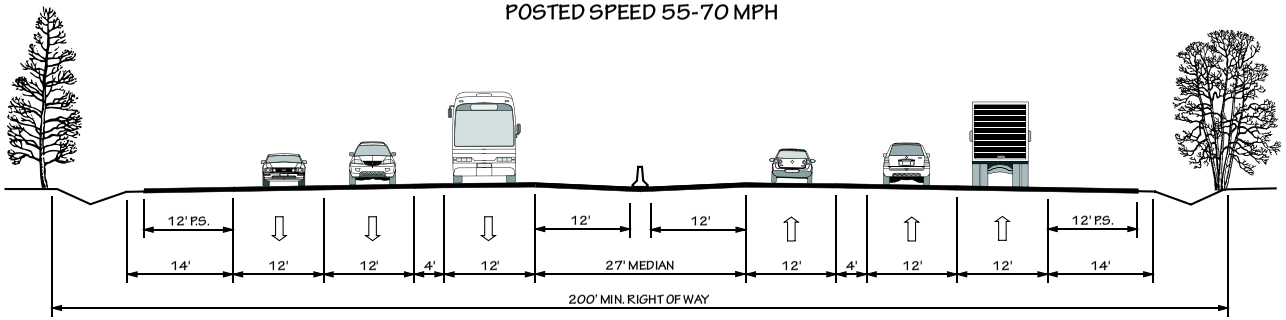
"TYPICAL" HIGHWAY CROSS SECTIONS



6C

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

POSTED SPEED 55-70 MPH



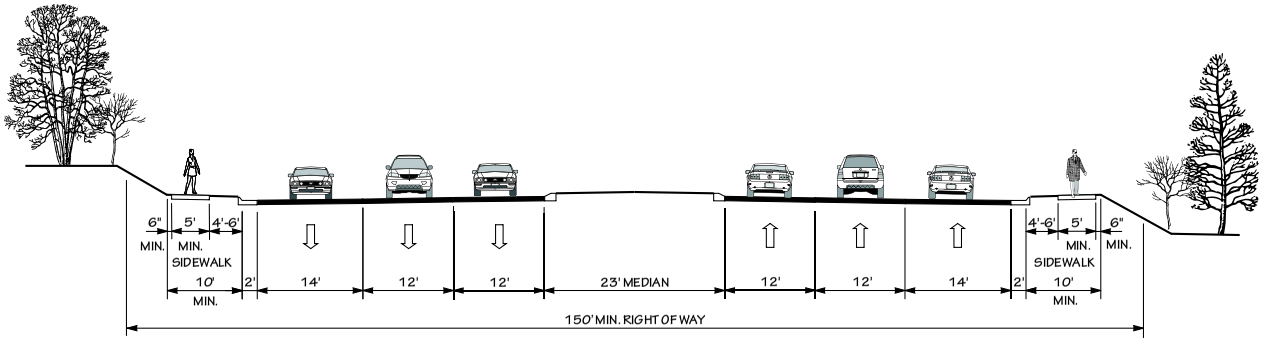
6D

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

POSTED SPEED 55-70 MPH

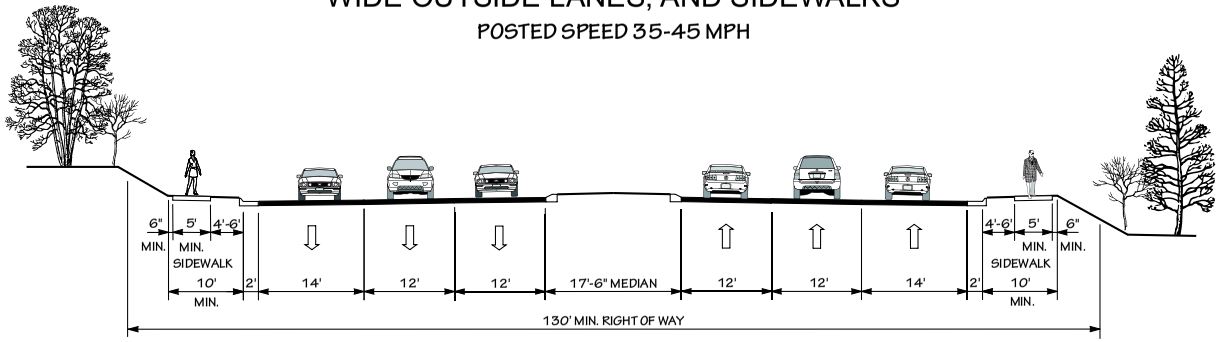
Revised 05/05/2014

"TYPICAL" HIGHWAY CROSS SECTIONS



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

POSTED SPEED 35-45 MPH



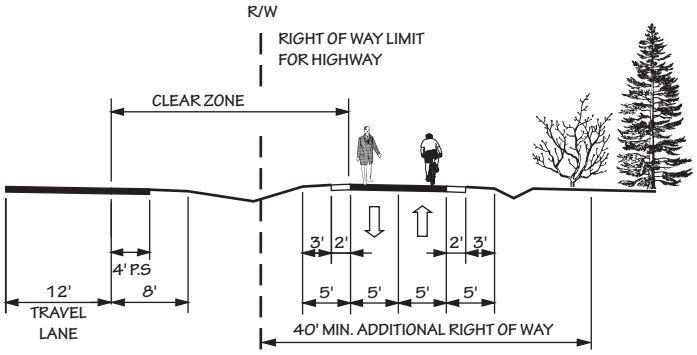
6F 6 LANE DIVIDED (17'-6" RAISED MEDIAN) WITH CURB & GUTTER, WIDE OUTSIDE LANES, AND SIDEWALKS

POSTED SPEED 35-45 MPH

Revised 05/05/2014

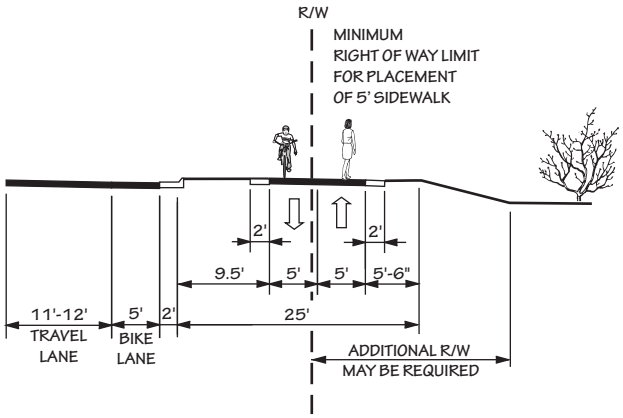
"TYPICAL" HIGHWAY CROSS SECTIONS

M A



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

M B



MULTI - USE PATH ADJACENT TO CURB AND GUTTER

Revised 05/05/2014

Appendix E
Level of Service Definitions

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

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

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

Figure 8 - Level of Service Illustrations

Source: 2010 Highway Capacity Manual, Exhibit 11-4

Appendix F
Bridge Deficiency Assessment

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

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

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

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

A bridge must be classified as deficient in order to qualify for federal replacement funds. Additionally, the sufficiency rating must be less than 50% to qualify for replacement or less than 80% to qualify for rehabilitation under federal funding. Deficient bridges, as of August 2015, located on roads evaluated as a part of the CTP are listed in Table 3. For more details on deficient bridges within the planning area, contact the Structures Management Unit using the information in Appendix A.

Table 3 - Deficient Bridges

Bridge Number	Facility	Feature	Condition	Local ID
3	SR 1107 (Whiteside Cove Road)	Norton Mill Creek	FO	
13	SR 1188 (Norton Road)	Grassy Camp Creek	FO	JACK0023-H
14	SR 1143 (Norton Road)	Grassy Camp Creek	FO	JACK0023-H
19	SR 1762 (Tannasee Creek Road)	Tannasee Creek	FO	
25	US 19 (*IRR)	Soco Creek	FO	JACK0007-H
27	US 23 Business	Scott Creek, Southern Railroad	SD & FO	B-5905
32	NC 116	Savannah Creek	SD & FO	B-5910
39	NC 107	Tuckasegee River	FO	FS-1214C / R-5841
45	US 19 (*IRR)	Soco Creek	FO	JACK0007-H
50	US 23 Business	Scott Creek	FO	R-5600
53	SR 1001 (Cullowhee Mountain Road)	Cullowhee Creek	SD & FO	JACK0013-H
56	NC 281	Wolf Lake Spillway	FO	
77	US 23 Business	Scott Creek	FO	R-5600
81	SR 1737 (Caney Fork Road)	Johns Creek	SD & FO	
89	SR 1737 (Caney Fork Road)	Chastine Creek	FO	
91	SR 1737 (Caney Fork Road)	Mull Creek	SD & FO	
92	SR 1737 (Caney Fork Road)	Mull Creek	SD & FO	
93	SR 1737 (Caney Fork Road)	Mull Creek	FO	
97	SR 1581 (Rock Quarry Road)	Savannah Creek	FO	
105	US 23/US 441	Railroad, Access Road, Scott Creek	FO	JACK0002-M
106	US 23 Business	US 23/US 74	FO	JACK0001-H
108	SR 1002 (Roger Road)	Tuckasegee River	SD & FO	B-4159
109	US 23/US 74 (NBL)	SR 1513 (Grindstaff Cove Road)	FO	
133	US 23/US 441	US 23/US 74	FO	
136	SR 1163 (Pine Creek Road)	Pine Creek	SD & FO	B-5404/ JACK0026-H
138	SR 1157 (Cullowhee Mountain Road)	Tilley Creek	FO	JACK0013-H
144	SR 1397 (Thomas Valley Road)	Nations Creek	SD & FO	JACK0033-H
145	US 23/US 74	SR 1705 (Dark Ridge Road), Southern Railroad, Scott Creek	SD & FO	B-4554

Table 3 - Deficient Bridges (continued)

Bridge Number	Facility	Feature	Condition	Local ID
159	SR 1336 (Monteith Gap Road)	Cullowhee Creek	FO	JACK0018-H
188	SR 1145 (N Norton Road)	Norton Creek	SD & FO	JACK0021-H
221	SR 1367 (Little Savannah Road)	Little Savannah Creek	SD & FO	B-5410/ JACK0011-B
222	SR 1427 (Olivet Loop Rd *IRR)	Shoal Creek	SD & FO	
223	SR 1406 (Camp Creek Road)	Camp Creek	SD & FO	JACK0005-B
287	SR 1141 (Slab Town Road)	Chattooga River	SD & FO	JACK0002-P
294	SR 1756 (Charley's Creek Road)	Gage Creek	SD & FO	
308	SR 1762 (Tannasee Creek Road)	Cold Creek	FO	
314	SR 1432 (Skyland Drive)	Scott Creek	FO	JACK0027-H
319	SR 1432 (Skyland Drive)	Over Relief	FO	JACK0027-H
320	SR 1432 (Skyland Drive) (CLOSED)	Southern Railway	SD & FO	B-4162/ JACK0027-H
338	SR 1429 (Chipper Curve Road)	Allens Branch	FO	JACK0036-H
350	Southern Railroad	SR 1432 (Skyland Drive)	FO	JACK0027-H
352	Pedestrian Walkway	Tuckasegee River	FO	
368	Pedestrian Walkway	NC 107	SD & FO	
378	US 64	Long Branch	SD	R-2409

(*IRR)= Indian Reservation Road

Appendix G
Socio-Economic Data Forecasting Methodology

In the development of the Jackson County CTP, existing and anticipated deficiencies were determined through an analysis of the transportation system looking at both current and future travel patterns. Two analysis methods were used: one for the non-modeled/rural areas including the southern area of Jackson County around Cashiers and the western area of Jackson County, and another for the more urbanized area of Jackson County including Sylva, Dillsboro, Webster, and Forest Hills.

For the non-modeled/rural portion of Jackson County, including Cashiers, travel demand was projected from 2012 to 2040 using a trend line analysis based on Annual Average Daily Traffic (AADT) from 1991 to 2011. In addition, local land use plans and growth expectations were used to further refine future growth rates and patterns. For this CTP, the 2017 Jackson County Comprehensive Plan[1] was used.

It is more difficult to predict future travel patterns in urban areas where there are more alternative route options. Therefore, for Sylva and the surrounding area, travel demand was projected from 2012 to 2040 using a computerized travel demand model. Travel demand models are developed to replicate travel patterns on the existing transportation system as well as to estimate travel patterns for 2040. Additionally, travel demand models require a broad range of socio-economic input data such as population, housing, and employment.

The CTP Steering Committee worked with NCDOT to estimate population growth, economic development potential, and land use trends to determine the potential impacts on the future transportation system in 2040. This data was endorsed by the Jackson County Board of Commissioners on November 3, 2016; Sylva Board of Commissioners on November 3, 2016; Forest Hills Town Council on December 6, 2016; Webster Town Board on December 7, 2016, and Dillsboro Town Board on November 16, 2016.

Below is a description of the methodology used in the analysis.

Population

Population trends were estimated using available data from the Office of State Budget and Management (OSBM) website and from requests for estimations from the OSBM. Table 6 shows current and projected population through the year 2040 which were taken from the OSBM website and discussions with the OSBM directly. For 2010-2040, an annual growth rate of 0.57% was used in Jackson County. The population data reflects the numbers for July of each year due to OSBM population total and projection methodologies.

[1] To view this plan, go to: https://www.jacksonnc.org/planning.html.

The CTP Steering Committee identified areas in Jackson County that would experience growth rates higher and lower than the county average. The CTP Steering Committee identified areas as high, medium, or low growth potential. Figure 9 shows the areas of high, medium, and low growth for population. The urbanized area was divided into Traffic Analysis Zones (TAZs) as shown in Figure 11. The CTP Steering Committee identified TAZs as high, medium, low, and no growth potential. TAZs identified as high growth potential were numbers 5 (southern part), 6 (southern part), 23, 26 (partial) 36 (southeastern part), 37 (partial), and 41. Those identified as low growth potential were 5 (northern part), 6 (northern part), 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 22, 24, 25, 26 (partial), 27, 28, 30, 33, 34, 35, 39, 40, 48, 49, 50, and 51. Those identified as no growth potential were 5 and 36. All the other remaining TAZs were considered to have medium growth potential. Outside the model area, high growth was limited to the Cashiers area, with low and no growth areas mainly in the western and southern parts of Jackson County. Accordingly, those with high growth potential attracted more trips than those identified as low growth areas.

Table 4 – Population Data*

Year	Jackson County
1990	26,835
1995	30,207
2000	33,275
2005	36,751
2010	40,351
2012	40,622
2015	41,279
2020	42,477
2025	43,674
2030	44,873
2035	46,071
2040	47,271

*Including Western Carolina University students

Employment

Future employment conditions within Jackson County were approved by the CTP Steering Committee. This included approximate locations and intensity for proposed employment centers. Figure 10 shows the areas of high, medium, and low growth for population. Any anticipated heavy demand on the future transportation system as a result of these proposals is accounted for in projected traffic volumes. Employment totals were based on data from the North Carolina Department of Commerce website and a historical trend analysis. The employment data reflects the unadjusted numbers for April of each year since the CTP base month and year is April 2012. Future employment totals were calculated using the Compound Annual Growth Rate formula (CAGR) based on a historical trend analysis. For 2010-2040, an annual growth rate of 1.38% was used in Jackson County.

The CTP Steering Committee identified areas in Jackson County that would experience growth rates higher and lower than the county average. The urbanized area was divided into Traffic Analysis Zones (TAZs) as shown in Figure 11. The CTP Steering Committee identified TAZs as high, medium, or low growth potential. TAZs identified as high growth potential were numbers 2, 3, 11, 12, 19, 28, 31 (partial), 32, 37 (partial), 40, 41, 45, and 48. Those identified as medium growth potential were 5, 9, 13, 15, 16, 20, 25, 26 (partial), 29, 33, and 40. All the other remaining TAZs were considered to have low growth potential. Outside the model area, high growth was limited to the Cashiers area, the Harrah's Cherokee Casino area was a medium growth area, and low growth areas account for the rest of Jackson County.

Table 5 – Employment Data

Year	1990	1995	2000	2005	2010	2012	2015	2040*
Jackson County	12,756	14,173	16,576	19,357	16,567	15,980	17,275	23,408

**Estimated by NCDOT*

Swain County

Haywood County

Macon County

Transylvania County

South Carolina

Georgia

19

441

Shoal Creek Rd (SR 1416)

Old Mission Rd (SR 1427)

74

Camp Creek Rd (SR 1406)

Thomas Valley Rd (SR 1397)

Sylva

Dillsboro

Webster

116

23 441

Skyland Dr (SR 1432)

23 74

Blanton Br Rd (SR 1709)

Cane Cr Rd (SR 1709)

Little Savannah Rd (SR 1367)

Old Cullowhee Rd (SR 1002)

Forest Hills

Caney Fork Rd (SR 1737)

Charley's Creek Rd (SR 1756)

281

Tilley Creek Rd (SR 1001)

Cullowhee Mtn Rd (SR 1157)

107

Pine Creek Rd (SR 1163)

North Norton Rd (SR 1145)

64

Cashiers

Highlands

Whiteside Cove Rd (SR 1107)

Legend

- Schools
- Rivers and Streams
- Roads
- Network Roads
- Railroad
- Municipal Limits
- County Boundary
- State Boundary
- Model/TAZ Boundary

Population Growth

- Low
- Medium
- High
- No Growth

N

W E

S

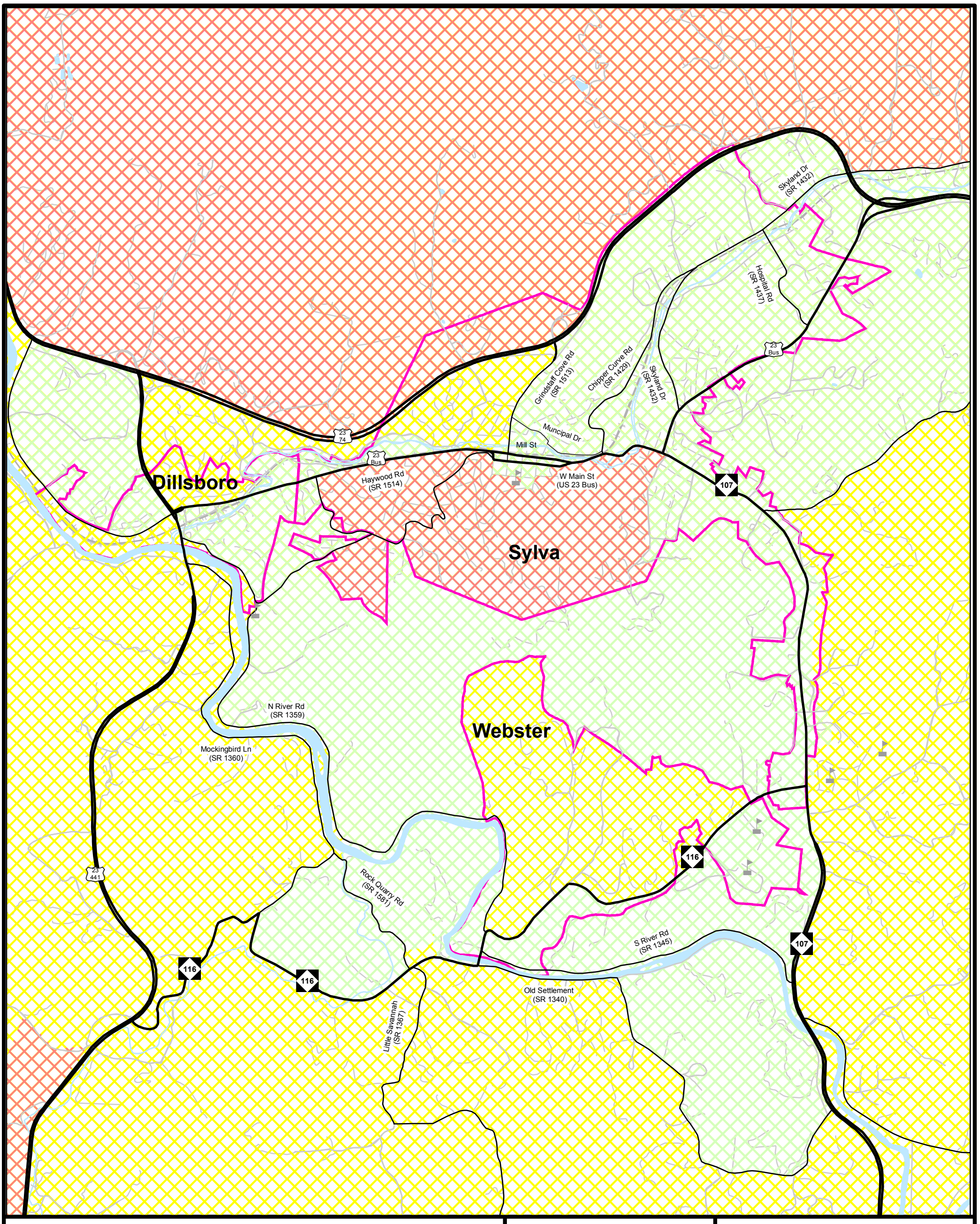
0 1.25 2.5 5 Miles

FIGURE 9
Sheet 1 of 2

2040 Future Population Growth Map

Jackson County

Comprehensive Transportation Plan



Legend

- Schools
- Rivers and Streams
- Roads
- Network Roads
- Railroad
- Municipal Limits
- County Boundary
- State Boundary

Population Growth

- Low
- Medium
- High
- No Growth

N
W E
S

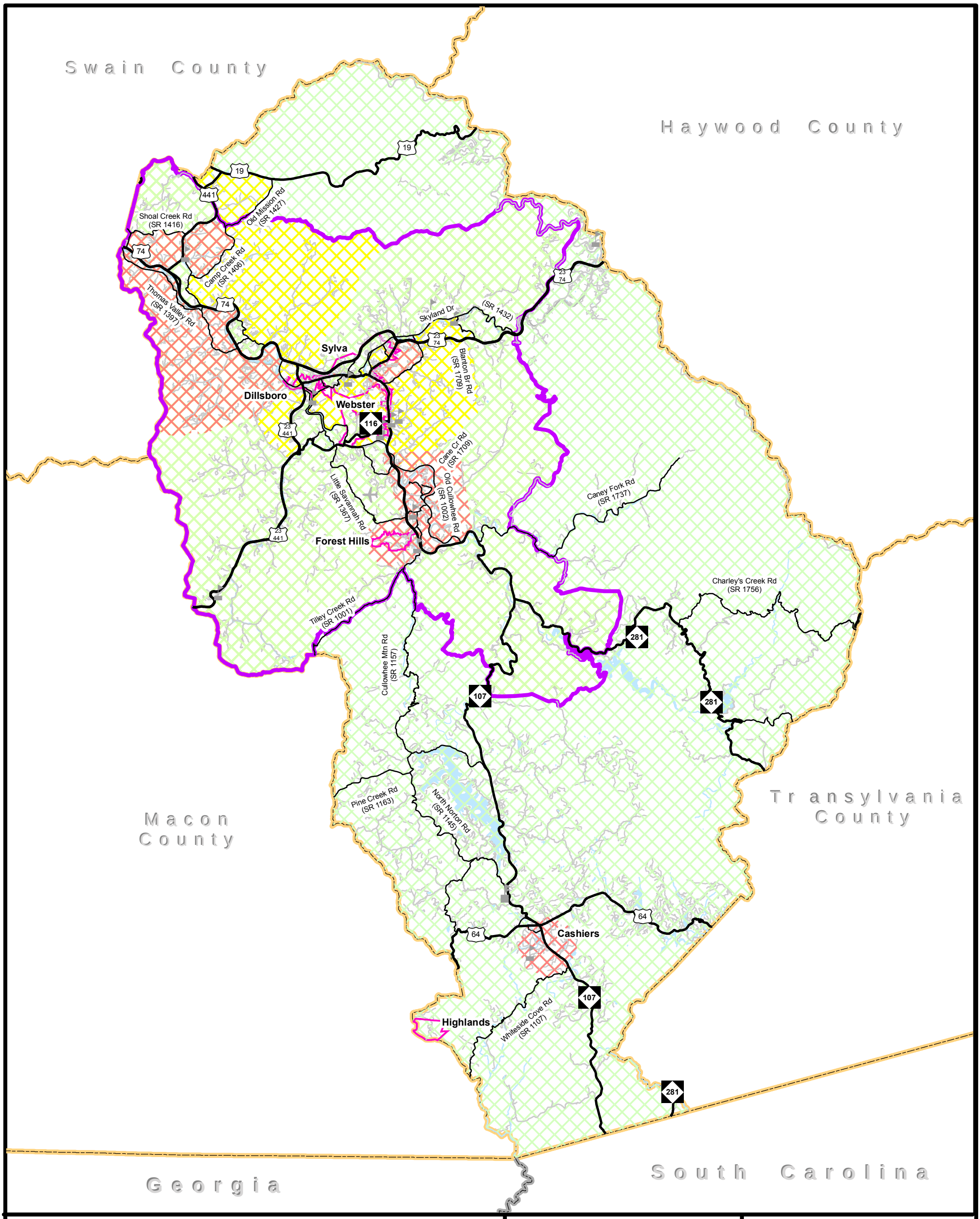
Miles
0 0.15 0.3 0.6

FIGURE 9
Sheet 2 of 2

2040 Future Population Growth Map

Jackson County

Comprehensive Transportation Plan



Legend

- Schools
- Rivers and Streams
- Roads
- Network Roads
- Railroad
- Municipal Limits
- County Boundary
- State Boundary
- Model/TAZs Boundary

Employment Growth

- Low
- Medium
- High

N W E S

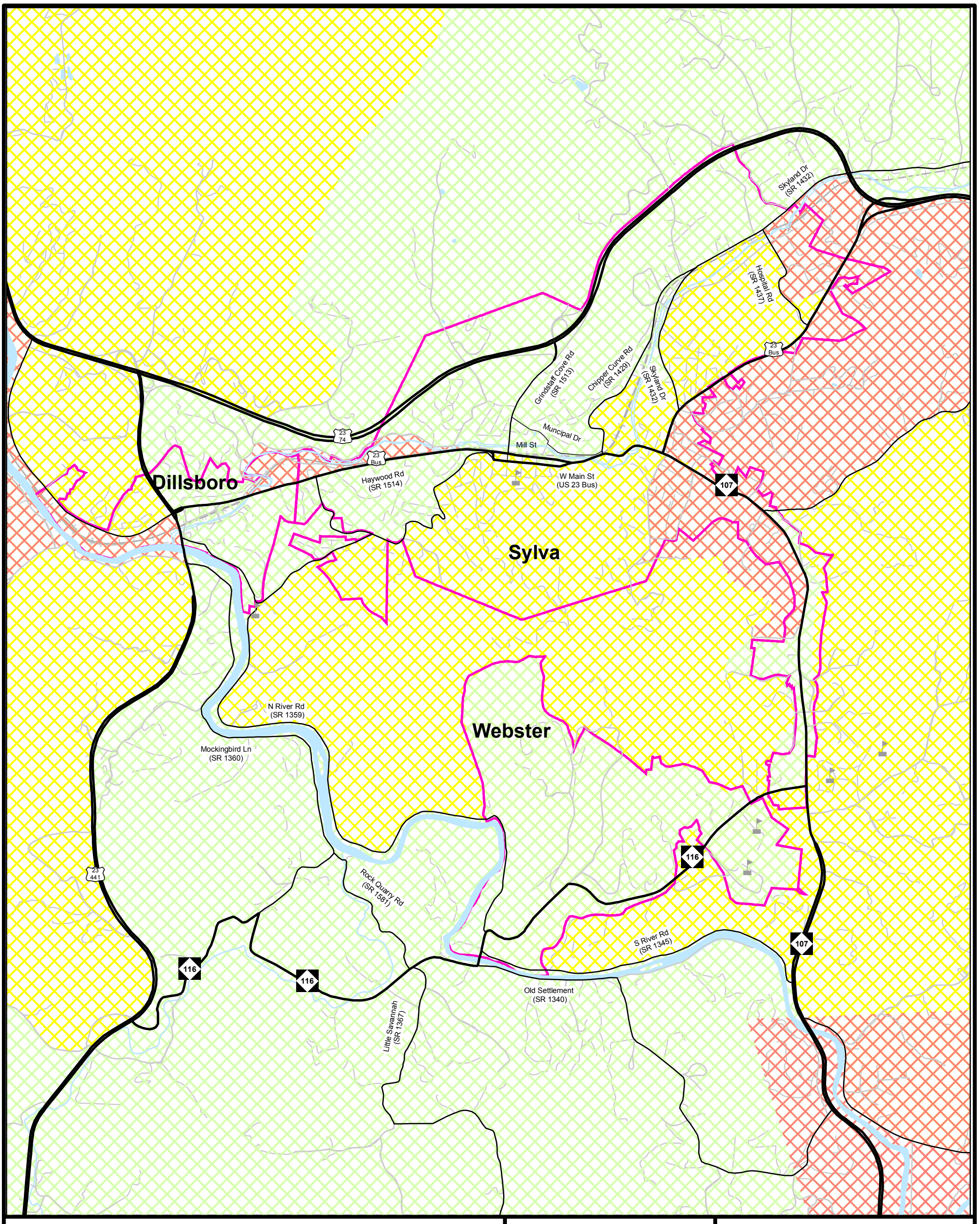
0 1.25 2.5 5 Miles

FIGURE 10
Sheet 1 of 2

2040 Future Employment Growth Map

Jackson County

Comprehensive Transportation Plan



Legend

- Schools
- Rivers and Streams
- Roads
- Network Roads
- Railroad
- Municipal Limits
- County Boundary
- State Boundary

Employment Growth

- Low
- Medium
- High

N
W E
S

0 0.15 0.3 0.6 Miles

FIGURE 10
Sheet 2 of 2

2040 Future Employment Growth Map

Jackson County

Comprehensive Transportation Plan

Swain County

Haywood County

Eastern Band of Cherokee Indians

Nantahala National Forest

Macon County

Transylvania County

South Carolina

Tuckasegee River

Scott Creek

Dillsboro

Sylva

Webster

Forest Hills

Cullowhee Creek

Caney Fork

Charley's Creek Rd (SR 1756)

Wolf Creek

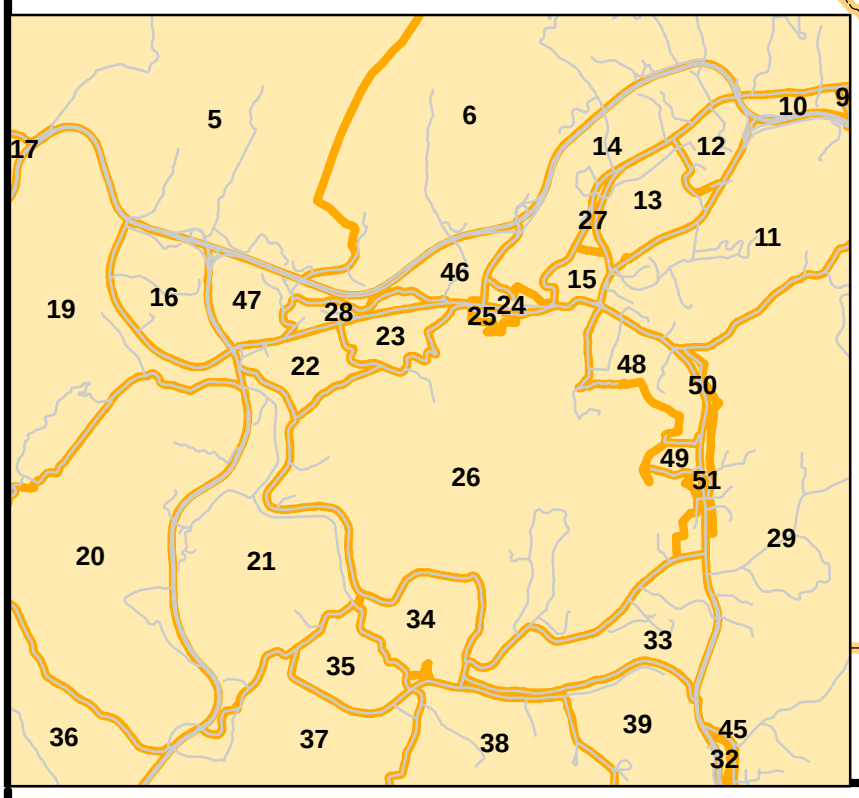
Thorpe Lake

Cashiers

Highlands

Chattooga River

1 2 3 4 5 6 7 8 9 10 11 17 18 19 20 29 30 31 32 36 37 38 39 40 41 42 43 44 45



Legend

- Airports
- Schools
- Roads
- Railroads
- Rivers and Streams
- Lakes
- Public Lands
- County Boundary
- Municipal Boundary
- Eastern Band of Cherokee Indians
- Traffic Analysis Zones (TAZs)

N W E S

0 1 2 4 Miles

Figure 11

Base map date: 11-04-2014

Traffic Analysis Zone Map

Jackson County

Comprehensive Transportation Plan

Plan date: June 14, 2017

Appendix H
Public Involvement

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

List of CTP Steering Committee Members

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

- Michael Poston, Jackson County Planning Director
- Brian McMahan, Jackson County Board of Commissioners Chairman
- Rich Price, Jackson County Economic Development Director
- Paula Carden, Jackson County Health Department Director
- Chuck Wooten, Jackson County Manager
- Rusty Ellis, Jackson County Parks & Recreation Director
- Mike Murray, Jackson County Public Schools Superintendent
- Chuck Norris, Jackson County Transit Director
- Nick Breedlove, Jackson County Tourism Development Authority
- Jackie Moore, Active Routes to School Coordinator
- Stephanie Edwards, Cashiers Area Chamber Director
- Beauford Riddle, Dillsboro Town Council
- Tonya Jenks, Eastern Band of Cherokee Indians (EBCI) Tribal Planner
- EBCI DOT Transportation Planner
- Lydia Aydlett, Environmental Community Representative
- Ron Mau, Forest Hills Town Council
- Steve Heatherly, Harris Regional Hospital CEO
- Don Tomas, Southwestern Community College President
- Scott Baker, Southwestern Community College V.P. for Information Technology
- Russ Harris, Sylva Planning Board

- Paige R. Dowling, Sylva Town Manager
- Dan Harbaugh, Tuckasegee Water and Sewer Authority Executive Director
- Mike Byers, Western Carolina University Vice Chancellor for Admin and Finance
- William Shelton, Whittier Area/Agriculture Representative
- Pam Cook, NCDOT Transportation Planning Branch
- Wanda Austin, NCDOT Division 14 Project Manager
- Rose Bauguess, Southwestern Commission Regional Transportation Planner

CTP Vision, Goals, Objectives and MOEs

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

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

CTP Vision Statement

Jackson County provides a safe, efficient, accessible, cost-effective, multi-modal transportation system that is sustainable, preserves the character of the area, promotes healthy lifestyles, and connects to regional and broader transportation systems using all modes of transportation.

Comprehensive Plan Vision Statement

Jackson County honors its culture, its environment, and its communities, providing opportunities for its citizens to engage in efforts to create a sustainable county. Jackson County respects its heritage and natural resources while providing economic opportunities and quality housing for all its citizens. With an efficient government, Jackson County plans for and develops community facilities and infrastructure to meet the needs of its diverse population and businesses, as well as visitors. With a strong and vital economy, Jackson County offers services and employment opportunities that enable all citizens to live a healthy and productive life.

Goals & Objectives

The CTP Steering Committee decided to use the same transportation Goals and Objectives for the Comprehensive Transportation Plan and Comprehensive Plan.

Goal 1: Promote connectivity between schools, housing, business districts, recreation and community centers.		
Objectives	1	Encourage land use patterns that promote efficient use of existing transportation infrastructure and discourage sprawl.
	2	Prioritize roadway projects that create and/or enhance connectivity.
	3	Prioritize multi-modal transportation projects that promote connectivity.

Goal 2: Provide a variety of multi-modal transportation options.		
Objectives	1	Expand sidewalks, bike lanes, and greenways to housing and community centers.
	2	Encourage the towns to continue to require sidewalks for developments.
	3	Continue to partner with Southwestern RPO to identify multi-modal transportation projects.
	4	Coordinate with parks and recreation, municipalities, EBCI to build sidewalks, greenways, and trail systems for pedestrian and bike traffic.
	5	Connect Scotts Creek Elementary school to the Town of Sylva via Skyland Drive and Parris Branch.
	6	Provide bicycle and pedestrian connection between Fairview Elementary School and NC 107.
	7	Provide bicycle and pedestrian connection between Cullowhee Valley Elementary School and Western Carolina University / Forest Hills
	8	Connect Smoky Mountain Elementary School to Qualla Boundary with a multi-modal path.
	9	Designate funds in the budget for local match requirements and maintenance for infrastructure projects.
	10	Encourage municipalities to designate funds for local match requirements and

		maintenance for infrastructure projects.

Goal 3: Improve safety for pedestrian and bicycle facilities.		
Objectives	1	Partner with NCDOT and municipalities to upgrade signs at high hazard locations for pedestrian safety.
	2	Identify and prioritize high hazard locations for pedestrians and bicyclists.
	3	Improve signage for designated bicycle routes.
	4	Provide pull out areas for bicyclists along popular bicycle routes such as River Road, Caney Fork Road, Cullowhee Mountain Road, Thomas Valley Road, Sunset Farms Road, Skyland Drive, and Dark Ridge Road.

Goal 4: Educate citizens about alternative modes of transportation.		
Objectives	1	Partner with NCDOT and municipalities to educate public about bicycle safety and rights.
	2	Partner with WCU to create program to educate new students about mountain road safety.
	3	Provide public service announcements (radio, newspaper) about cyclist safety, pedestrian safety, and associated health benefits.
	4	Partner with health department, Mountain Wise, public school and homeschool associations to educate on alternative modes of transportation and bike and pedestrian safety.
	5	Partner with Smoky Mountain High School driver's education to include a lesson on alternative modes of transportation and driver responsibility.

Goal 5: Maintain transportation capacity for freight		
Objectives	1	Partner with rail line companies to incentivize and recruit rail dependent industry.
	2	Protect rail corridors.
	3	Protect regional transportation freight corridors to maintain mobility.
	4	Encourage additional rest areas in the region to serve freight service.

Goal 6: Enhance and support aviation infrastructure and facilities.		
Objectives	1	Continue to support the Airport Authority.
	2	Partner with the airport authority to identify funding resources for airport improvements.
	3	Partner with Airport Authority to upgrade terminal and hangar facilities.
	4	Encourage air traffic and consider marketing Jackson County Airport as a destination.
	5	Enhance the aesthetic appeal of the airport as an entry point to the County.

Goal 7: Maintain and enhance County transportation corridors		
Objectives	1	Create corridor plans for US 441 North from US 74 to Qualla Boundary; US 74/441 from Exit 81 to Exit 74; US 441 South from Exit 81 to Macon County line; and US 74 from Haywood County to Exit 85.
	2	Promote multi-jurisdictional cooperation in corridor development.
	3	Perform an assessment of existing facilities (sidewalks).
	4	Encourage the implementation of setbacks.

Goal 8: Promote and expand local and regional transit options.		
Objectives	1	Create an education campaign promoting transportation options.
	2	Explore making wireless Wi-fi available in transit vehicles.
	3	Partner with WCU, SCC and other local employers to encourage transit friendly policies.
	4	Partner with WCU to create transit routes that are interconnected.
	5	Include budget provision for transit.
	6	Develop a sustainable revenue source (not based on ridership fees solely).

Public Input Survey

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

In September 2015, the Jackson County CTP and Comprehensive Plan Steering Committee conducted a survey of Jackson County residents, employees, and visitors to help inform the development of the Jackson County Comprehensive Plan and Comprehensive Transportation Plan. The survey was available in both electronic and paper form. There were 2,165 responses.

While many of the questions in the survey informed the Jackson County Comprehensive Plan, there were often transportation related responses shared. Twenty-two percent of survey participants said improvement to the transportation system quality and more options would increase the quality of life in Jackson County.

When asked for the top 3 priorities for spending local tax dollars, 19.61% said adding bike lanes and sidewalks should be a priority. Other transportation related comments included the following: adequate public transportation, quality and safety of roads, transportation options, walkability to downtown Sylva, paved roads, being able to walk to places (e.g. grocery store, Dillsboro Crossing to Dillsboro), better alternate traffic routes, able to walk or bike to place of employment, better accommodation of traffic around WCU, paved bike trails that are separate from public roads, fix the traffic problem by creating a bypass from US 74 to Cullowhee, expansion of the greenway to WCU, road development that supports growth occurring, widening roads where appropriate, new roads to access the town, WCU, and SCC, provide sidewalk on Cope Creek Road between NC 107 and East Cope Creek Road, and provide sidewalks and bike lanes.

27.38% think inadequate transportation facilities are the biggest barriers to economic growth in Jackson County. 61.76% of participants said greenways and parks should be a top priority in Jackson County, and 24.25% said bicycling (trail and road) should be a top priority.

Asheville is the primary destination for purchasing goods and services outside of Jackson County. Waynesville is the second highest destination. 79.71% of Jackson County residents travel outside the county several times each month.

Below are the questions that were specific to the Comprehensive Transportation Plan:

(Q24) Which of the following potential road projects do you think should be the highest priority for NCDOT funding? Select your top 3 priorities. (Note: Sections of NC 107 in Sylva and Tuckasegee have recently been funded).

Answer Choices	Responses
Improve US 19 between Cherokee and Maggie Valley	10.38% (182)
Replace Wilmot Bridge and improve intersection at Wilmot Road and US 74	11.12% (195)
Improve Old Settlement Road from NC 107 to NC 116	28.51% (500)
Improve NC 116 from NC 107 to US 23/441	28.51% (500)
Construct a new road from NC 107 to US 74, bypassing Sylva (NC 107 Connector)	43.22% (758)
Improve Ledbetter Road/Monteith Gap Road - add bike lanes and/or sidewalks	19.67% (345)
Move WCU main entrance to Little Savannah Drive	9.29% (163)
Improve NC 107 from NC 281 south toward Cashiers	30.22% (530)

Answer Choices	Responses
Construct roundabout at US 64/NC 107 intersection in Cashiers; add third lane to 64 west	9.12% (160)
Not applicable / No opinion	16.53% (290)

One-hundred and ninety-eight (198) specific comments were also received to this question.

(Q25) Which of the following Bicycle and Pedestrian projects do you think should be the highest priority for funding? Select your top 3 choices.

Answer Choices	Responses
Expand the Tuckasegee River Greenway upstream toward WCU	49.07% (866)
Construct sidewalk on N. Country Club Drive in Forest Hills	4.36% (77)
Construct sidewalk on Central Dr., (back entrance to WCU) from Old Cullowhee Road to Baptist Student Union	18.41% (325)
Improve sidewalk and add pedestrian crossings along US 23 Business from Skyland Drive to Hospital Drive	21.64% (382)
Construct sidewalk along Skyland Drive from US 23 Business to Chipper Curve Road	15.47% (273)
Construct sidewalk on Mill Street in Sylva from Spring Street to Keener Street	20.34% (359)
Construct a bike lane on N. River Road and S. River Road and from US 441 in Dillsboro to NC 107	34.22% (604)
Construct a bike lane on Old Cullowhee Rd. from NC 107 to WCU back entrance on Central Drive	35.07% (619)
Don't know / No opinion	20.85% (368)

One-hundred and sixty-six (166) specific comments were also received to this question and can be viewed on the web link provided earlier.

(Q26) NC 107 between Sylva and Webster is one of our busiest roads. Reducing congestion on this section would involve some impacts to the environment and/or businesses. Rate your tolerance for increased congestion on NC 107 to avoid impacts (economic/environmental) associated with improvements to the corridor? Choose a travel time at peak hours (7-8 am and 3-5 pm) between Ingles and Bogarts:

Preference						
–	Very tolerable	Tolerable	Neutral	Not Tolerable	Extremely Intolerable	Total
Less than 2 minutes	83.08% 1,139	7.80% 107	6.13% 84	1.02% 14	1.97% 27	1,371
2-5 min	50.55% 741	40.79% 598	4.91% 72	2.59% 38	1.16% 17	1,466
6-9 min	13.95% 210	42.13% 634	22.19% 334	18.07% 272	3.65% 55	1,505
10-13 min	3.71% 53	14.65% 209	17.10% 244	44.99% 642	19.55% 279	1,427
14-17 min	1.91% 27	5.53% 78	7.38% 104	28.65% 404	56.52% 797	1,410

(Q27) Rank your preferences for the following strategies for bicycle infrastructure improvements, with 1 being the most preferred, and 5 being the least:

–	1	2	3	4	5	Total	Score
Add bike lanes to major highways offering the quickest routes between destinations.	19.04% 238	23.36% 292	30.72% 384	18.00% 225	8.88% 111	1,250	3.26
Widen paved shoulders on secondary routes with fewer cars.	18.10% 232	37.29% 478	28.55% 366	13.03% 167	3.04% 39	1,282	3.54
Establish a network of off-road bike paths or greenways that connect destinations away from traffic.	55.63% 796	20.48% 293	13.07% 187	7.41% 106	3.42% 49	1,431	4.17
Establish lower speeds limits, crosswalks, and intersection improvements.	9.13% 131	12.82% 184	20.49% 294	42.23% 606	15.33% 220	1,435	2.58
Make no improvements.	11.73% 166	4.03% 57	7.77% 110	7.99% 113	68.48% 969	1,415	1.83

(Q28) How likely are you to ride a bicycle on Jackson County roadways?

Answer Choices	Responses
Very likely	8.31% 148
Somewhat likely, contingent upon safety improvements such as bike lanes or paved shoulders.	29.80% 531
Not likely, even if bike lanes or paved shoulders were available.	61.90% 1,103
Total	1,782

One-hundred and fourteen (114) specific comments were also received to this question and can be viewed on the web link provided earlier.

(Q29) Do you or would you ride a bicycle on roadways with bike accommodations primarily for:

Answer Choices –	Responses –
Recreation/exercise	30.11% 541
Transportation (in place of a car for work, shopping, etc.)	2.84% 51
I ride (or would ride) for both recreation and transportation.	17.86% 321
I don't ride and won't ride a bicycle on the road.	49.19% 884
Total	1,797

Forty-five (45) specific comments were also received to this question and can be viewed on the web link provided earlier.

Public Meetings

The public involvement process included holding five public drop-in sessions in Jackson County to present the proposed Comprehensive Plan and CTP to the public and solicit comments. Each session was publicized in the local newspaper and was held from 5:00 P.M. to 7:00 P.M. A total of 14 comments were received during the public outreach.

Public Workshop # 1: November 29, 2016 at the Department on Aging in Sylva. This meeting was the most attended with 47 attendees. Below is a summary of the comments received during this workshops that pertained to transportation: (NCDOT response)

1. I would vote for a 107-74 connector bypass! A fantastic bridge and segment over to the community college and Webster. Thanks. (Comments were shared with Committee for their consideration.)
2. Nix the airport expansion. (No airport expansion is part of the CTP.)
3. NC 107 needs: a safe bike/pedestrian walkway/path, safe pullouts with shelters for public transit stops, median with landscaping will enhance the quality of life in Sylva. I would also like to see an eye towards the aesthetic betterments this community deserves. (Improvement to NC 107 is programmed in the NCDOT STIP as R-5600, and these comments were shared with the Division Project Engineer.)
4. Bicycle map- proposed greenway west of NC 107 would be better on TWSA ROW instead of South River Road. (Comments were shared with Committee for their consideration.)
    a. Cope Creek Road is marked as existing, but it is not. (Corrected to show as "Needs Improvement".)
    b. State bike route (2) should be moved to Skyland and Dark Ridge Road off of Hwy 74 (Comment shared with NCDOT Bicycle and Pedestrian Transportation Division.)
5. If a connector route from NC 107 to US 23/74 is built, I would strongly recommend and prefer the most southerly route possible. To connect above the high bridge in Cullowhee where the R-4753 begins (NC 107 improvements from SR 1002 to NC 281) would appear to be a logical connector for the southern and then to connect to US 23/74 near Blanton Branch would be my choice. (Comments were shared with Committee for their consideration.)

Public Workshop # 2: December 5, 2016 Tuckasegee VFW in Tuckasegee. This meeting had 10 attendees. Below is a summary of the comments received during this workshops that pertained to transportation: (NCDOT response)

1. For transportation, I am concerned about the environmental impact of a corridor connector between Hwy 74 (Balsam) and NC 107i.e. the "Southern Loop". NCDOT studies and independent analysis by the Smart Roads Alliance show that a connector will not alleviate congestion on NC 107 between R-5000 (Success Avenue) and downtown Sylva. I am also concerned about the bottleneck at Monteith Gap Road/Ledbetter/South Painter Road. This part of the road is subject to flooding and potentially cutting off access and stranding people. (Monteith Gap Road, Ledbetter Road, and South Painter Road are on the modernization project list in the CTP.)

Public Workshop # 3: December 6, 2016 at the Qualla Community Building in Whittier. This meeting had 8 participants. No comments received during this workshops that pertained to transportation.

Public Workshop # 4: December 12th at the Cashiers. This meeting was the second highest attended with 20 participants. Below is a summary of the comments received during these workshops that pertained to transportation: (NCDOT response)

1. Please run July 4th traffic count numbers for Cashiers, NC on US 64 and NC 107. A year round traffic count on US 64 east in front of the Ingles store to get a picture of year round population fluctuation. Improve the looks of the Cashiers DOT shed with an opaque fence. (While NCDOT cannot plan for July traffic (worst case scenario), seasonal traffic was considered when evaluating roads in the Cashiers area. A year-long traffic station has been requested for US 64 near the Ingles.)
2. A major consideration for transportation planning involves the relation to growth of our proposed infrastructure to the needs of our road system and a pedestrian…In other words, plan the transportation system not count of current flows, but on the additional development effort that will come with the growth of our infrastructure. (The CTP is based on the projected population and employment growth projected to 2040 by Jackson County as part of the Jackson County Comprehensive Plan.)
3. Add Frank Allen Road public corridor US 64 west to NC 107 south for drainage issues and pedestrian access. Note: expansion of the Village Green year round events facility. Note: Arterial access to thoroughfare. (Frank Allen Road was added to the CTP.)
4. Cashiers' new facility request SE Quadrant Monte Vista Road to 2nd stop light enlarged 5-point intersection. NE Quadrant: new connection Lance Road to Cashiers Commons. Wing roads needed to provide. Don't want roundabout – would ruin town. (On April 24, NCDOT and SWRPO staff met with the Cashiers Planning Council to discuss their needs. The council said it was fine with the Village of Cashiers Transportation Priority Plan of 2012 developed by Fuss & O'Neill is still a valid plan and could be referenced for the CTP.)

Public Workshop # 5: December 13, 2016 at the Savannah Community Building in Sylva. This meeting had 13 participants from the public. Below is a summary of the comments received during these workshops that pertained to transportation: (NCDOT response)

1. I reside on Greens Creek and it's easier to go to Wal-Mart or other businesses in Macon and Haywood counties than travel NC 107 or NC 116 with traffic and curves. Jackson County is losing revenue from sales tax when this happens. (Comments shared with Committee for their consideration.)
2. Sidewalk improvements should be an extremely high priority. Most streets around here, even if low traffic, are extremely dangerous to walk on. Sidewalks improve quality of life and provide alternative transportation methods. Creation of a connection between US 74 and Cullowhee…One access point in and out for a population of 10,000+ is irresponsible and hazardous from an emergency

management standpoint. (Comments shared with Committee for their consideration.)

One comment was received in the mail. The sender indicated they did not support a new connector between NC 107 and US 74.

Appendix I
Alternatives & Scenarios Studied

This appendix includes documentation for alternatives and scenarios that were considered, including ones not shown on the adopted CTP.

US 23/74 – NC 107 Connector:

In the development of the Jackson County CTP, the Steering Committee suggested that a new facility between US 23/74 and NC 107 be analyzed to address future deficiencies on NC 107. A connector was part of the 2010 Jackson County CTP with the local understanding that improvements to existing NC 107 would be completed first followed by the evaluation of the need for the connector. While a new connector offers some relief to NC 107, much of the traffic along NC 107 between NC 116 and US 23 Business is due to destinations along the corridor, and this traffic does not shift to a new connector. The purpose of a new facility between US 23/74 and NC 107 would be to provide reliable travel time between these two major facilities and the destinations along these facilities, e.g. Waynesville, Asheville, Western Carolina University, and Cashiers.

Below is the summary of US 23/74-NC107 Connector alternatives tested during the CTP study using the travel demand model developed for this study. All alternatives were tested as a complete control of access facility. The alternatives tested showed that travel behavior was sensitive to the speed and proximity to NC 107. A design speed of 55 miles per hour (mph) attracted more traffic than a speed of 45 mph. Figure 12 shows the area where the range of alternatives to the east of NC 107 were tested. There was also an alternative to the west of NC 107 that was tested.

- Alternative 1: New two lane facility west of NC 107 from NC 107/US 23 Business intersection to Bonnie Lane/NC 116 roundabout with a speed of 35 mph due to the challenging terrain. This alternative had very little impact on current traffic patterns with only 3,500 vpd shifting to the new facility. The impacts to the natural and human environment were also deemed too great.
- Alternatives 2-4: New two lane, 55 mph facility east of NC 107 from US 23/74 to R-5000/Success Avenue interchange – various locations closer to and further from NC 107. **Of these three alternatives, the alternative that was the shortest length and closest to NC 107 attracted the most traffic (9,100 vpd). This alternative also attracted the most vehicles of all the alternatives.**
- Alternatives 5-7: New two lane, 45 mph facility east of NC 107 from US 23/74 to R-5000/Success Avenue interchange – various locations closer to and further from NC 107. These alternatives carried volumes 1,000 to 2,000 vpd less than the 55 mph alternatives.
- Alternative 8: New two lane, 55 mph facility east of NC 107 from US 23/74 to Old Cullowhee Road. This alternative attracted 6,800 vpd.
- Alternative 9: New two lane, 55 mph facility east of NC 107 from US 23/74 to Old Cullowhee Road. This alternative attracted 6,800 vpd.
- Alternative 6: New two lane, 55 mph facility east of NC 107 from US 23/74 to NC 107 south of WCU with a spur to Old Cullowhee Road (SR 1002). This alternative attracted 6,700 vpd.

Since the primary purpose of a new connector would be for reliable travel time and mobility between NC 107 in the vicinity of WCU and beyond to points west of the US 23/74 and US 23 Business interchange, travel time savings was also evaluated. Included here is the comparison of the travel times from NC 107 at Old Cullowhee Road (SR 1002) north of WCU and US 23/74 and Mineral Springs Drive (SR 1456) between the best performing alternative and the current Jackson County road system with the completion of the improvements to NC 107 (four lane divided facility) in the year 2040.

	Existing System with NC 107 Improvements Travel Time(Minutes)	Proposed Connector at 55mph Travel Time(Minutes)
Free Flow	9.22	5.75
AM Peak*	11.64	6.24
PM Peak**	11.34	6.22

*AM Peak is 6:00am-10:00am
**PM Peak is 3:00pm-7:00pm

Only the alternative to the west of NC 107 (Alternative 1) was deemed unreasonable due to the extreme terrain it would be required to cross. For the connections to the east of NC 107, while there was travel time savings, the impacts to the natural environment were considered too high by the Steering Committee for saving only a few minutes. The concerns voiced were that many residents live in the county because of the beauty of the natural environment. In addition, many tourists and second home owners come to the area to enjoy the natural environment. Sylva representatives on the steering committee voiced concerns about land disturbance and the economic impact to Sylva. Others wanted to keep the connector on the plan for future development and to provide emergency vehicles a route with more reliable travel time. If a new connector is needed at a future time, none of the connectors to the east of NC 107 were deemed unreasonable during this study if the vision for the area changes.

US 74 Westbound Ramp at Allens Branch Road (SR 1439):

A suggestion received during this study was the addition of a westbound ramp. In the 2010 CTP study, it was determined that it would be difficult to construct a westbound ramp at the current US 23/74 interchange. Currently, a driver must go eastbound onto US 74 from US 23 Business (Asheville Highway) at Exit 85 and do a U-turn at a designated location about 0.8 miles east or remain on US 23 Business through downtown Sylva to Grindstaff Road that offers westbound access to US 74. A westbound access ramp was added to the road network in the travel demand model from Frank Allen Road but only had minimal usage and was deemed unreasonable due to the cost and impacts. Figure 12 shows this alternative.

Downtown Sylva: US 23 Business (Mill Street and Main Street one-way pair):

The Congestion Management Section of NCDOT was asked to evaluate potential changes to traffic flow through the Sylva central business district (CBD) and if the changes could help improve the movement of traffic along Mill Street and Main Street. Following Figure 12 a copy of the study (SP-2015-78):

Swain County

Haywood County

Macon County

Transylvania County

Georgia

South Carolina

Eastern Band of Cherokee Indians

Represents conceptual west-bound ramp to US 74 from Allens Branch Road

Represents conceptual alternative connection between US 74 and NC 107

Inset A

Shoal Creek Rd (SR 1416)

Old Mission Rd (SR 1427)

Camp Creek Rd (SR 1406)

Sunset Farm Rd (SR 1405)

Thomas Valley Rd (SR 1397)

Tuckasegee River

Scott Creek

Skyland Dr (SR 1432)

Sylva

Dillsboro

Webster

Old Cullowhee Rd (SR 1002)

Little Savannah Rd (SR 1367)

Forest Hills

Caney Fork Rd (SR 1737)

Caney Fork

Savannah Creek

Tilley Creek Rd (SR 1001)

Cullowhee Creek

Cullowhee Mtn Rd (SR 1157)

Charley's Creek Rd (SR 1756)

Wolf Creek

Wolf Mountain Rd (SR 1760)

Pine Creek Rd (SR 1157)

Pine Creek Rd (SR 1163)

Thorpe Lake

North Norton Rd (SR 1145)

Cashiers

Whiteside Cove Rd (SR 1107)

Highlands

Chattooga River

19 441 74 23 441 107 281 64

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
- Interchange Needs Improvement
- Existing Grade Separation
- Proposed Grade Separation

N W E S

0 1 2 4 Miles

FIGURE 12

Base map date: 11-04-2014

Highway Alternatives Map

OPTIONS: Add New Facilities

Jackson County

Comprehensive Transportation Plan

Transportation

PAT McCRORY
Governor

NICHOLAS J. TENNYSON
Secretary

November 9, 2016

Project: SP-2015-78
Division: 14
County: Jackson
Description: US 23 Business/NC 107 (Mill St and Main St) in Downtown Sylva

MEMORANDUM

To: Pam R. Cook, PE, Staff Engineer
Western Planning Unit, Transportation Planning Branch

From: Michael P. Reese, PE, CPM, Regional Engineer
Congestion Management Section

Michael P. Reese, PE

Subject: Sylva Traffic Analysis (Mill St and Main St)

As requested, the Congestion Management Section has completed analysis for the subject location to identify and evaluate potential changes which could help improve the movement of traffic along Mill St and Main St in Sylva. This area has previously been studied by the Municipal and School Transportation Assistance Section and by J. Mark Teague Engineering in 2015.

Mill St and Main St are currently a one-way pair, with Mill St carrying westbound traffic and Main St carrying eastbound traffic through the CBD of Sylva. Four streets (Keener St, Schulman St, Walnut St, and Spring St) run north/south between Mill and Main. All four are two-lane two-way streets. The speed limit in the area is 20 mph.

Three alternatives were identified and analyzed (shown in attached figures):

Alternative 1: Restrict NB/SB through movements to and from Schulman St, Walnut St, and Spring St across Mill St and Main St. Maintain the existing one-way pair. Convert Keener St between Mill and Main to one-way (two SB lanes) to facilitate westbound U-turns.

Alternative 2a (with signals): Close Schulman St, Walnut St, and Spring St to vehicle traffic (pedestrian access only). Convert Keener St between Mill and Main to one-way (two SB lanes) to facilitate westbound U-turns.

Alternative 2b (with no signals): Eliminate all existing traffic signals and convert side streets to stop-control. Close Schulman St, Walnut St, and Spring St to vehicle traffic. Convert Keener St between Mill and Main to one-way (two SB lanes) to facilitate westbound U-turns.

The following assumptions were made in this analysis:

- Alternatives 1 and 2a include pre-timed signals similar to existing conditions.
- Right turns on red were not allowed in the analysis.
- The two peak hours with highest volumes were analyzed (PM and Midday).
- All existing travel lanes, storage lanes and on-street parking spaces were maintained.

Capacity Analysis

Analysis was performed using Synchro/SimTraffic version 9.1. A detailed summary of the capacity analysis results is attached. The results of the Arterial Speed Analysis are provided in the following table:

Peak Hour Arterial Speeds
(Based on the average of 5 SimTraffic runs)

Time of Day	Main St (EB)				Mill St (WB)			
	Existing	Alt 1	Alt 2a	Alt 2b	Existing	Alt 1	Alt 2a	Alt 2b
Midday	16	18	14	19	14	15	16	19
PM	15	17	15	19	14	15	16	20

Existing Geometry

According to the analysis results, traffic along Mill St and Main St currently experiences LOS B and better during the peak hour. The arterial speed is around 15 mph.

Analysis Findings

When compared to the existing configuration the following peak hour results were found:

Alternative 1

- Along Mill St and Main St no significant change in traffic delay is noted.
- Along Main St at Schulman St a slight increase in vehicle queuing is indicated.
- There is negligible difference in arterial speeds.

Alternative 2a

- Along Mill St and Main St a slight increase in traffic delay is noted.
- Along Main St a substantial increase in vehicle queuing is indicated.
- Some traffic movements along the corridor are approaching capacity during the peak hour (max v/c 0.90 on Main St at Spring St).
- There is negligible difference in arterial speeds.

Alternative 2b

- Along Mill St and Main St minimal delay is found due to no traffic signals.
- All movements experience LOS C or better with vehicle queuing less than 250 feet.
- A slight increase in arterial speeds is expected due to no vehicle stop conditions except to yield to pedestrians and/or traffic backing out of on-street parking spaces.

Concerns and Observations

It should be noted that our existing analysis did not show excessive queuing on Main St spilling back beyond Keener St, which is an expected existing field condition. Our analysis observations indicate that this queuing is caused by the signal on Main St at Schulman St and not by queue spillback from further east on Main St.

Closing the side streets in Alternatives 2a and 2b could make it difficult for large vehicles to make deliveries. It could also adversely affect businesses which are along Schulman St, Walnut St, or Spring St. It should be noted that observations indicate that only Walnut St has a building access.

There is currently a parking lot just west of Schulman St. If traffic from Grindstaff Cove Rd is redirected as in the above alternatives, it seems likely that some traffic might try to shortcut through the parking lot to get to Main St rather than circulating the one-way pair.

With any of these potential changes, adequate signing and communication with the public would be necessary to allow sufficient access to local streets and businesses.

Potential Alternatives

The following additional potential alternatives were identified during this evaluation which might help improve the traffic along Main St and Mill St; these alternatives can be further evaluated upon request:

- Converting the left-hand lane along Main St to a through-left lane instead of a left-turn only lane could increase the vehicular capacity along Main St. This could potentially decrease queuing on Main St and Keener St, since vehicles could use either lane to travel along Main St. However, this could make it more difficult for vehicles to back out of the angled parking along Main St and could complicate pedestrian crossings.
- Schulman St, Walnut St, and Spring St could be converted to single-lane one-way streets. This could allow some traffic to move between Mill St and Main St without circulating the entire one-way pair. The other existing lane could be converted to additional parking or a dedicated loading zone for large vehicles.
- Removing the traffic signals and converting key intersections to all-way stop-control or mini-roundabouts could potentially help traffic along Main St and Mill St without rerouting any of the existing traffic movements.

If you have questions regarding this analysis, or if any additional analysis or information is needed, please contact me or Bailey Harden, at (919) 814-5000.

MPR/bmh

Attachments

cc: S. Buchanan D.D. Galloway, PE J.C. Cranford
J. L. Woodard, PE J.K. Lacy, PE, CPM J.H. Dunlop, PE

Sylva Mill St and Main St (SP-2015-78)
Midday Peak Hour Capacity Analysis Results

Existing Geometry	**Mill St at Keener St**	**Mill St at Schulman St**	**Mill St at Spring St**	**Mill St at Main St**	**Main St at Spring St**	**Main St at Walnut St**	**Main St at Schulman St**
Overall LOS/Delay	--	A/8	B/18	--	A/6	B/13	B/11
Main/Mill Approach or Worst Mvmt LOS/Delay	A/7	A/3	B/18	B/14	A/5	B/11	B/12
Max v/c	0.30 (WB)	0.43 (WB)	0.49 (SB)	0.54 (EB)	0.59 (EB)	0.60 (EB)	0.38 (SB)
Mill St or Main St Max Queue	--	178’	213’	152’	149’	495’**	198’

Alt. 1	**Mill St at Keener St**	**Mill St at Schulman St**	**Mill St at Spring St**	**Mill St at Main St**	**Main St at Spring St**	**Main St at Walnut St**	**Main St at Schulman St**
Overall LOS/Delay	--	A/8	B/18	--	A/6	A/8	B/11
Main/Mill Approach or Worst Mvmt LOS/Delay	A/8	A/4	B/17	B/15	A/6	A/7	A/10
Max v/c	0.30 (WB)	0.47 (WB)	0.50 (SB)	0.54 (EB)	0.64 (EB)	0.64 (EB)	0.38 (EB)
Mill St or Main St Max Queue	--	132’	196’	82’	153’	294’**	327’**

*Based on the higher of Synchro 95th Queue or SimTraffic Max Queue.
**Queue spilled back beyond previous intersection in SimTraffic animation.

Sylva Mill St and Main St (SP-2015-78)
Midday Peak Hour Capacity Analysis Results

Alt.2a	**Mill St at Keener St**	**Mill St at Schulman St**	**Mill St at Spring St**	**Mill St at Main St**	**Main St at Spring St**	**Main St at Walnut St**	**Main St at Schulman St**
Overall LOS/Delay	--	B/11	A/7	--	B/13	B/19	A/7
Main/Mill Approach or Worst Mvmt LOS/Delay	A/8	A/7	A/7	C/19	B/13	B/19	A/7
Max v/c	0.30 (WB)	0.48 (WB)	0.38 (SB)	0.54 (EB)	0.87 (EB)	0.83 (EB)	0.41 (EB)
Mill St or Main St Max Queue*	--	196’	206’	136’	463’**	502’**	446’**

Alt.2b	**Mill St at Keener St**	**Mill St at Schulman St**	**Mill St at Spring St**	**Mill St at Main St**	**Main St at Spring St**	**Main St at Walnut St**	**Main St at Schulman St**
Worst Mvmt LOS/Delay	A/8 (WBL)	C/17 (SB)	B/11 (SB)	C/19 (EBL)	B/15 (NB)	B/15 (NB)	--
Max v/c	0.30 (WB)	0.49 (SB)	0.32 (WB)	0.54 (EB)	0.44 (EB)	0.46 (EB)	0.31 (EB)
Max Queue*	--	136’ (SB)	<50’	99’ (EBL)	54’ (NB)	<50’	--

*Based on the higher of Synchro 95th Queue or SimTraffic Max Queue.
**Queue spilled back beyond previous intersection in SimTraffic animation.

Sylva Mill St and Main St (SP-2015-78)
PM Peak Hour Capacity Analysis Results

Existing Geometry	Mill St at Keener St	Mill St at Schulman St	Mill St at Spring St	Mill St at Main St	Main St at Spring St	Main St at Walnut St	Main St at Schulman St
Overall LOS/Delay	--	A/8	B/18	--	A/7	B/13	B/11
Main/Mill Approach or Worst Mvmt LOS/Delay	A/7	A/3	B/17	B/14	A/5	B/12	B/12
Max v/c	0.40 (WB)	0.47 (WB)	0.50 (SB)	0.56 (EB)	0.64 (EB)	0.60 (EB)	0.35 (SB)
Mill St or Main St Max Queue	--	272’	210’	141’	95’	251’	179’

Alt. 1	Mill St at Keener St	Mill St at Schulman St	Mill St at Spring St	Mill St at Main St	Main St at Spring St	Main St at Walnut St	Main St at Schulman St
Overall LOS/Delay	--	A/8	B/18	--	A/8	A/8	B/10
Main/Mill Approach or Worst Mvmt LOS/Delay	A/8	A/4	B/17	B/15	A/7	A/7	B/10
Max v/c	0.40 (WB)	0.51 (WB)	0.52 (SB)	0.56 (EB)	0.64 (EB)	0.62 (EB)	0.36 (EB)
Mill St or Main St Max Queue	--	172’	239’	91’	222’	285’**	265’**

*Based on the higher of Synchro 95th Queue or SimTraffic Max Queue.
**Queue spilled back beyond previous intersection in SimTraffic animation.

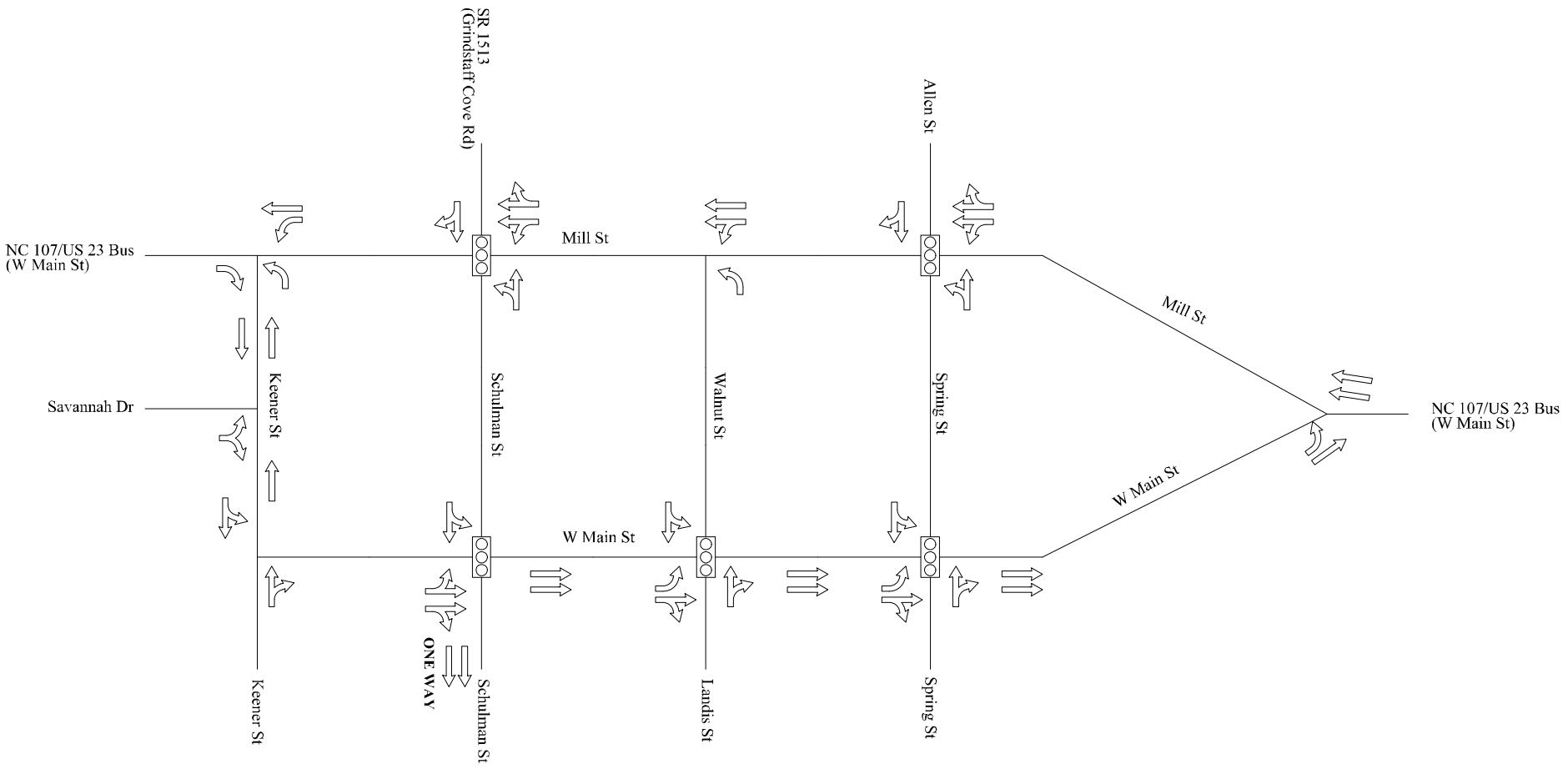
Sylva Mill St and Main St (SP-2015-78)
PM Peak Hour Capacity Analysis Results

Alt. 2a	**Mill St at Keener St**	**Mill St at Schulman St**	**Mill St at Spring St**	**Mill St at Main St**	**Main St at Spring St**	**Main St at Walnut St**	**Main St at Schulman St**
Overall LOS/Delay	--	B/11	A/8	--	B/18	B/12	A/9
Main/Mill Approach or Worst Mvmt LOS/Delay	A/8	A/7	A/8	C/20	B/18	B/11	A/9
Max v/c	0.40 (WB)	0.50 (WB)	0.41 (SB)	0.56 (EB)	0.90 (EB)	0.78 (EB)	0.41 (EB)
Mill St or Main St Max Queue	--	462’	185’	141’	530’	765’**	418’**

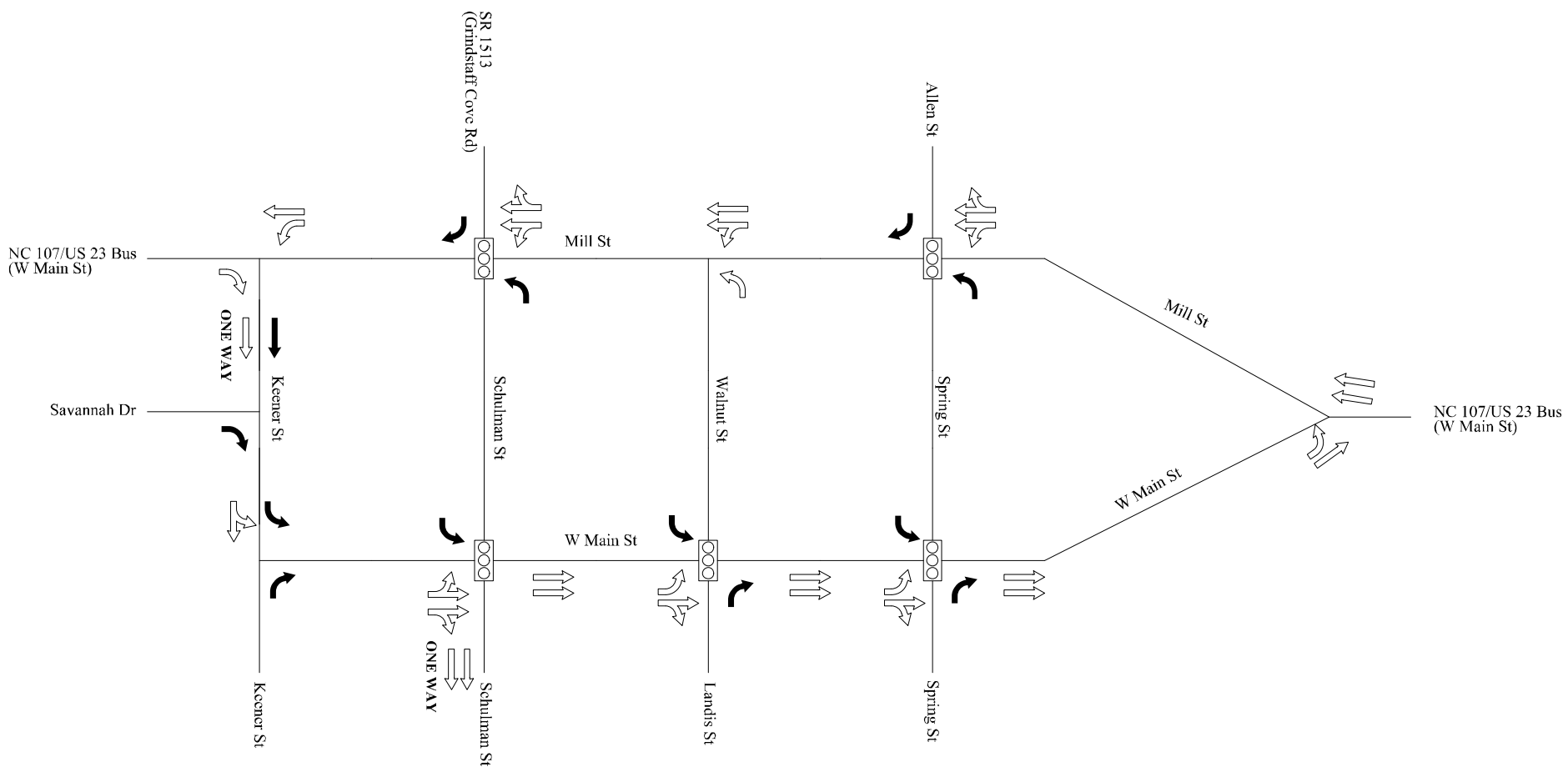
Alt. 2b	**Mill St at Keener St**	**Mill St at Schulman St**	**Mill St at Spring St**	**Mill St at Main St**	**Main St at Spring St**	**Main St at Walnut St**	**Main St at Schulman St**
Worst Mvmt LOS/Delay	A/8 (WBL)	C/18 (SB)	B/12 (SB)	C/20 (EBL)	B/15 (NB)	B/14 (NB)	--
Max v/c	0.40 (WB)	0.50 (SB)	0.33 (WB)	0.56 (EB)	0.46 (EB)	0.44 (EB)	0.28 (EB)
Max Queue*	--	207’ (SB)	<50’	91’ (EB)	54’ (NB)	54’ (NB)	--

*Based on the higher of Synchro 95th Queue or SimTraffic Max Queue.
**Queue spilled back beyond previous intersection in SimTraffic animation.

Existing Geometry



Alternative 1



Sylva Mill St and Main St
SP-2015-78

- Existing Laneage
- Recommended Laneage
- Existing Signal
- <XXX> Distance Between Intersections

All Distances in Feet
Drawing Not to Scale
Not for Construction

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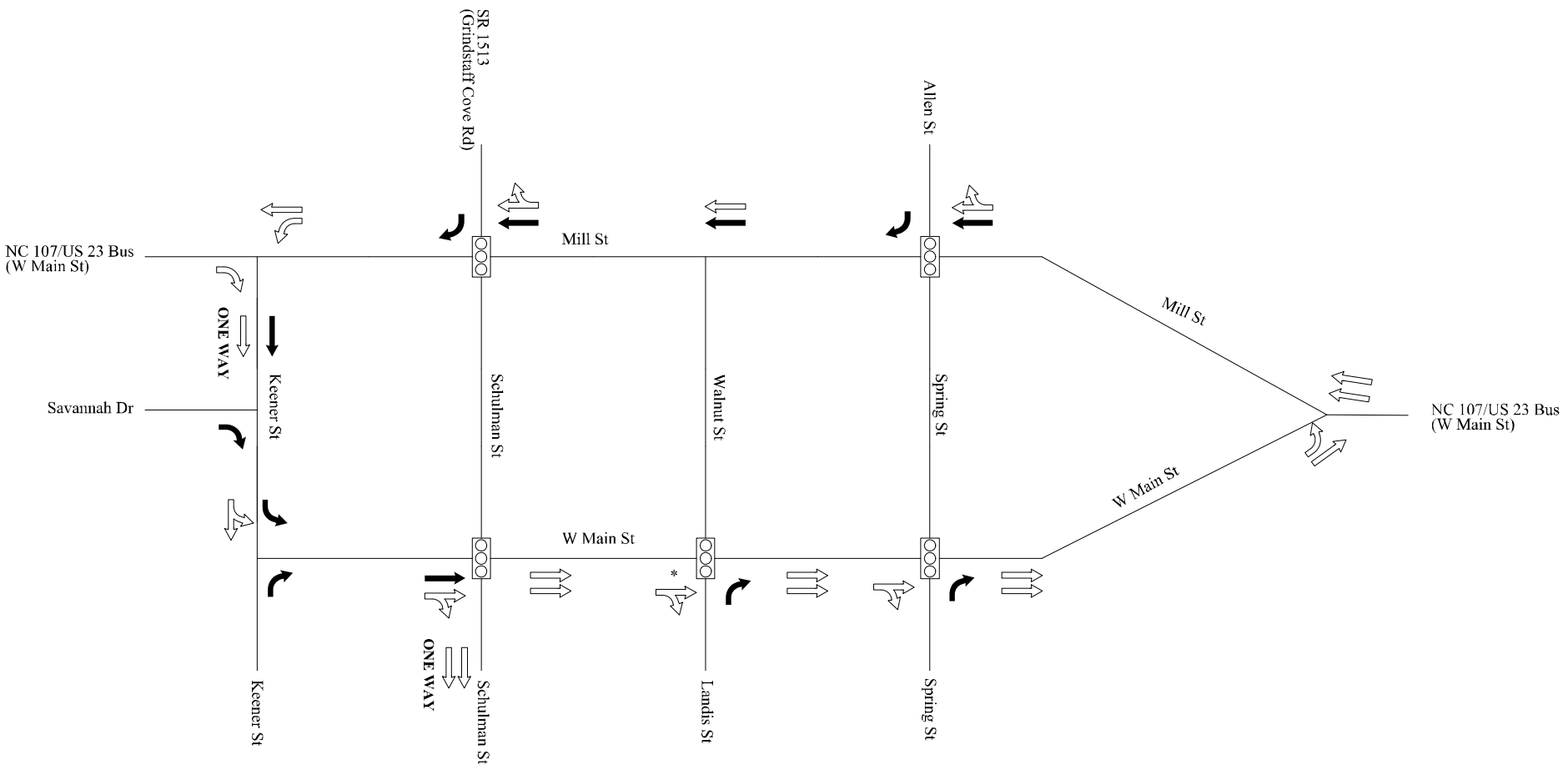
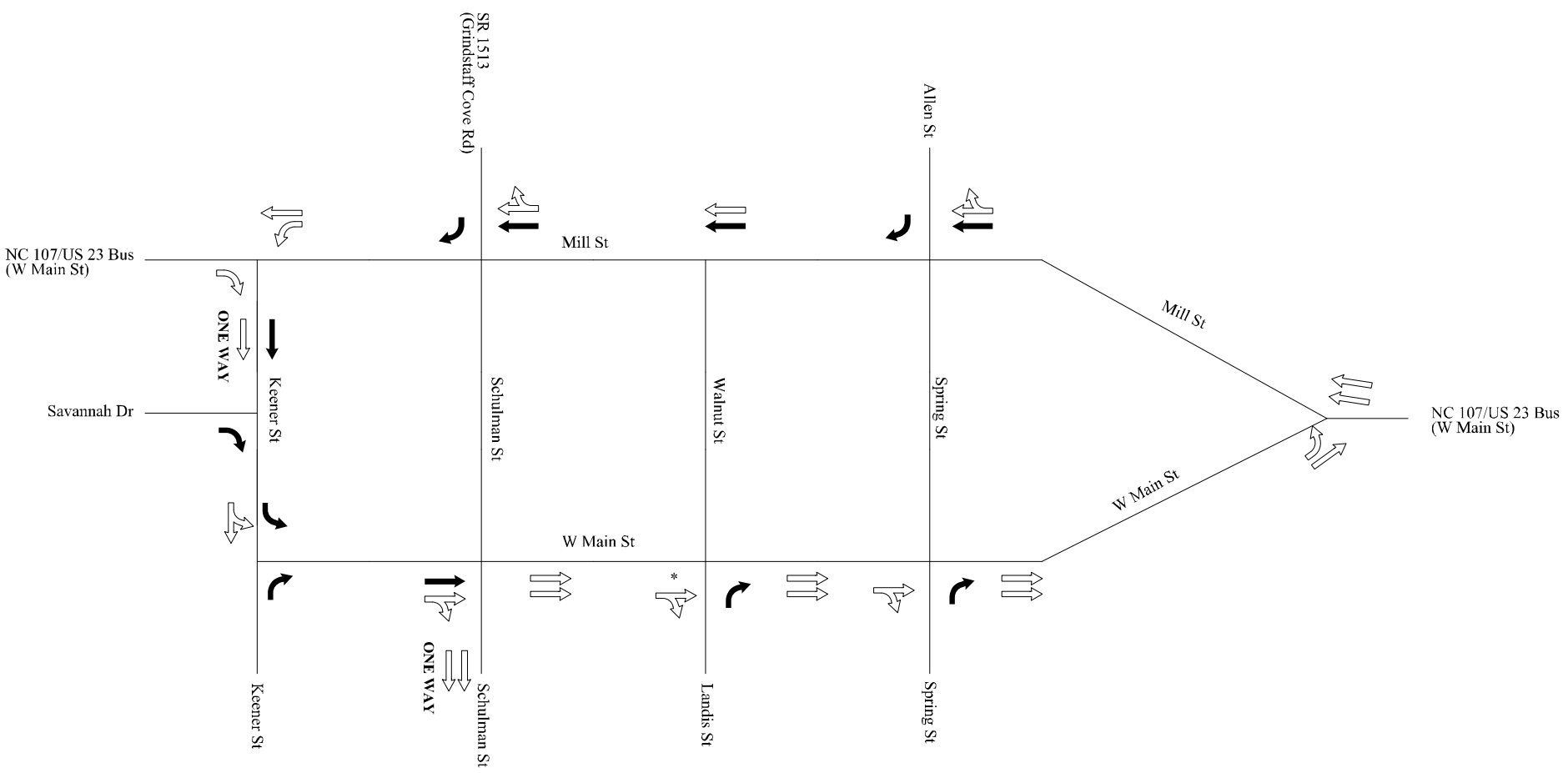
Alternative 2a



*The left lane along Main St is currently left turn only
at Walnut St and Spring St (see existing geometry figure).
It was assumed that Alt 2 would maintain a single through lane.

Alternative 2b



*The left lane along Main St is currently left turn only
at Walnut St and Spring St (see existing geometry figure).
It was assumed that Alt 3 would maintain a single through lane.

Sylva Mill St and Main St
SP-2015-78

- Existing Laneage
- Recommended Laneage
- Existing Signal
- <XXX> Distance Between Intersections

All Distances in Feet
Drawing Not to Scale
Not for Construction

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Back Cover