## NCDOT Transportation Planning Branch

Comprehensive Transportation Plan for French Broad River MPO and Rural Areas of Buncombe and Haywood Counties


Final Report
January 18, 2008

Prepared by

## AcKNOWLEDGEMENTS

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## EXECUTIVE SUMMARY

In March, 2007, the Transportation Planning Branch of the North Carolina Department of Transportation and the French Broad River Metropolitan Planning Organization (FBRMPO) began work on the Comprehensive Transportation Plan (CTP) for the FBRMPO and the rural areas of Buncombe and Haywood Counties. The Comprehensive Transportation Plan shown in Figure 1 of this report is the result of this planning process. The recommendations shown on this plan and summarized in this report are derived from analysis of transportation needs, application of standard transportation planning principles, and public input.

The recommendations in this CTP are based on forecasts of growth and development expected to occur in and around the planning area over the next 25 years. As development occurs over time - inevitably in ways that differ from what had been predicted - it may be necessary to update this Comprehensive Transportation Plan to more accurately reflect actual conditions. Prior to final design and construction of any specific projects, more detailed study will be required to consider changes, determine design requirements, and further evaluate environmental impacts.
The Comprehensive Transportation Plan currently includes recommendations for three transportation elements: the Highway Map, Public Transportation and Rail Map, and Bicycle Map. The format of the pedestrian map has not been finalized, so it is not included as part of the adopted Comprehensive Transportation Plan.
Forecasts of population and employment growth within the planning area are based on the regional economic analysis that was performed during the development of the FBRMPO travel demand model. Technical analysis of the highway and transit elements in the modeled portions of Buncombe, Haywood, and Henderson Counties also relied on this model. Where needed in areas outside the model, time-series analysis was used. Recommendations in all transportation elements were developed to in response to identified capacity, accessibility, and safety needs, based on analysis and input from local planners and the public.

This report documents the findings of this study, including the resulting project recommendations. In addition, this report summarizes recommended facility cross-sections, as well as findings of a high-level screening of environmental features in the planning area.
This CTP is the result of an iterative, coordinated process involving staff and appointed members of the FBRMPO TCC and TAC, as well as staff and elected officials from the 18 member counties and municipalities, and NCDOT. In addition to various TAC and TCC briefings, three public involvement workshops were conducted in Waynesville, Hendersonville, and Asheville in August of 2007. Adoption or endorsement of the Comprehensive Transportation Plan for the FBRMPO and the rural areas of Buncombe and Haywood Counties occurred as follows:

- Haywood County - October 15, 2007;
- Buncombe County - October 16, 2007;
- Land-of-Sky RPO - October 19, 2007;
- FBRMPO - November 15, 2007;
- NCDOT - January 10, 2008.

Beyond adoption, implementation of this plan rests largely with the policy boards and citizens of the FBRMPO member jurisdictions. Given the expectation that transportation needs in North Carolina will continue to exceed available funding, local communities and regional coalitions must take an active role in pursuing funding for desired projects.


























## French Broad

River MPO
Buncombe County

Comprehensive Transportation Plan

Plan date: November 15, 2007

On-road
Existing
I Needs Improvem


Off-road
$\xlongequal{\text { Existing }}$

- Needs Improvem


Existing Grade Separation
$\therefore \quad$ Proposed Grade Separation
$\begin{array}{llllll}0 & 0.10 .2 & 0.4 & 0.6 & 0.8 & 1\end{array}$ Sheet 4A of 5 Inset Sheet 4A-2 Base map date: October 15, 2004 Refer to CTP document for more details













## 1. Introduction

The Comprehensive Transportation Plan (CTP) for the French Broad River Metropolitan Planning Organization (FBRMPO) and Rural Areas of Buncombe and Haywood Counties identifies recommendations to multimodal transportation systems in Buncombe, Haywood, and Henderson Counties (see Figure 1). The CTP includes all three of these counties in their entirety. Figure 2 depicts the geographic location of the study area in western North Carolina.

The FBRMPO includes all of Henderson and portions of Haywood and Buncombe Counties. In addition to these three counties, there are fifteen towns and cities within the CTP area:

- City of Asheville
- Town of Biltmore Forest
- Town of Black Mountain
- Town of Canton
- Town of Clyde
- Village of Flat Rock
- Town of Fletcher
- City of Hendersonville
- Town of Laurel Park
- Town of Maggie Valley
- Town of Mills River
- Town of Montreat
- Town of Waynesville
- Town of Weaverville
- Town of Woodfin

All fifteen municipalities and the three counties are FBRMPO members. In addition, the rural areas of Buncombe and Haywood Counties not included within the FBRMPO boundary fall within the purview of the Land-of-Sky Rural Planning Organization (RPO).

See Figure 1 for a depiction of this plan. The NCDOT and the FBRMPO have been working for a number of years on a series of long-range transportation plans and travel demand models. These efforts predate the formation of FBRMPO in 2005, and included separate transportation plans and models for the Asheville MPO and the Hendersonville area, as well as older thoroughfare plans for some other jurisdictions. In 2005, these efforts led to development of a single regional travel demand model that covers all of Buncombe and most of Henderson and Haywood Counties. This model helped inform the process that led to the September 22, 2005 FBRMPO Long-Range Transportation Plan (LRTP), which provides the basis for most of the analysis and recommendations incorporated in the CTP.

Beginning in March 2007, the North Carolina Department of Transportation (NCDOT) Transportation Planning Branch (TPB) and the FBRMPO began the process of developing the first CTP for the entire French Broad River MPO. This report documents the process of developing the CTP, and summarizes the recommendations for each mode, by county.

The Comprehensive Transportation Plan is intended to ensure that the region's transportation system is developed in a coordinated and efficient manner that anticipates future needs and minimizes negative impacts on communities, cultural resources, and the natural environment. By providing a consistent, comprehensive, geographical database of recommendations for all modes, the CTP helps elected officials, local planners, NCDOT engineers, and others to program and implement individual projects while considering potential interactions with other planned projects, regardless of mode. To that end, existing and future transportation needs (through 2030) have been studied in producing this CTP. Because of the longrange nature of this plan, it is infrastructure-focused, in the sense that it is intended to support decisions regarding long-term investments. The CTP helps identify cost-effective projects that are consistent with existing and planned land use, while avoiding interference with other transportation projects. Essential to the CTP, therefore, are the Appendices B and C to this report, listing all recommendations and their basic attributes (both existing and future), as well as describing typical cross-sections.

Estimates of growth in households and employment form the basis of the travel demand forecasts used to help identify transportation needs in this study. Since future conditions are impossible to predict with absolute accuracy, the CTP cannot be a static tool. Changes in growth rates or patterns, transportation funding, environmental policies, and other variables will almost certainly occur over the life of this plan. It will be necessary to update the CTP to reflect any such changes, and to reflect the latest thinking about future land uses, travel demands, and appropriate solutions. It may be necessary to add or delete projects, modify their scope, or rearrange priorities. Any such changes must preserve the integrity of the overall plan with respect to coordination among other projects, and consistency with all elements of the CTP.

The initiative for updating and implementing the CTP starts mainly with the local policy boards, technical staff, and citizens of the planning area. NCDOT, along with local governments, is responsible for actual construction of recommended projects. Given the intense competition statewide for limited transportation funds, local areas must be proactive, innovative, and persistent in promoting their priorities to obtain the funding needed to complete their projects. The CTP provides a solid foundation for this effort.


## 2. Recommendations

This section summarizes each of the recommended projects depicted on the CTP maps. Included in each project summary is a brief description of the intended purpose of that project, typically expressed as one or more problems or needs that have been identified. Also noted are any other projects that may affect (or be affected by) the project in question. While the primary intent of these problem statements is to explain the reasoning behind each Recommendation, they also help identify the consequences of not implementing a particular project, and provide a starting point for developing alternative solutions, if necessary. In most cases, more thorough study will be required to determine specific design details of each project, and to more precisely quantify costs, benefits, and community/environmental impacts.
The project problem statements/Recommendation summaries are organized as follows:

- Mode
- County
- Facility Classification or Type of Improvement


## Highway Maps

The recommended elements of the Highway Plan for the CTP are indicated on Sheet 2 of the CTP Map 5 and summarized in Table 2-1. The five categories used for roadway classification - Freeway, Expressway, Boulevard, Other Major Thoroughfares, and Minor Thoroughfares - are defined in Appendix B. To facilitate referencing between the CTP maps, the Recommended Project list (Table 2-1), and the project problem statements/Recommendation summaries in this section, Figure 2-1 provides identification codes for each project. The initial letter of each code indicates the county ("A" for Buncombe; "B" for Haywood; "C" for Henderson). The subsequent numbers are ordered from highest to lowest facility classification (Freeway to Minor Thoroughfare); no other ranking or prioritization is implied.
At the end of each county's set of Recommendations is a summary of projects or alternatives that were considered, but ultimately not recommended for inclusion in the CTP. A brief explanation of the basis for that decision is included in each case.

As an aid in establishing priorities in future LRTPs and TIPs, as well as for general information, a project priority listing is presented below. This listing does not imply any order for construction or funding, and is intended only for broad planning purposes. The listing, while admittedly subjective, reflects a qualitative assessment of the following factors:

- The relative value of each project to the transportation system as a whole;
- The importance of the project to the effectiveness of other projects;
- The magnitude of the specific benefits of each project;
- The severity of the current deficiency addressed;
- The severity of the future deficiency addressed;
- The anticipated rate of growth in traffic and adjacent development.

Projects not on the priority list, although important, were generally seen to have a much smaller affect on the transportation system as a whole. These projects offer primarily localized benefits and while they could be completed at any time, it is generally recommended that they be pursued after all of the projects identified on the priority list have been addressed.

## Highest Priority

## Buncombe

## I-26 - I-40 to US 25 (Exit 54 in Henderson County)

I-240/Future I-26 - I-40 to Broadway St (SR 1781, Exit 25)
US 19/23/Future I-26 - Broadway St (SR 1781, Exit 25) to N Buncombe School Rd (SR 2207, Exit 17)
US 19/23 - NC 151 to Williams St (in Haywood County)
Long Shoals Road (NC 146) - I-26 to Brevard Road (NC 191)
Long Shoals Road (NC 146) - I-26 to Hendersonville Road (US 25)
US 25A (Sweeten Creek Road) - Rock Hill Road (SR 3081) to US25/NC 280
Liberty Road (SR 1228) - I-40 to US 19/23 (Smokey Park Highway)
Mills Gap Road (SR 3116) - US 25 to Concord Road (SR 3150)

## Haywood

US 19/23 - Williams St to NC 151 (in Buncombe County)
US 19 - US 276 (Johnathan Creek Rd) to Jackson County line

## Henderson

## I-26 - US 25 (Exit 54) to I-40 (Buncombe County)

Balfour Parkway - NC 191 to US 64
Howard Gap Road (SR 1006) - Upward Road (SR 1783) to US 25
US 64 - South Rugby Road (SR 1312) to Banner Farm Road (SR 1314)
White Street - US 25 Bus to Kanuga Road (SR 1127)
Kanuga Road (SR 1127) - US 25 Bus (Church Street) to Price Road (SR 1137)

## Medium Priority

## Buncombe

US 19/23 (Smokey Park Highway) - I-40 to NC 151
NC 112 (Sand Hill Road/Sardis Road) - Enka Lake Road (SR3446) to NC 191
Brevard Road (NC 191) - I-40 to I-26
NC 63 - Newfound Road (SR 1004) to Turkey Creek Road (SR 1380)

## Haywood

US 19 (Dellwood Rd) - Lakeshore Dr to US 276 (Johnathan Creek Rd)

## Henderson

NC 191 - NC 280 to Balfour Parkway
NC 191 - NC 280 to Blue Ridge Parkway (Buncombe County)
US 64 - Buncombe Street to Brickyard Road (SR 1424)
US 176 - NC 225 (Greenville Highway) to Shepherd Street (SR 1779)
Old Airport Road/Mills Gap Road (SR 1547/1551) - US 25 to Hoopers Creek Road (SR 1553)

## Lower Priority

## Buncombe

I-40 - US 19 (Smokey Park Highway, Exit 44) to US 74 (Exit 27 in Haywood County)
I-40 - I-240 to Porter Cove Rd (SR 2838, Exit 55)
US 25/70 - US 19/23/Future I-26 to Monticello Road (SR 1727)
NC 63 - US 19/23 (Patton Avenue) to Newfound Road (SR 1004)
NC 280 - I-26 to US 25
Patton Cove Road (SR 3388) - I-40 to US 70
Biltmore Avenue (US 25/SR 3214 - I-40 to US 25 (Southside Ave.)/Charlotte Street (SR 3284)
US 25 (McDowell St.) - Biltmore Avenue (SR 3214) to US 25(Southside Ave.)/Phifer Street
US 25 (Merrimon Avenue) - I-240 (including interchange) to Beaverdam Road (SR 2230)
US 25 (Merrimon Avenue) - Beaverdam Road (SR 2230) to Elkwood Avenue (SR 1674)
Weaverville Hwy (US 19/23 Bus/US 25) - Elkwood Ave (SR 1674) to Reems Creek Road (SR 1003)

## Haywood

I-40 - US 74 to Smokey Park Highway (in Buncombe Co)
NC 209 - US 19/23/74 to County Rd (SR 1375)
US 23 Business - US 23/74 to Ninevah Rd
US 276 (Russ Ave) - US 23 Business (North Main St) to US 19 (Dellwood Rd)

## Henderson

US 25 - I-26 to NC 225 (Greenville Highway)
NC 191 - Balfour Parkway to US 25
Sugarloaf Road (SR 1734) - US 64 to Pace Road (SR 1726)
Fanning Bridge Road (SR 1358) - US 25 to NC 280

|  | ty \＆Segment Facility | From | To | Description | Distance <br> （mi） | Cross－ <br> Section lanes | Existing Speed Limit <br> （mph） | System <br> Capacity <br> $(\mathrm{vpd})^{1}$ | $\begin{aligned} & 2005 \\ & \mathrm{ADT}^{2} \end{aligned}$ | Capacity （vpd）${ }^{1}$ | $\begin{aligned} & \text { Propose } \\ & 2030 \\ & \text { ADT }^{3} \end{aligned}$ | d System Cross－ Section lanes | Other <br> Maps | Source |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Buncombe |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Freeways |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ${ }^{\text {A1 }}$ | ｜－26 | ｜－40 | US 25 （Henderson C0） | Widen to 6 lanes | 22.5 | 4 | 60／65 | 72，900 | 70，800 | 109，400 | 80，500 | 6 | 家 | LRTP |
| A2 | 1－240FFuture l－26 | $1-40$ | Broadway St（SR 1781） | Widen to $6 / 8$ lanes and construct connector on new alignment | 5.7 | 4 | 55 | 70，200 | 59，000 | p to 140，300 | 90，600 | 6／8 | O6A A | LRTP |
| A3 | US 19／23／Future l－26 | Broadway St（SR 1781） | N Buncombe School Rd（SR 2207） | Widen to 6 lanes to US 25 ；operational／interchange improvements | 8.5 | 4 | 55 | 64，600 | 69，600 | poto 107，00¢ | 98，5 | $4 / 6$ |  | LRTP |
| A4 | $1-40$ | US 74 （Haywood Co．） | US 19 （Smokey Park Hwy） | Widen to 6 lanes | 16.3 | $4 / 5$ | 60 | 69，50 | 50，600 | 104，00 | 65，70 | 6 | －$\square^{\text {B }}$ | LRTP |
| A5 | 1－40 | 1－240 | Porter Cove Rd（SR 2838） | Widen to 6 lanes | 1.6 | 4 | 60 | 71，200 | 57，00 | 107，00 | 62，20 | 6 |  |  |
| Expressways |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A6 | US 19／23 | WWilliams St（Haywood Co） | NC 151 | Upgrade to 4－lane expressway | 8.3 | 2 | $35-50$ | 16，700 | 19，400 | 56，000 | 31，900 | 4 |  | LRT |
| Boulevards |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A7 | US 25／70 | US 19／23／Future l－26 | Monticello Rd（SR 1727） | Widen to 6 lanes | 0.4 | 4 | 55 | 31，700 | 19，600 | 45，200 | 29，700 | 6 | $6 \overline{4}$ |  |
| A8 | US 19／23（Smokey Park Highway） | ${ }^{1-40}$ | NC 151 | Widen and convert TWLTL to median where feasible and access control | 3.0 | 5 | 45／50 | 30，600 | 26，200 | 41，500 | 30，400 | $6 / 7$ | 万－6 A |  |
| A9 | US 19／23（Smokey Park Highway） | ${ }^{1-40}$ | US 19／23 Bus（Haywood Rd） | Install median／convert TWLTL to median and general access control | 2.5 | $4 / 5$ | 45 | 22，900 | 28，500 | 29，100 | 25，600 | 4 | J6 A |  |
| A10 | NC 112 （Sand Hill Rd） | US 19／23（Smokey Park Highway） | Enka Lake Rd（SR 3446） | Widen and convert TWLTL to median | 0.4 | 2－5 | 35 | 30，600 | 14，800 | 45，200 | 26，000 | 6 | DOEA |  |
| A11 | NC 112 （Sand Hill Rd／Sardis Rd） | Enka Lake Rd（SR 3446） | NC 191 | Widen to 4 lanes with median | 3.2 | 2 | 45 | 12，500 | 14，800 | 30，600 | 25，900 | 4 | D－6 A | LRTP |
| A12 | Liberty Rd（SR 1228） | $1-40$ | US 19／23（Smokey Park Highway） | Construct interchange and connectors，part on new alignment | 0.9 | 2 2－ | 45 |  |  | 31，700 |  | 4 | J\％A | LRTP |
| A13 | Brevard Rd（NC 191） | ${ }^{1}-40$ | 1－26 | Widen to 4 lanes with median | 1.5 | 2 | 45 | 11，400 | 11，400 | 30，600 | 15，500 | 4 | J6\％ A | LRTP |
| A14 | Brevard Rd（NC 191） | $1-26$ | NC 112 （Sardis Rd） | Upgrade roadway and spot intersection improvements | 0.7 | 4 | 45 | 30，600 | 25，100 | ppto 41，5 | 27，800 | $4 / 6$ | J\％A |  |
| A15 | Brevard Rd（NC 191） | NC 112 （Sardis Rd） | Blue Ridge Parkway | Convert TWLTL to median and access control；spot intersection improvements | 1.8 | 5 | 45 | 30，600 | 13，700 | 30，600 | 18，500 | 4 | J\％A |  |
| A16 | Brevard Rd（NC 191） | Blue Ridge Parkway | NC 280 （Henderson Co） | Widen to 4 lanes with median | 7.1 | 2 | 45／55 | 12，500 | 10，300 | 30，600 | 21，800 | 4 | \％，\％ضA | LRTP |
| A17 | Long Shoals Rd（NC 146） | $1-26$ | Brevard Rd（NC 191） | Widen to 4 lanes with median | 1.6 | 2 | 35 | 11，400 | 14，400 | 30，600 | 26，900 | 4 | 万6 A | LRTP |
| A18 | Long Shoals Rd（NC 146） | $1-26$ | Hendersonville Rd（US 25） | Convert TWLTL to median and access control；spot intersection improvements | 1.9 | 5 | 35／45 | 26，300 | 19，600 | 26，300 | 30，500 | 4 | OEA A |  |
| A19 | US 25A（Sweeten Creek Rd） | Rock Hill Rd（SR 3081） | US 25／NC 280 | Widen to 4 lanes with median | 5.4 | 2 | 45 | 18，900 | 21，700 | 30，600 | 25，700 | 4 | 万6 A | LRTP |
| A20 | US 74A（Charlote Hwy） | ${ }^{1}-40$ | June Sayles Rd（SR 2772） | Convert TWLTL to median and access control | 1.9 | 5 | 50 | 31，700 | 29，600 | 31，700 | 32，100 | 4 | 万6 A |  |
| A21 | Wilma Dykeman Riverway | US 70 | Broadway St（SR 1781） | Widen to 2 or 4 lanes with median or 3 －lane section with parallel parking | 9.0 | 2 | $30-45$ | various | various | various | various | 2－4 | $\cdots$ | LRTP |
| A22 | Amboy Rd（SR 3557） | $1-240$ | Meadow Rd（SR 3556） | Widen to 2 or 4 lanes with median | 1.3 | 2 | 45 | 18，000 | 14，400 | p 1026,300 | 13，400 | $2 / 4$ | $\approx \overbrace{\text { dem }}$ | WDRMP |
| A23 | Weaver Blvd | US 19／23／Future l－26 | US 19／23 Bus（North Main St） | Widen to 4 lanes with median | 0.6 | 3 | 45 | 15，20 | 13，400 | 26，300 | 16，000 | 4 | 万6 A |  |
| A24 | NC 63 | US 19／23（Patton Ave） | Newfound Rd（SR 1004） | Convert TWLTL to median and access control；spot intersection improvements | 4.4 | 5 | 45－55 | 31，70 | 36，500 | 31，700 | 41，000 | 4 | J\％A |  |
| A25 | NC 63 | Newfound Rd（SR 1004） | Turkey Creek Rd（SR 1380） | Widen to 4 lanes with median | 5.5 | 2 | 55 | 16，800 | 15，500 | 31，700 | 23，000 | 4 | OEA A | LRTP |
| A26 | NC 280 | $1-26$ | Henderson County line | Convert TWLTL to median and general access control | 1.4 | 5 | 45／55 | 29，100 | 28，000 | 30，600 | 26，400 | 4 |  | SHC |
| A27 | Amboy Rd（SR 3557） | $1-240$ | NC 191 | Construct new 3 lane in tandem with 1－240 widening | 0.5 |  |  |  |  | 24，200 |  | 4 | 万6 A | LRTP |
| Other Major Thoroughtares |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| A28 | NC 151 | US 19／23（Smokey Park Highway） | Queen Rd（SR 3447） | Widen to $3 / 5$ lanes | 0.6 | 2 | 45 | 15，800 | 9，900 | pp to 31，700 | 15，200 | 3／5 | 万68 A |  |
| A29 | Enka Lake Rd（SR 3446） | NC 112 （Sand Hill Rd） | Beaverdam Rd（SR 3449） | Widen to $3 / 5$ lanes | 2.4 | 2 | 45 | 15，800 | 7，700 | up 1029,100 | 16，000 | 3／5 | 万6 A |  |
| A30 | US 25 | ${ }^{1-40}$ | Mills Gap Rd（SR 3116） | Access management，spot intersection and other operational improvements | 4.2 | 5 | 45 | 30，300 | 37，600 | 30，300 | 29，100 | 5 | 万6 A |  |
| A31 | NC 280 | ${ }_{1}$－26 | US 25 | Access management and spot intersection improvements | 2.1 | 5 | 45 | 29，100 | 29，900 | 29，100 | 31，800 | 5 |  |  |
| A32 | US 70 | $1-240$（including interchange） | Beverly Rd | Access management and spot intersection improvements | 1.4 | 5－8 | 45 | 31，700 | 29，600 | 31，700 | 29，500 | 5－8 | 万6 A |  |
| АЗ3 | US 70 | NC 81 （Swannanoa River Rd） | Riceville Rd（SR 2002） | Access management and spot intersection improvements | 0.2 | 5 | 45 | 31，700 | 25，100 | 31，700 | 26，900 | 5 | deb A |  |
| A34 | US 70 | Blue Ridge Parkway | Old 70 （SR 2435）／College St（SR 2501） | Access management，spot intersection improvements and other per corridor study | 8.7 | 5 | 45 | 31，700 | 19，400 | 31，700 | 21，000 | $4 / 5$ | J\％A | BMCS |
| A35 | US 70 | Flat Creek Rd | $1-40$ | Modify cross－section per corridor study | 0.6 | 4 | 45 | 31，700 | 3，000 | pp to 16，700 | 7，800 | 2／3 |  | BMCS |
| A36 | Patton Cove Rd（SR 3388） | ${ }^{1-40}$ | US 70 | Upgrade roadway and spot intersection improvements | 0.4 | 4 | 45 | 31，700 | 16，500 | 31，700＋ | 22，700 | $4+$ | J\％A |  |
| A37 | Fairview Rd（US 74A／SR 3030） | NC 81 （Swannanoa River Rd） | Cedar St | Access management and spot intersection improvements | 1.0 | 2－5 | 35145 | upto 31,700 | 18，200 | up to 31，700 | 18，400 | 3－5 | J6 A |  |
| A38 | Biltmore Ave（US 25／SR 3214 ） | 1 －40 | US 25 （Soutside Ave／Charlote St（SR 3284） | Access management，spot intersection and other operational improvements | 2.2 | $4 / 5$ | 35 | 21，800 | 26，200 | 21，800＋ | 26，200 | $4 / 5$ | D－6 A |  |
| A39 | US 25 （McDowell St） | Biltmore Ave（SR 3214） | US 25 （Southside Ave）／Phifer St | Access management，spot intersection and other operational improvements | 1.7 | $4 / 5$ | 35 | 21，800 | 21，700 | 21，800＋ | 21，300 | $4 / 5$ | J\％A |  |
| A40 | Broadway St（SR 1781） | 1－240 | Chestnut St | Access management，spot intersection and other operational improvements | 0.3 | 4 | 35 | 19，800 | 6，600 | 19，800 | 6，200 | 4 | J6 A |  |
| A41 | NC 251 （Riverside Dr） | US 192／23／Future－－26 | Old Burnsville Hill Rd（SR 1674） | Widen to 3 lanes | 0.7 | 2 | 35 | 11，400 | 9，600 | 15，200 | 8，500 | $3+$ | 万6 A |  |
| A42 | US 25 （Merrimon Ave） | $1-240$（including interchange） | Beaverdam Rd（SR 2230） | Access management，spot intersection and other operational improvements | 2.1 | 4 | 35 | 21，800 | 26，200 | 21，800＋ | 26，800 | ， | J\％A | LRTP |
| A43 | US 25 （Merrimon Ave） | Beaverdam Rd（SR 2230） | Ekwood Ave（SR 1674） | Access management（median？）and spot intersection improvements | 1.5 | 2－4 | 35 | 11，400 | 14，800 | 11，400＋ | 14，200 | 2－4 | J\％A |  |
| A44 | Weaverville Hwy（US 19／23 Bus／US 25） | Elkwood Ave（SR 1674） | Reems Creek Rd（SR 1003） | Widen to at least 3 lanes；Access management and spot intersection improvemen． | 3.4 | 2 | 35145 | 14，000 | 18，200 | 15，200＋ | 16，500 | $3+$ | J\％A | LRTP |
| A45 | US 19／23 Bus（North Main St） | Weaver Blvd（SR 1725） | Monticello Rd（SR 1727） | Widen to 3 lanes | 0.6 | 2 | 35 | 10，400 | N／A | 13，900 | N／A | 3 | Des A |  |
| A46 | Haywood Rd（US 19／23B／SR 3548） | Westwood PI | Sand Hill Rd（SR 3412） | Upgrade roadway and spot intersection improvements | 0.8 | 3 | 20 | 13，500 | 16，000 | 13，500＋ | 17，300 | $3+$ | \％ 6 |  |
| A47 | US 19／23 Bus（Haywood Rd） | Sand Hill Rd（SR 3412） | US 19／23（Patton Ave） | Add TWLTL or turn lanes and improve intersections | 0.8 | 2 | 35 | 10，400 | 14，800 | up to 13,900 | 14，000 | 2／3 | J\％A |  |
| A48 | US 25A（Sweeten Creek Rd） | 1 －40 | London Rd | Add TWLTL or turn lanes，improve intersections，access management | 1.1 | 2 | 35 | 11，400 | 12，500 | up to 15，200 | 12，500 | 2／3 | De大 A |  |
| A49 | NC 151 | Queen Rd（SR 3447） | Upper Glady Fork Rd（SR 3452） | Add turn lanes，widen shoulder and improve geometrics as appropriate | 4.7 | 2 | 45／55 | 15，800 | 6，600 | 15，900 | 11，100 | 2 | D－A |  |




The Other Maps column means that these facilities are included on other Comprehensive Transportation Plan elements and these elements should be reviewed:

- Highway

Transportation \& $\qquad$

1. Approximate level-of-service (LOS) E capacity in vehicles per day (vpd). These capacities are extracted from the FBRMPO Travel Demand Model and in most cases represent a typical value for the existing/proposed facility type. Where facilities do not exist in the model, the capacity listed in the table has be

.
2. The 2005 ADT value is the actual count taken by NCDOT's Traffic Survey Unit. Where multiple counts were available along a corridor, the highest value was reported; note that higher volumes may exist along the corridor that were not counted. This value should not be taken as representative for the entire corridor,
rather traffic survey maps should be consulted to determine a representative value. For projects crossing county boundaries, the highest value for the entire corridor has been reported in all locations the project appears in the table.

N/A indicates projects which have no count available, are not in the model and/or a count is not relevant (such as an intersectionninterchange type improvement); unavailable data for new location projects has been grayed out.
Values in italics have been estimated from adjacent counts and are thought to be reasonable. They should be used with caution, however, as no count data exists for this segment.
In instances where count data varied tremendously along the length of a project, "various" was used in place of a single value.




## Buncombe County

## Freeways

## A1 I-26 - I-40 to US 25 (Exit 54 in Henderson County)

## Purpose \& Need

This segment of freeway is 4-lane. The posted speed limit varies between 60 and 65 miles per hour with Average Daily Traffic (ADT) reaching 72,000. Given the importance of this facility in serving east-west traffic demands, the lack of suitable alternative routes, the large percentage of trucks, and the seasonal peaking of recreational travel, maintaining a high level of service in this corridor is critical both to the safety and comfort of the traveling public, and to the regional economy.

Recurring congestion is already a problem along this corridor, with severe congestion occurring along the northern stretches, not unexpected as the daily volumes are approximately equal to the ultimate (LOS E) capacity of the roadway. Without appropriate improvements, the project increase in traffic to 80,500 vehicles per day ( vpd ) by 2030 will result in more frequent and persistent delays and increased crash potential.

## Recommendation

This project has already been identified in the LRTP and the TIP as projects I-4400/I-4700.
Widen to 6 lanes along the length of the corridor. Associated interchange improvements may also be warranted.
(Same as Project C1)

## A2 I-240/Future I-26 - I-40 to Broadway St (SR 1781, Exit 25)

This segment of freeway consists primarily of a 4-lane cross section although the Smokey Park Bridge over the French Broad River is 8-lane. The posted speed limit is 55 mph and 2005 AADT values reach 65,000 along the corridor and 103,000 at the bridge. This facility serves not only local traffic accessing downtown Asheville, it is also the primary link for north-south traffic through the region. With the designation of US 19/23 as I-26 to the north, truck and recreational traffic traveling to and through the region using this corridor will increase. As such, maintaining a high level of service in this corridor is critical both to the safety and comfort of the traveling public, and to the regional economy.

Recurring congestion is already a problem along the length of this corridor. Without improvements, the projected increase in traffic to in excess of 90,000 vpd along the mainline (with higher volumes across the river) will result in more frequent and persistent delays and increased crash potential.

## Recommendation

This project has already been identified in the LRTP and the TIP as project I-2513. It should be coordinated with bicycle project A1.

The facility should be widened and a new connector constructed, facilitating the through movement of north-south traffic. Several alternatives and design scenarios are currently under evaluation and their outcome will guide the ultimate design and cross-section of the new and widened facilities. Current plans call for a cross-section of at least a 6 -lane along the length of the corridor, with portions 8-lane. The project may construct an additional river crossing approximately parallel to the Smokey Park Bridge.

## A3 US 19/23/Future I-26 - Broadway St (SR 1781, Exit 25) to N Buncombe School Rd (SR 2207, Exit 17)

This segment of freeway is 4-lane. The posted speed limit is 55 mph and 2005 ADTs reach nearly $70,000 \mathrm{vpd}$. Given the importance of this facility in serving north-south demands, the lack of suitable alternatives and its future designation as I-26 and the resulting increases in truck and recreational traffic, maintaining a high level of service in this corridor is critical both to the safety and comfort of the traveling public, and to the regional economy.

Recurring congestion is already a problem along this stretch of US 19/23 and the southern portion is carrying traffic volumes which more or less equal or exceed the ultimate (LOS E) capacity of the roadway. Without appropriate improvements, the projected increase in traffic to 98,500 vpd by 2030 will result in more frequent and persistent delays and increased crash potential.

## Recommendation

This project has already been identified in the LRTP and the TIP as project A-10.
Widen to 6 lanes at least as far north as US 25/70 (Weaver Blvd). Associated interchange improvements will likely be necessary to address operational issues and satisfy interstate highway standards. This may also include interchange modification, including the partial interchanges at US 19/23 Business and Monticello Rd (SR 1727).

## A4 I-40 - US 19 (Smokey Park Highway, Exit 44) to US 74 (Exit 27 in Haywood County)

## Purpose and Need

This segment of interstate is primarily 4-lane, with an auxiliary climbing lane on critical upgrades. Posted speeds are 60 mph , and 2005 ADTs reach 50,600. Given the importance of this facility in serving east-west traffic demands, the lack of suitable alternative routes, the large percentage of trucks, and the seasonal peaking of recreational travel, maintaining a high level of service in this corridor is critical both to the safety and comfort of the traveling public, and to the regional economy.

Recurring congestion is already a problem along this stretch of I-40. Without appropriate improvements, the projected increase in traffic to 65,700 vpd by 2030 will result in more frequent and persistent delays, and increased crash potential.

## Recommendation

This project has already been identified in the LRTP.
Continue the planned widening of I-40 westward to the US 74 interchange, with a basic cross-section of 6-lanes, and possible climbing lanes. Associated interchange improvements may also be warranted.
(Same as project B1)

## A5 I-40 - I-240 to Porter Cove Rd (SR 2838, Exit 55)

Purpose and Need
This segment of interstate is 4-lane. The posted speed is 60 mph and 2005 AADT values were roughly 57,000 . Given the importance of this facility in serving east-west traffic demands, the lack of suitable alternative routes, the large percentage of trucks, and the seasonal peaking of recreational travel, maintaining a high level of service in this corridor is critical both to the safety and comfort of the traveling public, and to the regional economy.

Recurring congestion is already a problem along this stretch of I-40. Without appropriate improvements, the increase in traffic to over 62,000 vpd by 2030 will result in more frequent and persistent delays and increased crash potential.

## Recommendation

Widen this stretch of I-40 to 6 lanes. Interchange improvements at Exit 55 will likely be necessary, though no modifications to the I-240 interchange should be necessary.

## Expressways

## A6 US 19/23 - NC 151 to Williams St (in Haywood County)

## Purpose and Need

This facility parallels I-40, providing access to adjacent land uses and collector roads, and serving as an alternate route when incidents cause delays on I-40. The facility is essentially two lanes, but typically with a climbing lane, center left-turn lane, or transition area. Speeds limits vary from 35 mph to 50 mph . 2005 volumes of $19,400 \mathrm{vpd}$ are expected to grow to $31,900 \mathrm{vpd}$ by 2030 , raising serious concerns about both capacity and safety, particularly considering the frequent cross-section transitions, sub-optimal vertical alignment, narrow shoulders, and scattered driveway access.

## Recommendation

This project has already been identified in the LRTP and the TIP as a portion of project R-4406. It should be coordinated with highway project B8 and bicycle projects A7 and B6. This may additionally involve coordination with highway project B25.
Upgrading to a 4-lane expressway should provide sufficient capacity to provide a desirable level of traffic service and safety for anticipated automobile and truck traffic. However, with aggressive access management and appropriate land-uses, a high-type arterial design (4-lane divided, possibly with some 5-lane segments) may be suitable. Regardless of the ultimate cross-section, effective access management is critical in the near term.
(Same as project B3.)

## Boulevards

## A7 US 25/70 - US 19/23/Future I-26 to Monticello Road (SR 1727)

Purpose and Need
With the rapid growth in this area, including the regional shopping center currently under construction, volumes on this facility are expected to increase dramatically. Estimates indicate that the 2005 ADT of nearly 20,000 could increase to nearly $30,000 \mathrm{vpd}$ by 2030 . The interchange with US $19 / 23$ and the intersection with Monticello Rd (SR 1727) are all high accident locations and these volume increases will only serve to exacerbate these problems.

## Recommendation

This facility should be widened to 6 lanes. It is also important to maintain the current level of access control by prohibiting future driveways or median breaks. Construction of these improvements by local developers to offset the impacts of adjacent developments may be warranted. This project should be coordinated with highway projects A23 and A59 and bicycle project A23.

## A8 US 19/23 (Smokey Park Highway)- I-40 to NC 151

## Purpose and Need

This area continues to grow and is expected to see traffic volumes increase in the coming years. Even with the construction of an interchange at Liberty Road to the west (project A12), volumes are expected to increase from $26,200 \mathrm{vpd}$ in 2005 to $30,400 \mathrm{vpd}$ in 2030, the capacity of the current roadway. The high driveway concentration and two-way left turn lane (TWLTL) both decrease capacity and increase the accident potential. There are currently five high accident locations along this corridor.

## Recommendation

This roadway should be widened to six travel lanes. Where possible, the TWLTL should be converted to a median. General access control should be improved, including the limiting of driveways and possible driveway consolidation. This project should be coordinated with bicycle improvements identified in the Asheville Comprehensive Bicycle Master Plan.

## A9 US 19/23 (Smokey Park Highway) - I-40 to US 19/23 Bus (Haywood Road)

## Purpose and Need

A substantial portion of this corridor is four lanes without median or turn lanes. Daily volumes in 2005 exceeded the capacity of the roadway and are expected to continue to so in 2030 without improvements. Along the length of the corridor there is dense driveway concentration which decreases the capacity of the roadway and increases the accident potential. There are currently seven high accident locations along this corridor.

## Recommendation

Along the 4-lane section, a median should be installed and turn lanes provided at intersections. The TWLTL along the 5-lane section should be converted to a median, particularly the portion between I40 and Old Haywood Rd. This project should be coordinated with bicycle improvements identified in the Asheville Comprehensive Bicycle Master Plan.

## A10 NC 112 (Sand Hill Road) - US 19/23 (Smokey Park Highway) to Enka Lake Road (SR 3446) <br> Purpose and Need

This area is growing rapidly and expected to continue to experience substantial growth in the coming years with volumes nearly doubling from 2005 to 2030. The close spacing of the AB-Tech driveways with the intersection with US 19/23 will create turning conflicts and a high potential for accidents as volumes increase along corridor and at the campus.

## Recommendation

Extend the widened cross-section to Enka Lake Rd of at least four travel lanes. Depending upon area growth and travel patterns, a 6-lane section may be required. The TWLTL should be converted to a median with a median break (including a possible signal) at the southern entrance to the AB-Tech campus. This project should be coordinated with highway project A11 and bicycle improvements identified in the Asheville Comprehensive Bicycle Master Plan. This project should precede or occur in tandem with highway project A28.

## A11 NC 112 (Sand Hill Road/Sardis Road) - Enka Lake Road (SR3446) to NC 191

## Purpose and Need

This area is experiencing rapid growth and NC 112 is the primary east-west arterial serving the area. Volumes along the roadway are expected to increase substantially from approximately $15,000 \mathrm{vpd}$ in 2005 to $26,000 \mathrm{vpd}$ in 2030. The intersection of Sand Hill and Sardis Roads is a high accident location.

## Recommendation

The facility should be widened to four lanes with a median along the length of the corridor. This project has already been identified in the LRTP and the TIP as project FS-0213A. This project should be coordinated with highway project A10 and bicycle improvements identified in the Asheville Comprehensive Bicycle Master Plan.

## A12 Liberty Road (SR 1228) - I-40 to US 19/23 (Smokey Park Highway) <br> Purpose and Need

There is no access to I-40 between mile markers 37 and 44. In addition to the difficulty this creates for emergency services, it adds additional pressure to local arterials (particularly US 19/23) as all longdistance trips must travel some distance to reach the interstate. This area is experiencing rapid development increasing the demand for access to I-40.

## Recommendation

A new interchange should be constructed including a connector between Dogwood Rd/NC 151 at US 19/23 and Liberty Road, part on new alignment. Future year volumes are anticipated to be sufficiently high to warrant a four-lane section between I-40 and US 19/23. This project has already been identified in the LRTP and the TIP as project I-4759. This project should be coordinated with highway project A51.

## A13 Brevard Road (NC 191) - I-40 to I-26

## Purpose and Need

This road is the only access to the Farmer's Market and surrounding development and provides a critical alternative to I-26 for north-south traffic in the area. In the immediate vicinity of the Farmer's Market, the roadway is 4-lane with median, but the remainder of the corridor is 2-lane without turn lanes. Volumes in 2005 along the 2-lane section are roughly at the daily capacity of the of the roadway.

## Recommendation

The remainder of the corridor should be widened to four lanes with a median. This project has already been identified in the LRTP and the TIP as project U-3601, and is currently under construction with completion scheduled for the current fiscal year. This corridor has been identified for improvements in the Asheville Comprehensive Bicycle Master Plan.

## A14 Brevard Road (NC 191) - I-26 to NC 112 (Saris Road)

## Purpose and Need

The existing roadway is 4 -lane with median. There is high intensity land use adjacent to the road including the Biltmore Square Mall. Recurring congestion is already a problem along this stretch of
roadway and volumes are expected to increase in the coming years, particularly as development along NC 191 to the south intensifies.

## Recommendation

The roadway should be upgraded, including spot intersection improvements. In order to reduce delay and maintain a sufficiently high capacity in this area, it may be necessary to widen the roadway to six lanes. This project should be coordinated with bicycle improvements identified in the Asheville Comprehensive Bicycle Master Plan.

## A15 Brevard Road (NC 191) - NC 112 (Sardis Road) to Blue ridge Parkway

## Purpose and Need

The area around this corridor is expected to experience continued growth in the coming years. It is the only arterial serving local residences and businesses and thus is important to maintain a high level of service for both economic reasons and emergency services. Although construction was recently completed to widen the cross-section to 4 -lane with a TWLTL, there is no access control along this corridor and the capacity can be expected to decline as driveway volumes increase.

## Recommendation

Where possible, the TWLTL should be converted to a median. Additionally, improved access control and spot intersection improvements will likely be warranted to maintain an acceptable level of service. This project should be coordinated with bicycle improvements identified in the Asheville Comprehensive Bicycle Master Plan.

## A16 Brevard Road (NC 191) - Blue Ridge Parkway to NC 280 (in Henderson Co.)

Purpose and Need
As the areas of West Haven and Avery Creek continue to grow, they will place increasing pressure on this corridor. The 2005 ADT of 10,000 is expected to more than double to nearly 22,000 by 2030.
Additionally, this corridor serves as an alternative to I-26.

## Recommendation

NC 191 should be widened to four lanes with a median for the length of this corridor. This project has already been identified in the LRTP and the TIP as project U-3403. This project should be coordinated with bicycle improvements identified in the Asheville Comprehensive Bicycle Master Plan and Greenway Master Plan.
(Same as project C6)

## A17 Long Shoals Road (NC 146) - I-26 to Brevard Road (NC 191)

Purpose and Need
As the areas of West Have and Avery Creek continue to grow, there will be increased demand for access to I-26, with the primary point of access via this corridor. In recent years, large commercial developments have occurred west of the interstate and many more are possible. Volumes today exceed the capacity of some portions of this corridor and they are expected nearly to double by 2030.

## Recommendation

This corridor should be widened to four lanes with a median for the length of the corridor. Given the relatively short length of the corridor and the potential for dense driveway spacing, access control and the limiting of median breaks will be critical to maintaining an acceptable level of service along this corridor. This project has already been identified in the LRTP and the TIP as project R-2813. The section between Clayton Rd and I-26 is scheduled to begin construction this fiscal year. This project should be coordinated with bicycle improvements identified in the Asheville Comprehensive Bicycle Master Plan and Greenway Master Plan.

## A18 Long Shoals Road (NC 146) - I-26 to Hendersonville Road (US 25)

Purpose and Need
The area around this corridor continues to experience rapid commercial and residential development. It is the primary access to I-26 for all of south Asheville and Arden. This roadway was recently widened to four lanes with a TWLTL. Traffic volumes in 2005 are nearly $20,000 \mathrm{vpd}$ with a projected increase to above $30,000 \mathrm{vpd}$ in 2030, well above the capacity of the newly widened roadway.

## Recommendation

In order to maintain an acceptable level of service along this corridor, the TWLTL should be converted to a median. Access control will be critical to accommodating estimated future volumes. Spot intersection improvements may also be necessary. This project should be coordinated with bicycle improvements identified in the Asheville Comprehensive Bicycle Master Plan and Greenway Master Plan.

## A19 US 25A (Sweeten Creek Road) - Rock Hill Road (SR 3081) to US25/NC 280

## Purpose and Need

South Asheville has grown rapidly in recent years and is expected to experience continued growth. In 2005 , ADT for the roadway exceeded the daily capacity of the roadway and volumes are expected to increase noticeably in the coming years. This corridor provides the only alternative to US 25 which is frequently congested. There were several dozen comments received during the CTP process from area residents complaining about the inability to turn onto or off of US 25A and many had witnessed accidents or near accidents.

## Recommendation

The corridor should be widened to four lanes with a median. There was strong citizen support for a landscaped median. This project has already been identified in the LRTP and the TIP as project U-2801. This project should be coordinated with bicycle improvements identified in the Asheville Comprehensive Bicycle Master Plan and Greenway Master Plan.

## A20 US 74A (Charlotte Highway) - I-40 to June Sayles Road (SR 2772)

## Purpose and Need

Volumes along this corridor are very close to the daily capacity of the facility. Volumes are expected to increase in the coming years and the estimated 2030 ADT will exceed the capacity of the facility. There is no access control and the driveway spacing is expected to increase with increasing levels of development.

## Recommendation

In order to maintain an acceptable level of service along this corridor, the TWLTL should be converted to a median. Access control will be important to accommodating estimated future volumes. Spot intersection improvements may also be necessary. This project should be coordinated with bicycle improvements identified in the Asheville Comprehensive Bicycle Master Plan.

## A21 Wilma Dykeman Riverway - US 70 to Broadway Street (SR 1781)

Purpose and Need
The Wilma Dykeman Riverway is a multi-modal facility envisioned to provide a framework for the redevelopment of the waterfront along the French Broad and Swannanoa Rivers. The Wilma Dykeman Riverway Master Plan details the functional design for the corridor for all modes in addition to the potential economic development/redevelopment potential.

## Recommendation

Improve the facility or construct on new location per the Wilma Dykeman Riverway Master Plan. This currently calls for sections of two or four lanes with median or a 3-lane section with parallel parking. Additionally, this project should be coordinated with bicycle improvements identified in the Asheville Comprehensive Bicycle Master Plan. This project has been identified in the LRTP and the TIP as projects U-5019 and U-4739.

## A22 Amboy Road (SR 3557) - I-240 to Meadow Road (SR 3556)

## Purpose and Need

As part of the Wilma Dykeman Riverway Master Plan, improvements along Amboy Road were identified. Volumes along this roadway are high and exceed the capacity of other roadways with similar cross-sections because of the limited number of driveways and relatively high free-flow speeds. The Riverway master plan identifies a need to improve the facility for other modes and an upgrade of the streetscape. This roadway serves as a key connection to central Asheville and will increase in importance with the development of the Riverway. It is expected that volumes will remain relatively constant in the coming years although this will be affected by the intensity of development along the Riverway and the level of access afforded to other modes.

## Recommendation

The corridor should be upgraded to include a median to preserve the de facto level of access control and improve the streetscape. Depending upon redevelopment plans for the area and the accompanying future traffic volumes, a 4-lane section may be warranted. This project is identified in the TIP as projects U-5019 and U-4739. Additionally, this project should be coordinated with bicycle improvements identified in the Asheville Comprehensive Bicycle Master Plan.

## A23 Weaver Boulevard - US 19/23/Future I-26 to US 19/23 Bus (North Main Street) <br> Purpose and Need

This corridor currently experiences recurring congestion on a regular basis and the 2005 ADT approach the capacity of the roadway. Future year volumes are expected to increase and exceed the capacity of the roadway, exacerbating existing congestion unless the roadway is improved. As development increases to the west of US 19/23, maintaining a connection with a high level of service to downtown Weaverville will be important to ensure its continued economic health and expansion. Several intersections along this corridor have been identified as have a high crash rate.

## Recommendation

This corridor should be widened to a 4-lane section with a median. The median will improve safety as well as provide a measure of access control to limit operational degradation of the roadway. It will also provide an opportunity for an attractive gateway to the community. These improvements should be coordinated with improvements to bicycle facilities along the corridor and with highway project A7.

## A24 NC 63 - US 19/23 (Patton Avenue) to Newfound Road (SR 1004)

Purpose and Need
Volumes along this corridor already exceed LOS E capacity resulting in substantial recurring congestion. Estimates of 2030 ADT are $41,000 \mathrm{vpd}$, well in excess of the capacity likely resulting in extensive delay without some improvement. Eight of the intersections along this corridor have been identified as having high crash rates.

## Recommendation

The TWLTL should be converted to a median along the length of the corridor in order to increase safety and maintain capacity. Additionally, access control including limited median breaks and driveway consolidation will be important to maintaining an acceptable level of operation. Spot intersection improvements may also be warranted.

## A25 NC 63 - Newfound Road (SR 1004) to Turkey Creek Road (SR 1380)

Purpose and Need
The corridor is expected to continue to grow in the coming years. Volumes are already nearly at the ultimate (LOS E) daily capacity resulting in some recurring congestion. Typical volumes in 2030 are expected to substantially exceed the capacity of the current facility. Two intersections along this corridor have been identified as high crash rate locations.

## Recommendation

The corridor should be widened to a 4-lane facility with median. This project (with a shorter corridor length) has been identified in the LRTP and the TIP as project U-3301. These improvements should be coordinated with improvements to bicycle facilities along the corridor.

## A26 NC 280 - I-26 to Henderson County Line

Purpose and Need
NC 280 serves as the primary access to Transylvania County and is an important transportation corridor for citizens and tourists. This section of the highway is currently 5-lane and expected to experience high volumes as both Fletcher and Mills River continue to grow. Volumes today are very nearly at the ultimate (LOS E) daily capacity of the roadway. The roadway is part of the statewide system of Strategic Highway Corridors with an ultimate preferred cross-section of a median facility. The interchange with I-26 at the eastern end of this corridor has been identified as the third-highest crash location in the county.

## Recommendation

The TWLTL along the corridor should be converted to a median. Additionally, increased access control should be developed to maintain an acceptable level of service and high level of mobility. This project should be coordinated with highway project A30.

## A27 Amboy Road (SR 3557) - I - 240 to NC 191

Purpose and Need
As part of the proposed I-240 widening (highway project A2), the interchange with Amboy Rd will be reconfigured, eliminating access to or from the south. Additionally this extension will improve connectivity in the area.

## Recommendation

Per the current design for the I-240 widening, a 3 lane connector ( 2 westbound, 1 eastbound lane) should be constructed between Brevard Rd (NC 191) and the existing terminus of Amboy Rd at I-240. This project (specifically the companion project A2) has been identified in the LRTP and is expected to be completed in tandem with project A2. This project should be coordinated with bicycle improvements identified in the Asheville Comprehensive Bicycle Master Plan.

## Other Major Thoroughfares

## A28 NC 151 - US 19/23 (Smokey Park Highway) to Queen Road (SR 3447)

## Purpose and Need

Traffic along this corridor is estimated to increase by over 50 percent by 2030 to the capacity of the existing roadway. This area of Candler and this corridor can be expected to increase in importance with the construction of an interchange near Liberty Rd (A12) and the associated connector which would terminate at US 19/23 opposite NC 151.

## Recommendation

Increase capacity along this corridor. Depending upon the level of future development and the needs of the community a cross-section of a 3-lane or 5-lane will likely be appropriate, although a 4-lane with median could be feasible as well. This project should be coordinated with highway project A48 and with improvements to bicycle facilities along the corridor.

## A29 Enka Lake Road (SR 3446) - NC 112 (Sand Hill Road) to Beaverdam Road (SR 3449)

Purpose and Need
The area around this corridor continues to experience rapid development resulting in noticeable increases in traffic volumes along this corridor. The estimated 2030 ADT is more than double current volumes and will exceed the capacity of the existing roadway.

## Recommendation

The capacity of this corridor should be increased to accommodate additional traffic. Depending upon the level of future development and the needs of the community a cross-section of a 3-lane or 5-lane would likely be most appropriate. This project should be coordinated with highway projects A10 and A50 and improvements to bicycle facilities along the corridor. Some or all of these improvements may be warranted as mitigations to traffic impacts resulting from developments in the area.

## A30 US 25-I-40 to Mills Gap Road (SR 3116)

Purpose and Need
This is the primary transportation corridor serving South Asheville and connecting it and the surrounding area to points north and south. Daily volumes in 2005 noticeably exceed the ultimate
(LOS E) capacity and the corridor is subject to frequent, recurring congestion. Volumes are expected to remain high and travel along the corridor will become increasingly difficult as the intensity of development increases, particularly as there is no access management along the corridor. There are four intersections with high crash rates along this corridor.

## Recommendation

In order to maintain an acceptable level of service along the corridor access management should be implemented along the corridor, including possible medians, driveway consolidation, etc. Additional spot intersection improvements may be warranted. This project should be coordinated with bicycle improvements identified in the Asheville Comprehensive Bicycle Master Plan.

## A31 NC 280 - I- 26 to US 25

Purpose and Need
Volumes along this corridor have roughly reached the ultimate (LOS E) daily capacity of the corridor and are expected to increase in the future year resulting in more frequent and worse congestion along the corridor. There are four intersections with high crash rates along this corridor.

## Recommendation

In order to maintain an acceptable level of service along the corridor access management should be implemented along the corridor, including possible medians, driveway consolidation, etc. These improvements should also help to increase safety along the corridor. Additional spot intersection improvements may be warranted. This project should be coordinated with highway project A26

## A32 US 70-I-240 (including interchange) to Beverly Road

Purpose and Need
Volumes along this corridor, particularly at the interchange with I-240, have roughly reached the ultimate (LOS E) daily capacity of the corridor and are expected to remain at similar levels in the future year. There are two intersections with high crash rates along this corridor, including the interchange with I-240 which had the second highest number of crashes in the county.

## Recommendation

In order to increase safety and maintain an acceptable level of service, access management and spot intersection improvements are recommended. Particular attention should be paid to the interchange with I-240. This project should be coordinated with bicycle improvements identified in the Asheville Comprehensive Bicycle Master Plan.

## A33 US 70 - NC 81 (Swannanoa River Road) to Riceville Road (SR 2002)

## Purpose and Need

This short section of US 70 serves not only high levels of through traffic but large amounts of turning traffic to/from NC 81 on the west end and Riceville Rd on the east end. This weaving decreases capacity and introduces safety hazards. Both intersections have been identified as high crash locations.

## Recommendation

Spot intersection improvements are likely warranted and access management should be implemented in order to minimize the number of conflicts along the corridor.

## A34 US 70 - Blue Ridge Parkway to Old 70 (SR 2435)/College Street (SR 2501)

## Purpose and Need

US 70 is a critical component of the transportation system serving the communities of Swannanoa and Black Mountain. Although I-40 closely parallels US 70 in this corridor, and carries more traffic, the access limitations of the interstate require that US 70 play a role in distributing most trips to and from the interstate. It is also the only alternative available for re-routing traffic during incidents on I-40. Because of topographic constraints, there are few alternatives to US 70, and most local and noninterstate trips also rely on US 70 at some point. In addition to serving this mixture of trips, US 70 must also provide acceptable levels of both access and mobility, functions that are often in conflict. The fact that traffic on US 70 contains significant numbers of trucks and out-of-town drivers further complicates the situation.

Recent detailed analysis of the US 70 corridor suggest that east of Patton Cove Road (where volumes are highest) traffic on US 70 will grow from 19,400 vpd in 2005 to 29,500 vpd by 2030. While volumes will not be as high at other locations along the corridor, capacities are not as high in other locations either, due to changes in cross-section and differences in adjacent development. There are at least eight high-accident locations along this corridor. The vicinity of Patton Cove Road is particularly hazardous, including a number of pedestrian fatalities.

## Recommendation

For the most part, the existing cross-sections could provide adequate capacity for the forecast traffic, but only if access is carefully managed, and safety and capacity improvements are made to intersections and traffic signals. In addition, enhanced connectivity parallel to US 70 (such as the connectors described in A71) could remove or shorten some trips on US 70, and could be especially effective in reducing the turning conflicts at major intersections, thereby preserving their capacity.

## A35 US 70-Charlotte Street to I-40

## Purpose and Need

In its current state, this stretch of US 70 transitions from a pair of 2-lane high-speed freeway ramps on the east, through a segment of 4-lane divided near-expressway (with parallel 2-lane frontage road), to a 3 -lane, $25-\mathrm{mph}$ urban street that passes in front of an elementary school on its the way through the center of Black Mountain. This all occurs in a distance of just over one-half mile. The safety concerns raised by this design are complicated by the operation of the two pairs of unsignalized intersections where Flat Creek and Padgettown Roads cross Old US 70 less than 50 feet from US 70. Traffic volumes on this portion of US 70 are relatively low, and the existing roadways consume an unnecessarily large amount of land that could be used more productively.

## Recommendation

Modify the cross-section by tapering the freeway ramps and narrowing the 4-lane divided segment to a 2-lane divided facility. Reconfigure the paired Old US 70 intersections at Padgettown and Flat Creek Roads as modern roundabouts. Maintain access control.

## A36 Patton Cove Road (SR 3388) - I-40 to US 70

## Purpose and Need

This is a high volume corridor which provides the primary connection to I-40 for Swannanoa and west Black Mountain. Traffic volumes in 2030 are estimated to be nearly one third above those today and
approaching the capacity of the roadway. The intersections at both ends of this short corridor have been identified as having high crash rates.

## Recommendation

This roadway should be upgraded to maintain a high level of service and increase safety where possible. Such improvements could include additional turn lanes and signal improvements. Better access to adjoining development would reduce the amount of traffic needing to use US 70, which is currently the only way to access much of this property. Such alternative access would effectively increase the capacity of the US 70 intersection by eliminating a significant number of critical left-turn conflicts. Any improvements should be coordinated with highway project A33 and with proposed bicycle improvements along the corridor. Depending upon the nature and terminus of the proposed frontage road south of I-40 (highway project A71), extension of the project limits further south to this new facility may be warranted.

## A37 Fairview Road (US74A/SR 3030) - NC 81 (Swannanoa River Road) to Cedar Street Purpose and Need

This is a high volume corridor which is central to transportation infrastructure of southeast Asheville. In recent years a number of large commercial developments have been constructed and it is not unreasonable to expect that more will follow. There are five intersections along this corridor which have been identified as having high crash rates.

## Recommendation

In order to maintain an acceptable level of service, it is recommended that a policy of access management be instituted coupled with spot intersection improvements where warranted. This project should be coordinated with bicycle improvements identified in the Asheville Comprehensive Bicycle Master Plan. Coordination of any improvements along the east end of the corridor with the Wilma Dykeman Riverway (highway A21) is also recommended.

## A38 Biltmore Avenue (US 25/SR 3214 - I-40 to US 25 (Southside Ave.)/Charlotte Street (SR 3284)

## Purpose and Need

This corridor serves as one of two primary corridors connecting downtown Asheville with Biltmore Village and points south. Traffic volumes currently exceed capacity and are estimated to continue to do so in the future. North of McDowell St, the road is typically a 4-lane cross section, without median, and lacks turn lanes at most intersections. Four intersections along this corridor have been identified as having high crash rates.

## Recommendation

Where feasible, turn lanes should be added at intersections to improve safety and capacity. Additionally, control of access along this facility should be increased to limit the amount of turning traffic at locations other than intersections. This project should be coordinated with bicycle improvements identified in the Asheville Comprehensive Bicycle Master Plan.

## A39 US 25 (McDowell St.) - Biltmore Avenue (SR 3214) to US 25(Southside Ave.)/Phifer Street

Purpose and Need
This corridor serves as one of two major corridors connecting downtown Asheville with Biltmore Village. Volumes today and in the future are expected to be roughly equal to the daily capacity of the facility, resulting in frequent recurring congestion. The facility is 4-lane lacking turn lanes between the tunnel and Asheville High School.

## Recommendation

Where not currently present, turn lanes should be added at intersections where feasible. Additionally, control of access along this facility should be increased to limit the amount of turning traffic at locations other than intersections. This project should be coordinated with bicycle improvements identified in the Asheville Comprehensive Bicycle Master Plan.

## A40 Broadway Street (SR 1781) - I-240 to Chestnut Street

Purpose and Need
This corridor serves as the primary connection between UNC-Asheville and downtown Asheville. The area adjacent to I- 240 can become congested, particularly where the roadway narrows at Cherry St.

## Recommendation

Where feasible, access management and other operational improvements should be implemented to maintain an acceptable level of service along this corridor. This project should be coordinated with bicycle improvements identified in the Asheville Comprehensive Bicycle Master Plan and with the Asheville Greenways Master Plan.

## A41 NC 251 (Riverside Drive) - US 192/23/Future I-26 to Old Burnsville Hill Road (SR 1674)

## Purpose and Need

This facility provides an important connection between Asheville and Woodfin in addition to serving the many industrial facilities along the corridor. The current facility lacks turn lanes except at the southern end at the interchange with US 19/23. Volumes today have approached the daily capacity of the roadway and are expected to remain high, particularly as plans for the Wilma Dykeman Riverway progress.

## Recommendation

Where feasible, a continuous left-turn lane (TWLTL) should be installed for the length of the corridor. Otherwise, turn lanes should be added at intersections. This project should be coordinated with proposed bicycle improvements along the corridor.

## A42 US 25 (Merrimon Avenue) - I-240 (including interchange) to Beaverdam Road (SR 2230) Purpose and Need

Merrimon Ave is the primary arterial serving north Asheville and connecting it to both Downtown and points north. It is primarily a 4-lane section without turn lanes and 2005 ADT exceeds the estimated daily capacity of the roadway. Volumes are expected to remain at similar levels or increase in the future year. This corridor includes nine intersections (including the I-240 interchange) identified as having high crash rates. Although recently completed safety improvements at the interchange with I-

240 will address some of the most immediate safety needs, the interchange remains substandard and in need of a substantial upgrade.

## Recommendation

The primary need for this corridor is spot intersection improvements including turn lanes at intersections. In addition, to increase safety and capacity, additional operational and access management should be improved, including possible medians or driveway consolidations. The interchange with I-240 needs a major modification for safety and capacity improvements. This project has been identified in the LRTP and the TIP as project U-4013. Improvements should be coordinated with highway project A42 and with bicycle improvements identified in the Asheville Comprehensive Bicycle Master Plan.

## A43 US 25 (Merrimon Avenue) - Beaverdam Road (SR 2230) to Elkwood Avenue (SR 1674)

## Purpose and Need

This corridor connects north Asheville with the Weaverville Hwy (US 19/23 Bus) and points north. Typical daily volumes in 2005 exceed the capacity of the roadway. Along the length of the corridor, the facility is 2-lane without turn lanes; driveway density is high along much of the corridor, consisting primarily of residential driveways.

## Recommendation

In order to improve level of service along this facility, turn lanes are recommended at intersections. Additionally, some level of access management, including a possible median, will prove beneficial. This project should be coordinated with bicycle improvements identified in the Asheville Comprehensive Bicycle Master Plan and with highway project A41.

## A44 Weaverville Hwy (US 19/23 Bus/US 25) - Elkwood Ave (SR 1674) to Reems Creek Road (SR 1003)

## Purpose and Need

This corridor is the primary arterial serving nearly all the homes and businesses between Woodfin and Weaverville. Along this corridor it is primarily 2-lane without turn lanes and very high driveway density, the majority of which serve businesses fronting the roadway. Daily volumes substantially exceed the ultimate (LOS E) capacity resulting in frequent recurring congestion; volumes are expected to remain high in future years.

## Recommendation

In order to maintain an acceptable level of service a center turn lane (TWLTL) should be added along the length of the corridor. In some locations, additional through lanes and spot intersection improvements may be warranted. Access management will help to maintain the level of operations along the corridor; medians, driveway consolidation, etc. may be necessary at certain locations, particularly those in close proximity to intersections. This project has been identified in the LRTP and should be coordinated with bicycle improvements proposed for the corridor.

## A45 US 19/23 Bus (North Main Street) - Weaver Boulevard (SR 1725) to Monticello Road (SR 1727)

## Purpose and Need

This corridor is part of the central artery for Weaverville and connects the downtown with the rapidly growing areas to the north. There are no turn lanes along this corridor except at either end, but there is relatively high driveway density, including an increasing number of commercials driveways.

## Recommendation

In order to maintain an acceptable level of service and reduce the potential for rear-end collisions as volumes increase, a TWLTL should be installed along the length of this corridor. This project should be coordinated with proposed bicycle improvements for the corridor.

## A46 Haywood Road (US 19/23B/SR 3548) - Westwood Place to Sand Hill Road (SR 3412) <br> Purpose and Need

Haywood Road is an important artery serving West Asheville residents and businesses. Daily volumes typically exceed the daily capacity and are expected to increase in the future year. Many intersections lack dedicated turn lanes.

## Recommendation

Upgrade the roadway including spot intersection improvements where possible. This project should be coordinated with bicycle improvements identified in the Asheville Comprehensive Bicycle Master Plan and with highway project A47.

## A47 US 19/23 Bus (Haywood Road) - Sand Hill Road (SR 3412) to US 19/23 (Patton Avenue)

Purpose and Need
Haywood Road is an important artery serving West Asheville residents and businesses. Daily volumes typically exceed the daily capacity and are expected to continue to do so in the future year. There are no turn lanes along the corridor except at its ends, yet there is a relatively high driveway density along this corridor.

## Recommendation

In order to improve the level of service along this corridor, turn lanes should be added at intersections or possibly a TWLTL installed for all or part of the corridor. Access management such as medians or driveway consolidation near points of congestion and adjacent to intersections may also be warranted. This project should be coordinated with bicycle improvements identified in the Asheville Comprehensive Bicycle Master Plan and with highway project A46.

## A48 US 25A (Sweeten Creek Road) - I-40 to London Road

## Purpose and Need

This facility provides an alternate access to Biltmore Village and will have increased need for mobility with the further improvements to Sweeten Creek Rd south of I-40. Volumes today exceed the ultimate (LOS E) capacity of the roadway and are expected to continue to do so in the future without improvements to the roadway.

## Recommendation

In order to provide an acceptable level of service along the corridor turn lanes should be added at intersections or possibly a TWLTL installed for all or part of the corridor. Access management such as medians or driveway consolidation near points of congestion and adjacent to intersections may also be warranted. This project should be coordinated with bicycle improvements identified in the Asheville Comprehensive Bicycle Master Plan.

## A49 NC 151- Queen Road (SR 3447) to Upper Glady Fork Road (SR 3452)

## Purpose and Need

This corridor serves the growing area of the South Hominy Creek Valley in addition to connecting to the Blue Ridge Parkway in the south. Volumes are anticipated to nearly double by 2030 resulting in increased congested and crash risk. The facility is generally 2-lane without turn lanes and in many locations there is poor sight distance, no shoulder and little horizontal clearance.

## Recommendation

As appropriate, turn lanes should be added at intersections, typically as development occurs and increases volumes on particular movements. Additionally, the shoulder should be widened, possibly paved, and where feasible geometrics and sight distance should be improved. This project should be coordinated with proposed bicycle improvements along the corridor.

## Minor Thoroughfares

A50 Bennett Road (SR 3446) - Beaverdam Road (SR 3449) to Lower Glady Fork Road (SR 3449)
Purpose and Need
This corridor serves the growing area of the South Hominy Creek Valley. Volumes are anticipated to increase sevenfold by 2030 resulting in increased congested and crash risk. The facility is generally 2 lane without turn lanes and in many locations there is poor sight distance, no shoulder and little horizontal clearance.

## Recommendation

As appropriate, turn lanes should be added at intersections, typically as development occurs and increases volumes on particular movements. Additionally, the shoulder should be widened, possibly paved, and where feasible geometrics and sight distance should be improved. This project should be coordinated with proposed bicycle improvements along the corridor.

## A51 Asbury Road (SR1234)/Liberty Road (SR 1228/9) to Liberty Road/Dogwood Connector Purpose and Need

This road currently connects to one of the few crossings of I-40 in the area and is expected to increase in importance with the construction of the interchange at Liberty Rd (highway project A12) as this will be the most direct route between NC 112 and I-40. Volumes are expected to grow nearly fourfold between 2005 and 2030. The facility is generally 2-lane without turn lanes and in many locations there is poor sight distance, no shoulder and little horizontal clearance.

## Recommendation

As appropriate, turn lanes should be added at intersections, typically as development occurs and increases volumes on particular movements. Additionally, the shoulder should be widened, possibly paved, and where feasible geometrics and sight distance should be improved. This project should be coordinated with proposed bicycle improvements along the corridor.

## A52 Monte Vista/Sand Hill School Road (SR 1224) - Sand Hill Road (SR 3412) to Holbrook Road (SR 1238)

## Purpose and Need

This corridor serves as a primary access to I-40 and US 19/23 for residents living north of I-40 and west of US 19/23. It is also an important connection to southwest Asheville and the Brevard Rd area. Volumes today approach the daily capacity of the roadway and are expected to increase in the coming years. The western end of this corridor has been identified as having a high crash rate. The facility is generally 2-lane without turn lanes and in many locations there is poor sight distance, no shoulder and little horizontal clearance.

## Recommendation

As appropriate, turn lanes should be added at intersections, typically as development occurs and increases volumes on particular movements. Given the high volumes, a TWLTL may be warranted for some or all of the length of the corridor. Additionally, the shoulder should be widened, possibly paved, and where feasible geometrics and sight distance should be improved.

## A53 Clayton Road (SR 3501) - NC 191 (Brevard Road) to NC 146 (Long Shoals Road)

## Purpose and Need

This corridor serves as a connector between NC 191 and NC 146. It is also the primary road in an area expected to experience noticeable development in the coming years, the first signs of which are present. Volumes are expected to increase noticeably by 2030. The facility is generally 2-lane without turn lanes and in many locations there is poor sight distance, no shoulder and little horizontal clearance.

## Recommendation

As appropriate, turn lanes should be added at intersections, typically as development occurs and increases volumes on particular movements. Additionally, the shoulder should be widened, possibly paved, and where feasible geometrics and sight distance should be improved. This project should be coordinated with improvements identified in the Asheville Greenways Master Plan.

## A54 Mills Gap Road (SR 3116) - US 25 to Concord Road (SR 3150)

## Purpose and Need

The western part of this corridor provides the primary connection between US 25 and US 25A. It is the primary access to both facilities for the growing area east of Arden. The corridor has four intersections identified as having high crash rates. The facility is generally 2 -lane without turn lanes and in many locations there is poor sight distance, no shoulder and little horizontal clearance.

## Recommendation

Additional through and/or turn lanes are likely warranted between US 25 and US 25A. East of US 25A (Sweeten Creek Rd), turn lanes should be added at intersections or possibly a center turn lane (TWLTL), will be warranted, depending upon future driveway density and level of access control. This project should be coordinated with proposed bicycle improvements along the corridor and with highway projects A19, A29 and A55.

## A55 Mills Gap Road (SR 3116) - Concord Road (SR 3150) to Weston Road (SR 3157)

Purpose and Need
This is a key corridor growing area east of Arden. It also provides an alternate route to points north from the rapidly growing area of east Fletcher. The facility is generally 2-lane without turn lanes and in many locations there is poor sight distance, no shoulder and little horizontal clearance.

## Recommendation

As appropriate, turn lanes should be added at intersections, typically as development occurs and increases volumes on particular movements. Additionally, the shoulder should be widened, possibly paved, and where feasible geometrics and sight distance should be improved. This project should be coordinated with proposed bicycle improvements along the corridor.

## A56 Concord Road (SR 3150) - Mills Gap Road (SR 3116) to School Road East (SR3117)

## Purpose and Need

This corridor is the primary arterial for the many neighboring residences and is used to access Asheville by many residents living adjacent to Cane Creek Rd. Volumes are expected nearly to double by 2030. The facility is generally 2 -lane without turn lanes and in many locations there is poor sight distance, no shoulder and little horizontal clearance.

## Recommendation

As appropriate, turn lanes should be added at intersections, typically as development occurs and increases volumes on particular movements. Additionally, the shoulder should be widened, possibly paved, and where feasible geometrics and sight distance should be improved. This project should be coordinated with proposed bicycle improvements along the corridor.

## A57 Christ School Rd (SR 3188)/Baldwin Rd (SR 3189) - US 25A to Lower Christ School Rd (SR 3197)

## Purpose and Need

This corridor is the primary access to points north and west for area residents. Volumes are expected nearly to double by 2030. The facility is generally 2-lane without turn lanes and in many locations there is poor sight distance, no shoulder and little horizontal clearance.

## Recommendation

As appropriate, turn lanes should be added at intersections, typically as development occurs and increases volumes on particular movements. Additionally, the shoulder should be widened, possibly paved, and where feasible geometrics and sight distance should be improved. This project should be coordinated with proposed bicycle improvements along the corridor.

## A58 Elkwood Avenue - Merrimon Avenue (US 25) to Riverside Drive (NC 251)

Purpose and Need
This corridor is a primary north-south arterial for Woodfin and northeast Asheville. Most intersections lack turn lanes and in many cases there is dense driveway spacing and poor sight distance.

## Recommendation

Upgrade intersections to include turn lanes; a TWLTL may be warranted for some or all of the corridor.

## A59 Monticello Road (SR 1727) - Ollie Weaver Road (SR 1730) to Alexander Road (SR 1809)

## Purpose and Need

This corridor serves as the primary access to US 25/70 (and thus all points beyond) for the west Weaverville area which is currently experiencing rapid growth. Without improvements, this growth will quickly exceed the capacity of the area roadways. The facility is generally 2-lane without turn lanes and in many locations there is poor sight distance, no shoulder and little horizontal clearance.

## Recommendation

As appropriate, turn lanes should be added at intersections, typically as development occurs and increases volumes on particular movements. For much of the corridor it is likely that a TWLTL will be warranted and in some locations additional through lanes may be necessary. Additionally, the shoulder should be widened, possibly paved, and where feasible geometrics and sight distance should be improved. This project should be coordinated with proposed bicycle improvements along the corridor and with highway project A60. It should be noted that the actual extents of the improvements have been estimated for the CTP and the ultimate extents will depend upon the location and intensity of future growth.

## A60 Monticello Road (SR 1727) - Alexander Road (SR 1809) to New Stock Road (SR 1882) Purpose and Need

This corridor serves as the primary access to US 25/70 (and thus all points beyond) for the west Weaverville area which is expected to experience substantial growth in coming years with volumes more than doubling by 2030. The facility is generally 2-lane without turn lanes and in many locations there is poor sight distance, no shoulder and little horizontal clearance.

## Recommendation

As appropriate, turn lanes should be added at intersections, typically as development occurs and increases volumes on particular movements. Additionally, the shoulder should be widened, possibly paved, and where feasible geometrics and sight distance should be improved. This project should be coordinated with proposed bicycle improvements along the corridor.

## A61 New Stock Road (SR 1882) - Merrimon Avenue (US 19/23) to Aiken Road (SR 1720) Purpose and Need

This corridor serves as the primary access to US 19/23 and US 19/23 Bus (and thus all points beyond) for the area southwest of Weaverville which is expected to experience substantial growth in coming years and resultant increases in traffic volumes which would approximately equal the capacity of the
existing roadway. The facility is generally 2-lane without turn lanes and in many locations there is poor sight distance, no shoulder and little horizontal clearance.

## Recommendation

As appropriate, turn lanes should be added at intersections, typically as development occurs and increases volumes on particular movements. For most if not all of the corridor a TWLTL will likely be warranted. Additionally, the shoulder should be widened, possibly paved, and where feasible geometrics and sight distance should be improved. This project should be coordinated with proposed bicycle improvements along the corridor.

## A62 New Stock Road (SR 1882) - Aiken Road (SR 1720) to Monticello Road (SR 1727) <br> Purpose and Need

This corridor serves as the primary access to US 19/23 and US 19/23 Bus (and thus all points beyond) for the area southwest of Weaverville which is expected to experience substantial growth in coming years and resultant increases in traffic volumes more than doubling by 2030. The facility is generally 2-lane without turn lanes and in many locations there is poor sight distance, no shoulder and little horizontal clearance.

## Recommendation

As appropriate, turn lanes should be added at intersections, typically as development occurs and increases volumes on particular movements. Additionally, the shoulder should be widened, possibly paved, and where feasible geometrics and sight distance should be improved. This project should be coordinated with proposed bicycle improvements along the corridor.

## A63 Old NC 20 (SR 1641) - Old Leicester Highway (SR 1002) to Old NC 20 (SR 1622)

Purpose and Need
This corridor is one of the few north-south routes northwest of Asheville. Volumes are expected to increase noticeably by 2030. The facility is generally 2-lane without turn lanes and in many locations there is poor sight distance, no shoulder and little horizontal clearance.

## Recommendation

As appropriate, turn lanes should be added at intersections, typically as development occurs and increases volumes on particular movements. Additionally, the shoulder should be widened, possibly paved, and where feasible geometrics and sight distance should be improved. This project should be coordinated with proposed bicycle improvements along the corridor and with highway project A64.

## A64 Mount Carmel Road (SR 1369) - Old Leicester Highway (SR 1002) to Old Country Home Road (SR 1373)

## Purpose and Need

This corridor is one of the few north-south routes northwest of Asheville. Volumes are expected to increase noticeably by 2030. The facility is generally 2-lane without turn lanes and in many locations there is poor sight distance, no shoulder and little horizontal clearance.

## Recommendation

As appropriate, turn lanes should be added at intersections, typically as development occurs and increases volumes on particular movements. Additionally, the shoulder should be widened, possibly paved, and where feasible geometrics and sight distance should be improved. This project should be coordinated with proposed bicycle improvements along the corridor and with highway project A63.

## A65 Old Country Home Road (SR 1373/1369) - NC 63 to NC 63

## Purpose and Need

This is a key road for the area, serving the school and area businesses. Volumes are expected nearly to double by 2030. The facility is generally 2-lane without turn lanes and in many locations there is poor sight distance, no shoulder and little horizontal clearance.

## Recommendation

As appropriate, turn lanes should be added at intersections, typically as development occurs and increases volumes on particular movements. Additionally, the shoulder should be widened, possibly paved, and where feasible geometrics and sight distance should be improved. This project should be coordinated with proposed bicycle improvements along the corridor.

## A66 Dryman Mountain Road (SR 1338) - Old Country Home Road (SR 1369) to Gorman Bridge Road (SR 1357)

Purpose and Need
This corridor provides the primary alternative to NC 63 in the area northwest of Asheville. Traffic volumes are expected to experience substantial growth in the coming years. The facility is generally 2lane without turn lanes and in many locations there is poor sight distance, no shoulder and little horizontal clearance.

## Recommendation

As appropriate, turn lanes should be added at intersections, typically as development occurs and increases volumes on particular movements. Additionally, the shoulder should be widened, possibly paved, and where feasible geometrics and sight distance should be improved. This project should be coordinated with proposed bicycle improvements along the corridor.

## A67 Roberts Street/Lyman Avenue - Riverside Drive to Riverside Drive <br> Purpose and Need

This area adjacent to this corridor is envisioned as part of a new arts district as described in the Wilma Dykeman Riverway Master Plan. It is also the primary means of access to the waterfront from downtown Asheville given the grade separation between Haywood Rd and Riverside Dr.

## Recommendation

The roadway should be upgraded in coordination with the Wilma Dykeman Riverway plans (project A21). In addition to streetscape improvements, turn lanes and possibly a TWLTL will likely be warranted.

## A68 College Street - Spruce Street to US 25 (Broadway St)

## Purpose and Need

As part of the Pack Square renovations the street system is being modified in the area. There is a desire to reduce speeds and increase the pedestrian friendliness of the area.

## Recommendation

Convert the roadway from a one-way to two-way for the length of the corridor, extending the recently modified cross-section from the east. This project should be coordinated with bicycle improvements identified in the Asheville Comprehensive Bicycle Master Plan and with highway project A69.

## A69 Patton Avenue - College Street to Market Street

Purpose and Need
As part of the Pack Square renovations the street system is being modified in the area. There is a desire to reduce speeds and increase the pedestrian friendliness of the area.

## Recommendation

Convert the roadway from a one-way to two-way for the length of the corridor. This project should be coordinated with bicycle improvements identified in the Asheville Comprehensive Bicycle Master Plan and with highway project A68.

## A70 Beaverdam Road (SR 2053) - US 25 (Merrimon Avenue) to Webb Cove Road (SR 20583) <br> Purpose and Need

This corridor serves as the primary arterial for the many residences northeast of Asheville. It also connects to Webb Cove Rd which provides access to the Blue Ridge Parkway. Volumes are currently very high along the corridor and estimated 2030 volumes will exceed the current capacity of the roadway. The facility is generally 2-lane without turn lanes and in many locations there is poor sight distance, no shoulder and little horizontal clearance.

## Recommendation

As appropriate, turn lanes should be added at intersections, typically as development occurs and increases volumes on particular movements. Additionally, the shoulder should be widened, possibly paved, and where feasible geometrics and sight distance should be improved. This project should be coordinated with bicycle improvements identified in the Asheville Comprehensive Bicycle Master Plan and the Asheville Greenways Master Plan.

## A71 New Frontage Road (S of I-40) - Blue Ridge Road (SR 2500) to Patton Cove Road (SR 2740)

 Purpose and NeedA number of physical obstacles severely restrict travel in the US 70 corridor from Black Mountain to East Asheville. The east-west orientation of the Swannanoa River valley force I-40, the railroad, US 70, Old US 70, and most development into a long, thin strip. At the same time, the interstate, the river, and the railroad severely constrain the number and location of any opportunities to cross this narrow corridor. The situation south of I-40 is particularly deficient, and will only worsen with the completion of planned residential growth.

Currently, homes and businesses served by Patton Cove Road, Lytle Cove Road, and NC 9/Blue Ridge Road are effectively isolated from each other. Almost any attempt to travel between these communities requires the travel on US 70 or I-40, frequently involving lengthy back-tracking or other out-of-direction travel. For Lytle Cove, this means two river crossings, two railroad crossings, and two I-40 crossings for each trip, and then again on the return. This obviously increases VMT, fuel consumption, emissions, congestion, delay, and crash potential. The additional at-grade rail crossings are of particular concern, for two reasons. First, there is the potential for crashes with trains. Then there is delay created when crossings are blocked by trains, which becomes critical in emergency response situations, especially since several of these communities have only one access point. Even without a train conflict, the same problem could be triggered by a vehicular accident, flooding, fire, rockslide, or fallen tree.

Connecting these isolated communities on the south side of I-40 will provide significant benefits in all of the areas describe above, by:

- Shortening trip lengths;
- Increasing reliability of travel times and routes;
- Reducing VMT, emissions, and fuel consumption;
- Providing multiple access points;
- Improving emergency response;
- Preserving capacity on US 70 and other routes, reducing the need for widening or other capacity expansions.


## Recommendation

Construct two-lane/three-lane connectors on new alignments, designed for $35-45 \mathrm{mph}$ speed limits. Where practical, tie into and improve existing roads, such as Old Lytle Cove Road, Dillingham Panaview Road, Buckeye Access Road, or Mockingbird Road. Consideration of bicycle and pedestrian travel is also important.

## A72 N Louisiana Ave (SR 1332) - US 192/23 (Patton Ave) to Emma Rd (SR 1338)

## Purpose and Need

This corridor is central to the travel in northwest Asheville between Patton Ave (US 19/23) and Emma Rd. Volumes in 2005 were very high ( $13,000 \mathrm{vpd}$ ) and substantially exceeding the estimated capacity of the roadway. Volumes along this corridor are expected to remain high in future years. Pavement is narrow and there is high truck traffic. All three primary intersections along this corridor have been identified as having high crash rates.

## Recommendation

As appropriate, turn lanes should be added at intersections, typically as development occurs and increases volumes on particular movements. Additionally, the shoulder should be widened, possibly paved, and where feasible geometrics and sight distance should be improved. This project should be coordinated with bicycle improvements identified in the Asheville Comprehensive Bicycle Master Plan.

## Alternatives Considered but not Recommended

## Additional Thoroughfares in Black Mountain

Consideration was given to classifying additional roads as minor thoroughfares (such as the remainder of Craigmont Road, Flat Creek Road, Old US 70 East, and the remainder of North Fork Road). However, it was determined that these facilities are more accurately classified as "collectors" than as "thoroughfares." Collectors provide more of an access function than a mobility function, in terms of the high proportion of their traffic that originates on land accessible only via a trip on that facility. Not only do thoroughfares tend to carry higher volumes of traffic, but a larger share of this traffic consists of "through" trips on that facility, with neither end of the trip originating from adjacent land or local streets. Other factors influencing classification include length, spacing, and feasibility of upgrading to thoroughfare standards.

## Biltmore Village Bypass

For many years, there have been discussions of a bypass around Biltmore Village, to reduce congestion by removing traffic from Brook Street, McDowell Street, Hendersonville Road, and Biltmore Avenue. Several alternatives were analyzed as part of the LRTP update in 2005, and results from the new travel demand model remain consistent with these assumptions and findings.
A number of alternative routes were considered, all of which require a new bridge over the Swannanoa River, and at least one railroad overpass to connect Sweeten Creek Road with Swannanoa River Road (or a new facility) east of Biltmore Avenue. Considerable earthwork would be required, along with demolition of a number of residences and businesses.

While some of these alternatives have the potential to remove 4,500 or more vehicles from Brook Street each day, traffic reductions on Biltmore Avenue to the north and Hendersonville Road (US 25) to the south are insignificant ( $<500 \mathrm{vpd}$ ). Introducing grade-separated rail crossings would reduce train related delays and eliminate potential crashes, but there are no other obvious traffic benefits to a Biltmore Village Bypass. Undesirable traffic impacts include:

- Minor/moderate increases (500-2,000 vpd) on Sweeten Creek Road (US 25A).
- Minor/moderate increases (500 - 1,500 vpd) along portions of Caribou, London, and West Chapel Road.
- Minor/insignificant increases (<500 vpd) on McDowell Street (US 25) and Forest Hill Drive.

Given the likely expense of this project, and its potential for substantial disruption of the local community and natural environment, it is difficult to justify based on travel benefits.

## Haywood County

## Freeways

## B1 I-40 - US 74 to Smokey Park Highway (in Buncombe Co)

## Purpose and Need

This segment of interstate is primarily 4-lane, with an auxiliary climbing lane on critical upgrades. Posted speeds are 60 mph , and 2005 ADTs reach $50,600 \mathrm{vpd}$. Given the importance of this facility in serving east-west traffic demands, the lack of suitable alternative routes, the large percentage of trucks, and the seasonal peaking of recreational travel, maintaining a high level of service in this corridor is critical both to the safety and comfort of the traveling public, and to the regional economy.

Recurring congestion is already a problem along this stretch of I-40. Without appropriate improvements, the projected increase in traffic to 65,700 vpd by 2030 will result in more frequent and persistent delays, and increased crash potential.

## Recommendation

Continue the planned widening of I-40 westward to the US 74 interchange, with a basic cross-section of 6-lanes, and possible climbing lanes. Associated interchange improvements may also be warranted.
(Same as A4)

## B2 US 19/23/74 - NC 209 to US 19 (Dellwood Rd.)

## Purpose and Need

This 4-lane segment of freeway currently carries $43,200 \mathrm{vpd}$, with heavy weaving movements between the NC 209 interchange and the US 23/74 - US 19 split. It experiences heavy seasonal peaks in tourist travel, which includes an unusually large proportion of recreational vehicles and drivers unfamiliar with the area. Truck traffic is also significant.

In addition to a forecast growth in traffic to over 52,000 vpd, increases in traffic at the NC 209 interchange and an associated reconfiguration of that interchange (see B7) could exacerbate the weaving problem. Additional capacity is needed to eliminate this bottleneck, and to reduce potential crashes due to unexpected stops and lane-changes. In addition, the highest crash location in the county is at the NC 209 interchange.

## Recommendation

In coordination with the proposed interchange improvements at NC 209, widen this segment to 6 lanes, and consider possible improvements at the US 19 split.

## Expressways

## B3 US 19/23 - Williams St to NC 151 (in Buncombe County)

## Purpose and Need

This facility parallels I-40, providing access to adjacent land uses and collector roads, and serving as an alternate route when incidents cause delays on I-40. The facility is essentially two lanes, but typically with a climbing lane, center left-turn lane, or transition area. Speeds limits vary from 35 mph to 50 mph . 2005 volumes of $19,400 \mathrm{vpd}$ are expected to grow to $31,900 \mathrm{vpd}$ by 2030 , raising serious concerns about both capacity and safety, particularly considering the frequent cross-section transitions, sub-optimal vertical alignment, narrow shoulders, and scattered driveway access.

## Recommendation

This project has already been identified in the LRTP and the TIP as a portion of project R-4406. This project should be coordinated with highway projects include B8 and B25, and bicycle project B6.
Upgrading to a 4-lane expressway should provide sufficient capacity to provide a desirable level of traffic service and safety for anticipated automobile and truck traffic. However, with aggressive access management and appropriate land-uses, a high-type arterial design (4-lane divided, possibly with some 5-lane segments) may be suitable. Regardless of the ultimate cross-section, effective access management is critical in the near term.
(Same as project A6.)

## Boulevards

## B4 US 19 (Dellwood Rd) - Lakeshore Dr to US 276 (Johnathan Creek Rd)

## Purpose and Need

Typically, the basic 5-lane cross-section (4 through lanes plus a center two-way left-turn lane) of this facility would be expected to be adequate for the 30,000 vpd estimated for 2005. However, the high proportion of recreational trips on this facility (associated primarily with Maggie Valley) leads to extreme seasonal peaking that can generate periods of intense congestion. Without rigorous access management, the effective capacity of this facility will actually decrease as development proceeds. Combined with a 2030 traffic forecast of $36,300 \mathrm{vpd}$, such degradation in capacity will lead to even more severe and persistent congestion. Anticipated improvements to the two lane segment of US 19 to the west will only exacerbate the situation by further increasing traffic volumes on this portion of US 19. Furthermore, the second highest crash location in the county is at the US 19/Russ Avenue intersection.

## Recommendation

Where feasible and appropriate, convert the continuous center turn lane to a median. Maintain capacity through access management, geometric improvements, and deployment of an effective traffic signal system. Coordinate with highway projects B2, B11, and B16. This project should be coordinated with proposed bicycle improvements along the corridor.

## B5 US 23 Business - US 19/23/74 to East Street

## Purpose and Need

This portion of US 23 Business was recently upgraded to four travel lanes, with a mixture of median and center turn lanes. This cross section should be adequate for the forecast growth in traffic from 13,700 vpd in 2005 , to the model's 2030 estimate of 18,100 vpd. However, there is significant potential for new development and redevelopment along this corridor, and to the north of US 19/23/74. This growth, combined with the proposed interchange improvements and other capacity expansions to the north (see B7, B15, and B24), suggests the potential for traffic volumes considerable higher than those in the model.

## Recommendation

Given the critical nature of this facility to the overall transportation system, the preservation of existing capacity through access management is a top priority. The conversion of some center turn lanes to medians may eventually be warranted, as well as spot intersection and signal system improvements.

This project has been identified in the TIP as project R-2210. Coordinate with highway projects B7, B23, and B10 and proposed bicycle improvements along the corridor.

## B6 US 23 Business - US 23/74 to Ninevah Rd

## Purpose and Need

With the redevelopment of industrial property in the vicinity of the Business 23 interchange at the Great Smokey Mountains Expressway, traffic volumes will grow beyond the 9,500 vpd estimated for 2005. Although the travel demand model forecasts only a modest increase (to $11,900 \mathrm{vpd}$ in 2030), substantially higher traffic volumes are likely. This discrepancy is due to the fine-grained nature to the road network and land use patterns in this area, factors to which a large-scale regional model is not particularly responsive. Redevelopment of just a few key parcels could add 2,000 more vehicle-trips. Heavy turning movements, skewed intersections, and at-grade railroad crossings reduce capacity in this corridor. This project interacts with B19 and B22.

## Recommendation

Improvements at this location are identified in the LRTP and the TIP as project U-4712.
At a minimum, additional turn lanes and geometric improvements will be warranted. Ultimately, a four-lane cross-section (ideally, with a median and/or center turn lanes) may be required to provide a suitable gateway from the south. This project should be coordinated with proposed bicycle improvements along the corridor.

## B7 NC 209 - US 19/23/74 to County Rd (SR 1375)

## Purpose and Need

This two-lane facility will experience significant traffic growth between 2005 and 2030, with volumes estimated to increase from $10,700 \mathrm{vpd}$ to $18,500 \mathrm{vpd}$. This is well beyond the capacity of the current design. The proximity of the US 19 interchange, combined with the widening of Asheville Road (US 23 Business) to the south, are already inducing commercial redevelopment along this corridor, which in turn is driving traffic growth. This segment/interchange also include the \#1 and \#8 crash locations in Haywood County, suggesting the need for improvements based on safety as well as capacity.

## Recommendation

In addition to intersection improvements, and in conjunction with reconfiguration of the US 19 interchange, this facility should be widened to four lanes, with median and turn lanes.

These improvements have already been identified in the LRTP and the TIP as project R-4047.
Related projects include B15, B23, B2, and B5.

## B8 US 19 - Main St to Williams St

## Purpose and Need

Recurring congestion is already evident as US 19 enters Canton from the east. With the proposed upgrade and widening of US 19 to the east (see B3) in response to current traffic levels and anticipated growth, this segment of US 19 must provide a smooth transition into downtown Canton. Otherwise, it will become a major bottleneck, and the site of recurring congestion and related crash issues.

## Recommendation

An additional travel lane is needed in each direction, in conjunction with intersection improvements. Widen to four lanes with median -- or turn lanes -- as necessary and feasible.

This improvement has been identified in the LRTP and the TIP as a portion of the project R-4406. The project should be coordinated with highway projects B3 and B25.

## B9 Dellwood Rd - US 276 (Russ Ave) to Miller St

## Purpose and Need

This project represents a modification of an earlier LRTP proposal to widen and extend Dellwood Road via an overpass across Richland Creek and the Southern Railroad tracks. The intent of the original project - and the proposed revision - was to provide additional north-south capacity to relieve existing and future congestion along Main Street (US 23 Business) through Waynesville, where options for widening or new construction are limited.

## Recommendation

Originally, this project was a continuation of the proposed widening of Dellwood Rd west of Russ Avenue (US 276) from two lanes to a four-lane divided arterial. Several factors led to the elimination of the creek/railroad crossing:

- High costs of such a large structure;
- Probable elimination/reconstruction of Miller and/or Depot Street bridges;
- Difficulties tying the extension back into the road system on the south side of the crossing;
- Community disruption; and,
- Relatively small traffic demand or other benefits.

Instead, the proposed widening would be maintained along the existing alignment to Depot Street, where a new connection with Smathers Street would be constructed. Intersections with Depot Street and Miller Street would be configured to take advantage of their existing bridges across Richland Creek. In conjunction with this project, Smathers Street/Sulphur Springs Road would also be improved (B20). This alignment offers several advantages over the original proposal:

- Preserves existing bridges without requiring a large new structure;
- Better connectivity with existing streets;
- Better access and mobility on west side of Richland Creek;
- Less disruptive and less expensive.

These improvements have already been identified in the LRTP and the TIP as a portion of project U-3466.

Related highway projects include B11, B20, and B23. This project should be coordinated with bicycle project B3.

## Other Major Thoroughfares

## B10 US 23 Business (North Main St) - US 276 (Walnut St) to East Street

## Purpose and Need

This portion of US 23 Business carried an estimated $10,600 \mathrm{vpd}$ in 2005. It is primarily a 2-lane urban arterial, with some 3-lane segments. Driveways and intersections (often skewed or multi-legged) are frequent. In light of projects to increase capacity at either end of this segment, it appears likely that the model's 2030 forecast of $12,200 \mathrm{vpd}$ is probably low.

## Recommendation

With a constrained right-of-way, an undesirable alignment/geometrics, and surrounding development, options for adding capacity are limited. Spot intersection improvements, including turn lanes, intersection reconstruction, elimination of certain turning movements, and a sophisticated traffic signal system are identified as the most practical measures to maximize capacity. This project should be coordinated with B5, B11, and B17. This project should be coordinated with proposed bicycle improvements along the corridor.

## B11 US 276 (Russ Ave) - US 23 Business (North Main St) to US 19 (Dellwood Rd)

Purpose and Need
This facility serves several important functions, including:

- Accessing US 74;
- Providing a north-south spine connecting with east-west facilities;
- Connecting Waynesville and Maggie Valley;
- Serving adjacent land uses.

Along with its varied functions, Russ Avenue has a variety of cross-sections (from two to five lanes) and speed limits ( $20-45 \mathrm{mph}$ ). Although the model does not forecast a significant increase in maximum traffic volumes (from 35,300 vpd in 2005 to $36,300 \mathrm{vpd}$ in 2030), portions of the facility will experience substantially greater traffic increases. Without careful access management, further development or re-development could effectively reduce existing capacity. In addition, the second highest crash location in the county is at the US 19/Russ Avenue intersection.

## Recommendation

Employ access management and spot intersection improvements as warranted, along with signal system improvements.
This project should be coordinated with proposed bicycle improvements along the corridor and with highway projects $\mathrm{B} 4, \mathrm{~B} 9, \mathrm{~B} 10, \mathrm{~B} 17$, and B 23 .

## B12 NC 215 - Fiberville Rd (SR 1643) to NC 215 (Champion Rd)

## Purpose and Need

The intersection cluster on Champion Drive at the Pigeon River crossing (Blackwell Dr, Beaverdam St, and North Canton Rd), with its two one-way bridges, skewed/steep approaches, heavy truck traffic, and limited rights-of-way creates a very complicated and inefficient bottleneck, and a potential crash hazard. In fact, this location is currently the fifth highest crash location in the county. At present levels of
traffic, these intersections appear to function at an acceptable level. However, it is difficult to predict how they will perform as traffic inevitably increases on NC 215 and its intersecting roadways.

## Recommendation

Upgrade intersection as warranted by safety or capacity concerns. Reconfiguration or movement restrictions may ultimately be considered.

This project has been identified in the LRTP. This project should be coordinated with proposed bicycle improvements along the corridor and the greenway proposed in the Haywood County Parks and Recreation Master Plan.

## B13 NC 110 - US 19/23 to Henson Cove Rd (SR 1863)

Purpose and Need
This two-lane road works in tandem with a parallel route on the west side of the Pigeon River (NC 215 - see B14) to connect Canton with the communities of Bethel and Woodrow, as well as US 276 and points south. In, addition both roads act as major collectors, providing the primary access to extensive residential development in the surrounding coves and hillsides. The road's alignment is winding, with narrow lanes and shoulders, and other geometric problems that limit sight-distance at some of the frequent driveways and intersections. As a result, two of Haywood County's ten highest crash locations are in this corridor.

The 2005 volume of 9,300 vpd is forecast to grow to 11,600 vpd by 2030, although this estimate could escalate significantly, depending on development patterns.

## Recommendation

Add turn lanes and improve intersection geometrics where appropriate. Widen lanes/shoulders, and improve alignment. This project should be coordinated with bicycle project B12 and with highway project B25.

## B14 NC 215 - US 19/23 to Stamey Cove Rd (SR 1823)

## Purpose and Need

This two-lane road works in tandem with a parallel route on the east side of the Pigeon River (NC 110 see B13) to connect Canton with the communities of Bethel and Woodrow, as well as US 276 and points south. In, addition both roads act as major collectors, providing the primary access to extensive residential development in the surrounding coves and hillsides. The road's alignment is winding, with narrow lanes and shoulders, and other geometric problems that limit sight-distance at some of the frequent driveways and intersections.

The 2005 volume of 6,600 vpd is forecast to grow to 8,100 vpd by 2030 , although this estimate could escalate significantly, depending on development patterns.

## Recommendation

Add turn lanes and improve intersection geometrics where appropriate. Widen lanes/shoulders, and improve alignment. This project should be coordinated with bicycle projects B11.

This project was previously identified in the LRTP.

## B15 NC 209 - County Rd (SR 1375) to Foxwood Dr

## Purpose and Need

The combination of adjacent roadway capacity improvement projects (B7 and B24) and anticipated development reflects the necessity of improving this two-lane facility. Although the forecast of traffic growth from 8,300 vpd in 2005 to 10,100 vpd in 2030 is relatively modest, it will be approaching the desirable capacity of this facility, given its geometric limitations and the frequency of intersections and driveways at its southern end. Furthermore, relatively minor changes to the assumed land uses could result in substantially higher future traffic volumes.

## Recommendation

Add turn lanes, widen lanes/shoulders, and improve alignment and intersection geometrics as warranted. This project should be coordinated with proposed bicycle improvements along the corridor and with highway projects B7 and B24.

## B16 US 19 - US 276 (Johnathan Creek Rd) to Jackson County line

Purpose and Need
This narrow, winding 2-lane road connects Maggie Valley with Cherokee and the heart of the Great Smokey Mountains National Park. It is the most direct route between these two regionally significant tourist destinations. Volumes are already well beyond the desirable capacity for this facility, and are forecast to grow from 19,000 vpd in 2005 to $26,300 \mathrm{vpd}$ in 2030, with extreme seasonal peaks. The high proportions of recreational vehicles and unfamiliar drivers exacerbate both safety and capacity problems.

## Recommendation

This project has been identified previously in the LRTP.
Although widening to incorporate additional through lanes could be warranted by the forecast volumes, terrain, environmental impacts, and high costs may not make this a feasible or desirable solution. A general upgrade of the existing facility is certainly warranted, including:

- Improvements to horizontal and vertical alignment;
- Widening of lanes/shoulders;
- Intersection improvements and turn lanes;
- Access management;
- Addition of climbing/passing lanes and turn-outs.

Related projects include B4. This project should be coordinated with proposed bicycle improvements along the corridor.

## Minor Thoroughfares

## B17 Walnut St - US 276 (Russ Ave) to US 23 Business (North Main St)

Purpose and Need
This connection between US 276 and US 23 Business allows east-west traffic to avoid avoiding downtown, while also providing access to adjacent commercial development. Traffic volumes are forecast to increase from $8,200 \mathrm{vpd}$ in 2005 to $10,000 \mathrm{vpd}$ in 2030, which should be within the capacity of a 2-3 lane facility of this type. However, heavy turning movements at several skewed, irregularly
spaced intersections, combined with a number of driveway connections, could create capacity bottlenecks.

## Recommendation

Manage driveway access, and upgrade roadway with spot intersection and signal improvements, as needed.

This project should be coordinated with projects B10 and B11.

## B18 Legion Drive - US 23 Business (South Main St) to US 276 Pigeon St

## Purpose and Need

This short link could help relieve congestion at the US 23 Business/US 276 intersection just to the north, by pulling out trips between the eastern and southern legs of this intersection, which is severely constrained with respect to capacity improvement options.

## Recommendation

A combination of signing, turn lanes, and modified intersection design/traffic control should divert a significant number of trips out of the intersection of South Main and Pigeon Streets, reducing delays. These improvements have already been identified in the TIP as a portion of project U-3466. This project should be coordinated with bicycle project B4.

## B19 Hazelwood Ave (SR 1173)/Plott Creek Rd - US 23/74 to US 23 Business (South Main St) <br> Purpose and Need

This 2-lane facility accesses the southern half of a split diamond interchange with US 74, connecting with the northern half of the interchange at Eagles Nest/Elsynia Ave (see B21). It also intersects Sulphur Springs Rd (see B20). Hazlewood Avenue provides an important east-west connection between residential development west of US 74 and downtown Waynesville, via its eastern terminus with US 23 Business (South Main Street - see B6). It also provides access to a series of north-south streets, and to adjacent development. Traffic is forecast to grow from 7,000 vpd in 2005 to $11,800 \mathrm{vpd}$ in 2030. Skewed intersections, frequent driveways, encroaching structures, and an at-grade rail crossing compromise the safety and capacity of this facility.

## Recommendation

Add turn lanes, and improve intersection geometrics and signalization as practical.
This project should be coordinated with proposed bicycle improvements along the corridor. And with highway projects B21, B20, and B6.

## B20 Sulphur Springs Rd (SR 1176)/Smathers St - Hazelwood Ave (SR 1173) to Miller St <br> Purpose and Need

This project is associated with B9, the extension of Dellwood Road; with B21, improvements to Eagle Nest Road/Elsynia Avenue; and B19, improvements to Hazlewood Ave/Plott Creek Rd. Given the relatively low existing and forecast volumes ( 4,000 and $5,900 \mathrm{vpd}$ for 2005 and 2030, respectively), no significant problems are anticipated for this relatively flat, straight, 2-lane facility. However, some improvements will be necessary (and prudent) to adequately accommodate the Dellwood Road
extension, and anticipated traffic growth at the split diamond interchange on the Great Smokey Mountains Expressway at Eagles Nest and Plott Creek Roads.

## Recommendation

Add turn lanes and improve intersection geometrics and traffic control as appropriate, in conjunction with B9, B19, and B21. This project should be coordinated with proposed bicycle improvements along the corridor.

## B21 Eagle Nest Rd (SR 1176)/ Elsynia Ave - Hazelwood Ave (SR 1173) to Miller St

Purpose and Need
This road provides access to the north half of the split diamond interchange with US 74, and connects residential development west of the expressway with central Waynesville via Hazelwood Avenue, as well as linking with Sulphur Springs Rd. Although travel model forecasts do not show an increase in traffic volumes from 2005 to 2030, the existing demand of approximately $10,000 \mathrm{vpd}$ is already above the desirable capacity for a 2-lane road of this type, given its geometric limitations.

## Recommendation

Add turn lanes, widen shoulder, and improve intersection geometrics and traffic control as appropriate.
This project should be coordinated with proposed bicycle improvements along the corridor. And highway projects B20 and B19.

## B22 Brown Ave - Belle Meade Dr to Hazelwood Ave (SR 1173)

Purpose and Need
Brown Avenue provides an important continuous connection from US 23 Business north to Boyd Avenue, paralleling the Southern Rail line to its west. An earlier project widened Brown Avenue to 4 lanes from US 23 Business north to Belle Meade Dr. The remainder of the road has a narrow two-lane cross-section, and the transition between the two segments is rather abrupt.

## Recommendation

Although additional capacity is not critical on Brown Avenue, it is important to preserve its existing capacity and continuity, recognizing its function in providing both local access and relief to US 23 Business, which has few opportunities for increased capacity. The addition of turn lanes and/or the improvement of intersection geometrics and traffic control at critical locations should be sufficient.

This project should be coordinated with proposed bicycle improvements along the corridor and with highway project B6.

## B23 Howell Mill Rd (SR 1184) - US 276 (Russ Ave) to US 23 Business

Purpose and Need
Howell Mill Road is a two-lane facility that provides the only practical alternative route to US 23 Business in the northeast sector of Waynesville. It is also the primary access to significant parcels of developable land between the Southern Rail line and the Great Smokey Mountains Expressway. As such, traffic volumes can be expected to increase well beyond 2005's $3,800 \mathrm{vpd}$, especially upon completion of the proposed Dellwood Road improvements (see B9).

## Recommendation

Add turn lanes and improve intersection geometrics where appropriate. Widen lanes/shoulders and improve vertical/horizontal alignment where necessary. Provide grade separation at railroad crossing. These improvements have already been identified in the LRTP and the TIP as project U-4412. This project should be coordinated with proposed bicycle improvements along the corridor and with highway projects B9, B11, and B5.

## B24 Old Clyde Rd (SR 1523) - NC 209 to Walnut Ford Rd (SR 1524)

## Purpose and Need

The combination of adjacent roadway capacity improvement projects (B7 and B15) and anticipated development points to the need to improve this two-lane facility. The forecast of traffic growth from $2,700 \mathrm{vpd}$ in 2005 to $8,900 \mathrm{vpd}$ in 2030 will be approaching the desirable capacity of this facility, and relatively minor changes in assumed land uses could result in substantially higher future traffic volumes.

## Recommendation

Add turn lanes, widen lanes/shoulders, and improve alignment and intersection geometrics as warranted.

This project should be coordinated with highway projects B 7 and B 15 , and bicycle project B 2 .

## B25 Locust St (and connections) - NC 110 to US 19/23

## Purpose and Need

Inclusion of this project recognizes the use of Locust Street - in combination with Williams, Hampton Heights, Bailey, Academy, and other local streets - as a shortcut used by US 19/23 - NC 110 traffic to avoid congestion in downtown Canton. Although it is not an obvious route to drivers unfamiliar with the area, it is clearly well-known to local residents and commuters, and its use will undoubtedly increase over time.

## Recommendation

Add turn lanes, widen lanes/shoulders, and improve alignment and intersection geometrics as warranted. Alternatively, a policy decision may be made to discourage cut-through traffic. In such a case, geometric changes and restrictions of certain turning movements (traffic calming measures) could be employed to make these routes less attractive as a shortcut. However, such a strategy would be more effective in conjunction with improvements to reduce delays when traveling through downtown Canton.

This project should be coordinated with highway projects $\mathrm{B} 3, \mathrm{~B} 8$, and B 13 .

## B26 Ninevah Rd/Country Club Dr/Crymes Cove Rd (SR 1134) - US 23 Bus (S Main St) to US 276 (Pigeon St)

## Purpose and Need

Connectivity in this area of Haywood County is generally poor, in large part a result of the terrain. Improvements to this facility would enable it to become a viable alternative for traffic moving between southern Waynesville and the Woodrow area. Moreover, volumes along this corridor are expected to increase by several thousand vehicles per day by 2030 such that the existing facility may not adequately serve the demand.

## Recommendation

Add turn lanes, widen lanes/shoulders, and improve alignment and intersection geometrics as warranted.

This project should be coordinated with highway projects B6 and B22.

## Alternatives Considered but not Recommended

## Sylvan Street Interchange

The possibility of locating a new interchange on The Great Smokey Mountains Expressway at or near Sylvan Street was discounted for a variety of reasons. The ramp termini of the adjacent interchanges (at US 276 and Eagles Nest Road) are only about 1.5 miles apart, and Sylvan Street is approximately 0.6 miles from the US 276 ramp termini. This spacing is less than desirable, and would present significant design challenges, while moving the proposed interchange to another location would require construction of a new overpass. In either case, considerable earthwork and/or new structures would be required, with significant impacts on existing roads and residences.

For this interchange to provide a transportation benefit requires a good connection with a river crossing at Depot or Miller Streets, or tying in with the proposed extension of Dellwood Rd. Given the elevation difference and the short distance involved, any such connection via existing streets would involve a steeper than desirable grade, suggesting the need to construct a route on new, longer, less direct alignment, which would further increase costs and impacts on the community and local environment.

Finally, given the current and projected volumes at the adjacent interchanges, it does not appear that the proposed interchange would attract enough trips, or provide enough benefits, to justify its expense and impacts. In the absence of substantial changes in land use could alter this outcome, it appears more practical to improve the existing interchanges and associated roadways, and to complete the proposed Dellwood Road extension (B19, B20, and B21 and B9, respectively).

## Henderson County

## Freeways

## C1 I-26 - US 25 to I-40 (Buncombe County)

Purpose and Need
This segment of freeway is 4-lane. The posted speed limit varies between 60 and 65 mph with ADT reaching 72,000 . Given the importance of this facility in serving east-west traffic demands, the lack of suitable alternative routes, the large percentage of trucks, and the seasonal peaking of recreational travel, maintaining a high level of service in this corridor is critical both to the safety and comfort of the traveling public, and to the regional economy.

Recurring congestion is already a problem along this corridor, with severe congestion occurring along the northern stretches, not unexpected as the daily volumes are approximately equal to the ultimate (LOS E) capacity of the roadway. Without appropriate improvements, the projected increase in traffic to 80,500 vpd by 2030 will result in more frequent and persistent delays and increased crash potential.

## Recommendation

Widen to 6 lanes along the length of the corridor. Associated interchange improvements may also be warranted. This project has already been identified in the LRTP. This project should be coordinated with projects $\mathrm{C} 2, \mathrm{C} 3$ and C 4 .
(Same project as A1.)

## C2 US 25-I-26 to NC 225 (Greenville Highway)

Purpose and Need
US 25 is the major route south to Greenville SC, another rapidly growing urban area. Forecasts call for traffic to increase from $16,500 \mathrm{vpd}$ in 2005 to $26,300 \mathrm{vpd}$ in 2030, above the maximum capacity of the current facility. South of NC 225, this facility is already a freeway.

## Recommendation

Upgrade to 4-lane freeway. This project has been identified previously in the LRTP. This project should be coordinated with project C 1 .

## Expressways

## C3 Balfour Parkway - NC 191 to US 64

Purpose and Need
Local topography has "channelized" both development and major transportation facilities (I-26, US 25 Business, US 176, NC 191, NC 225, Howard Gap Road, etc.) into a number of parallel corridors, running generally northwest-to-southeast. Because of the physical constraints to travel in the perpendicular direction (northeast-southwest), these trips must often take very indirect routes, increasing mainline traffic volumes, conflicting turning movements, and total VMT and VHT. The result is an inefficient transportation system, with recurring congestion and excessive delays.

Although I-26 is an essential component of the regional transportation system, it complicates the solution of the problem described above. By its design as a high-speed, limited-access facility, it concentrates traffic (and development) at a few critical interchanges, while creating an additional barrier to northeast-southwest travel across the county. As Henderson County continues to grow, traffic on

Martin Luther King Boulevard will become increasingly congested. A substantial portion of this traffic will not want or need to be on this portion of US 64, but will have no other choice for getting to its desired destination. Balfour Parkway substantially reduces travel demand through this bottleneck, providing a more direct route to destinations between the US 64 and US 25 interchanges on I-26, as well as for east-west trips crossing I-26.

Volumes on the completed Balfour Parkway are estimated at over 31,700 vpd in 2030.

## Recommendation

Construct 4-lane expressway, connected to I-26 via a new interchange near Brookside Camp Rd. On the west, Balfour Parkway would ultimately terminate at an intersection or interchange with NC 191 near Mountain Road. An interchange with US 25 Business would also provide a grade-separated crossing of the railroad tracks. This interchange could also be considered as an interim or alternative western terminus. To the east, there would be an at-grade intersection with Howard Gap Road, with a terminus at US 64 near Fruitland Road. The nature of this intersection is yet to be determined.

This project should be coordinated with projects $\mathrm{C} 1, \mathrm{C} 5, \mathrm{C} 8, \mathrm{C} 9$ and C 14 . This project was previously identified in the LRTP.

## Boulevards

## C4 Upward Road (SR 1783) - US 176 to Howard Gap Road (SR 1006)

Purpose and Need
With 2005 traffic levels of $17,500 \mathrm{vpd}$ expected to essentially double by 2030, the current planned widening project will improve traffic flow and accessibility for the western portion of this corridor. However, Henderson County plans target commercial areas at Upward Road's intersections with US 176 and Howard Gap Road, as well as the I-26 interchange. The importance of the Upward Road/I-26 interchange, and the availability of large tracts of developable land to the east, point to the need to extend these capacity improvements eastward. In addition, three of Henderson County's ten highest crash locations are on Upward Road, along with a fourth location that averages at least 5 crashes/year.

## Recommendation

Implement project as currently planned. Widen to 4 lanes with median east of I-26. Maintain a high level of access management and traffic signal optimization. Coordinate with highway projects C 1 and C9, and bicycle project C19.

## C5 NC 191 - NC 280 to Balfour Parkway

Purpose and Need
This 2-lane radial facility serves the wedge of rapidly-developing land in northwest Henderson County between US 25 Business and US 64, and provides a direct connection between Mills River and central Hendersonville. Henderson County's list of commercial areas includes three along this portion of NC 191, one each at Mountain Road, Rugby Road, and NC 280. Traffic volumes have been increasing steadily, with $14,400 \mathrm{vpd}$ in 2005 . Forecasts of $27,600 \mathrm{vpd}$ by the year 2030 far exceed existing capacity. Regarding safety concerns, the intersection with NC 280 is the fourth-highest crash location in the county, and the Bradley Road intersection has been averaging at least 5 crashes/year.

## Recommendation

Widen to 4 lanes with median. This project was previously identified in the LRTP. Coordinate with projects C3, C7 and C14.

## C6 NC 191 - NC 280 to Blue Ridge Parkway (Buncombe County)

Purpose and Need
Henderson County plans identify commercial areas at four locations long this corridor: just south of South Mills River Road; just North of North Mills River Road; at Butler Bridge Road; and at the Buncombe County line. Combined with growth in Mills River, along Long Shoals Road, and in the vicinity of Biltmore Square Mall, traffic volumes along this segment of NC 191 are forecast to more than double from their 2005 levels of $10,300 \mathrm{vpd}$, which already approach maximum capacity for a 2 lane cross-section of this type.
Recommendation
Widen to 4 lanes with median. Coordinate with highway projects C7 and A16.

## C7 NC 280 - NC 191 (at northern intersection with NC 280) to Transylvania County Line

Purpose and Need
Although travel demand models do not forecast substantial traffic growth for this portion of NC 280, there will be considerable pressure for development along the corridor, which could result in land uses and intensities other than what were assumed in the model, leading to higher traffic volumes. For example, commercial activity centers are identified in Henderson County plans near both North and South Mills River Roads. In any case, it is critical to prevent any degradation in safety or capacity resulting from frequent driveways and undesirable intersections. The intersection with Haywood Road is already the fourth-highest crash location in the county. This corridor has been identified as a statewide Strategic Highway Corridor with a proposed cross-section of a four lane with median.

## Recommendation

In addition to safety benefits, the management of access is far easier and more effective if medians are in place. Therefore, where feasible, conversion of two-way left-turn lanes to medians is recommended. Strict access management and improvements to signalized intersections (both geometric and operational) will be needed in any case. Coordinate with highway projects C5 and C6.

## C8 US 64 - Howard Gap Road (SR 1006) to Fruitland Road (SR 1574)

Purpose and Need
This segment of US 64 marks its transition between a multilane arterial and a 2-lane rural highway. As development moves east, traffic will increase (from an estimated 17,000 vpd in 2005 to 26,300 vpd in 2030), and eastward widening is anticipated (see C15). To preserve the safety and capacity of this transition area, particularly in light of the proposed Balfour Parkway connection (C3), improvements to Fruitland Road (C37), and the identification of the Fruitland Road intersection as a commercial area in Henderson County plans, some enhancements seem prudent.

## Recommendation

To preserve capacity and minimize crash potential, convert TWLTL to median where appropriate. Maintain access management, and provide intersection and signalization upgrades as warranted. Coordinate with highway projects C3, C15 and C37.

## C9 Howard Gap Road (SR 1006) - Upward Road (SR 1783) to US 25 <br> Purpose and Need

Howard Gap Road provides the only continuous northwest-southeast route on the eastern side of I-26. It provides access to large areas of low-density residential development, as well as linking major arterials and collectors, and distributing traffic to the limited number of locations where it is possible to cross or access I-26. Henderson County plans also identify two commercial activity areas along Howard Gap Road, one at Upward Road, and one at Naples Road. However, Howard Gap Road is basically a rural 2-lane facility, much of which is narrow, with poor vertical and horizontal alignment, limited sight distances, and frequent driveways. Crashes are already a significant concern, with at least four locations averaging 10 or more crashes a year. With volumes anticipated to increase from 8,500 vpd to 20,000 vpd between 2005 and 2030, both safety and congestion will become even greater problems.

## Recommendation

In the long term, substantial portions of Howard Gap Road should be widened to four lanes with median. Significant geometric improvements - including construction on new alignment - will be necessary at many locations. With any necessary turn lanes in place, some segments may be able to retain a 2 -lane cross-section, either temporarily or indefinitely. Access management and intersection improvements are also critical.

Coordinate with highway projects include C3, C31, C4, C10, and C30, and bicycle project C3. This project was previously identified in the LRTP.

## C10 Fanning Bridge Road Extension - US 25 to Howard Gap Road (SR 1006)

## Purpose and Need

The lack of good east-west connections is a major contributor to the traffic problems along the corridor between Asheville and Hendersonville. Lacking convenient, continuous east-west facilities, trips crossing the corridor must follow dog-leg routes that include travel along major north-south facilities. These trips use up critical capacity on the north-south roads, increase conflicts and delay at intersections, and add unnecessary vehicle-miles of travel.

The extension of Fanning Bridge Road, combined with upgrades to the existing facility (see C36) provides a significant improvement to east-west travel in Fletcher, where it is critically needed. This project would improve access between the airport and residential development east of US 25 - as well as points in between - while avoiding an interchange with I-26 or an at-grade railroad crossing.

## Recommendation

Upgrade to a 4-lane median facility, part possibly on new location and reorient intersection with Howard Gap Road so that the primary movement is north on to the extension. Construct new RR grade separation allowing for the possible closure of the existing at-grade crossing at Howard Gap Rd. Coordinate with highway projects C31, C9 and C36.

## C11 US 64 - South Rugby Road (SR 1312) to Banner Farm Road (SR 1314)

## Purpose and Need

This segment of US 64 experiences heavy turn conflicts due to the confluence of a number of elements, including several intersecting roadways, two significant curves, an at-grade railroad crossing, and roadside development with multiple driveways. The 2005 traffic estimate of 14,400 vpd already
exceeded the desirable capacity of this roadway, and as development and traffic volumes increase, so will delays and crashes. This segment of US 64 is targeted as the location for a commercial center in Henderson County plans.

## Recommendation

Widen to 4 or 5 lanes, with medians where feasible. Upgrade intersections and traffic control as warranted, including at the railroad crossing. Maintain or improve access management. Coordinate with highway project C13.

## C12 Butler Bridge Rd (SR 1345/1352/1354/1351) - US 25 to NC 280

## Purpose and Need

Butler Bridge Rd is one of the very few east-west roads in the area and connects the rapidly growing areas of Mills River and the area between Fletcher and Hendersonville. If current development patterns hold, the area adjacent to this corridor will develop much faster and denser than currently forecast, resulting in traffic volumes much higher than current model estimates. At the eastern end of the corridor, the intersection with US 25 is currently a high crash location.

## Recommendation

Widen to four lanes with median. Intersection re-alignments may be warranted in multiple locations, particularly along the western portion of the corridor. Coordinate with highway project C 1 and bicycle project C10.

## Other Major Thoroughfares

## C13 US 64 - Buncombe Street to Brickyard Road (SR 1424)

Purpose and Need
Large portions of this 2-lane segment of US 64 (interrupted by the segment in C11) already carry more traffic than their desirable capacity, and these volumes are forecast to increase from 16,500 vpd in 2005 to 19,100 vpd by 2030. Henderson County plans identify three commercial areas along this portion of US 64, near Etowah, Horseshoe, and Laurel Park. Several intersections in the eastern portion of this project have been averaging at least ten crashes per year. Frequent driveways and speed limits that vary from 35 mph to 55 mph already contribute to both crashes and congestion. The ability to widen the cross-section within this corridor is severely constrained by existing development, a rail line, steep slopes, streams, and cultural resources.

## Recommendation

Given the constraints of this corridor, the addition of a TWLTL seems the most viable solution to existing and anticipated deficiencies. A multi-lane cross-section for some or all of the project length may be desirable though is likely infeasible in many areas. Access management (especially driveway consolidation) and some geometric and intersection improvements are also desirable and feasible.

Coordinate with highway projects C11, C34 and C24. This project was previously identified in the LRTP.

## C14 NC 191 - Balfour Parkway to US 25 Bus

Purpose and Need
As discussed in C5, this 2-lane radial facility serves the wedge of rapidly-developing land in northwest Henderson County between US 25 Business and US 64, and provides a direct connection between Mills River and central Hendersonville. Henderson County plans designate the intersection with Mountain Road as a commercial area. Traffic along most of this 2-lane facility is already above its desirable capacity, and continuing to grow steadily. Without the Balfour Parkway (C3), 2030 traffic demand on this portion of NC 191 will far exceed the 14,100 vpd estimated with the Parkway in place. Given the time lag and uncertainty inherent in a project of the magnitude of Balfour Parkway, steps should be taken to improve the capacity and safety of NC 191. Unfortunately, options are limited by existing development and steep terrain.

## Recommendation

Given the constraints of this corridor, the addition of a TWLTL seems the most viable solution to existing and anticipated deficiencies. Access management and some geometric and intersection improvements should also be considered.

This project was previously identified in the LRTP. Coordinate with highway projects C5, C3 and C24.

## C15 US 64 - Fruitland Road (SR 1574) to Gilliam Road (SR 1577

Purpose and Need
This portion of US 64 marks the beginning of the eastward transition to a 2-lane rural highway. As the eastern portion of the county grows, traffic will increase along this segment of US 64. Henderson County plans identify several commercial areas along this corridor, including one at Fruitland Road. Just as important as traffic growth is the preservation of existing roadway capacity, and without careful management of access, increases in driveway connections and turning traffic will decrease this capacity, while increasing crash potential.

## Recommendation

Although widening to a four-lane median divided boulevard would be the surest solution for providing a high level of service, it is not clear that such a major investment is warranted in this situation. The addition of a TWLTL - in combination with access management and spot intersection improvements should prove adequate. Coordinate with highway projects C8 and C37.

## C16 US 176 - NC 225 (Greenville Highway) to Shepherd Street (SR 1779)

## Purpose and Need

As of 2005 , traffic volumes along this segment of US 176 reached 25,100 vpd. While approaching the maximum capacity of a 5-lane arterial of this type, the resulting level of congestion is fairly typical of an urbanized area. However, forecast volumes of 29,100 vpd by 2030 are more problematic, particularly in light of recent development proposals that would exceed densities assumed in the modelbased forecasts. In addition, four intersections in along this segment of US 176 average at least 5 crashes per year.

## Recommendation

Access management and spot intersection/signalization improvements are recommended. Coordinate with highway projects C17, C19, and C20.

## C17 NC 225 (Greenville Highway) - US 176 / US 25 Bus to Erkwood Drive (SR 1164)

## Purpose and Need

Although the model does not forecast substantial traffic growth beyond the 11,300 vpd estimated for 2005, this volume is just under the maximum capacity of the facility. Furthermore, as noted in the discussion of C15, recently proposed redevelopment plans could result in significantly higher traffic volumes than those estimated by current travel models. In addition, the intersection of Shepard Street, Erkwood Drive, and NC 225 is identified in Henderson County plans as a commercial activity area. Finally, two intersections included in this project are averaging 5 or more crashes per year.

## Recommendation

Add turn lanes, widen shoulders, and improve intersection geometrics and signal operations as appropriate. A multi-lane cross-section for some or all of the project length may be desirable. Maintain access management. Coordinate with highway projects C16, C19, C20, and C29.

## C18 NC 225 (Greenville Highway) - W Blue Ridge Road (SR 1812) to Little River Road (SR 1123) Purpose and Need

This project specifically addresses the "dogleg" created by the offset intersections of West Blue Ridge Road and Little River Road. These two facilities combine to function as the primary east-west route in the Flat Rock area, while NC 225 serves as the major north-south route. The resulting traffic volumes (estimated at $6,600 \mathrm{vpd}$ in 2005 , and $8,200 \mathrm{vpd}$ in 2030) include a large proportion of left-turning traffic. The resulting conflicts reduce the capacity of this section of road, and increase the potential for crashes.

## Recommendation

Add turn lanes, widen shoulders, and improve intersection geometrics as appropriate. Consider realigning the two approaches to create a single intersection. Coordinate with highway project C35.

## Minor Thoroughfares

C19 White Street - US 25 Bus to Kanuga Road (SR 1127)
Purpose and Need
There is no direct, efficient cross-town route immediately south of downtown Hendersonville. A significant volume of traffic from southwest of Hendersonville, whether continuing east or heading into town, funnels onto US 176 or NC 225 from Hebron, Willow, and Kanuga roads via a series of doglegs. A short segment of White Street ultimately serves as the final link for these trips. However, neither end of this street segment lines up with any of the other facilities involved, forcing all major movements to make multiple turns. In conjunction with proposed redevelopment of the area, a more direct realignment of White Street appears feasible, and would carry up to 13,900 vpd in 2030.

Recommendation
Construct 3-lane connector replacing the existing segment of White Street, providing a continuous alignment from Hebron Road to US 176. Maintain appropriate access control, and improve intersection geometry and operations. Coordinate with highway projects C16, C15, and C28.

## C20 Shepherd Street (SR 1779) /Airport Road (SR 1755) - NC 225 (Greenville Highway) to Tracy Grove Road (SR 1793)

## Purpose and Need

Shepherd Street and Airport Rd are a continuous corridor which together form part of what is functionally an "inner loop" around central Hendersonville, comprised of a series of 2-lane streets. Listed in clockwise order from the north, they are:

- Berkeley Road
- East Duncan Hill Road
- Dana Road
- Tracy Grove Road
- Airport Road
- Shepard Street
- Erkwood Drive
- State Street
- Hebron Street
- West Lake Avenue
- Blythe Street

Additional/alternative segments include:

- Whitted Street
- $5^{\text {th }}$ Avenue West
- State Street
- Hebron Street
- White Pine Drive

It should be stressed that this ad hoc loop does not generally serve as a "bypass." Instead, it provides circumferential access to higher-level radial facilities. Most trips use only a short segment of the "loop," typically in the initial or final leg of a trip. However, on the eastern side of town especially, a growing number of trips are expected to use the "inner loop" to avoid congestion on US 64 and other major routes through downtown. By providing minor geometric and intersection improvements that improve continuity, the function of these circumferential facilities can be enhanced without requiring widening, or increasing travel speeds.

In addition, the intersection of Shepard Street, Erkwood Drive, and NC 225 is identified in Henderson County plans as a commercial activity area as is portions of the area adjacent to Airport Rd.
Additionally, Airport Rd provides access to the Blue Ridge Community College, and, via its connection with Tracy Grove Rd, it allows traffic to cross I-26 at one of only two locations between the US 64 and Upward Rd interchanges. Finally, two intersections in this corridor have been identified as high crash locations.

## Recommendation

Add turn lanes, widen shoulders, and improve geometrics and intersection operations as appropriate. Consider realigning the intersection at NC 225 to eliminate the dogleg with Erkwood Drive. Similarly, consider reconfiguring the intersections with New Hope Road to eliminate the dogleg.

Coordinate with highway projects C16, C17, C21, and C29 and bicycle project C12.

## C21 Tracy Grove Road (SR 1793) - Airport Road (SR 1755) to Dana Road (SR 1525)

Purpose and Need
Tracy Grove Road is an important access route to the Blue Ridge Community College, and is one of only two roads crossing I-26 between the Upward Road and US 64 interchanges (a distance of about 3.5 miles). This may be one reason why Henderson County plans identify the intersection of Tracy Grove and Airport Roads as a commercial area.

Perhaps even more importantly, Tracy Grove Road forms a key segment of what is functionally an "inner loop" around central Hendersonville, comprised of a series of 2-lane streets. Listed in clockwise order from the north, they are:

- Berkeley Road
- East Duncan Hill Road
- Dana Road
- Tracy Grove Road
- Airport Road
- Shepard Street
- Erkwood Drive
- State Street
- Hebron Street
- West Lake Avenue
- Blythe Street

Additional/alternative segments include:

- Whitted Street
- $5^{\text {th }}$ Avenue West
- State Street
- Hebron Street
- White Pine Drive

It should be stressed that this ad hoc loop does not generally serve as a "bypass." Instead, it provides circumferential access to higher-level radial facilities. Most trips use only a short segment of the "loop," typically in the initial or final leg of a trip. However, on the eastern side of town especially, a growing number of trips are expected to use the "inner loop" to avoid congestion on US 64 and other major routes through downtown. By providing minor geometric and intersection improvements that improve continuity, the function of these circumferential facilities can be enhanced without requiring widening, or increasing travel speeds.

## Recommendation

Add turn lanes, widen shoulders, and improve geometrics and intersection operations as appropriate.
Coordinate with highway project C20 and bicycle project C12.

## C22 Duncan Hill Road (SR 1525) / Signal Hill Road (SR 1508) - US 64 to N Main Street (SR 1503) Purpose and Need

Duncan Hill Road (together with a short segment of Signal Hill Road) provides an important "back door" route to Four Seasons Mall and related commercial development, helping relieve congestion on US 64. It also forms one segment of what is effectively an "inner loop" around central Hendersonville, comprised of a series of 2-lane streets. Listed in clockwise order from the north, they are:

- Berkeley Road
- East Duncan Hill Road
- Dana Road
- Tracy Grove Road
- Airport Road
- Shepard Street
- Erkwood Drive
- State Street
- Hebron Street
- West Lake Avenue
- Blythe Street

Additional/alternative segments include:

- Whitted Street
- $5^{\text {th }}$ Avenue West
- State Street
- Hebron Street
- White Pine Drive

It should be stressed that this ad hoc loop does not generally serve as a "bypass." Instead, it provides circumferential access to higher-level radial facilities. Most trips use only a short segment of the "loop," typically in the initial or final leg of a trip. However, on the eastern side of town especially, a growing number of trips are expected to use the "inner loop" to avoid congestion on US 64 and other major routes through downtown. By providing minor geometric and intersection improvements that improve continuity, the function of these circumferential facilities can be enhanced without requiring widening, or increasing travel speeds.

With respect to safety, the intersections at $7^{\text {th }}$ Avenue East and at US 64 each currently have at least ten crashes per year.

## Recommendation

Add turn lanes, widen shoulders, and improve geometrics and intersection operations as appropriate. A TWLTL may be desirable for some or all of the project length.

Coordinate with highway project C23.

## C23 Berkeley Road (SR 1508/1511) - N Main Street (SR 1503) to US 25

## Purpose and Need

Berkeley Road provides an alternative to US 25 Business, as well as being part of a "back door" route to Four Seasons Mall and related commercial development via Signal Hill Drive and East Duncan Hill Road. It also forms one segment of an "inner loop" around central Hendersonville, comprised of a series of 2-lane streets. Listed in clockwise order from the north, they are:

- Berkeley Road
- East Duncan Hill Road
- Dana Road
- Tracy Grove Road
- Airport Road
- Shepard Street
- Erkwood Drive
- State Street
- Hebron Street
- West Lake Avenue
- Blythe Street

Additional/alternative segments include:

- Whitted Street
- $5^{\text {th }}$ Avenue West
- State Street
- Hebron Street
- White Pine Drive

It should be stressed that this ad hoc loop does not generally serve as a "bypass." Instead, it provides circumferential access to higher-level radial facilities. Most trips use only a short segment of the "loop," typically in the initial or final leg of a trip. However, on the eastern side of town especially, a growing number of trips are expected to use the "inner loop" to avoid congestion on US 64 and other major routes through downtown. By providing minor geometric and intersection improvements that improve continuity, the function of these circumferential facilities can be enhanced without requiring widening, or increasing travel speeds.

## Recommendation

Add turn lanes, widen shoulders, and improve geometrics and intersection operations as appropriate. A TWLTL may be desirable for some or all of the project length.

It should be noted that upon completion of Balfour Parkway, traffic volumes on Berkeley Road may eventually drop. However, the recommended improvements would still provide substantial benefits, since they could be in place for many years before the Parkway is completed, and even at lower volumes, they still offer relatively low cost safety and operational benefits.

Coordinate with highway project C22.

## C24 Blythe Street (SR 1180) - NC 191 to US 64

Purpose and Need
Blythe Street forms one segment of what functions as an "inner loop" around central Hendersonville, comprised of a series of 2-lane streets. Listed in clockwise order from the north, they are:

- Berkeley Road
- East Duncan Hill Road
- Dana Road
- Tracy Grove Road
- Airport Road
- Shepard Street
- Erkwood Drive
- State Street
- Hebron Street
- West Lake Avenue
- Blythe Street

Additional/alternative segments include:

- Whitted Street
- $5^{\text {th }}$ Avenue West
- State Street
- Hebron Street
- White Pine Drive

It should be stressed that this ad hoc loop does not generally serve as a "bypass." Instead, it provides circumferential access to higher-level radial facilities. Most trips use only a short segment of the "loop," typically in the initial or final leg of a trip. However, on the eastern side of town especially, a growing number of trips are expected to use the "inner loop" to avoid congestion on US 64 and other major routes through downtown. By providing minor geometric and intersection improvements that improve continuity, the function of these circumferential facilities can be enhanced without requiring widening, or increasing travel speeds.

## Recommendation

Add turn lanes, widen shoulders, and improve geometrics and intersection operations as appropriate.
Coordinate with highway projects C13 and C14 and bicycle project C14.

## C25 Lake Avenue - Blythe Street to Hebron Road (SR 1172)

Purpose and Need
Lake Avenue forms one segment of what is an "inner loop" around central Hendersonville, comprised of a series of 2-lane streets. Listed in clockwise order from the north, they are:

- Berkeley Road
- East Duncan Hill Road
- Dana Road
- Tracy Grove Road
- Airport Road
- Shepard Street
- Erkwood Drive
- State Street
- Hebron Street
- West Lake Avenue
- Blythe Street

Additional/alternative segments include:

- Whitted Street
- $5^{\text {th }}$ Avenue West
- State Street
- Hebron Street
- White Pine Drive

It should be stressed that this ad hoc loop does not generally serve as a "bypass." Instead, it provides circumferential access to higher-level radial facilities. Most trips use only a short segment of the "loop," typically in the initial or final leg of a trip. However, on the eastern side of town especially, a growing number of trips are expected to use this "inner loop" to avoid congestion on US 64 and other major routes through downtown. By providing minor geometric and intersection improvements that improve continuity, the function of these circumferential facilities can be enhanced without requiring widening, or increasing travel speeds.
Recommendation
Add turn lanes, widen shoulders, and improve geometrics and intersection operations as appropriate.
Coordinate with highway projects C26 and C27 and bicycle project C15.

C26 Hebron Road (SR 1172) - Lake Avenue to State Street
Purpose and Need
Hebron Road forms one segment of what is functionally an "inner loop" around central Hendersonville, comprised of a series of 2-lane streets. Listed in clockwise order from the north, they are:

- Berkeley Road
- East Duncan Hill Road
- Dana Road
- Tracy Grove Road
- Airport Road
- Shepard Street
- Erkwood Drive
- State Street
- Hebron Street
- West Lake Avenue
- Blythe Street

Additional/alternative segments include:

- Whitted Street
- $5^{\text {th }}$ Avenue West
- State Street
- Hebron Street
- White Pine Drive

It should be stressed that this ad hoc loop does not generally serve as a "bypass." Instead, it provides circumferential access to higher-level radial facilities. Most trips use only a short segment of the "loop," typically in the initial or final leg of a trip. However, on the eastern side of town especially, a growing number of trips are expected to use the "inner loop" to avoid congestion on US 64 and other major routes through downtown. By providing minor geometric and intersection improvements that improve continuity, the function of these circumferential facilities can be enhanced without requiring widening, or increasing travel speeds.

## Recommendation

Add turn lanes, widen shoulders, and improve geometrics and intersection operations as appropriate.
Coordinate with highway projects C25, C27, and C19.

## C27 State Street - Hebron Road (SR 1172) to Kanuga Road (SR 1127)

## Purpose and Need

State Street forms one segment of what is effectively an "inner loop" around central Hendersonville, comprised of a series of 2-lane streets. Listed in clockwise order from the north, they are:

- Berkeley Road
- East Duncan Hill Road
- Dana Road
- Tracy Grove Road
- Airport Road
- Shepard Street
- Erkwood Drive
- State Street
- Hebron Street
- West Lake Avenue
- Blythe Street

Additional/alternative segments include:

- Whitted Street
- $5^{\text {th }}$ Avenue West
- State Street
- Hebron Street
- White Pine Drive

It should be stressed that this ad hoc loop does not generally serve as a "bypass." Instead, it provides circumferential access to higher-level radial facilities. Most trips use only a short segment of the
"loop," typically in the initial or final leg of a trip. However, on the eastern side of town especially, a growing number of trips are expected to use the "inner loop" to avoid congestion on US 64 and other major routes through downtown. By providing minor geometric and intersection improvements that improve continuity, the function of these circumferential facilities can be enhanced without requiring widening, or increasing travel speeds.

With respect to safety, the intersection at Kanuga Road is currently averaging at least five crashes per year.

## Recommendation

Add turn lanes, widen shoulders, and improve geometrics and intersection operations as appropriate.
Related projects include C26, C25, C28, and C29.

## C28 Kanuga Road (SR 1127) - US 25 Bus (Church Street) to Little River Rd (SR 1123)

Purpose and Need
Most trips to and from the southwestern portion of the county rely on this 2-lane facility. Furthermore, Henderson County plans identify the intersection of Kanuga and Price Roads as a commercial center. Geographic features and existing development constrain both the width and alignment of this facility. However, volumes already exceed practical capacity at some locations, and are predicted to grow from $12,400 \mathrm{vpd}$ in 2005 to $14,100 \mathrm{vpd}$ in 2030. In addition, three locations included in this project are averaging ten or more crashes per year.
Recommendation
Add turn lanes, widen shoulder and improve geometrics and intersection operations as appropriate.
Coordinate with highway projects C19, C26, C27, and C29 and bicycle projects C13 and C16.

C29 Erkwood Drive (SR 1164) - Kanuga Road (SR 1127) to NC 225 (Greenville Highway)
Purpose and Need
Erkwood Drive forms one segment of what is functionally an "inner loop" around central Hendersonville, comprised of a series of 2-lane streets. Listed in clockwise order from the north, they are:

- Berkeley Road
- East Duncan Hill Road
- Dana Road
- Tracy Grove Road
- Airport Road
- Shepard Street
- Erkwood Drive
- State Street
- Hebron Street
- West Lake Avenue
- Blythe Street

Additional/alternative segments include:

- Whitted Street
- $5^{\text {th }}$ Avenue West
- State Street
- Hebron Street
- White Pine Drive

It should be stressed that this ad hoc loop does not generally serve as a "bypass." Instead, it provides circumferential access to higher-level radial facilities. Most trips use only a short segment of the "loop," typically in the initial or final leg of a trip. However, on the eastern side of town especially, a growing number of trips are expected to use the "inner loop" to avoid congestion on US 64 and other major routes through downtown. By providing minor geometric and intersection improvements that improve continuity, the function of these circumferential facilities can be enhanced without requiring widening, or increasing travel speeds.
In addition, the intersection of Shepard Street, Erkwood Drive, and NC 225 is identified in Henderson County plans as a commercial activity area. Finally, two intersections included in this project are averaging ten or more crashes per year.

## Recommendation

Add turn lanes, widen shoulders, and improve geometrics and intersection operations as appropriate. Consider reconfiguring the intersection with Shepherd Street at NC 225 to eliminate the dogleg.
Coordinate with highway projects C27, C28, C20, and C17 and bicycle project C17.

## C30 Sugarloaf Road (SR 1734) - US 64 to Pace Road (SR 1726)

## Purpose and Need

Sugarloaf Road is an important east-west route in the western side of the county, just south of US 64. At its western terminus, it provides alternative access to commercial development at I-26 and US 64; at Blue Ridge Road to the west, it serves a future commercial center identified in Henderson County plans. Volumes already exceed practical capacity at some locations, and are predicted to grow from 12,300 vpd in 2005 to 13,100 vpd by 2030. With respect to safety, the intersection at Howard Gap Road is currently averaging at least ten crashes per year.

## Recommendation

Add turn lanes, widen shoulders, and improve geometrics and intersection operations as appropriate.
Coordinate with highway project C9 and bicycle project C20.

## C31 Old Cane Creek Road (SR 1541) - Fanning Bridge Road Extension to Cane Creek Road (SR 1545)

Purpose and Need
This project is intended to improve connectivity to the north and east (where rapid growth is expected) for the extended and upgraded Fanning Bridge Road. This connection will also reduce traffic on US 25 through Fletcher.

## Recommendation

Pave road and shoulders and upgrade to current standards. Coordinate with highway project C10.

## C32 Old Airport Road/Mills Gap Road (SR 1547/1551) - US 25 to Hoopers Creek Road (SR 1553) Purpose and Need

This 2-lane facility serves an area of significant residential growth. Traffic volumes of 10,200 vpd in 2005 were already approaching ultimate capacity, and the 16,900 vpd forecast for 2030 will substantially exceed the capacity of the existing facility. In addition, the intersection with US 25 averages over ten crashes per year.

## Recommendation

Widen to 3 lanes. Additional lanes and geometric or traffic control improvements may be needed at major intersections. Maintenance of access management is also important. This project should be coordinated with bicycle project C7. This project was previously identified in the LRTP.

## C33 Hoopers Creek Road (SR 1553) - Burneys Gap Road (SR 1696) to Terrys Gap Road (SR 1565)

 Purpose and NeedThis road serves an area of potentially substantial low-density residential growth. Although forecast volumes do not appear to exceed practical capacity for a typical 2-lane rural/suburban road such as this, Hoopers Creek Road lacks the pavement/shoulder width and clear sight distances necessary for a safe and efficient roadway. In addition, given the large, relatively undeveloped area served by this road and the roads feeding into it, a slight increase in anticipated residential growth could result in traffic that is significantly higher than current forecasts.

## Recommendation

Add turn lanes, widen shoulders, and improve intersection geometrics as appropriate. This project should be coordinated with bicycle project C 8 .

## C34 Cummings Road (SR 1171) - US 64 to Hebron Road (SR 1171)

Purpose and Need
This road serves a large area of low-density residential development. Although forecast volumes do not appear to exceed practical capacity for a typical 2-lane rural/suburban road such as this, Cummings Road lacks the pavement/shoulder width and clear sight distances necessary for a safe and efficient roadway. In addition, given the large, relatively undeveloped area served by this road and the roads feeding into it, a slight increase in anticipated residential growth could result in traffic that is significantly higher than current forecasts.

## Recommendation

Add turn lanes, widen shoulders, and improve intersection geometrics and traffic control as appropriate. This project was previously identified in the LRTP.

## C35 West Blue Ridge Road (SR 1812) - NC 225 (Greenville Highway) to Roper Road (SR 1807) Purpose and Need

Combined with East Blue Ridge and Little River Roads, West Blue Ridge Road forms the central portion of the most significant east-west connection serving Flat Rock and East Flat Rock. Although the volume on this route between US 176 and NC 225 is forecast to nearly double by 2030, a good 2-
lane road should provide more than adequate capacity. However, due to the narrow shoulders and curving alignment, safety is a concern.

## Recommendation

Add turn lanes, widen lanes/shoulders, and improve geometrics as appropriate. Coordinate with highway project C17 and bicycle project C18.

## C36 Fanning Bridge Road (SR 1358) - US 25 to NC 280

Purpose and Need
Fanning Bridge Road is an important east-west connection in Fletcher, extending from US 25 just south of downtown Fletcher all the way to NC 280 at the airport. It is also one of only two routes crossing I26 between the NC 280 and US 25 interchanges, a distance of over 3 miles. Traffic volumes on Fanning Bridge are expected to increase from $6,600 \mathrm{vpd}$ in 2005 to $9,400 \mathrm{vpd}$ in 2030. However, it would not be surprising if the airport and the surrounding area, as well as Fletcher and points east, experienced higher than anticipated levels of growth. This need is further amplified by the improved connectivity that would result from the eastward extension and railroad grade separation proposed for Fanning Bridge Road, as well as improvements to Old Cane Creek Road (C10 and C31).

## Recommendation

Add turn lanes, widen lanes/shoulders, and improve geometrics and intersection operations as appropriate. Coordinate with highway projects C10, C31 and A26 and bicycle project C5. This project was previously identified in the LRTP.

## C37 Fruitland Road (SR) - US 64 to north of Lancaster Road

Purpose and Need
Several factors contribute to the significant traffic growth forecast for Fruitland Road. Henderson County plans identify commercial centers at both ends of this facility, one at US 64 and one at Terrys Gap/Mills Gap Roads. Furthermore, Fruitland Road serves as the main route to I-26 and to westbound US 64 for most the development along Terrys Gap and Mills Gap Roads, as well as for much of the development to the north and east. By 2030, traffic is expected to grow to $12,500 \mathrm{vpd}$ (from $5,000 \mathrm{vpd}$ in 2005), which would exceed the maximum capacity of the existing road.

## Recommendation

Add turn lanes, widen lanes/shoulders, and improve geometrics and intersection operations as appropriate.

Coordinate with highway projects C8 and C14. This project was previously identified in the LRTP.

## AlTERNATIVES CONSIDERED BUT NOT RECOMMENDED

## Southeast Downtown Bypass

Consideration was given to a new connection to southeast Hendersonville, extending from US 176 near Glover Street to Harris Street at 4th Avenue/Glover Street. A number of other termini were also assessed, but were discarded as less feasible, due to poor connectivity with US 176 or US 64, additional railroad crossings, stream/floodplain impacts, or conflicts with existing development, structures, or parks. Ultimately, no alignment was identified that avoided these problems, and traffic benefits were judged
unlikely to offset the associated costs, since most trips would be diverted from Glover Street and from Old Spartanburg Highway west of the railroad tracks. Since neither of these facilities are showing significant capacity deficiencies, the recommended improvements to US 176, NC 225, and Airport/Tracy Grove Roads (C16, C17, C20, and C21) appear more appropriate at this time.

## Public Transportation \& Rail

The public transportation and rail component of the CTP provides an overview of the long-term needs of these alternatives to the automobile. The focus is on serving the regional transportation needs of those who choose or need to travel by these means. Improvements to local service area and quality are assumed to be the purview of the local agencies and not addressed in the CTP. A summary of recommended projects is included in Table 2-2 and the locations of these projects are shown in Figure 2-2.

## Recommended Rail Projects

Currently, there is no passenger rail service serving the French Broad River area. There are many active rail lines, serving the area with the primary Norfolk-Southern line carrying some 20 trains per day. In 2001, the NCDOT completed a study recommending the phased reintroduction of passenger rail service to western North Carolina terminating in Asheville. The CTP endorses those recommendations.

## Buncombe County

## A1, A2 Open passenger rail and intermodal terminal at the Biltmore Station Shops in Biltmore Village

The extension of passenger rail service to the Asheville area will increase the long-distance transportation options of persons to and from the region. Rail service would connect in Salisbury to existing Amtrak service and allow travel to Charlotte, Raleigh and beyond. The high speed rail corridor passes through Salisbury as well, further reducing travel time to the entire eastern seaboard upon its completion. Passenger rail service would also serve tourists traveling to the region. Asheville Transit has considered the creation of a transfer center in Biltmore Village to serve the immediate vicinity and the Wilma Dykeman Riverway. By incorporating an intermodal transfer center, users of the rail station could easily connect to existing and planned fixed-route bus service to Asheville and across the region including Hendersonville and Waynesville.

## A3, A4 Open passenger rail and intermodal terminal at the Depot in Black Mountain.

The extension of passenger rail service to Black Mountain would be in conjunction with service to Asheville. Black Mountain is growing rapidly and historically had passenger service via the Southern Railway line passing through the town. Rail service would connect in Salisbury to existing Amtrak service and allow travel to Charlotte, Raleigh and beyond. Passenger rail service would also serve tourists traveling to the region. There is existing fixed-route transit service serving Black Mountain and Montreat and connecting to an Asheville Transit route which serves US 70 to the west. By maintaining the bus transfer center in the vicinity of the passenger rail station, users of the rail station could easily connect to existing and planned fixed-route bus service.

Table 2－2 Recommended Public Transportation and Rail Projects

| Facility and Segment ID Description |  | Distanć （mi） | Other <br> Maps | Source |
| :---: | :---: | :---: | :---: | :---: |
| Buncombe |  |  |  |  |
| Rail |  |  |  |  |
| A1 | Open passenger rail terminal at Biltmore Station Shops in Bilitmore Village |  |  |  |
| A2 | Construct intermodal center at Biltmore Station Shops in Biltmore Village including bus transfer center |  |  |  |
| А3 | Open passenger rail terminal at Depot in Black Mountain |  |  |  |
| A4 | Maintain bus transfer center at Depot in Black Mountain to provide intermodal connector |  |  |  |
| Bus Routes |  |  |  |  |
| A5 | Express bus service between downtown Asheville and Black Mountain Depot | 17 |  | LRTP |
| A6 | Express bus service between downtown Asheville and Mars Hill with stops in between | 20 |  | LRTP |
| A7 | Express bus service between downtown Asheville and Waynesville with stops in between | 30 | 起 ${ }_{\text {a }}$ | LRTP |
| A8 | Express bus service along $1-26$ to Hendersonville and points south | 24＋ | 遥 C |  |
| A9 | Local bus service along US 25A（Sweeten Creek Rd）and US 25 （Hendersonville Rd）to Fletcher | 13＋ | 絰 C |  |
| A10 | Local bus service along NC 191 to Mills River and Hendersonville | 18＋ | 䋎 C |  |
| A11 | Local bus service along NC 146 （Long Shoals Rd）and Overlook Rd（SR 3503） | 6 |  |  |
| A12 | Local bus service along Mills Gap Rd（SR 3116／SR 1551）to Fletcher | $8+$ | 盛 C |  |
| A13 | Local bus service along Leicester Hwy（NC 63）to Leicester | 7 |  | LRTP |
| A14 | Local bus service to Fairview via US 74A，Cane Creek Rd through Fletcher to Ag Center | 21 | 緼 C | LRTP |
| A15 | Local bus service along Wilma Dykeman Riverway | 9 | －A | LRTP |
| －－ | Improve existing bus routes，including frequency，coverage and service hours | －－ |  |  |
| Park \＆Ride |  |  |  |  |
| A16 | Proposed park and ride lot at Weaver Blvd＠US 19／23 |  |  |  |
| A17 | Proposed park and ride lot at New Stock Rd＠US 19／23 |  |  |  |
| A18 | Proposed park and ride lot in Woodfin |  |  |  |
| A19 | Proposed park and ride lot in Leicester along NC 63 |  | －A |  |
| A20 | Proposed park and ride lot at interchange of l－40 and Smokey Park Hwy（US 19／23） |  |  |  |
| A21 | Proposed park and ride lot at Biltmore Square Mall（intersection of NC 191 ＠NC 112） |  |  |  |
| A22 | Proposed park and ride lot at Old National Guard Armory（NC 191 ＠I－40） |  |  |  |
| A23 | Proposed park and ride lot at Ag Center，adjacent to bus transfer center |  |  |  |
| A24 | Proposed park and ride lot at Gerber Village Shopping Center（US 25 ＠Gerber Rd） |  |  |  |
| A25 | Proposed park and ride lot along US 74A（Charlotte Hwy）near intersection with Old Fort Rd（SR 2776） |  | －A |  |
| A26 | Proposed park and ride lot in Black Mountain along NC 9，adjacent to l－40 interchange |  |  |  |
| A27 | Proposed park and ride lot in Swannanoa，near intersection of Patton Cove Rd＠US 70 |  |  |  |
| A28 | Proposed park and ride lot at or near VA Hospital（US 70 ＠Riceville Rd（SR 2002）） |  |  |  |
| A29 | Proposed park and ride lot at Wal－Mart shopping center on NC 81 （Swannanoa River Rd） |  |  |  |
| A30 | Proposed park and ride lot at Asheville Mall on S Tunnel Rd |  |  |  |
| A31 | Proposed park and ride lot at Merrimon Ave（US 25）＠Beaverdam Rd（SR 2053） |  |  |  |
|  | Haywood |  |  |  |
| Bus Routes |  |  |  |  |
| B1 | Express bus service between downtown Asheville and Waynesville with stops in between | 30 | 䞟 A | LRTP |
| Park \＆Ride |  |  |  |  |
| B2 | Proposed park and ride lot at interchange of $1-40$ and NC 215 in Canton |  |  |  |
| B3 | Proposed park and ride lot at interchange US $23 / 74$ and US 276 in Waynesville |  |  |  |
| Henderson |  |  |  |  |
| Bus Routes |  |  |  |  |
| C1 | Express bus service along l－26 to Hendersonville and points south | 24＋ | 絰 A |  |
| C2 | Express bus service along NC 280 to Transylvania County | 11＋ |  |  |
| С3 | Express and／or local bus service along US 64 to Etowah and Transylvania County | 11＋ |  |  |
| C4 | Local bus service along US 25A（Sweeten Creek Rd）and US 25 （Hendersonville Rd）to Fletcher | 13＋ | 䍀 A |  |
| C5 | Local bus service along NC 191 from Hendersonville to Asheville，via Mills River | 18＋ | 辰 A |  |
| C6 | Local bus service along Mills Gap Rd（SR 3116／SR 1551）to Fletcher | $8+$ | 緼 A |  |
| C7 | Bus route from Asheville to Fairview along 74A，Cane Creek Rd，through Fletcher to Ag Center | 21 | 辰 A | LRTP |
| C8 | Local bus service along US 64 and Sugarloaf Rd（SR 1734） | 9 |  |  |
| C9 | Local bus service along Upward Rd（SR 1783）and Surgarloaf Rd（SR 1734） | 8 |  |  |
|  | Improve existing bus routes，including frequency，coverage and service hours | －－ |  |  |
| Park \＆Ride |  |  |  |  |
| C10 | Proposed park and ride lot at I－26 and US 64 |  |  |  |





Public Transportation and Rail Map

French Broad River MPO and Rural Areas of Buncombe and Haywood Counties

Henderson County
Project Key
Plan date: November 15, 2007

| Bus Routes |  |
| :---: | :---: |
|  | Existing |
| - | Needs Improvement |
| -E=E=: | Recommended |
| Fixed Guideway |  |
| $\square$ | Existing |
| -10 | Needs Improvement |
| $\pm$ | Recommended |
| Operational Strategies |  |
|  | Existing |
| $\underline{\square}$ | Needs Improvement |
| - = = = | Recommended |
| Rail Corridor |  |
| - | Active |
| -1m | Inactive |
| $\# \#$ | Recommended |
| High Speed Rail Corridor |  |
| - | Existing |
| Rail Stops ${ }^{\text {Recommended }}$ |  |
|  |  |
| - | Existing |
| $\bigcirc$ | Recommended |
| Intermodal Connector |  |
| A | Existing |
| $\triangle$ | Recommended |
| Park and Ride Lot |  |
| $P$ | Existing |
|  | Recommended |
| 0.51 | ${ }^{\text {Miles }}$ <br> 2 |
| Figure 2-2 Sheet C |  |
| Base map date: October 15, 2004 |  |
| Refer to CTP document for more details |  |

## Recommended Public Transportation Projects

Currently, there is an extensive fixed-route bus system serving the Asheville area. There is also fixed-route service in the Hendersonville area and a connection between the two systems. Asheville Transit operates commuter service to Black Mountain and Weaverville. As part of the Long Range Transportation Plan (LRTP), the area explored several ways of expanding the public transportation network, the fundamentals of which are included in the CTP. Several new routes and service areas were identified as part of the CTP process as well. These include new regional bus service and the development of a comprehensive park and ride system to support these routes and provide improved access for those living in low density or rural portions of the county not well-served by fixed-route transit.

In addition to the specific projects identified below, all existing transit routes are considered as "needing improvement." Such improvements include expansion of service hours, increased service frequency and improved coverage area. In many cases this may involve route realignment or similar changes which are beyond the scope of this report. In addition to modifications to the routes, the providers have proposed additional transfer facilities to accommodate revised or expanded bus service.

## Buncombe County

## A5 Express bus service between downtown Asheville and Black Mountain

Travel along this corridor continues to increase and it is expected to experience significant development in the coming years. Express bus service would provide a connection between the two growing urban centers with travel times competitive with those of private autos. It is envisioned that the service would operate directly between the two ends, with a possible stop in Swannanoa to better serve riders along the middle of the corridor. Such a service would most likely be branded specially, using high comfort buses. Successful service with high ridership would help to alleviate congestion along this corridor.

## A6 Express bus service between downtown Asheville and Mars Hill

Travel along this corridor continues to increase and it is expected to experience significant development in the coming years. Express bus service would provide a connection between the many nodes along the corridor with travel times competitive with those of private autos. It is envisioned that the service would have few stops between the two ends, with likely stops being at Elk Mountain Rd and Weaverville. Such a service would most likely be branded specially, using high comfort buses. Successful service with high ridership would help to alleviate congestion along this corridor.

## A7 Express bus service between downtown Asheville and Waynesville

Travel along this corridor continues to increase and it is expected to experience significant increases in the coming years. Express bus service would provide a connection between the many nodes along the corridor with travel times competitive with those of private autos. It is envisioned that the service would have few stops between the two ends, with a stop in Canton, and possibly Candler, the only such stops. Such a service would most likely be branded specially, using high comfort buses. Successful service with high ridership would help to alleviate congestion along this corridor. Although not noted below, a possible additional location for a park and ride to be served by this route would be at the proposed interchange of I-40 and Liberty Rd.

## A8 Express bus service along I-26 to Hendersonville and points south

Travel along this corridor is very high and expected to increase in the coming years. Express bus service would provide a connection between the many nodes along the corridor with travel times competitive with those of private autos. It is envisioned that the service would have few stops along the corridor, with likely stops being at US 64 in Hendersonville and Saluda in Polk County. Such a service would most likely be branded specially, using high comfort buses. Successful service with high ridership would help to alleviate congestion along this corridor. (Same as project C1.)

A9 Local bus service along US 25A (Sweeten Creek Rd) and US 25 (Hendersonville Rd) to Fletcher
Travel along this corridor continues to increase and it is expected to experience significant development in the coming years. Bus service would enhance residents' transportation options and could help to alleviate congestion along the roadway. (Same as project C 4 .)

## A10 Local bus service along NC 191 to Mills River and Hendersonville

Travel along this corridor continues to increase and it is expected to experience significant development in the coming years. Bus service would enhance residents' transportation options and could help to alleviate congestion along the roadway. (Same as project C5.)

## A11 Local bus service along NC 146 (Long Shoals Rd) and Overlook Rd (SR 3503)

Travel along this corridor continues to increase and it is expected to experience significant development in the coming years. Bus service would enhance residents' transportation options and could help to alleviate congestion along the roadways.

## A12 Local bus service along Mills Gap Rd (SR 3116/SR 1551) to Fletcher

Travel along this corridor continues to increase and it is expected to experience significant development in the coming years. Bus service would enhance residents' transportation options and could help to alleviate congestion along the roadway. (Same as project C6.)

## A13 Local bus service along Leicester Hwy (NC 63) to Leicester

Travel along this corridor continues to increase and it is expected to experience significant development in the coming years. Bus service would enhance residents' transportation options and could help to alleviate congestion along the roadway.

A14 Local bus service along to Fairview via Charlotte Hwy (US 74A) and Cane Creek Rd, through Fletcher to the Ag Center

Travel along this corridor continues to increase and it is expected to experience significant development in the coming years. Bus service would enhance residents' transportation options and could help to alleviate congestion along the roadway. (Same as project C7.)

## A15 Local bus service along Wilma Dykeman Riverway

As envisioned, this will become a central corridor for commerce, arts and recreation within Asheville and will be a high demand corridor for travel. Bus service will provide enhanced connectivity to the area and will help to minimize and parking and traffic problems.

In addition to new fixed-route bus service, the CTP process identified many potential locations for park and ride lots. Many of these were originally identified as part of the LRTP process and others were identified by staff and members of the public during the CTP development. The following locations are recommended from a systems perspective, but final locations would be subject to agreements with property owners, etc.

A16 Proposed park and ride lot at Weaver Blvd @ US 19/23
A17 Proposed park and ride lot at New Stock Rd @ US 19/23
A18 Proposed park and ride lot in Woodfin
A19 Proposed park and ride lot in Leicester along NC 63
A20 Proposed park and ride lot at interchange of I-40 and Smokey Park Hwy (US 19/23)
A21 Proposed park and ride lot at Biltmore Square Mall (intersection of NC 191 @ NC 112)
A22 Proposed park and ride lot at Old National Guard Armory (NC 191 @ I-40)
A23 Proposed park and ride lot at Ag Center, adjacent to bus transfer center
A24 Proposed park and ride lot at Gerber Village Shopping Center (US 25 @ Gerber Rd)
A25 Proposed park and ride lot along US 74A (Charlotte Hwy) near intersection with Old Fort Rd (SR 2776)
A26 Proposed park and ride lot in Black Mountain along NC 9, adjacent to I-40 interchange
A27 Proposed park and ride lot in Swannanoa, near intersection of Patton Cove Rd @ US 70
A28 Proposed park and ride lot at or near VA Hospital (US 70 @ Riceville Rd (SR 2002))
A29 Proposed park and ride lot at Wal-Mart shopping center on NC 81 (Swannanoa River Rd)
A30 Proposed park and ride lot at Asheville Mall on S Tunnel Rd
A31 Proposed park and ride lot at Merrimon Ave (US 25) @ Beaverdam Rd (SR 2053)

## Haywood County

## B1 Express bus service between downtown Asheville and Waynesville

See description above under A7.
In addition to new fixed-route bus service, the CTP process identified many potential locations for park and ride lots. Many of these were originally identified as part of the LRTP process and others were identified by staff and members of the public during the CTP development. The following locations are recommended from a systems perspective, but final locations would be subject to agreements with property owners, etc.

B2 Proposed park and ride lot at interchange of I-40 and NC 215 in Canton
B3 Proposed park and ride lot at interchange US 23/74 and US 276 in Waynesville

## Henderson County

## C1 Express bus service along I-26 to Hendersonville and points south

Travel along this corridor is very high and expected to increase in the coming years. Express bus service would provide a connection between the many nodes along the corridor with travel times competitive with those of private autos. It is envisioned that the service would have few stops along the
corridor, with likely stops being at US 64 in Hendersonville and Saluda in Polk County. Such a service would most likely be branded specially, using high comfort buses. Successful service with high ridership would help to alleviate congestion along this corridor. (Same as project A8.)

## C2 Express bus service along NC 280 to Transylvania County

Travel along this corridor continues to increase and it is expected to experience significant development in the coming years. Express bus service would provide a connection between the communities along the corridor with travel times competitive with those of private autos. It is envisioned that the service would have few stops between the two ends, with the only likely stop in Henderson County being in Mills River. Such a service would most likely be branded specially, using high comfort buses. Successful service with high ridership would help to alleviate congestion along this corridor.

C3 Express and/or local bus service along US 64 to Etowah and Transylvania County
Travel along this corridor continues to increase and it is expected to experience significant development in the coming years. Bus service would enhance residents' transportation options and could help to alleviate congestion along the roadway. This service could be express service connecting Hendersonville and Brevard with stops in Etowah and Horseshoe, or local service, or a combination of the two. Express service would most likely be branded specially, using high comfort buses.

C4 Local bus service along US 25A (Sweeten Creek Rd) and US 25 (Hendersonville Rd) to Fletcher
Travel along this corridor continues to increase and it is expected to experience significant development in the coming years. Bus service would enhance residents' transportation options and could help to alleviate congestion along the roadway. (Same as project A9.)

C5 Local bus service along NC 191 from Hendersonville to Asheville, via Mills River
Travel along this corridor continues to increase and it is expected to experience significant development in the coming years. Bus service would enhance residents' transportation options and could help to alleviate congestion along the roadway. (Same as project A10.)

## C6 Local bus service along Mills Gap Rd (SR 3116/SR 1551) to Fletcher

Travel along this corridor continues to increase and it is expected to experience significant development in the coming years. Bus service would enhance residents' transportation options and could help to alleviate congestion along the roadway. (Same as project A12.)

## C7 Bus route from Asheville to Fairview along 74A, Cane Creek Rd, through Fletcher to Ag Center

Travel along this corridor continues to increase and it is expected to experience significant development in the coming years. Bus service would enhance residents' transportation options and could help to alleviate congestion along the roadway. (Same as project A14.)

## C8 Local bus service along US 64 and Sugarloaf Rd (SR 1734)

The area east of Hendersonville continues to grow and is expected to experience substantial growth in the coming years. Bus service to these areas would enhance residents' transportation options and could help to alleviate congestion along US 64.

## C9 Local bus service along Upward Rd (SR 1783) and Surgarloaf Rd (SR 1734)

The area east of Hendersonville continues to grow and is expected to experience substantial growth in the coming years. Bus service to these areas would enhance residents' transportation options and could help to alleviate congestion along Upward Rd.

In addition to new fixed-route bus service, the CTP process identified many potential locations for park and ride lots. Many of these were originally identified as part of the LRTP process and others were identified by staff and members of the public during the CTP development. The following location is recommended from a systems perspective, but final locations would be subject to agreements with property owners, etc.

C10 Proposed park and ride lot at I-26 and US 64

## Bicycle Maps

Bicycling is an integral component of a successful multi-modal transportation network. Bicycle facilities and amenities should be developed and implemented that give people a reasonable alternative to driving, as well as enhance recreational opportunities, protect the environment, and encourage healthy lifestyles. It is critical that these bicycle improvements be planned together with roadway, transit, and pedestrian improvements on a systems level.

The bicycle maps that are part of this Comprehensive Transportation Plan include recommended improvements needed to provide adequate, safe and desirable bicycle facilities. These proposed improvements are summarized in Table 2-3; a key to aid in the identification of their locations is shown in Figure 2-3. The bicycle maps designate bicycle routes that are of Statewide significance, as well as local facilities, or portions of local facilities, that are impacted by the facilities on the highway maps and public transportation and rail maps, and routes that enhance connectivity. The bicycle maps classify the bicycle routes into two general categories depending on the type of service each route provides. These classifications - on-road bicycle facility and off-road bicycle facility - are depicted in the legend on each bicycle map, and are described below:

- 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 the 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 bicycle transportation (may also accommodate pedestrians, eg., greenways) and is physically separated from a highway facility usually on a separate right-of-way.
- Off Road - Needs Improvement: A facility that accommodates bicycle transportation (May also accommodate pedestrians, eg., greenways) and is physically separated from a highway facility usually on a separate right-of-way that will not adequately serve future bicycle needs. Improvements may include, but are not limited to, widening, paving (not re-paving), improved horizontal or vertical alignment.
- Off Road - Recommended: A facility needed to accommodate bicycle transportation (may also accommodate pedestrians, eg., greenways) and is physically separated from a highway facility usually on a separate right-of-way. This may also include greenway segments that do not necessarily serve a transportation function but intersect recommended facilities on the highway map or public transportation and rail map.
It should be noted that the recommended improvements to on-road facilities can include a wide array of potential solutions. These improvements could range from minor projects (such as installing "Share the Road" signs) to major improvements (such as constructing bicycle lanes or wide shoulders). An improvement could involve the creation of a designated space for bicyclists, such as a bicycle lane, but it could also involve a measure that increases driver awareness of bicyclists.

| Facility and Segment ID Facility |  | From | To | Description | Distance (mi) | Other <br> Maps | Source |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Buncombe |  |  |  |  |  |  |  |
| A1 | Patton Ave Connector | Hazel Mill Rd/Regent Park Blvd | W Haywood St | Construct bike/ped connector across l-240 in tandem with widening | 0.5 | 20 |  |
| A2 | Blue Ridge Parkway Connector | Swannanoa River Trail/Azalea Rd | Blue Ridge Parkway | Construct bike access to Parkway to provide connection to US 74A | 0.2 |  |  |
| АЗ | Blue Ridge Parkway Connector | US 25A (Sweeten Creek Rd) | Blue Ridge Parkway | Construct bike access to Parkway to provide connection to US 25A | 0.4 |  |  |
| A4 | French Broad River Trail Access | NC 191 (Brevard Rd) | French Broad River Greenway | Construct multi-use path access adjacent to intersection with l-240 | 0.1 |  |  |
| A5 | Hominy Creek Greenway | Asheville city limits | NC 151 | Extend proposed greenway to logical terminus | 1.3 |  |  |
| A6 | Ragsdale Creek Greenway | Asheville city limits | Holbrook Rd (SR 1238) | Extend proposed greenway to logical terminus | 0.3 |  |  |
| A7 | US 19/23 | NC 151 | Haywood Co. line | Improve bike facilities in conjunction with roadway widening | 4.7 | 2 |  |
| A8 | NC 151 | Pisgah Highway (SR 3652) | Curtis Creek Rd (SR 1113) | Upgrade with wide shoulder or striped lane \& appropriate signage | 1.9 | -8 |  |
| A9 | Mills Gap Rd (SR 3116) | US 25 (Hendersonville Rd) | Cane Creek Rd (SR 3136) | Upgrade with wide shoulder or striped lane \& appropriate signage | 4.3 | 28 |  |
| A10 | US 25 | Buck Shoals Rd (SR 3541) | Howard Gap Rd (SR 1006, Henderson | Upgrade with wide shoulder or striped lane \& appropriate signage | 2.5 | O-b |  |
| A11 | US 74A (Charlotte Hwy) | S of Blue Ridge Parkway | Village Rd (SR 2815) | Upgrade with wide shoulder or striped lane \& appropriate signage | 6.1 | - |  |
| A12 | US 70 | Azalea Rd | Warren Wilson Rd (SR 2412) | Upgrade with wide shoulder or striped lane \& appropriate signage | 2.2 | - |  |
| A13 | Riceville Rd (SR 2002) | VA (S of Blue Ridge Parkway) | Bull Creek Rd (SR 2419) | Upgrade with wide shoulder or striped lane \& appropriate signage | 2.3 |  |  |
| A14 | New Frontage Rd (S of 1-40) | Blue Ridge Rd (SR 2500) | Patton Cove Rd (SR 2740) | Construct bike facilities in tandem with new roadway | 3.7 | 0 | BMCS |
| A15 | Patton Cove Rd (SR 2740) | US 70 | New Frontage Rd | Upgrade with wide shoulder or striped lane \& appropriate signage | 0.5 | - | BMCS |
| A16 | Blue Ridge Rd (SR 2500) | US 70 | Sutton Ave | Upgrade with wide shoulder or striped lane \& appropriate signage | 2.3 |  |  |
| A17 | NC 251 (Riverside Dr) | Broadway St (SR 1781) | Burnsville Hill Rd (SR 1674) | Upgrade with wide shoulder or striped lane \& appropriate signage | 0.5 | -8 |  |
| A18 | US 19/23 Bus (Weaverville Hwy) | Elkwood Ave (SR 1674) | Reems Creek Rd (SR 1003) | Upgrade with wide shoulder or striped lane \& appropriate signage | 3.4 | - |  |
| A19 | Reems Creek Rd (SR 1003) | US 19/23 Bus (Weaverville Hwy) | Hamburg Mountain Rd (SR 2123) | Upgrade with wide shoulder or striped lane \& appropriate signage | 2.2 |  |  |
| A20 | US 19/23 Bus (Main St) | Reems Creek Rd (SR 1003) | N Buncombe School Rd (SR 2207) | Upgrade with wide shoulder or striped lane \& appropriate signage | 1.8 | - |  |
| A21 | SR 2207 | US 19/23 Bus (Main St) | Jupiter Rd (SR 1756) | Upgrade with wide shoulder or striped lane \& appropriate signage | 3.5 |  |  |
| A22 | Monticello Rd (SR 1727) | US 19/23 Bus (Main St) | US 25/70 | Upgrade with wide shoulder or striped lane \& appropriate signage | 1.1 | 0 |  |
| A23 | US 25/70 \& Weaver BIvd (SR 1725) | Monticello Rd (SR 1727) | US 19/23 Bus (Main St) | Upgrade with wide shoulder or striped lane \& appropriate signage | 1.2 | -8 |  |
| A24 | NC 63 | Old County Home Rd (SR 1315) | Turkey Creek Rd (SR 1608) | Upgrade with wide shoulder or striped lane \& appropriate signage | 7.5 | - ${ }^{2}$ |  |
| A25 | Old County Home Rd (SR 1373/1369) | NC 63 | Dryman Mountain Rd (SR 1338) | Upgrade with wide shoulder or striped lane \& appropriate signage | 0.7 | 0 |  |
| A26 | NC 151 | US 19/23 (Smokey Park Hwy) | Pisgah Hwy (SR 1156) | Upgrade with wide shoulder or striped lane \& appropriate signage | 0.4 | - ${ }^{\text {d }}$ |  |
| A27 | SR 3446 (Enka Lake Rd/Bennett Rd) | NC 112 (Sand Hill Rd) | Lower Glady Fork Rd (SR 3454) | Upgrade with wide shoulder or striped lane \& appropriate signage | 4.5 | - 2 |  |
| A28 | Concord Rd (SR 3150) | Mills Gap Rd (SR 3116) | School Rd East (SR 3117) | Upgrade with wide shoulder or striped lane \& appropriate signage | 0.9 | - 8 |  |
| A29 | Christ School Rd (SR 3188) Baldwin Rd (SR 3 | US 25A | Lower Christ School Rd (SR 3197) | Upgrade with wide shoulder or striped lane \& appropriate signage | 1.6 | -8 |  |
| A30 | Elkwood Ave | Merrimon Ave (US 25) | Riverside $\operatorname{Dr}$ (NC 251) | Upgrade with wide shoulder or striped lane \& appropriate signage | 1.1 | - ${ }^{2}$ |  |
| A31 | New Stock Rd (SR 1882) | US 19/23 | Monticello Rd (SR 1727) | Upgrade with wide shoulder or striped lane \& appropriate signage | 2.5 | 0 |  |
| A32 | Old NC 20 (SR 1641) Mt Carmel Rd (SR 1369 ) | Old NC 20 (SR 1622) | Old County Home Rd (SR1373) | Upgrade with wide shoulder or striped lane \& appropriate signage | 2 | - |  |
| -- | Various |  |  | Construct greenways per Asheville \& Black Mountain greenways plans |  |  | AGMP |
| -- | Various |  |  | Improve bicycle facilities per Asheville Comprehensive Bicycle Master Plan |  |  | ACBMP |
| Haywood |  |  |  |  |  |  |  |
| B1 | Poison Cove Rd (SR 1818)/Charles St | Ratcliff Cove Rd (SR 1818) | Pigeon River | Upgrade with wide shoulder or striped lane \& appropriate signage | 1.5 |  |  |
| B2 | Old Clyde Rd (SR 1523) | NC 209 | Charles St (Clyde) | Upgrade with wide shoulder or striped lane \& appropriate signage | 3.3 | - |  |
| B3 | Dellwood Rd Extension | Depot St | Smathers St | Construct bike facility in coordination with roadway project | 0.2 | - ${ }^{1}$ |  |
| B4 | Legion Dr | US 19/23 Bus (S Main St) | US 276 (Pigeon St) | Upgrade with wide shoulder or striped lane \& appropriate signage | 0.3 | - ${ }^{2}$ |  |
| B5 | Newfound Rd (SR 1004)/Main St | Buncombe Co. line | US 19/23 | Upgrade with wide shoulder or striped lane \& appropriate signage | 5.1 |  |  |
| B6 | US 19/23 | Buncombe Co. line | NC 215 | Upgrade with wide shoulder or striped lane \& appropriate signage | 4.4 | - |  |
| B7 | Champion Dr (SR 1643) | Main St | NC 215 | Upgrade with wide shoulder or striped lane \& appropriate signage | 0.7 |  |  |
| B8 | Pigeon River Greenway | NC 215/existing greenway | Clyde | Construct greenway along river | 5.3 |  | HCCPRMP |
| B9 | Richland Creek Greenway | S of US 23/74 | US 23 Bus (Hyatt Creek Rd) | Complete construction of greenway along creek | 4.5 |  | WBP |
| B10 | Raccoon Creek Greenway | US 276 | N of US 23 Bus (Old Asheville Hwy) | Construct greenway along creek | 2.9 |  | WBP |
| B11 | NC 215 | US 19/23 | US 276 | Upgrade with wide shoulder or striped lane \& appropriate signage | 5.9 | 0 |  |
| B12 | NC 110 | US 19/23 | US 276 | Upgrade with wide shoulder or striped lane \& appropriate signage | 5.4 | - ${ }^{2}$ |  |
| - | Various | - | - | Improve bicycle facilities per Waynesville Bike Plan |  | - $0^{-8}$ | WBP |


| Facility and SegmentID Facility |  | From | To | Description | Distance <br> (mi) | Other Maps | Source |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Henderson |  |  |  |  |  |  |  |
| C1 | US 25 | Caswell St | Brookside Camp Rd (SR 1528) | Upgrade with wide shoulder or striped lane \& appropriate signage | 3.9 |  |  |
| C2 | Brookside Camp Rd (SR 1528) | US 25 | Howard Gap Rd (SR 1006) | Upgrade with wide shoulder or striped lane \& appropriate signage | 1.3 |  |  |
| С3 | Howard Gap Rd (SR 1006) | Upward Rd (SR 1783) | US 25 | Upgrade with wide shoulder or striped lane \& appropriate signage | 11.5 | -8 C |  |
| C4 | US 25 | Howard Gap Rd (SR 1006) | Buck Shoals Rd (SR 3541, Buncombe | Upgrade with wide shoulder or striped lane \& appropriate signage | 2.5 | Of A |  |
| C5 | Fanning Bridge Rd (SR 1358) | US 25 | NC 280 | Upgrade with wide shoulder or striped lane \& appropriate signage | 2.3 | - ${ }^{\text {C }}$ |  |
| C6 | Cane Creek Rd (SR 1545) | US 25 | Mills Gap Rd (SR 3116, Buncombe Co) | Upgrade with wide shoulder or striped lane \& appropriate signage | 2.2 |  |  |
| C7 | Mills Gap Rd (SR 1551) | Cane Creek Rd (SR 1545) | Cane Creek Rd (SR 3136, Buncombe | Upgrade with wide shoulder or striped lane \& appropriate signage | 2.7 | - ${ }^{-1}$ |  |
| C8 | Hoopers Creek Rd (SR 1553) | Mills Gap Rd (SR 1551) | Terrys Gap Rd (SR 1565) | Upgrade with wide shoulder or striped lane \& appropriate signage | 2.2 | - ${ }^{\text {c }}$ |  |
| c9 | Rutledge Rd (SR 1359) | Fanning Bridge Rd (SR 1358) | NC 280 | Upgrade with wide shoulder or striped lane \& appropriate signage | 1.4 |  |  |
| C10 | Bike Rt 1 | Howard Gap Rd (SR 1006) | Jeffress Rd (SR 1345) | Upgrade with wide shoulder or striped lane \& appropriate signage | 3.0 |  |  |
| C11 | Bike Rt 3 | Daniel Dr (SR 1186) | 4th Ave E | Upgrade with wide shoulder or striped lane \& appropriate signage | 2.7 |  |  |
| C12 | Bike Rt 3 | Powell St (SR 1758) | Upward Rd (SR 1783) | Upgrade with wide shoulder or striped lane \& appropriate signage | 4.2 | - ${ }^{\text {c }}$ |  |
| C13 | Caswell St/Kanuga Rd/Willow St | US 25 (S King St) | N Lakeside Dr (SR 1144) | Upgrade with wide shoulder or striped lane \& appropriate signage | 1.4 | - ${ }^{\text {c }}$ |  |
| C14 | Blythe St | NC 191 (Haywood Rd) | 3rd Ave W | Upgrade with wide shoulder or striped lane \& appropriate signage | 1.4 | - 8 |  |
| C15 | Lake St/Hebron Rd/State St | 3rd Ave W | Kanuga Rd (SR 1127) | Upgrade with wide shoulder or striped lane \& appropriate signage | 1.6 | -8 ${ }^{\text {c }}$ |  |
| C16 | Kanuga Rd (SR 1127) | Willow St | Price Rd (SR 1137) | Upgrade with wide shoulder or striped lane \& appropriate signage | 1.9 | -8C |  |
| C17 | Erkwood Dr (SR 1164) | Kanuga Rd (SR 1127) | NC 225 (Greenville Hwy) | Upgrade with wide shoulder or striped lane \& appropriate signage | 1.4 | - $0^{-8}$ |  |
| C18 | West Blue Ridge Rd (SR 1812) | NC 225 (Greenville Hwy) | Roper Rd (SR 1807) | Upgrade with wide shoulder or striped lane \& appropriate signage | 1.2 | - $0^{-8}$ |  |
| C19 | Upward Rd (SR 1783) | US 176 | Howard Gap Rd (SR 1006) | Upgrade with wide shoulder or striped lane \& appropriate signage | 2.5 | - ${ }^{\text {c }}$ |  |
| C20 | Sugarloaf Rd (SR 1734) | US 64 | Ridge Rd (SR 1783) | Upgrade with wide shoulder or striped lane \& appropriate signage | 4.7 | - ${ }^{\text {c }}$ |  |
| -- | Various | - | - | Construct greenways per Henderson County Greenway Plan |  |  | HCGP |

The Other Maps column means that these facilities are included on other Comprehensive Transportation Plan elements and these elements should be reviewed:
Wighway
Source Abbreviations
ACBMP
AGMP
BMCS
BMCS
HCCPRMP
HCGP
LRTP
SHC
WBP
WDRMP
Asheville Comprehensive Bicycle Master Plan
Asheville Greenways Master Plan
Black Mountain Corridor Study
Haywood County Comprehensive Parks and Recreation Master Plan
Henderson County Greenway Plan
French Broad River Long Range Transportation Plan
Statewide Strategic Highway Corridors
Waynesville Bike Plan
Wilma Dykeman Riverway Master Plan




The bicycle maps were developed from a variety of sources, including coordination with adopted and ongoing regional and local bicycle planning efforts, comments received from the public, and input from a variety of stakeholders. Where an existing bicycle plan depicts existing, planned and/or recommended bicycle facilities, this plan was incorporated into the CTP bicycle maps. Summaries of these plans, and how they were incorporated into the CTP, are highlighted below:

Asheville Comprehensive Bicycle Master Plan (ACBMP): The City of Asheville is in the process of developing a Comprehensive Bicycle Master Plan. The study area for the plan generally consists of the City of Asheville and some parts of Buncombe County that provide needed connections to parts of the city. Development of the plan began in early 2007 and a draft plan was released in August 2007. The heart of the plan is the Bicycle Network Map, which details and illustrates a variety of bicycle facility Recommendations. These facility Recommendations include: bike lanes, climbing lanes, shared lane markings, shared roadways, and striped shoulders. Some routes were designated as needing a "range of improvements." Greenways are also shown on the Bicycle Network Map.

The Asheville Comprehensive Bicycle Master Plan was directly incorporated into the CTP bicycle maps for Asheville and Buncombe County. Bike routes on unclassified roads, however, are generally only shown when the routes are needed to enhance connectivity between on-road routes, or between on-road and off-road routes.

Asheville Greenways Master Plan (AGMP): The Asheville Greenways Master Plan was adopted in November 1998, and has been updated periodically since. It plans for a comprehensive greenway system that builds off existing greenway development in Asheville. The Plan calls for greenways that serve multiple functions, including accommodating alternative transportation. The Plan recommends a series of primary greenway corridors, as well as a network of neighborhood greenways. It includes Recommendations for various levels of facilities, including multi-use paths and on-road bike corridors.

The Asheville Greenways Master Plan served as the basis for the off-road bike route designations for Asheville and some portions of Buncombe County in the CTP. In general, the planned primary greenway corridors are shown, and planned neighborhood greenways are only shown when they are needed to enhance connectivity between off-road bike routes or provide connections between off-road and on-road bike routes.

Black Mountain Corridor Study (BMCS): The Black Mountain Corridor Study is a study in-development looking at ways to improve the US 70 corridor through Black Mountain. The corridor study recommends a variety of bicycle-related improvements, including greenways, bike routes, intersection improvements, and other on-road improvements. The Recommendations of this study were incorporated into the CTP bicycle map for Black Mountain.
Haywood County Comprehensive Parks and Recreation Master Plan (HCCPRMP): The Haywood County Comprehensive System-wide Parks and Recreation Master Plan was completed in March 2007.
The Plan noted the need for additional greenways, linear parks, and bike facilities throughout the County.
The Plan recommends developing a comprehensive greenways master plan for Haywood County to develop a connected greenway system across the County. It also recommends planning a network of bike trails, bike lanes and shared roadways to enhance connectivity, provide a viable alternative means of transportation, and promote recreational opportunities.

Figure 5.1 in the Plan identifies existing, potential and proposed greenways. These greenway designations were used directly in developing the off-road bike route designations on the CTP bicycle maps for Haywood County. Existing and planned greenways were updated in some locations on the CTP maps with current data and plans.
Henderson County Greenway Plan (HCGP): Significant off-road (greenway) bike facility planning has been done in Henderson County. Various sources of bike planning in Henderson County were consulted in preparing the CTP bicycle maps for Henderson County. One source is the draft CTP for Henderson

County developed in 2005. The CTP bicycle map for Henderson County was updated with information supplied by local staff and stakeholders. The Henderson County Bike Map Bicycling Henderson County was also consulted.

Waynesville Bike Plan (WBP): The Town of Waynesville has developed a bicycle plan that includes existing and planned on- and off-road bike facilities. Combined, these facilities create a comprehensive bicycle network in and around Waynesville, and provide opportunities for bike connections to neighboring communities.

Waynesville's bike plan was directly incorporated into the CTP bicycle maps for Haywood County. Bike routes on unclassified roads, however, are generally only shown when the routes are needed to enhance connectivity between on-road routes, or between on-road and off-road routes.

## Buncombe County

## A1 Patton Ave Connector - Hazel Mill Rd/Regent Park Blvd to W Haywood St

Purpose and Need
Constructing an off-road connector across I-240 should provide a safer facility for bicyclists who have limited options to connect between US 19/23 and Haywood Street. The segment of I-240 in the project vicinity consists primarily of a 4-lane cross section although the Smokey Park Bridge over the French Broad River is 8-lane. The posted speed limit is 55 mph and 2005 AADT values reach 65,000 along the corridor and 103,000 at the bridge. This facility serves not only local traffic accessing downtown Asheville it is the primary link for north-south traffic through the region. With the designation of US 19/23 as I-26 to the north, truck and recreational traffic traveling to and through the region using this corridor will increase. As such, there is a need to provide connectivity to promote bicycling in this area, while promoting a healthy lifestyle.

## Recommendation

Construct an off-road bike/ped connector across I-240 in tandem with widening.

## A2 Blue Ridge Parkway Connector - Swannanoa River Trail/Azalea Rd to Blue Ridge Parkway <br> Purpose and Need

Constructing an off-road connector from US 74A to the Blue Ridge Parkway should provide a safer facility for bicyclists who have limited options in this area to connect to the Blue Ridge Parkway. The Blue Ridge Parkway, the Mountains to Sea Bicycle Route (NC Route 2), is a key bicycle route, especially for recreational riders, throughout Buncombe County. As such, there is a need to provide connectivity to promote bicycling in this area, while promoting a healthy lifestyle and recreational opportunities.

## Recommendation

Construct an off-road bike access to the Blue Ridge Parkway to provide connection to US 74A.

## A3 Blue Ridge Parkway Connector - US 25A (Sweeten Creek Rd) to Blue Ridge Parkway <br> Purpose and Need

Constructing an off-road connector from US 25A (Sweeten Creek Road) to the Blue Ridge Parkway should provide a safer facility for bicyclists who have limited options in this area to connect to the Blue Ridge Parkway. The Blue Ridge Parkway, the Mountains to Sea Bicycle Route (NC Route 2), is a key
bicycle route, especially for recreational riders, throughout Buncombe County. As such, there is a need to provide connectivity to promote bicycling in this area, while promoting a healthy lifestyle and recreational opportunities.

## Recommendation

Construct an off-road bike access to the Blue Ridge Parkway to provide connection to US 25A.

## A4 French Broad River Trail Access - NC 191 (Brevard Rd) to French Broad River Greenway <br> Purpose and Need

Constructing an off-road connector from NC 191 (Brevard Road) to the French Broad River Greenway in the vicinity of the I-240 intersection should provide a safer facility and crossing for bicyclists and enhance connectivity between these two facilities. There are currently limited options for safe access and crossing to the Wilma Dykeman Riverway area which, when complete, should be a popular bike route, especially for recreational riders. As such, there is a need to provide connectivity to promote bicycling in this area, while promoting a healthy lifestyle and recreational opportunities.

## Recommendation

Construct an off-road multi-use path access adjacent to the intersection with I-240.

## A5 Hominy Creek Greenway - Asheville City Limits to NC 151

Purpose and Need
Planned greenways, such as the Hominy Creek Greenway, that are part of the Asheville Greenways Master Plan generally do not extend beyond the Asheville city limits into Buncombe County. As such, there is a need to provide connectivity to promote bicycling in this area, while promoting a healthy lifestyle and recreational opportunities.

## Recommendation

Extend proposed greenway to logical terminus (NC 151).

## A6 Ragsdale Creek Greenway - Asheville City Limits to Holbrook Rd (SR 1238) <br> Purpose and Need

Planned greenways, such as the Ragsdale Creek Greenway, that are part of the Asheville Greenways Master Plan generally do not extend beyond the Asheville city limits into Buncombe County. As such, there is a need to provide connectivity to promote bicycling in this area, while promoting a healthy lifestyle and recreational opportunities.

## Recommendation

Extend proposed greenway to logical terminus (Holbrook Rd - SR 1238).

## A7 US 19/23 - NC 151 to Haywood County Line

Purpose and Need
This facility parallels I-40, providing access to adjacent land uses and collector roads, and serving as an alternate route when incidents cause delays on I-40. The facility is essentially two lanes, but typically
with a climbing lane, center left-turn lane, or transition area. The facility lacks adequate shoulders, has poor geometrics, and has no dedicated bike facilities, making bicycle travel unsafe. Speed limits vary from 35 mph to 50 mph . 2005 volumes of $19,400 \mathrm{vpd}$ are expected to grow to $31,900 \mathrm{vpd}$ by 2030, raising serious concerns about both capacity and safety, particularly considering the frequent crosssection transitions, sub-optimal vertical alignment, narrow shoulders, and scattered driveway access. Improving the facilities along this corridor should enable the roadways to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

This project has already been identified in the LRTP. It should be coordinated with highway projects A6 and B8 and bicycle project B6. This may additionally involve coordination with highway project B25.

Upgrading to a 4-lane expressway should provide sufficient capacity to provide a desirable level of traffic service and safety for anticipated automobile and truck traffic. Bike facilities should be improved in conjunction with the roadway widening.

## A8 NC 151 - Pisgah Highway (SR 3652) to Curtis Creek Road (SR 1113)

Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

This project should be coordinated with highway project A48. The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

A9 Mills Gap Road (SR 3116) - US 25 (Hendersonville Rd) to Cane Creek Rd (SR 3136)
Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. Speed limits vary from 35 mph to 45 mph on portions of the facility. 2005 volumes of $15,500 \mathrm{vpd}$ are expected to decrease to $14,300 \mathrm{vpd}$ by 2030 on the section to be widened to 3-5 lanes. Bicycle travel is currently difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

This project should be coordinated with highway projects A54 and A55. The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

## A10 US 25 - Buck Shoals Rd (SR 3541) to Howard Gap Rd (SR 1006, Henderson Cty)

Purpose and Need
This five-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. The speed limit is 45 mph , with 2005 vehicular volumes of 37,600 vpd. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

This project should be coordinated with highway project A29. The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

## A11 US 74A (Charlotte Hwy) - South of Blue Ridge Parkway to Village Rd (SR 2815)

Purpose and Need
This five-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. The speed limit is 50 mph . Volumes along this corridor are very close to the daily capacity of the facility. Volumes are expected to increase in the coming years and the estimated 2030 ADT will exceed the capacity of the facility. There is no access control and the driveway spacing is expected to increase with increasing levels of development. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

This project should be coordinated with highway project A20. The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

## A12 US 70 - Azalea Rd to Warren Wilson Rd (SR 2412)

Purpose and Need
This five-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. The speed limit is 45 mph . 2005 volumes of $19,400 \mathrm{vpd}$ are expected to increase to $21,000 \mathrm{vpd}$ by 2030 . As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

This project should be coordinated with highway project A33. The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

## A13 Riceville Rd (SR 2002) - VA (South of Blue Ridge Parkway) to Bull Creek Rd (SR 2419) <br> Purpose and Need

This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this
facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

## A14 New Frontage Rd (South of I-40) - Blue Ridge Rd (SR 2500) to Patton Cove Rd (SR 2740)

Purpose and Need
This project coordinates with development of highway project A71, which would construct a two-lane collector on new alignment. There is currently no east-west bike route south of I-40 and west of Blue Ridge Road in this area. Constructing this new facility would connect bicyclists from Blue Ridge Road on the south side of I-40 to the US 70 bike route. It should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility and enhance connectivity in the area.

## Recommendation

This project should be coordinated with highway project A71 and recommendations in the Black Mountain Corridor Study. Construct bike facilities in tandem with new roadway.

## A15 Patton Cove Road (SR 2740) - US70 to New Frontage Road

Purpose and Need
This four-lane facility lacks adequate shoulders and bike facilities. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility. This project coordinates with development of highway project A35, and would help connect bicyclists from Blue Ridge Road on the south side of I-40 to the US 70 bike route.

## Recommendation

This project should be coordinated with highway project A35. The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

## A16 Blue Ridge Rd (SR 2500) - US 70 to Sutton Ave

Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

Recommendation
The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

## A17 NC 251 (Riverside Dr) - Broadway St (SR 1781) to Burnsville Hill Rd (SR 1674)

Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

This project should be coordinated with highway project A40. The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

## A18 US 19/23 Bus (Weaverville Hwy) - Elkwood Ave (SR 1674) to Reems Creek Rd (SR 1003)

Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

Recommendation
This project should be coordinated with highway project A43. The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

A19 Reems Creek Rd (SR 1003) - US 19/23 Bus (Weaverville Hwy) to Hamburg Mountain Rd (SR 2123)

Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

A20 US 19/23 (Main St) - Reems Creek Rd (SR 1003) to N Buncombe School Rd (SR 2207)
Purpose and Need
This four-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

This project should be coordinated with highway project A3. The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

## A21 SR 2007 - US 19/23 Bus (Main St) to Jupiter Rd (SR 1756)

## Purpose and Need

This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

## A22 Monticello Rd (SR 1727) - US 19/23 Bus (Main St) to US 25/70

Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

Recommendation
The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

## A23 US 25/70 \& Weaver Blvd (SR 1725) - Monticello Rd (SR 1727) to US 19/23 Bus (Main St) <br> Purpose and Need

This four-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

Recommendation
This project should be coordinated with highway project A7. The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

## A24 NC 63 - Old Country Home Rd (SR 1315) to Turkey Creek Rd (SR 1608)

Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer
facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

This project should be coordinated with highway project A25. The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

## A25 Old Country Home Rd (SR 1373/1369) - NC 63 to Dryman Mountain Rd (SR 1338)

Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

This project should be coordinated with highway project A65. The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

## A26 NC 151 - US 19/23 (Smokey Park Hwy) to Pisgah Hwy (SR 1156)

Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

This project should be coordinated with highway project A27. The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

## A27 SR 3446 (Enka Lake Rd/Bennett Rd) - NC 112 (Sand Hill Rd) to Lower Glady Fork Rd (SR 3454)

Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

Recommendation
This project should be coordinated with highway project A28. The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

## A28 Concord Rd (SR 3150) - Mills Gap Rd (SR 3116) to School Rd East (SR 3117)

Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

This project should be coordinated with highway project A56. The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

## A29 Christ School Rd (SR 3188)/Baldwin Rd (SR 3189) - US 25A to Lower Christ School Rd (SR 3197)

Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

This project should be coordinated with highway project A57. The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

## A30 Elkwood Ave - Merrimon Ave (US 25) to Riverside Dr (NC 251)

Purpose and Need
This two- to four-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

This project should be coordinated with highway project A58. The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

## A31 New Stock Rd (SR 1882) - US 19/23 to Monticello Rd (SR 1727)

Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

This project should be coordinated with highway project A62. The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

## A32 Old NC 20 (SR 1641)/Mt Carmel Rd (SR 1369) - Old NC 20 (SR 1622) to Old Country Home Rd (SR 1373)

## Purpose and Need

This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

This project should be coordinated with highway project A63. The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

## Various Off-Road Projects (Asheville and Black Mountain)

## Purpose and Need

The Asheville Greenways Master Plan was adopted in November 1998, and has been updated periodically since. It plans for a comprehensive greenway system that builds off existing greenway development in Asheville. The Plan calls for greenways that serve multiple functions, including accommodating alternative transportation. The Plan recommends a series of primary greenway corridors, as well as a network of neighborhood greenways. It includes Recommendations for various levels of facilities, including multi-use paths and on-road bike corridors. The Asheville Greenways Master Plan served as the basis for the off-road bike route designations for Asheville and some portions of Buncombe County in the CTP. In general, the planned primary greenway corridors are shown on the CTP bicycle maps for Buncombe County, and planned neighborhood greenways are only shown when they are needed to enhance connectivity between off-road bike routes or provide connections between off-road and on-road bike routes.

The Black Mountain Corridor Study is a study in-development looking at ways to improve the US 70 corridor through Black Mountain. The corridor study recommends a variety of bicycle-related improvements, including greenways, bike routes, intersection improvements, and other on-road improvements. The recommendations of this study were incorporated into the CTP bicycle map for Black Mountain in Buncombe County.

## Recommendation

Construct off-road facilities (greenways) per the Asheville Greenways Master Plan and the Black Mountain Corridor Study.

## Various On-Road Projects (Asheville)

## Purpose and Need

The City of Asheville is in the process of developing a Comprehensive Bicycle Master Plan. The study area for the plan generally consists of the City of Asheville and some parts of Buncombe County that
provide needed connections to parts of the city. Development of the plan began in early 2007 and a draft plan was released in August 2007. The heart of the plan is the Bicycle Network Map, which details and illustrates a variety of bicycle facility recommendations. These facility recommendations include: bike lanes, climbing lanes, shared lane markings, shared roadways, and striped shoulders. Some routes were designated as needing a "range of improvements." Greenways are also shown on the Bicycle Network Map.

The Asheville Comprehensive Bicycle Master Plan was directly incorporated into the CTP bicycle maps for Asheville and Buncombe County. Bike routes on unclassified roads, however, are generally only shown when the routes are needed to enhance connectivity between on-road routes, or between on-road and off-road routes.

Recommendation
Construct on-road bike facilities per the City of Asheville Comprehensive Bicycle Master Plan.

## Haywood County

## B1 Poison Cove Rd (SR 1818)/Charles St - Ratliff Cove Rd (SR 1818) to Pigeon River <br> Purpose and Need

This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility, as well as provide a needed connection between Waynesville and Clyde.

## Recommendation

Extend bike route to downtown Clyde and connect to the future Pigeon River Greenway (bicycle project B8).

## B2 Old Clyde Rd (SR 1523) - NC 209 to Charles St (Clyde)

## Purpose and Need

This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility, as well as provide a needed connection between northern Waynesville and Clyde.

## Recommendation

This project should be coordinated with highway project B24. Extend bike route to downtown Clyde and connect to the future Pigeon River Greenway (bicycle project B8).

## B3 Dellwood Rd Extension - Depot St to Smathers St

Purpose and Need
The Dellwood Road widening and extension roadway project will provide an opportunity to enhance connectivity through the on-road bike network in Waynesville. Widening and constructing this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility
for bicyclists. There is a need to extend Dellwood Road in order to provide a safer bicycling facility and enhance connectivity.

## Recommendation

This project should be coordinated with highway project B9. Construct bike facility in coordination with Dellwood Rd widening and extension roadway project.

## B4 Legion Dr - US 19/23 Bus (S Main St) to US 276 (Pigeon St)

Purpose and Need
The Legion Dr roadway project will provide an opportunity to enhance connectivity through the onroad bike network in Waynesville. Constructing this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve Legion Rd in order to provide a safer bicycling facility.

## Recommendation

Construct bike facility in coordination with Legion Dr roadway project (highway project B18).

## B5 Newfound Rd (SR 1004)/Main St - Buncombe County Line to US 19/23

## Purpose and Need

This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility, as well as provide a needed connection between Canton and east to the Buncombe County Line.

## Recommendation

Extend bike route to downtown Canton and the existing greenway.

## B6 US 19/23 - Buncombe County Line to NC 215

Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility, as well as provide a needed connection between Canton and east to the Buncombe County Line.

## Recommendation

Extend bike route to downtown Canton in coordination with roadway project (highway project B3).

## B7 Champion Dr (SR 1643) - Main St to NC 215

Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility, as well as provide a needed connection to the future Pigeon River Greenway (bicycle project B8).

## Recommendation

Extend bike route to future Pigeon River Greenway (bicycle project B8).

## B8 Pigeon River Greenway - NC 215/existing greenway to Clyde

Purpose and Need
The Pigeon River Greenway is planned as part of the Haywood County Comprehensive Parks and Recreation Master Plan. There is an identified need to provide off-road connectivity between Canton and Clyde, to promote bicycling in the area, and to promote a healthy lifestyle and recreational opportunities.

## Recommendation

Construct greenway along river, per the Haywood County Comprehensive Parks and Recreation Master Plan.

## B9 Richland Creek Greenway - South of US 23/74 to US 23 Bus (Hyatt Creek Rd)

Purpose and Need
Completion and extension of the Richland Creek Greenway is planned as part of the Waynesville Bike Plan. There is an identified need to enhance off-road connectivity within Waynesville, to promote bicycling in the area, and to promote a healthy lifestyle and recreational opportunities.

## Recommendation

Complete construction of greenway along creek, per the Waynesville Bike Plan.

## B10 Raccoon Creek Greenway - US 276 to North of US 23 Bus (Old Asheville Hwy)

Purpose and Need
The Raccoon Creek Greenway is planned as part of the Waynesville Bike Plan. There is an identified need to enhance off-road connectivity within Waynesville, to promote bicycling in the area, and to promote a healthy lifestyle and recreational opportunities.

## Recommendation

Construct greenway along creek per the Waynesville Bike Plan.

## B11 NC 215 - US 19/23 to US 276

Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

This project should be coordinated with highway project B14. The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

## B12 NC 110 - US 19/23 to US 276

Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

This project should be coordinated with highway project B13. The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

## Various On- and Off-Road Facilities (Waynesville)

Purpose and Need
The Town of Waynesville has developed a bicycle plan that includes existing and planned on- and offroad bike facilities. Combined, these facilities create a comprehensive bicycle network in and around Waynesville, and provide opportunities for bike connections to neighboring communities.

Waynesville's bike plan was directly incorporated into the CTP bicycle maps for Haywood County. Bike routes on unclassified roads, however, are generally only shown when the routes are needed to enhance connectivity between on-road routes, or between on-road and off-road routes.

Recommendation
Improve bicycle facilities per the Waynesville Bike Plan.

## Henderson County

## C1 US 25 - Caswell St to Brookside Camp Rd (SR 1528)

Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer
facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

## C2 Brookside Camp Rd (SR 1528) - US 25 to Howard Gap Rd (SR 1006)

Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

## C3 Howard Gap Rd (SR 1006) - Upward Rd (SR 1783) to US 25

Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

The facility should be upgraded with wide shoulders or striped lanes and appropriate signage. This project should be coordinated with highway project C 9 .

## C4 US 25 - Howard Gap Rd (SR 1006) to Buck Shoals Rd (SR 3541, Buncombe County)

Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

This project should be coordinated with bicycle project A10. The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

## C5 Fanning Bridge Rd (SR 1358) - US 25 to NC 280

Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

The facility should be upgraded with wide shoulders or striped lanes and appropriate signage. This project should be coordinated with highway project C36.

## C6 Cane Creek Rd (SR 1545) - US 25 to Mills Gap Rd (SR 3116, Buncombe County)

Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.
Recommendation
The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

## C7 Mills Gap Rd (SR 1551) - Cane Creek Rd (SR 1545) to Cane Creek Rd (SR 3136, Buncombe County)

Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

The facility should be upgraded with wide shoulders or striped lanes and appropriate signage. This project should be coordinated with highway project C32.

## C8 Hoopers Creek Rd (SR 1553) - Mills Gap Rd (SR 1551) to Terrys Gap Rd (SR 1565) Purpose and Need

This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

The facility should be upgraded with wide shoulders or striped lanes and appropriate signage. This project should be coordinated with highway project C33.

## C9 Rutledge Rd (SR 1359) - Fanning Bridge Rd (SR 1358) to NC 280

Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

## C10 Bike Route 1 - Howard Gap Rd (SR 1006) to Jeffress Rd (SR 1345) <br> Purpose and Need

Bike Route 1 (Perimeter Route, Bicycling Henderson County map), is located on two-lane facility and lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

## C11 Bike Route 3 - Daniel Dr (SR 1186) to $4^{\text {th }}$ Ave $\mathbf{E}$

Purpose and Need
Bike Route 3 (West-East Connector, Bicycling Henderson County map), is located on two-lane facility and lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

The facility should be upgraded with wide shoulders or striped lanes and appropriate signage.

## C12 Bike Route 3 - Powell St (SR 1758) to Upward Rd (SR 1783)

Purpose and Need
Bike Route 3 (West-East Connector, Bicycling Henderson County map), is located on two-lane facility and lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility
for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

The facility should be upgraded with wide shoulders or striped lanes and appropriate signage. This project should be coordinated with highway projects C20 and C21.

## C13 Caswell St/Kanuga Rd/Willow St - US 25 (S King St) to N Lakeside Dr (SR 1144)

Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

The facility should be upgraded with wide shoulders or striped lanes and appropriate signage. This project should be coordinated with highway project C28.

## C14 Blythe St - NC 191 (Haywood Rd) to $3^{\text {rd }}$ Ave W

Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

The facility should be upgraded with wide shoulders or striped lanes and appropriate signage. This project should be coordinated with highway project C24.

## C15 Lake St/Hebron Rd/State St - $\mathbf{3}^{\text {rd }}$ Ave $\mathbf{W}$ to Kanuga Rd (SR 1127)

Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.
Recommendation
The facility should be upgraded with wide shoulders or striped lanes and appropriate signage. This project should be coordinated with highway project C25.

## C16 Kanuga Rd (SR 1127) - Willow St to Price Rd (SR 1137)

Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

The facility should be upgraded with wide shoulders or striped lanes and appropriate signage. This project should be coordinated with highway project C28.

## C17 Erkwood Rd (SR 1164) - Kanuga Rd (SR 1127) to NC 225 (Greenville Hwy)

Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

The facility should be upgraded with wide shoulders or striped lanes and appropriate signage. This project should be coordinated with highway project C29.

## C18 West Blue Ridge Rd (SR 1812) - NC 225 (Greenville Hwy) to Roper Rd (SR 1807) <br> Purpose and Need

This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

The facility should be upgraded with wide shoulders or striped lanes and appropriate signage. This project should be coordinated with highway project C35.

C19 Upward Rd (SR 1783) - US 176 to Howard Gap Rd (SR 1006)
Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

The facility should be upgraded with wide shoulders or striped lanes and appropriate signage. This project should be coordinated with highway project C 4 .

## C20 Sugarloaf Rd (SR 1734) - US 64 to Ridge Rd (SR 1783)

Purpose and Need
This two-lane facility lacks adequate shoulders, has poor geometrics, has no dedicated bike facilities, and lacks appropriate bike signage. As such, bicycle travel is difficult and can be unsafe. Improving this facility should enable the roadway to accommodate automobiles and bicycles, while providing a safer facility for bicyclists. There is a need to improve facilities along this corridor to provide a safer bicycling facility.

## Recommendation

The facility should be upgraded with wide shoulders or striped lanes and appropriate signage. This project should be coordinated with highway project C30.

## Various Off-Road (Greenway) Facilities

Purpose and Need
Significant off-road (greenway) bike facility planning has been done in Henderson County. Various sources of bike planning in Henderson County were consulted in preparing the CTP bicycle maps for Henderson County. One source is the draft CTP for Henderson County developed in 2005. The CTP bicycle map and plans for greenways for Henderson County were updated with information supplied by local staff and stakeholders. The Henderson County Bike Map Bicycling Henderson County was also consulted.

## Recommendation

Construct greenways per the Henderson County Greenway Plan.

## 3. Population, Land Use, and Existing Roadways

## POPULATION

Demand for travel is closely linked to the population in an area. Typically, as population increases, so does the amount of travel, as persons make trips to fulfill the needs of their daily lives. Additionally, as the employment base within a region grows, these businesses will attract additional commercial trips, particularly in an area such as the French Broad River MPO, where tourism plays a strong role in the economy.
The 2005 base year data used for this study was developed based on the 2000 Census data. Data for 2005 was estimated using information from the North Carolina State Data Center which tracks population and household information across the state. In 2005, the population for the three counties in the study area was estimated to be 216,271, 56,249 and 97,751 for Buncombe, Haywood and Henderson Counties, respectively. Future population estimates for 2030 were developed as part of the French Broad River MPO Travel Demand Model. These estimates were based on a complex analysis incorporating local and national population and economic trends. For 2030, it is estimated that there will be a total of approximately 324,000, 92,000 and 148,000 people living in Buncombe, Haywood and Henderson Counties, respectively.

## Land UsE

The way land is used can have a significant effect on travel in an area. Land use refers not only to the type of development - such as residential or commercial - but also to the level of intensity of the development. Land use affects travel both at a local scale - such as congestion around a corner store - and at a regional scale large tracts of single-use development can result in travel patterns that are very directional, such as the AM commute pattern from a bedroom community to a CBD. This spatial distribution of varying land uses plays a central role in determining when, where, and why congestion occurs. Not only do different land uses typically attract varying quantities of trips - consider a shopping center versus a block of single-family homes - each can have a unique set of travel patterns associated with it. For example, while an office building will produce travel peaks at around 8 AM and 5 AM , a restaurant will most likely experience peak travel around lunch and dinner.

For this study, land use data from the French Broad River MPO Travel Demand Model was used. As with the population data, a regional forecast for employment by job sector was developed for a multi-county area based on national and local trends. These regional totals were then allocated to much smaller areas by each member municipality based local plans and development patterns. In the French Broad River MPO Travel Demand Model, six primary types of land use were identified:

- Residential - This includes all single and multi-family housing of all densities and can include the residential component of mixed-use development.
- Highway Retail - This land use includes retail stores that generate high numbers of trips and are typically auto-oriented such as gas stations and fast-food restaurants.
- Retail - This includes all retail stores whose primary function is to sell goods to an end consumer with the exception of those classified as Highway Retail.
- Service - This includes all service-type land uses whose primary function is the sale of a service rather than a good, such as doctors and schools.
- Office - This land use includes businesses or institutions that are primarily administrative and have lower rates of client traffic, such as accountants, lawyers and engineers. It also includes most government offices.
- Industrial - This includes all businesses involved in the physical process of producing or handling goods, including construction workers, wholesalers and farmers.


## Roadway System

An important component of the CTP is an analysis of the existing transportation system and its ability to satisfy the transportation needs of the area. It is important to understand not only the location and severity of deficiencies, but also the root causes of the deficiencies. Otherwise, it is difficult to develop an efficient, effective plan for addressing them. Problems can be very local in nature, such as lack of turn lanes, or inadequate lane widths, or substandard geometrics. Alternatively, there may be more generalized system deficiencies in network connectivity or redundancy.
An analysis of the roadway network must account for both existing and anticipated future deficiencies. Analysis of the existing facilities includes both a vehicle collision analysis and a roadway deficiency analysis. Future deficiencies are estimated based on a combination of known deficiencies, and on forecasts of socio-economic trends, such as population and land use, and how changes over time will likely affect the transportation system.

## Vehicle Crash Analysis

Vehicle crashes are often used as an indicator for locating congestion problems. While often the result of driver error or vehicle performance, crashes may also be associated with the physical characteristics of a roadway. Inadequate turn bays, sight distance, pavement width and traffic control devices can all contribute to a vehicle crash.

Crash data for the period of January 1, 2004 to December 31, 2006 were studied as part of the development of this report. The analysis involved the evaluation of high crash locations within each of the three counties. For the purposes of this report, the NCDOT Traffic Engineering and Safety Systems Branch identified any intersection with ten (10) or more crashes within 150 feet of the intersection over the three year period as having a high crash rate. Table 3-1 lists the locations identified as high crash and the number reported at each location over the study period. These locations are mapped in Figure 3-1.

Table 3-1 High Crash Intersections

| Map Index | Number of Crashes | Intersection |
| :---: | :---: | :---: |
| Buncombe County |  |  |
| 1 | 94 | 1240 \& US 19 |
| 2 | 75 | 1240 \& US70 |
| 3 | 65 | 126 \& NC 280 |
| 4 | 56 | US 19 \& NC63 |
| 5 | 52 | 1240 \& FAIRVIEW |
| 6 | 51 | 1240 \& I 240 |
| 7 | 51 | 140 \& US 19 |
| 8 | 49 | US 19 \& LOUISIANA |
| 9 | 48 | US 19 \& FLORIDA |
| 10 | 41 | 126 \& NC 191 |
| 11 | 39 | 126 \& NC 146 |
| 12 | 37 | 126 \& 1240 |
| 13 | 35 | US 19 \& US 25 |
| 14 | 33 | US 19 \& REGENTS PARK |
| 15 | 33 | US 19 \& DRUID |
| 16 | 33 | US 19 \& BEAR CREEK |
| 17 | 32 | NC 63 \& SR 1369 |
| 18 | 31 | US 19 \& NC 151 |
| 19 | 30 | US 70 \& SR 2740 |
| 20 | 30 | 140 \& US 25 |
| 21 | 29 | US 25A \& MILLS GAP |
| 22 | 28 | US 19 \& ACTON |
| 23 | 26 | 140 \& US 74A |
| 24 | 25 | NC 280 \& SR 3530 |
| 25 | 24 | US 25 \& EDGEWOOD |
| 26 | 24 | FAIRVIEW \& RIVER RIDGE |
| 27 | 24 | US 19 \& OLD HAYWOOD |
| 28 | 23 | TUNNEL \& TUNNEL |
| 29 | 23 | US 25 \& NC 280 |
| 30 | 22 | US 25 \& CHESTNUT |
| 31 | 21 | 140 \& SR 2838 |
| 32 | 21 | 140 \& SR 2740 |
| 33 | 21 | 126 \& 140 |
| 34 | 20 | US 70 \& NEW HAW CREEK |
| 35 | 20 | US 70 \& PORTER COVE |
| 36 | 20 | CLINGMAN \& PATTON |
| 37 | 20 | NC 63 \& SR 1315 |
| 38 | 20 | US 70 \& RICEVILLE |
| 39 | 20 | 1240 \& NC 191 |
| 40 | 19 | US 19 \& RUMBOUGH |
| 41 | 19 | US 70 \& NC 81 |
| 42 | 19 | US 19 \& SR 1740 |
| 43 | 19 | CHARLOTTE \& COLLEGE |
| 44 | 19 | NC 280 \& SR 3527 |
| 45 | 19 | 1240 \& CHARLOTTE |
| 46 | 18 | NC 81 \& TUNNEL |
| 47 | 18 | US 19 \& DEAVERVIEW |
| 48 | 18 | NC 146 \& NC 191 |
| 49 | 18 | SR 1332 \& SR 1338 |
| 50 | 18 | 140 \& 1240 |
| 51 | 17 | US 25 \& COLEMAN |
| 52 | 17 | US 25 \& MILLS GAP |
| 53 | 17 | US 70 \& SR 2435 |
| 54 | 17 | US 70 \& BLUE RIDGE |

Table 3-1 High Crash Intersections

| Map Index | Number of Crashes | Intersection |
| :---: | :---: | :---: |
| 55 | 17 | US 70 \& TUNNEL |
| 56 | 17 | NC 63 \& OAK HILL |
| 57 | 17 | SR 3495 \& SR 3522 |
| 58 | 17 | 1240 \& WESTGATE |
| 59 | 16 | US 25 \& HILLSIDE |
| 60 | 16 | US 25 \& LONG SHOALS |
| 61 | 16 | SR 3116 \& SR 3150 |
| 62 | 16 | US 25 \& ORANGE |
| 63 | 16 | US 25 \& GERBER |
| 64 | 16 | 1240 \& BROADWAY |
| 65 | 15 | 140 \& NC 9 |
| 66 | 15 | US 25 \& WEAVER |
| 67 | 15 | US 70 \& GROVE STONE |
| 68 | 15 | NC 63 \& ASCENSION |
| 69 | 15 | NC 280 \& SR 3529 |
| 70 | 15 | MILLS GAP \& SWEETEN CREEK |
| 71 | 15 | NC 63 \& ELIDA HOME |
| 72 | 15 | US 74A \& SR 3128 |
| 73 | 15 | 140 \& US 74 |
| 74 | 14 | NC 63 \& DRUID |
| 75 | 14 | SR 3116 \& SR 3121 |
| 76 | 14 | SR 3116 \& SR 3136 |
| 77 | 14 | SR 3495 \& SR 3527 |
| 78 | 14 | 1240 \& AMBOY |
| 79 | 14 | 1240 \& MONTFORD |
| 80 | 14 | US 19 \& SR 1200 |
| 81 | 14 | US 19 \& BROOKSIDE |
| 82 | 14 | US 25 \& SR 1727 |
| 83 | 14 | US 25 \& LODGE |
| 84 | 14 | US 25 \& OAK FOREST |
| 85 | 14 | US 25 \& PEACHTREE |
| 86 | 14 | ARLINGTON \& CHARLOTTE |
| 87 | 14 | FRENCH BROAD \& BROAD HILLIARD |
| 88 | 14 | HAZEL MILL \& LOUISIANA |
| 89 | 14 | 1240 \& US 25 |
| 90 | 13 | BILTMORE \& CHOCTAW |
| 91 | 13 | NC 63 \& SR 1384 |
| 92 | 13 | FAIRVIEW \& FAIRVIEW |
| 93 | 13 | LOUISIANA \& PATTON |
| 94 | 13 | FRENCH BROAD \& PATTON |
| 95 | 13 | US 70 \& SR 2727 |
| 96 | 12 | US 70 \& SR 2416 |
| 97 | 12 | US 70 \& WHITE PINE |
| 98 | 12 | US 25 \& MANEY |
| 99 | 12 | NC 81 \& FAIRVIEW |
| 100 | 12 | SR 1224 \& SR 1238 |
| 101 | 12 | BILTMORE \& CHARLOTTE |
| 102 | 12 | CEDAR \& FAIRVIEW |
| 103 | 12 | FLORIDA \& PATTON |
| 104 | 12 | MARKET \& WOODFIN |
| 105 | 12 | NC 63 \& OLD COUNTY HOME |
| 106 | 12 | 1240 \& TUNNEL |
| 107 | 12 | 1240 \& PATTON |
| 108 | 11 | 140 \& SR 1200 |
| 109 | 11 | 140 \& NC 191 |
| 110 | 11 | 1240 \& HAYWOOD |

Table 3-1 High Crash Intersections

| Map Index | Number of Crashes | Intersection |
| :---: | :---: | :---: |
| 111 | 11 | US 19 \& NEW BRIDGE |
| 112 | 11 | US 25 \& MURDOCK |
| 113 | 11 | US 25 \& ROYAL PINES |
| 114 | 11 | US 25 \& WESTALL |
| 115 | 11 | NC 63 \& SR 1302 |
| 116 | 11 | SR 1607 \& SR 1620 |
| 117 | 11 | SR 2435 \& SR 2436 |
| 118 | 11 | AMBOY \& MEADOW |
| 119 | 11 | US 19 \& SR 1233 |
| 120 | 11 | 140 \& US 25A |
| 121 | 11 | 140 \& 140 |
| 122 | 10 | US 19 \& SR 1220 |
| 123 | 10 | US 19 \& ASBURY |
| 124 | 10 | US 19 \& US 19 |
| 125 | 10 | US 19 \& BROADWAY |
| 126 | 10 | US 19 \& MIMOSA |
| 127 | 10 | US 19 \& SAND HILL |
| 128 | 10 | US 25 \& BROAD |
| 129 | 10 | SR 2435 \& SR 2727 |
| 130 | 10 | BEAR CREEK \& PATTON |
| 131 | 10 | BROADWAY \& WEAVER |
| 132 | 10 | BROADWAY \& WOODFIN |
| 133 | 10 | CHARLOTTE \& CHESTNUT |
| 134 | 10 | CHARLOTTE \& CLAYTON |
| 135 | 10 | CLINTON \& WEAVER |
| 136 | 10 | COLLEGE \& LEXINGTON |
| 137 | 10 | HENDERSONVILLE \& LODGE |
| 138 | 10 | US 25 \& SPRINGSIDE |
| 139 | 10 | US 70 \& SR 2436 |
| 140 | 10 | US 25A \& CEDAR |
| 141 | 10 | US 74A \& SR 2862 |
| 142 | 10 | NC 81 \& KENSINGTON |
| 143 | 10 | NC 112 \& SR 3412 |
| 144 | 10 | NC 146 \& SR 3498 |
| 145 | 10 | NC 151 \& SR 3447 |
| 146 | 10 | NC 191 \& SR 3485 |
| 147 | 10 | US 19 \& HILL |
| 148 | 10 | 1240 \& BREVARD |
| Haywood County |  |  |
| 1 | 36 | NC 209 \& SR 1646 |
| 2 | 34 | US 19 \& US 276 |
| 3 | 15 | US 19 \& BLACKWELL |
| 4 | 13 | PISGAH \& SUB STATION |
| 5 | 13 | BLACKWELL \& CHAMPION |
| 6 | 12 | US 19 \& GREENBERRY |
| 7 | 11 | US 276 \& SR 1812 |
| 8 | 11 | NC 209 \& SR 1375 |
| 9 | 11 | US 276 \& NC 110 |
| 10 | 10 | CHAMPION \& THIEKETY |
| 11 | 10 | US 19 \& SR 1800 |
| Henderson County |  |  |
| 1 | 79 | 126 \& US 25 |
| 2 | 42 | CHURCH \& SEVENTH |
| 3 | 39 | 126 \& SR 1783 |

## Table 3-1 High Crash Intersections

| Map Index | Number of Crashes | Intersection |
| :---: | :---: | :---: |
| 4 | 36 | NC 191 \& NC 280 |
| 5 | 34 | US 176 \& SR 1783 |
| 6 | 32 | US 64 \& SUGAR LOAF |
| 7 | 31 | 126 \& US 64 |
| 8 | 30 | KING \& SEVENTH |
| 9 | 29 | SR 1756 \& SR 1783 |
| 10 | 27 | KING \& SIXTH |
| 11 | 26 | US 176 \& OLD SPARTANBURG |
| 12 | 24 | MAIN \& SEVENTH |
| 13 | 24 | US 64 \& HIGHLAND SQUARE |
| 14 | 23 | KING \& MAIN |
| 15 | 22 | US 25 \& SR 1543 |
| 16 | 21 | FOUR SEASONS \& THOMPSON |
| 17 | 21 | SR 1006 \& SR 1734 |
| 18 | 20 | US 25 \& HOWARD GAP |
| 19 | 18 | BUNCOMBE \& SIXTH |
| 20 | 18 | BROOKLYN \& OLD SPARTANBURG |
| 21 | 18 | DUNCAN HILL \& HILL SEVENTH |
| 22 | 18 | US 25 \& OLD AIRPORT |
| 23 | 17 | CHURCH \& SIXTH |
| 24 | 17 | US 64 \& SR 1006 |
| 25 | 17 | US 25 \& SR 1345 |
| 26 | 16 | NC 280 \& ROCKWOOD |
| 27 | 16 | SR 1783 \& SR 1789 |
| 28 | 16 | US 64 \& LINDA VISTA |
| 29 | 15 | US 25 \& NC 191 |
| 30 | 15 | SR 1525 \& SR 1783 |
| 31 | 15 | CHURCH \& FIRST |
| 32 | 15 | US 25 \& US 176 |
| 33 | 14 | CHURCH \& EIGHTH |
| 34 | 14 | ALLEN \& KING |
| 35 | 14 | US 64 \& HOWARD GAP |
| 36 | 14 | US 64 \& FREEMAN |
| 37 | 13 | KING \& THIRD |
| 38 | 13 | MAIN \& THIRD |
| 39 | 13 | COOLRIDGE \& FOUR SEASONS |
| 40 | 13 | ALLEN \& CHURCH |
| 41 | 13 | US 64 \& CAROLINA VILLAGE |
| 42 | 13 | US 25 \& SR 1164 |
| 43 | 12 | US 176 \& CHADWICK |
| 44 | 12 | US 176 \& SHEPARD |
| 45 | 12 | SR 1006 \& SR 1513 |
| 46 | 12 | SR 1525 \& SR 1893 |
| 47 | 12 | CHIMNEY ROCK \& ROCK HOWARD GAP |
| 48 | 12 | KING \& SECOND |
| 49 | 12 | US 64 \& THOMPSON |
| 50 | 12 | US 25 \& OAKLAND |
| 51 | 12 | US 25 \& SR 1528 |
| 52 | 11 | SR 1127 \& SR 1137 |
| 53 | 11 | DANA \& FOUR SEASONS |
| 54 | 11 | FIFTH \& KING |
| 55 | 11 | SR 1127 \& SR 1164 |
| 56 | 11 | US 64 \& DANA |
| 57 | 11 | US 64 \& COOLRIDGE |
| 58 | 11 | US 25 \& SR 1529 |
| 59 | 10 | US 64 \& GROVE |

Table 3-1 High Crash Intersections

| Map Index | Number of Crashes | Intersection |
| :---: | :---: | :---: |
| 60 | 10 | NC 191 \& SR 1380 |
| 61 | 10 | SR 1331 \& SR 1426 |
| 62 | 10 | ASHEVILLE \& FLEMING |
| 63 | 10 | BARNWELL \& CHURCH |
| 64 | 10 | CHURCH \& KANUGA |
| 65 | 10 | CHURCH \& THIRD |
| 66 | 10 | FOUR SEASONS \& LINDA VISTA |
| 67 | 10 | HARRIS \& MARTIN LUTHER KING |
| 68 | 10 | JUSTICE \& SIXTH |
| 69 | 10 | OLD SPARTANBURG \& SPARTANBURG |
| 70 | 10 | EIGHTH \& MAIN |
| 71 | 10 | CHIMNEY ROCK \& HIGHLAND SQUARE |
| 72 | 10 | ASHEVILLE \& HAYWOOD |
| 73 | 10 | US 25 \& MAIN |
| 74 | 10 | US 64 \& ORRS CAMP |
| 75 | 10 | US 25 \& SR 1368 |





## Roadway Capacity Deficiencies

Roadway capacity deficiencies exist when the traffic volume carried by a roadway approaches or exceeds the capacity of that roadway. Capacity can be measured in terms of one hour, several hours, or on a daily basis. While the capacity of the roadway on an hourly basis can be readily determined, the capacity of a peak period or on a daily basis also depends on how travel varies over the course of the day. Although peak hour capacity can be more precisely determined, it does not provide a good picture of travel along the roadway over the course of an entire day, and can therefore overstate or understate the severity of a deficiency. For this reason, daily capacity is typically used for transportation planning.

Capacity is the theoretical maximum number of vehicles that can travel over a given section of roadway during a given period of time, for a given level of service (LOS). Level of service, like a report card, is graded from A-F, with level of service F conditions indicating the operations have broken down and are at "stop-and-crawl". For this study, LOS E or "ultimate capacity" was used, meaning the maximum number of vehicles that can use the roadway before it reaches LOS F. Many factors contribute to the capacity of a roadway, including:

- Roadway geometry, including number of lanes, horizontal and vertical alignment and the distance between roadside obstructions (such as foliage or mail boxes) and the travel lanes;
- The type of users along the roadway, including driver types - specifically whether they are regular users, such as commuters, or recreational traveler - and vehicle types - specifically passenger cars versus heavy trucks and tractor trailers;
- Control of access along the roadway and driveway density;
- Spacing of traffic control devices, such as signals and stop signs;
- Other roadway characteristics, such as the presence of on-street parking, high pedestrian volumes or the presence of buses;
- Peaking characteristics along a roadway, specifically how constant the traffic flow is over the course of an hour or a day;
- Directional split of traffic along a roadway, specifically whether it is balanced in each direction or whether it is heavier in one direction over the other.

While all of these factors affect capacity, these effects can vary, depending upon the level of service under consideration. For example, when considering operations at a high level of service, the presence or absence of a median can have a large impact on the capacity of a roadway, since a median provides drivers a level of assurance that vehicles will not be turning into or out of the lane, and that they are protected from oncoming traffic. When considering capacity at a low level of service, such as E, the influence of a median is greatly diminished, since under such conditions traffic operations are already poor, and traffic is no longer flowing smoothly.

As part of the French Broad River MPO Travel Demand Model, ultimate capacities were estimated for a series of typical types or classifications of roadways, based on the latest technical evidence and guidance of roadway capacities. For the CTP capacity deficiency analysis, roadways classified in the highway component of the plan were further classified into the typical roadway types from the model. It is these typical capacities which are presented in Table 2-1.

The NCDOT Traffic Survey Unit regularly records traffic data across the state. These data from 2005 were used in conjunction with the capacities discussed above to estimate existing roadway capacity deficiencies.

Capacity analysis for the future year, 2030, was performed using the French Broad River MPO Travel Demand Model. This model produces an estimate of the conditions in both the peak hours and on a daily basis. As discussed above, the peak hour capacity is more absolute, so this was the primary basis for
identifying future roadway capacity deficiencies. This analysis was augmented with daily outputs, and with knowledge of the area and its existing deficiencies, as well as engineering judgments about locations where conditions are likely to deteriorate as traffic volumes increase. These elements formed the basis of the project list identified in Table 2-1. Future year capacities in the table reflect the estimated capacity of the roadway under the improved conditions. For consistency, volumes reported in the table are based simply on taking the absolute increase (or decrease) in daily vehicles on the roadway as estimated by the model and adding it to the existing traffic count for the roadway. It is important to note that these volumes are estimates only; in many cases, project level traffic forecasts have been performed for the projects and should be taken as authoritative over those volumes listed in the table.

## Bridge Conditions

Bridges are an important element of a highway system. Any bridge deficiency will affect the efficiency of the entire transportation system. In addition, bridges present the greatest threat of community disruption and loss of life of any potential highway failure. Therefore, bridges must be constructed to the same, or higher, design standards as the highway system of which they are a part and they must be inspected regularly to ensure the safety of the traveling public.

The NCDOT Bridge Maintenance 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 bridge replacement. Bridges with the highest priority are replaced as federal and state funds become available.

A bridge is considered deficient if it is either structurally deficient or functionally obsolete. A bridge at least ten years old is considered structurally deficient if it is in relatively poor condition or has insufficient loadcarrying capacity, as a result of either the original design or deterioration. A bridge is considered to be functionally obsolete if it is narrow, has inadequate under-clearances, has insufficient load-carrying capacity, is poorly aligned with the roadway, or can no longer adequately serve existing traffic. A bridge must be classified as deficient in order to qualify for federal replacement funds, in addition to have a qualifying sufficiency rating. To qualify for replacement, the sufficiency rating must be less than 50 percent; for rehabilitation, the sufficiency rating must be less than 80 percent. Deficient bridges in the three counties are listed in Table 3-2 and are mapped in Figure 3-2.

Table 3-2 Deficient Bridges

| County | Number | Division | Route | Across | Structurally Deficient | Functionally Obsolete |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BUNCOMBE | 1 | 13 | US19,23,70 | I240WB | No | Yes |
| BUNCOMBE | 4 | 13 | SR1641 | JENKINS CREEK | No | Yes |
| BUNCOMBE | 8 | 13 | SR3539 | 126 | No | Yes |
| BUNCOMBE | 12 | 13 | SR1607 | TURKEY CREEK | Yes | No |
| BUNCOMBE | 13 | 13 | SR1612 | TURKEY CREEK | Yes | No |
| BUNCOMBE | 14 | 13 | SR1608 | TURKEY CREEK | Yes | Yes |
| BUNCOMBE | 15 | 13 | SR1608 | TURKEY CREEK | Yes | Yes |
| BUNCOMBE | 16 | 13 | SR1607 | DIX CREEK | No | Yes |
| BUNCOMBE | 19 | 13 | SR1617 | NEWFOUND CREEK | Yes | No |
| BUNCOMBE | 23 | 13 | SR1394 | SANDY MUSH CREEK | No | Yes |
| BUNCOMBE | 25 | 13 | SR1394 | WILLOW CREEK | No | Yes |
| BUNCOMBE | 26 | 13 | SR1384 | SOUTH TURKEY CREEK | No | Yes |
| BUNCOMBE | 30 | 13 | SR1381 | NEWFOUND CREEK | No | Yes |
| BUNCOMBE | 34 | 13 | US19 RAMP | 1240 WBL | No | Yes |
| BUNCOMBE | 36 | 13 | US19,23B | 1240 | No | Yes |
| BUNCOMBE | 39 | 13 | NC81 | SWANNANOA RIVER | Yes | Yes |
| BUNCOMBE | 40 | 13 | NC112 | SOUTHERN RAILROAD | No | Yes |
| BUNCOMBE | 41 | 13 | SR2500 | SWANNONOA RIVER | No | Yes |
| BUNCOMBE | 42 | 13 | NC151 | STONY FORK CREEK | Yes | No |
| BUNCOMBE | 43 | 13 | NC191 | AVERY CREEK | No | Yes |
| BUNCOMBE | 58 | 13 | SR3446 | BEAVERDAM CREEK | No | Yes |
| BUNCOMBE | 65 | 13 | SR1733 | LITTLE FLAT CREEK | No | Yes |
| BUNCOMBE | 66 | 13 | 1240 EBL | HOMINY CREEK | No | Yes |
| BUNCOMBE | 67 | 13 | SR1740 | FLAT CREEK | No | Yes |
| BUNCOMBE | 68 | 13 | 126 WBL | SR3495 | No | Yes |
| BUNCOMBE | 70 | 13 | 1240 WBL | HOMINY CREEK | No | Yes |
| BUNCOMBE | 79 | 13 | NC9 | BROAD RIVER | No | Yes |
| BUNCOMBE | 80 | 13 | NC63 | NEWFOUND CREEK | No | Yes |
| BUNCOMBE | 84 | 13 | SR3142 | CANE CREEK | No | Yes |
| BUNCOMBE | 85 | 13 | NC112 | HOMINY CREEK | No | Yes |
| BUNCOMBE | 86 | 13 | NC151 | CHESTNUT FORK CREEK | No | Yes |
| BUNCOMBE | 88 | 13 | SR3137 | CANE CREEK | No | Yes |
| BUNCOMBE | 89 | 13 | SR3147 | CANE CREEK | No | Yes |
| BUNCOMBE | 90 | 13 | SR3138 | BRUSH CREEK | No | Yes |
| BUNCOMBE | 97 | 13 | SR2814 | ASHWORTH CREEK | No | Yes |
| BUNCOMBE | 99 | 13 | SR2816 | GARREN CREEK | Yes | Yes |
| BUNCOMBE | 100 | 13 | SR2815 | ASHWORTH CREEK | No | Yes |
| BUNCOMBE | 104 | 13 | SR2776 | TRANTHAM BRANCH | No | Yes |
| BUNCOMBE | 105 | 13 | SR2776 | ROCKY FORK CREEK | No | Yes |
| BUNCOMBE | 106 | 13 | SR2806 | GARREN CREEK | No | Yes |
| BUNCOMBE | 108 | 13 | SR2806 | UPPER FLAT CREEK | Yes | Yes |
| BUNCOMBE | 115 | 13 | SR2789 | BROAD RIVER | No | Yes |
| BUNCOMBE | 118 | 13 | SR2782 | CANE CREEK | Yes | Yes |
| BUNCOMBE | 119 | 13 | SR2800 | CANE CREEK | No | Yes |
| BUNCOMBE | 120 | 13 | SR2800 | CANE CREEK | No | Yes |
| BUNCOMBE | 122 | 13 | SR2138 | FLAT CREEK | No | Yes |
| BUNCOMBE | 125 | 13 | US74A | CANE CREEK | No | Yes |
| BUNCOMBE | 126 | 13 | US19,23BUS | REEM'S CREEK | No | Yes |
| BUNCOMBE | 129 | 13 | NC694 | I240,RAMP | No | Yes |
| BUNCOMBE | 130 | 13 | NC9 | BROAD RIVER | No | Yes |
| BUNCOMBE | 131 | 13 | NC63 | BIG SANDYMUSH CREEK | Yes | No |
| BUNCOMBE | 132 | 13 | SR2150 | BIG IVY CREEK | No | Yes |

Table 3-2 Deficient Bridges

| County | Number | Division | Route | Across | Structurally Deficient | Functionally Obsolete |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BUNCOMBE | 134 | 13 | NC151 | STONY FORK CREEK | No | Yes |
| BUNCOMBE | 135 | 13 | SR2153 | BIG IVY CREEK | No | Yes |
| BUNCOMBE | 138 | 13 | SR2130 | LITTLE FLAT CREEK | No | Yes |
| BUNCOMBE | 139 | 13 | SR2171 | BIG IVY CREEK | Yes | No |
| BUNCOMBE | 140 | 13 | VICTORIA RD. | US25 | No | Yes |
| BUNCOMBE | 146 | 13 | SR2173 | STONEY FORK CREEK | No | Yes |
| BUNCOMBE | 148 | 13 | SR2173 | DILLINGHAM CREEK | Yes | Yes |
| BUNCOMBE | 149 | 13 | SR2173 | STAIR CREEK | No | Yes |
| BUNCOMBE | 153 | 13 | US25 | BEAVERDAM CREEK | No | Yes |
| BUNCOMBE | 154 | 13 | SR1003 | BIG IVEY CREEK | No | Yes |
| BUNCOMBE | 157 | 13 | 126 WBL | PRIVATE ROAD | No | Yes |
| BUNCOMBE | 158 | 13 | 126 EBL | PRIVATE ROAD | No | Yes |
| BUNCOMBE | 159 | 13 | SR2115 | REEMS CREEK | No | Yes |
| BUNCOMBE | 161 | 13 | SR2115 | REEMS CREEK | No | Yes |
| BUNCOMBE | 167 | 13 | SR1695 | BEAVER DAM CREEK | No | Yes |
| BUNCOMBE | 168 | 13 | US19,23 | I240,OFF RAMP | No | Yes |
| BUNCOMBE | 174 | 13 | SR3150 | ROBINSON CREEK | No | Yes |
| BUNCOMBE | 177 | 13 | SR3121 | ROBINSON CREEK | No | Yes |
| BUNCOMBE | 179 | 13 | SR1309 | DIX CREEK | No | Yes |
| BUNCOMBE | 180 | 13 | SR1309 | DIX CREEK | No | Yes |
| BUNCOMBE | 181 | 13 | NC151 | SOUTH HOMINY CREEK | Yes | Yes |
| BUNCOMBE | 183 | 13 | SR1389 | NORTH FORK TURKEY CREEK | No | Yes |
| BUNCOMBE | 191 | 13 | US19,23 RAMP | I240,RAMPS | No | Yes |
| BUNCOMBE | 193 | 13 | NC251 | FLAT CREEK | No | Yes |
| BUNCOMBE | 196 | 13 | NC9 | BRANCH | No | Yes |
| BUNCOMBE | 203 | 13 | SR2416 | BEE TREE CREEK | No | Yes |
| BUNCOMBE | 204 | 13 | SR2416 | SWANNANOA RIVER | No | Yes |
| BUNCOMBE | 206 | 13 | 1240 EBL | NC191,HOMINY CREEK | No | Yes |
| BUNCOMBE | 208 | 13 | 1240 WBL | NC191,HOMINY CREEK | No | Yes |
| BUNCOMBE | 211 | 13 | 126 WBL | FRENCH BROAD RIVER | No | Yes |
| BUNCOMBE | 212 | 13 | SR2403 | GRASSY BRANCH | No | Yes |
| BUNCOMBE | 214 | 13 | 126 EBL | FRENCH BROAD RIVER | No | Yes |
| BUNCOMBE | 220 | 13 | SR2098 | REEMS CREEK | Yes | Yes |
| BUNCOMBE | 223 | 13 | 126 | SR3482 (VEH.UNDERPASS) | No | Yes |
| BUNCOMBE | 224 | 13 | SR1003 | REEMS CREEK | No | Yes |
| BUNCOMBE | 225 | 13 | SR2103 | REEMS CREEK | No | Yes |
| BUNCOMBE | 227 | 13 | SR2105 | REEMS CREEK | Yes | No |
| BUNCOMBE | 229 | 13 | SR2108 | REEMS CREEK | No | Yes |
| BUNCOMBE | 235 | 13 | 126 WBL | SR3431,HOMINY CREEK | No | Yes |
| BUNCOMBE | 238 | 13 | 126 EBL | SR3431,HOMINY CREEK | No | Yes |
| BUNCOMBE | 239 | 13 | US70 | SWANNANOA RIVER | No | Yes |
| BUNCOMBE | 240 | 13 | SR2768 | SWANNANOA RIVER | Yes | No |
| BUNCOMBE | 242 | 13 | CITY STREET | 1240 | No | Yes |
| BUNCOMBE | 249 | 13 | SR1742 | FLAT CREEK | Yes | Yes |
| BUNCOMBE | 250 | 13 | SR1742 | FLAT CREEK | Yes | Yes |
| BUNCOMBE | 253 | 13 | I26NBL | I240RAMP,140 EBL | No | Yes |
| BUNCOMBE | 254 | 13 | 126 EBL | 140 | No | Yes |
| BUNCOMBE | 256 | 13 | SR1123 | NORTH HOMINY CREEK | No | Yes |
| BUNCOMBE | 258 | 13 | US70 | SWANNANOA RIVER | No | Yes |
| BUNCOMBE | 259 | 13 | SR3466 | S.HOMINY CREEK | Yes | Yes |
| BUNCOMBE | 262 | 13 | SR3452 | S.HOMINY CREEK | Yes | Yes |
| BUNCOMBE | 265 | 13 | SR1155 | HOMINY CREEK | No | Yes |

Table 3-2 Deficient Bridges

| County | Number | Division | Route | Across | Structurally Deficient | Functionally Obsolete |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BUNCOMBE | 270 | 13 | SR1113 | CURTIS CREEK | No | Yes |
| BUNCOMBE | 273 | 13 | 126 WBL | 140 EBL | No | Yes |
| BUNCOMBE | 279 | 13 | HOUSING CONN.RD. | US19,23 | No | Yes |
| BUNCOMBE | 281 | 13 | US19,23,70 | NC251 | No | Yes |
| BUNCOMBE | 283 | 13 | 126 WBL | 140 WBL | No | Yes |
| BUNCOMBE | 284 | 13 | US19,23 NBL | SR1781,REEDS CREEK | No | Yes |
| BUNCOMBE | 285 | 13 | 126 EBL | 140 WBL | No | Yes |
| BUNCOMBE | 286 | 13 | SR3412 | HOMINY CREEK | Yes | No |
| BUNCOMBE | 289 | 13 | US19,23,70 SBL | SR1781,REEDS CREEK | No | Yes |
| BUNCOMBE | 294 | 13 | SR1220 | POLE CREEK | No | Yes |
| BUNCOMBE | 295 | 13 | SR1224 | 140 | No | Yes |
| BUNCOMBE | 301 | 13 | 140 EBL | US19,23 | No | Yes |
| BUNCOMBE | 304 | 13 | 140WBL | US19,23 | No | Yes |
| BUNCOMBE | 307 | 13 | SR2426 | SHOPE CREEK | No | Yes |
| BUNCOMBE | 308 | 13 | SR2419 | SHOPE CREEK | No | Yes |
| BUNCOMBE | 313 | 13 | 140 EBL | SOUTHERN RAILWAY | No | Yes |
| BUNCOMBE | 314 | 13 | US19,23,70 NBL | SR1674 | No | Yes |
| BUNCOMBE | 316 | 13 | US19,23,70 SBL | SR1674 | No | Yes |
| BUNCOMBE | 319 | 13 | 140 WBL | SOUTHERN RAILWAY | No | Yes |
| BUNCOMBE | 323 | 13 | 1240 WBL,US19,23 | SOU.RR,FRENCH BROAD RVR. | No | Yes |
| BUNCOMBE | 325 | 13 | SR1220 | NEWFOUND CREEK | No | Yes |
| BUNCOMBE | 326 | 13 | SR3412 | 140 | No | Yes |
| BUNCOMBE | 334 | 13 | 140 EBL | HOMINY CREEK | No | Yes |
| BUNCOMBE | 337 | 13 | US19,23 NBL | US19 RAMP SBL | No | Yes |
| BUNCOMBE | 339 | 13 | I40WBL | HOMINY CREEK | No | Yes |
| BUNCOMBE | 342 | 13 | SR1610 | BRANCH | No | Yes |
| BUNCOMBE | 345 | 13 | US19,23 NBL | SR1839 | Yes | Yes |
| BUNCOMBE | 346 | 13 | US19,23 SBL | SR1839 | No | Yes |
| BUNCOMBE | 348 | 13 | 1240 WBL | NB RAMP TO NC251,US19,23 | No | Yes |
| BUNCOMBE | 352 | 13 | 140EBL | FRENCH BROAD RIVER | No | Yes |
| BUNCOMBE | 353 | 13 | US19,23BYP | SR1882 | Yes | Yes |
| BUNCOMBE | 354 | 13 | US19,23BYP | SR1882 | No | Yes |
| BUNCOMBE | 356 | 13 | 140 WBL | FRENCH BROAD RIVER | No | Yes |
| BUNCOMBE | 362 | 13 | SR1238 | RAGSDALE CREEK | Yes | No |
| BUNCOMBE | 363 | 13 | SR3197 | ROBINSON CREEK | Yes | Yes |
| BUNCOMBE | 367 | 13 | SR1720 | US19,23 | No | Yes |
| BUNCOMBE | 368 | 13 | MONTFORD AVE. | 1240 | No | Yes |
| BUNCOMBE | 369 | 13 | 140EBL | BILTMORE ESTATE ROAD | No | Yes |
| BUNCOMBE | 370 | 13 | US19,23 NBL | REEMS CREEK | No | Yes |
| BUNCOMBE | 371 | 13 | SR1394 | WILLOW CREEK | Yes | Yes |
| BUNCOMBE | 373 | 13 | US19,23SBL | REEMS CREEK | No | Yes |
| BUNCOMBE | 376 | 13 | FLINT STREET | 1240 | No | Yes |
| BUNCOMBE | 377 | 13 | 140 EBL | BILTMORE EST.RD.,WATER | No | Yes |
| BUNCOMBE | 378 | 13 | 140 WBL | BILTMORE EST.RD.,WATER | No | Yes |
| BUNCOMBE | 382 | 13 | US25,US70 | US19,US23,BYP | No | Yes |
| BUNCOMBE | 387 | 13 | SR1727 | US19,23 | No | Yes |
| BUNCOMBE | 388 | 13 | VANDERBILT ROAD | 140 | No | Yes |
| BUNCOMBE | 393 | 13 | US70 WBL | 1240 | No | Yes |
| BUNCOMBE | 410 | 13 | SR2079 | BIG IVY CREEK | No | Yes |
| BUNCOMBE | 413 | 13 | SR2174 (CLOSED) | DILLINGHAM CREEK | Yes | Yes |
| BUNCOMBE | 416 | 13 | SR1103 | STONY FORK CREEK | Yes | Yes |
| BUNCOMBE | 417 | 13 | SR1103 | SOUTH HOMINY CREEK | No | Yes |

Table 3-2 Deficient Bridges

| County | Number | Division | Route | Across | Structurally Deficient | Functionally Obsolete |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BUNCOMBE | 419 | 13 | SR1108 | SOUTH HOMINY CREEK | No | Yes |
| BUNCOMBE | 420 | 13 | SR3138 | CANE CREEK | No | Yes |
| BUNCOMBE | 428 | 13 | SR2429 | BEE TREE CREEK | No | Yes |
| BUNCOMBE | 429 | 13 | US19,23 | SR1557,IVY CREEK | No | Yes |
| BUNCOMBE | 431 | 13 | 140 EBL | US25A | No | Yes |
| BUNCOMBE | 433 | 13 | SR3464 | GLADY FORK CREEK | Yes | No |
| BUNCOMBE | 435 | 13 | SR3460 | SOUTH HOMINY CREEK | No | Yes |
| BUNCOMBE | 438 | 13 | 140 WBL | US25A | No | Yes |
| BUNCOMBE | 454 | 13 | 1240 EBL | US70,RAMPS L,J | No | Yes |
| BUNCOMBE | 457 | 13 | 1240 WBL | US70,RAMPS J,L | No | Yes |
| BUNCOMBE | 458 | 13 | 1240 RAMP EBL | US70 | No | Yes |
| BUNCOMBE | 472 | 13 | SR1625 | CREEK | No | Yes |
| BUNCOMBE | 477 | 13 | SR2750 | 140 | No | Yes |
| BUNCOMBE | 479 | 13 | SR2748 | 140 | No | Yes |
| BUNCOMBE | 511 | 13 | SR3413 | HOMINY CREEK | No | Yes |
| BUNCOMBE | 513 | 13 | SR2435 | N.FORK SWANNANOA RIVER | No | Yes |
| BUNCOMBE | 524 | 13 | SR2791 | BROAD RIVER | Yes | No |
| BUNCOMBE | 536 | 13 | SR1296 | NEWFOUND CREEK | No | Yes |
| BUNCOMBE | 537 | 13 | SR2404 | GRASSY BRANCH | No | Yes |
| BUNCOMBE | 538 | 13 | SR2405 | GRASSY BRANCH | No | Yes |
| BUNCOMBE | 541 | 13 | SR2788 | CROOKED CREEK | No | Yes |
| BUNCOMBE | 550 | 13 | SR1383 | SOUTH TURKEY CREEK | No | Yes |
| BUNCOMBE | 555 | 13 | SR1103 | CREEK | Yes | Yes |
| BUNCOMBE | 567 | 13 | SR2135 | FLAT CREEK | Yes | Yes |
| BUNCOMBE | 569 | 13 | SR2098 | HERRON CREEK | No | Yes |
| BUNCOMBE | 585 | 13 | SR1138 | NORTH HOMINY CREEK | Yes | Yes |
| BUNCOMBE | 601 | 13 | SR2576 | N.FORK SWANNANOA RIVER | No | Yes |
| BUNCOMBE | 649 | 13 | SR1002 | FRENCH BROAD R.,SO.RR | Yes | No |
| BUNCOMBE | 651 | 13 | SR1109 | STONEY FORK CREEK | Yes | Yes |
| BUNCOMBE | 653 | 13 | SR2804 | BROAD RIVER | Yes | Yes |
| BUNCOMBE | 654 | 13 | SR2786 | SAND BRANCH | Yes | Yes |
| BUNCOMBE | 655 | 13 | SR2797 | BROAD RIVER | Yes | Yes |
| BUNCOMBE | 657 | 13 | SR2797 | BROAD RIVER | No | Yes |
| BUNCOMBE | 659 | 13 | SR3081 | SOUTHERN RAILROAD | No | Yes |
| BUNCOMBE | 664 | 13 | SR1395 | WILLOW CREEK | No | Yes |
| BUNCOMBE | 669 | 13 | SR3071 | CREEK | No | Yes |
| BUNCOMBE | 671 | 13 | SR2140 | FLAT CREEK | No | Yes |
| BUNCOMBE | 677 | 13 | SR1397 | BALD CREEK | No | Yes |
| BUNCOMBE | 689 | 13 | SR1105 | SOUTH HOMINY CREEK | Yes | No |
| BUNCOMBE | 699 | 13 | SR1002 | DIX CREEK | No | Yes |
| BUNCOMBE | 726 | 13 | SR1338 | MILL CREEK | No | Yes |
| BUNCOMBE | 749 | 13 | SR2230 | BEAVERDAM CREEK | No | Yes |
| BUNCOMBE | 785 | 13 | SR2713 | S.FORK SWANNANOA RIVER | No | Yes |
| BUNCOMBE | 837 | 13 | NON SYSTEM RD. | BENT CREEK | No | Yes |
| BUNCOMBE | 845 | 13 | NC191 | HOMINY CRK.,SR3620 | No | Yes |
| HAYWOOD | 4 | 14 | SR1887 | PISGAH CREEK | Yes | Yes |
| HAYWOOD | 5 | 14 | SR1888 | PISGAH CREEK | Yes | Yes |
| HAYWOOD | 6 | 14 | SR1888 | PISGAH CREEK | No | Yes |
| HAYWOOD | 7 | 14 | SR1888 | PISGAH CREEK | Yes | Yes |
| HAYWOOD | 8 | 14 | SR1888 | PISGAH CREEK | No | Yes |
| HAYWOOD | 9 | 14 | SR1100 | CRAWFORD CREEK | Yes | No |
| HAYWOOD | 13 | 14 | SR1890 | E.FORK OF PIGEON RIVER | Yes | Yes |

Table 3-2 Deficient Bridges

| County | Number | Division | Route | Across | Structurally Deficient | Functionally Obsolete |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HAYWOOD | 19 | 14 | SR1818 | RACCOON CREEK | No | Yes |
| HAYWOOD | 20 | 14 | SR1809 | RACOON CREEK | No | Yes |
| HAYWOOD | 26 | 14 | SR1608 | N.HOMINY CREEK | No | Yes |
| HAYWOOD | 35 | 14 | SR1503 | BALD CREEK | Yes | No |
| HAYWOOD | 36 | 14 | SR1503 | CRABTREE CREEK | Yes | Yes |
| HAYWOOD | 39 | 14 | SR1513 | THICKETY CREEK | No | Yes |
| HAYWOOD | 41 | 14 | SR1357 | CRABTREE CREEK | No | Yes |
| HAYWOOD | 46 | 14 | SR1364 | JONATHAN CREEK | No | Yes |
| HAYWOOD | 48 | 14 | SR1318 | HEMPHILL CREEK | Yes | No |
| HAYWOOD | 52 | 14 | SR1376 | BRANCH OF RICHLAND CREEK | No | Yes |
| HAYWOOD | 53 | 14 | SR1376 | RICHLAND CREEK | Yes | No |
| HAYWOOD | 54 | 14 | SR1376 | RICHLAND CREEK | No | Yes |
| HAYWOOD | 55 | 14 | SR1184 | RICHLAND CREEK | No | Yes |
| HAYWOOD | 57 | 14 | 140 | USFS RD.\& COLD SPRING CR | Yes | No |
| HAYWOOD | 65 | 14 | SR1380 | FINES CREEK | No | Yes |
| HAYWOOD | 66 | 14 | SR1351 | FINES CREEK | No | Yes |
| HAYWOOD | 71 | 14 | SR1331 | COVE CREEK | Yes | No |
| HAYWOOD | 72 | 14 | SR1407 | JONATHAN CREEK | Yes | Yes |
| HAYWOOD | 73 | 14 | SR1660 | US19,23,74 | Yes | No |
| HAYWOOD | 79 | 14 | SR1112 | W.FORK PIGEON RIVER | Yes | Yes |
| HAYWOOD | 80 | 14 | SR1111 | W.FORK PIGEON RIVER | No | Yes |
| HAYWOOD | 81 | 14 | SR1124 | W.FORK PIGEON RIVER | No | Yes |
| HAYWOOD | 87 | 14 | SR1129 | E.FORK LITTLE PIGEON RVR | Yes | Yes |
| HAYWOOD | 90 | 14 | SR1129 | LITTLE E.FORK PIGEON RIV | Yes | Yes |
| HAYWOOD | 91 | 14 | SR1129 | EAST FORK PIGEON RIVER | Yes | Yes |
| HAYWOOD | 94 | 14 | US19 | RICHLAND CREEK | Yes | No |
| HAYWOOD | 95 | 14 | SR1660 | SOUTHERN RAILROAD | Yes | No |
| HAYWOOD | 102 | 14 | SR1173 | PLOTT CREEK | No | Yes |
| HAYWOOD | 103 | 14 | SR1176 | PLOTT CREEK | Yes | No |
| HAYWOOD | 105 | 14 | SR1138 | BROWNING CREEK | No | Yes |
| HAYWOOD | 108 | 14 | SR1149 | ALLEN'S CREEK | No | Yes |
| HAYWOOD | 111 | 14 | US276 (CLOSED) | EAST FORK PIGEON RIVER | Yes | Yes |
| HAYWOOD | 116 | 14 | NC215 | WEST FORK PIGEON RIVER | No | Yes |
| HAYWOOD | 125 | 14 | US276 | E.FORK PIGEON RIVER | No | Yes |
| HAYWOOD | 132 | 14 | US276 | EAST FORK PIEGON RIVER | No | Yes |
| HAYWOOD | 133 | 14 | US19,23,74 | SR1527 | No | Yes |
| HAYWOOD | 141 | 14 | US23,74 SBL | US276 | No | Yes |
| HAYWOOD | 142 | 14 | 140 | PIGEON RIVER | Yes | No |
| HAYWOOD | 144 | 14 | SR1836 | DUTCH COVE CREEK | No | Yes |
| HAYWOOD | 145 | 14 | US276 | W.FORK PIGEON RIVER | No | Yes |
| HAYWOOD | 155 | 14 | US23,74 NBL | RICHLAND CREEK | Yes | Yes |
| HAYWOOD | 158 | 14 | US23,74 SBL | RICHLAND CREEK | Yes | Yes |
| HAYWOOD | 163 | 14 | US276 | PIGEON RIVER OVERFLOW | Yes | Yes |
| HAYWOOD | 168 | 14 | US23,74 SBL | US19,23 | Yes | Yes |
| HAYWOOD | 169 | 14 | SR1876 | WEST FORK PIGEON RIVER | Yes | Yes |
| HAYWOOD | 170 | 14 | SR1876 | EAST FORK PIGEON RIVER | No | Yes |
| HAYWOOD | 171 | 14 | 140 | SR1338,JONATHAN CREEK | No | Yes |
| HAYWOOD | 172 | 14 | US276 | SHELTON BRANCH | No | Yes |
| HAYWOOD | 174 | 14 | SR1332 | BIG CREEK | No | Yes |
| HAYWOOD | 175 | 14 | SR1332 | BIG CREEK | No | Yes |
| HAYWOOD | 178 | 14 | SR1503 | LINER CREEK | No | Yes |
| HAYWOOD | 180 | 14 | SR1123 (CLOSED) | W.FORK PIGEON RIVER | Yes | Yes |

Table 3-2 Deficient Bridges

| County | Number | Division | Route | Across | Structurally Deficient | Functionally Obsolete |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HAYWOOD | 182 | 14 | SR1300 | JONATHAN CREEK | No | Yes |
| HAYWOOD | 184 | 14 | US276 | SOUTHERN RAILROAD | No | Yes |
| HAYWOOD | 186 | 14 | US276 | RICHLAND CREEK | No | Yes |
| HAYWOOD | 188 | 14 | SR1341 | MARTINS CREEK | No | Yes |
| HAYWOOD | 189 | 14 | SR1341 | MARTINS CREEK | No | Yes |
| HAYWOOD | 190 | 14 | SR1341 | MARTINS CREEK | No | Yes |
| HAYWOOD | 192 | 14 | SR1336 | WESTLEY CREEK | Yes | Yes |
| HAYWOOD | 203 | 14 | US276 | JONATHAN CREEK | No | Yes |
| HAYWOOD | 209 | 14 | 140 EBL | SR1366 | No | Yes |
| HAYWOOD | 211 | 14 | SR1519 | RICHLAND CREEK | Yes | Yes |
| HAYWOOD | 213 | 14 | SR1508 | LINER CREEK | No | Yes |
| HAYWOOD | 215 | 14 | SR1379 | FINES CREEK | Yes | Yes |
| HAYWOOD | 219 | 14 | SR1306 | JONATHAN CREEK | No | Yes |
| HAYWOOD | 225 | 14 | SR1888 | PISGAH CREEK | No | Yes |
| HAYWOOD | 229 | 14 | SR1106 | DIX CREEK | No | Yes |
| HAYWOOD | 237 | 14 | SR1129 | E.FORK PIGEON RIVER | No | Yes |
| HAYWOOD | 241 | 14 | SR1619 | BEAVERDAM CREEK | No | Yes |
| HAYWOOD | 243 | 14 | 140 | NC215 | No | Yes |
| HAYWOOD | 245 | 14 | SR1888 | N.BRANCH PISGAH CREEK | No | Yes |
| HAYWOOD | 246 | 14 | SR1216 | W.FORK PIGEON CREEK | Yes | Yes |
| HAYWOOD | 248 | 14 | 140 EBL | SR1613 | No | Yes |
| HAYWOOD | 249 | 14 | 140 WBL | SR1613 | No | Yes |
| HAYWOOD | 253 | 14 | SR1304 | FIE TOP CREEK | No | Yes |
| HAYWOOD | 254 | 14 | SR1301 | JONATHAN CREEK | No | Yes |
| HAYWOOD | 272 | 14 | SR1643 | SOUTHERN RAILROAD | Yes | Yes |
| HAYWOOD | 276 | 14 | SR1104 | CREEK | No | Yes |
| HAYWOOD | 277 | 14 | SR1334 | COVE CREEK | No | Yes |
| HAYWOOD | 280 | 14 | SR1550 | THICKETY CREEK | No | Yes |
| HAYWOOD | 283 | 14 | SR1334 | WESTLEYS CREEK | Yes | No |
| HAYWOOD | 285 | 14 | SR1374 | ROGERS COVE CREEK | No | Yes |
| HAYWOOD | 286 | 14 | SR1847 | BRANCH PIGEON RIVER | No | Yes |
| HAYWOOD | 321 | 14 | SR1820 | CONNER MILL BRANCH | No | Yes |
| HAYWOOD | 326 | 14 | SR1318 | HEMPHILL CREEK | No | Yes |
| HAYWOOD | 329 | 14 | SR1309 | JONATHAN CREEK | No | Yes |
| HAYWOOD | 364 | 14 | SR1889 | PISGAH CREEK | No | Yes |
| HAYWOOD | 371 | 14 | SR1346 | STEPHENS CREEK | No | Yes |
| HAYWOOD | 372 | 14 | SR1346 | STEPHENS CREEK | No | Yes |
| HAYWOOD | 375 | 14 | SR1856 | DUTCH COVE CREEK | No | Yes |
| HAYWOOD | 376 | 14 | SR1511 | CRABTREE CREEK | No | Yes |
| HAYWOOD | 382 | 14 | SR1835 | DUTCH COVE CREEK | No | Yes |
| HAYWOOD | 386 | 14 | SR1148 | ALLENS CREEK | Yes | No |
| HAYWOOD | 390 | 14 | SR1315 | POT LEG BRANCH | No | Yes |
| HAYWOOD | 403 | 14 | SR1177 | RICHLAND CREEK | No | Yes |
| HAYWOOD | 408 | 14 | SR1395 | COVE CREEK | No | Yes |
| HAYWOOD | 416 | 14 | SR1649 (CLOSED) | PIGEON RIVER | Yes | Yes |
| HAYWOOD | 419 | 14 | US19,23,74 SBL | PIGEON RIVER | Yes | Yes |
| HENDERSON | 3 | 14 | SR1345 | FRENCH BROAD RIVER | No | Yes |
| HENDERSON | 7 | 14 | SR1331 | BOYLSTON CREEK | No | Yes |
| HENDERSON | 9 | 14 | SR1316 | BOYLSTON CREEK | Yes | Yes |
| HENDERSON | 10 | 14 | SR1314 | FRENCH BROAD RIVER | No | Yes |
| HENDERSON | 11 | 14 | SR1314 | RIVER OVERFLOW | No | Yes |
| HENDERSON | 12 | 14 | SR1329 | BOYLSTON CREEK | No | Yes |

Table 3-2 Deficient Bridges

| County | Number | Division | Route | Across | Structurally Deficient | Functionally <br> Obsolete |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HENDERSON | 13 | 14 | SR1328 | BOYLSTON CREEK | No | Yes |
| HENDERSON | 15 | 14 | SR1323 | BOYLSTON CREEK | No | Yes |
| HENDERSON | 18 | 14 | SR1503 | CLEAR CREEK | No | Yes |
| HENDERSON | 19 | 14 | SR1508 | MUD CREEK | No | Yes |
| HENDERSON | 21 | 14 | SR1528 | MUD CREEK | No | Yes |
| HENDERSON | 22 | 14 | SR1006 | CREEK | No | Yes |
| HENDERSON | 30 | 14 | 126,US74 WBL | SR1834 | No | Yes |
| HENDERSON | 34 | 14 | SR1587 | CLEAR CREEK | No | Yes |
| HENDERSON | 35 | 14 | SR1572 | CLEAR CREEK | Yes | Yes |
| HENDERSON | 36 | 14 | SR1586 | CLEAR CREEK | No | Yes |
| HENDERSON | 37 | 14 | SR1582 | CLEAR CREEK | No | Yes |
| HENDERSON | 38 | 14 | SR1574 | CLEAR CREEK | No | Yes |
| HENDERSON | 39 | 14 | SR1577 | CLEAR CREEK | Yes | Yes |
| HENDERSON | 40 | 14 | SR1006 | CLEAR CREEK | No | Yes |
| HENDERSON | 41 | 14 | SR1783 | LEWIS CREEK | No | Yes |
| HENDERSON | 42 | 14 | SR1734 | N.BRANCH HUNGRY RIVER | No | Yes |
| HENDERSON | 45 | 14 | SR1525 | DEVILS FORK CREEK | No | Yes |
| HENDERSON | 53 | 14 | SR1799 | HUNGRY RIVER | No | Yes |
| HENDERSON | 57 | 14 | US64 | FR.BROAD RVR.OVERFLOW | No | Yes |
| HENDERSON | 58 | 14 | SR1893 | DEVILS FORK CREEK | Yes | Yes |
| HENDERSON | 62 | 14 | SR1812 | KING CREEK | No | Yes |
| HENDERSON | 66 | 14 | SR1106 | ROCK CREEK | No | Yes |
| HENDERSON | 67 | 14 | SR1104 | GREEN RIVER | No | Yes |
| HENDERSON | 71 | 14 | SR1127 | CREEK | No | Yes |
| HENDERSON | 72 | 14 | SR1137 | MUD CREEK | No | Yes |
| HENDERSON | 73 | 14 | SR1125 | LEFT PRONG MUD CREEK | No | Yes |
| HENDERSON | 76 | 14 | SR1123 | LT.PRONG MUD CREEK | Yes | Yes |
| HENDERSON | 77 | 14 | SR1136 | MUD CREEK | No | Yes |
| HENDERSON | 81 | 14 | SR1144 | CREEK | No | Yes |
| HENDERSON | 82 | 14 | SR1164 | MUD CREEK | No | Yes |
| HENDERSON | 89 | 14 | SR1210 | CREEK | No | Yes |
| HENDERSON | 90 | 14 | SR1138 | CREEK | No | Yes |
| HENDERSON | 94 | 14 | SR1419 | FRENCH BROAD RIVER | No | Yes |
| HENDERSON | 97 | 14 | SR1513 | CLEAR CREEK | No | Yes |
| HENDERSON | 100 | 14 | SR1108 | ROCK CREEK | No | Yes |
| HENDERSON | 102 | 14 | SR1180 | BRITTON CREEK | No | Yes |
| HENDERSON | 108 | 14 | I26,US74 WBL | GREEN RIVER | No | Yes |
| HENDERSON | 112 | 14 | 126,US74 EBL | GREEN RIVER | No | Yes |
| HENDERSON | 113 | 14 | SR1574 | TAZEWELL CREEK | Yes | Yes |
| HENDERSON | 114 | 14 | US25 SBL | SOUTHERN R,SR1858 | No | Yes |
| HENDERSON | 117 | 14 | SR1757 | BAT FORK CREEK | No | Yes |
| HENDERSON | 119 | 14 | SR1587 | CLEAR CREEK | No | Yes |
| HENDERSON | 120 | 14 | US176 (CLOSED) | GREEN RIVER | Yes | Yes |
| HENDERSON | 121 | 14 | NC191 | FR.BROAD RIVER OVERFLOW | Yes | Yes |
| HENDERSON | 127 | 14 | US25 | US176 | Yes | No |
| HENDERSON | 129 | 14 | NC191 | FRENCH BROAD RIVER | Yes | No |
| HENDERSON | 135 | 14 | SR1215 | SHAW CREEK | Yes | No |
| HENDERSON | 136 | 14 | SR1109 | CREEK | No | Yes |
| HENDERSON | 143 | 14 | US25B | MUD CREEK | No | Yes |
| HENDERSON | 147 | 14 | SR1353 | MILLS RIVER | No | Yes |
| HENDERSON | 148 | 14 | SR1803 | 126 | No | Yes |
| HENDERSON | 151 | 14 | SR1508 | MUD CREEK | No | Yes |

Table 3-2 Deficient Bridges

| County | Number | Division | Route | Across | Structurally Deficient | Functionally <br> Obsolete |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HENDERSON | 162 | 14 | SR1783 | I26,US74 | No | Yes |
| HENDERSON | 174 | 14 | SR1793 | I26,US74 | No | Yes |
| HENDERSON | 179 | 14 | SR1353 | CREEK | No | Yes |
| HENDERSON | 180 | 14 | SR1840 | CREEK | No | Yes |
| HENDERSON | 182 | 14 | SR1328 | CREEK | No | Yes |
| HENDERSON | 185 | 14 | SR1525 | 126,US74 | No | Yes |
| HENDERSON | 186 | 14 | SR1340 | SOUTH MILLS RIVER | Yes | No |
| HENDERSON | 190 | 14 | SR1130 | CREEK | Yes | No |
| HENDERSON | 198 | 14 | SR1614 | CLEAR CREEK | No | Yes |
| HENDERSON | 199 | 14 | SR1525 | CREEK | No | Yes |
| HENDERSON | 205 | 14 | SR1764 | MUD CREEK | No | Yes |
| HENDERSON | 208 | 14 | SR1109 | CREEK | No | Yes |
| HENDERSON | 209 | 14 | SR1919 | CREEK | No | Yes |
| HENDERSON | 211 | 14 | I26,US74 WBL | CLEAR CREEK | No | Yes |
| HENDERSON | 212 | 14 | 126,US74 EBL | CLEAR CREEK | Yes | Yes |
| HENDERSON | 217 | 14 | SR1503 | 126,US74 | No | Yes |
| HENDERSON | 219 | 14 | SR1742 | WOLFPEN CREEK | No | Yes |
| HENDERSON | 221 | 14 | SR1528 | I26,US74 | No | Yes |
| HENDERSON | 222 | 14 | SR1006 | CREEK | No | Yes |
| HENDERSON | 223 | 14 | SR1534 | 126,US74 | No | Yes |
| HENDERSON | 224 | 14 | SR1106 | GREEN RIVER | No | Yes |
| HENDERSON | 228 | 14 | I26,US74 WBL | SOUTHERN RAILROAD | No | Yes |
| HENDERSON | 232 | 14 | SR1345 | 126,US74 | No | Yes |
| HENDERSON | 233 | 14 | I26,US74 WBL | CANE CREEK | No | Yes |
| HENDERSON | 234 | 14 | 126,US74 EBL | CANE CREEK | No | Yes |
| HENDERSON | 237 | 14 | SR1545 | SOUTHERN RAILROAD | No | Yes |
| HENDERSON | 255 | 14 | SR1783 | BAT FORK CREEK | No | Yes |
| HENDERSON | 258 | 14 | SR1564 | TAZEWELL CREEK | Yes | No |
| HENDERSON | 262 | 14 | SR1599 | HICKORY CREEK | Yes | No |
| HENDERSON | 264 | 14 | SR1803 | BAT FORK CREEK | No | Yes |
| HENDERSON | 265 | 14 | SR1791 | N.BRANCH BAT FORK CREEK | No | Yes |
| HENDERSON | 298 | 14 | SR1552 | CREEK | No | Yes |
| HENDERSON | 308 | 14 | SR1107 | ROCK CREEK | No | Yes |
| HENDERSON | 309 | 14 | SR1528 | CREEK | Yes | Yes |
| HENDERSON | 312 | 14 | SR1203 | CREEK | No | Yes |
| HENDERSON | 319 | 14 | SR1525 | N.BRANCH OF HUNGRY RIVER | No | Yes |
| HENDERSON | 324 | 14 | SR1148 | LAKE OSCEOLA SPILLWAY | No | Yes |
| HENDERSON | 335 | 14 | SR1238 | MUD CREEK | Yes | Yes |
| HENDERSON | 350 | 14 | SR1932 | DEVILS FORK CREEK | Yes | Yes |
| HENDERSON | 355 | 14 | SR1932 | CREEK | No | Yes |





## 4. Environmental Screening

Analysis of the impacts of transportation projects on communities and the natural environment historically occurred during individual project planning and design. This approach is reasonable, since many impacts cannot be accurately determined until specific design decisions have been made; however there are several important reasons for conducting an initial, system-level environmental screening of proposed transportation projects. A preliminary screening can identify potentially serious impacts that could result in significantly altering or even halting a project during the initial planning process. In addition, a system-level screening allows consideration of the interactions among various projects, and their combined impacts. Although system-level environmental screening does not substitute for detailed, project-specific review, this assessment can identify and highlight critical issues warranting further analysis.

This environmental screening process is focused on roadway projects. Most of the rail and transit projects in the CTP are associated with opening additional passenger rail terminals, expanding bus routes and services, and creating new park \& ride lots (usually at existing parking lots). Such projects typically involve no new construction and have minimal impacts on either natural or man-made environments. The bicycle projects in the CTP usually include the addition of bicycle and pedestrian access or routes, often in conjunction with a proposed roadway project. Such facilities are more limited in the magnitude of their environmental and community impacts, due to smaller cross-sections and greater flexibility in design.

## ENVIRONMENTAL IMPACTS

A qualitative screening was performed to assess the potential environmental impacts of the roadway projects proposed in the CTP. This analysis consisted of overlaying project alignments onto a series of maps depicting sensitive environmental resources (Figure 4-1) and community resources (Figure 4-2). Any proposed project determined to encroach on a resource was identified in the evaluation matrices (Table 4-1).
Since this is a system-wide, cursory screening, no formal field investigation was conducted, and screening could only be performed on those features for which GIS coverage was available. The environmental data used in the evaluation of CTP recommendations were obtained from North Carolina Department of Transportation, the FBRMPO, and other local jurisdictions. The following environmental and community resources were reviewed in conjunction with the proposed roadway projects:

## Environmental

- Bodies of water / Wetlands
- Watersheds
- Water Systems (surface water intake, ground water intake, water storage tanks)
- Hazardous Substance Disposal Sites or Areas
- Water and Waste Treatment Facilities
- Conservation Areas
- Parks


## Community

- Historic Districts and Structures
- Hospitals
- Schools
- Churches
- Cemeteries

The nature and degree of disruption determines the level of impact assessed. For example, a roadway alignment across a stream is generally considered less severe than one running along the course of the stream. A road widening is typically assumed to be less disruptive to the natural environment than a comparable project on new alignment. On the other hand, a widening could be more disruptive than a new facility in terms of community impacts, depending on available right-of-way, alignment, type of development, and other factors. Potential project impacts are classified as "Minor," "Moderate," or "Major" for each of the above categories. This determination is based on a combination of objective and subjective criteria. The following guidelines were used to rate project impacts in this screening process:

## Minor Impacts

- Road widening with a single creek crossing
- Road widening near a sensitive area


## Moderate Impacts

- Road widening with multiple creek crossings
- Road widening through a sensitive area
- New alignment with a single creek crossing
- New alignment near a sensitive area


## Major Impacts

- New alignment or road widening along a stream
- New alignment with multiple creek crossings
- New alignment through a sensitive area


FIGURE 4-1
Sheet A

## ENVIRONMENTAL FEATURES

French Broad River MPO and Rural Areas of

## Buncombe and Haywood

 Counties$\square$ County Boundary
Q Sanitary Sewer System Discharge Sites

- Ground Water Incidents
- Water Systems - Surface Water Intake
- Water Systems - Ground Water Intake
- Water Treatment P lants
- Sanitary Sewer Treatment P lants

』 Hazardous Substance Disposal Sites

- Solid Waste Facilities

TIM Hazardous Substance Disposal Areas Water Systems - Water Storage Tanks

- National Register Historic Structures National Register Historic Districts
- National Wetland Inventory - Line Data Streets and Highway
Railroads
$\square$ National Wetland Inventory - Area Data
Rivers and Streams
Bodies of Water

WR
Water Supply WatershedsHigh Quality Outstanding Resource WaterSheds
III Land Trust P riority A reasConservation Tax Credit Properties
Land Trust Conservation PropertiesLands Managed for Conservation and Open Space National Forest
Local Park
Plan date: November 15, 2007

## BUNCOMBE COUNTY

north carolina

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Bivson

BASE MAP DATE: October 15, 2004
Refer to CTP document for more details






| French Broad River Metropolitan Planning Organization Comprehensive Transportation Plan |  |  |  |  |  |  |  |  |  |  |  |
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## 5. Public Involvement

## OVERVIEW

The Transportation Planning Branch of the North Carolina Department of Transportation has long recognized the importance of meaningful involvement of the public in transportation planning and decisionmaking. A series of Federal regulations have further emphasized and formalized the public involvement process in long-range transportation planning:

- Intermodal Transportation Efficiency Act (ISTEA) in 1991;
- Transportation Equity Act for the $21^{\text {st }}$ Century (TEA-21) in 1998; and
- Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEALU) in 2005.

Input from the public has played an important role in identifying transportation needs and recommending solutions, and this section summarizes the process used to involve the public in developing the CTP.

## Study Initiation

The public "kick-off" of the CTP development process occurred at the FBRMPO TCC and TAC meetings in Asheville on April 19, 2007. However, much of the groundwork for the plan had already been established through the continuing, cooperative, comprehensive transportation planning process already in place at the time of this projects initiation. The NCDOT and the FBRMPO have been working for a number of years on a series of long-range transportation plans and travel demand models. These efforts predate the formation of FBRMPO in 2005, and included separate transportation plans and models for the Asheville MPO and the Hendersonville area, as well as older thoroughfare plans for some other jurisdictions. In 2005, these efforts led to development of a single regional travel demand model that covers most of Buncombe, Henderson, and Haywood Counties. This model, combined with public input, helped inform the 2005 FBRMPO LongRange Transportation Plan (LRTP), which in turn provides the basis for the CTP.

## Work Sessions

A series of work sessions with each county's CTP Planning Committee were held in June of 2007 to explain the CTP process and gather input. These meetings were located in each of the counties:

- Haywood County - Wednesday, June 27;
- Buncombe County - Thursday, June 28; and
- Henderson County - Thursday, June 28 (regular TAC meeting).


## PUBLIC WORKSHOPS

Building on information obtained in the work sessions, a set of draft maps and recommendations were prepared and presented to the public for review and comment in a series of three-hour "drop-in" workshops. Again, these meetings were held in each county:

- Henderson County - Tuesday, August 14;
- Haywood County - Wednesday, August 15; and
- Buncombe County - Thursday, August 16 (plus presentation at TCC meeting).

Draft CTP maps were available for review, and a presentation was given at each session, followed by an open discussion period. Written and spoken comments and questions were accepted. While the official
comment period extended from August 17, 2007 through September 17, 2007, some comments were accepted after September 17.

## Public Hearings

Haywood County - September 17, 2007.
Buncombe County - October 16, 2007.
French Broad River MPO - November 8, 2007.

## Other Public Meetings

Haywood County adoption of CTP - October 15, 2007.
Land-of-Sky RPO TCC recommendation for endorsement - October 17, 2007.
Land-of-Sky RPO TAC endorsement - October 19, 2007.
FBRMPO TCC recommendation for adoption - October 18, 2007.
FBRMPO TAC adoption - November 15, 2007.

## 6. Conclusion

The region defined by Buncombe, Haywood, and Henderson Counties - essentially the French Broad River MPO plus some outlying rural areas - will continue to grow and change, attracting visitors, residents, and new businesses, in addition to the regions underlying population growth. These new residents and businesses will change the demographic and economic profile of the region in ways that could significantly affect travel demand beyond merely increasing the total number of trips. A whole range of trip-making characteristics are subject to change, including destination, purpose, mode, frequency, timing, and length/duration.

Furthermore, these changes are difficult to predict, and will probably not occur uniformly across the region. The CTP - if updated consistently and employed proactively - can provide a basis for dealing with the entire range of challenges presented by the region's growth, by guiding both land use and transportation decisions. The CTP provides a consistent yet dynamic framework for representing the regional transportation system and infrastructure, emphasizing critical projects and their interactions. At the same time, it can allow the flexibility for individual communities to maintain their unique identities, without sacrificing transportation service or safety.

Either individually or collectively, the counties and municipalities of this region are responsible for taking the initiative to promote the projects they feel best meet their needs. Given current and anticipated funding levels, and the length and complexity of completing a planned transportation project, this is a long-term commitment. Plans - including the CTP - will need to be updated as conditions change, and individual projects will almost certainly require additional public involvement and review of impacts on the human and natural environments. The Project Development and Environmental Analysis Branch (PDEA) of the NCDOT is responsible for this important step in the process: advancing projects from a regional plan to a specific design. Within the context of the CTP, questions about funding, project status, transportation planning, and individual modes of transportation can and should be addressed to the appropriate NCDOT branch. Appendix A includes contact information for relevant NCDOT branches.

## APPENDICES

## APPENDIX A

NCDOT Contact Information

# Resources \& Contacts North Carolina Department of Transportation 

Customer Service Office<br>1-877-DOT4YOU<br>(1-877-368-4968)

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

Board of Transportation Member
Contact information for current Board of Transportation members may be accessed from the NCDOT homepage on the World Wide Web (http://www.ncdot.org/board) or by calling 1-877-DOT4YOU.

Highway Division 13:

## Division Engineer

Contact the Division Engineer with general questions regarding NCDOT activities within Division 14 or information on Small Urban funds

## Division Construction Engineer

Contact the Division Construction Engineer for information concerning major roadway improvements under construction
Division Traffic Engineer
Contact the Division Traffic Engineer for information concerning high-collision locations

## District Engineer

Contact the District Engineer for information regarding Driveway Permits, Right-of-way Encroachments, and Development Reviews

## County Maintenance Engineer

Contact the County Maintenance Engineer regarding any maintenance activities, such as drainage

PO Box 3279
Asheville, NC 28802
(828) 251-6171

PO Box 3279
Asheville, NC 28802
(828) 251-6171

PO Box 3279
Asheville, NC 28802
(828) 251-6171

PO Box 3279
Asheville, NC 28802
(828) 298-2741

PO Box 3279
Asheville, NC 28802
(828) 298-0390

## Highway Division 14:

## Division Engineer

Contact the Division Engineer with general questions regarding NCDOT activities within Division 14 or information on Small Urban funds

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

## Division Traffic Engineer

Contact the Division Traffic Engineer for information concerning high-collision locations

## District Engineer (Haywood County)

Contact the District Engineer for information regarding Driveway Permits, Right-of-way Encroachments, and Development Reviews

## District Engineer (Henderson County)

Contact the District Engineer for information regarding Driveway Permits, Right-of-way Encroachments, and Development Reviews

## County Maintenance Engineer (Haywood County)

 Contact the County Maintenance Engineer regarding any maintenance activities, such as drainageCounty Maintenance Engineer (Henderson County) Contact the County Maintenance Engineer regarding any maintenance activities, such as drainage

## Centralized NCDOT Personnel:

## Transportation Planning Branch

Contact the Transportation Planning Branch with long-range planning questions

## Secondary Roads Office

Contact the Secondary Roads Office for information regarding the Industrial Access Funds program

## Program Development Branch

Contact the Program Development Branch for information concerning Roadway Official Corridor Maps and the Transportation Improvement Program (TIP)

## Project Development \& Environmental Analysis Branch (PDEA)

Contact PDEA for information on environmental studies for projects that are included in the TIP

253 Webster Rd Sylva, NC 28779
(828) 586-2141

253 Webster Rd
Sylva, NC 28779
(828) 586-2141

253 Webster Rd
Sylva, NC 28779
(828) 631-1185

345 Toot Hollow Road
Bryson City, NC 28713
(828) 488-2131

4142 Haywood Rd
Mills River, NC 28742
(828) 891-7911

619 Paragon Parkway Clyde, NC 28721
(828) 454-0336

693 Mountain Road
Hendersonville, NC 28791
(828) 891-7911

1554 Mail Service Center
Raleigh, NC 27699-1554
(919) 715-5737

1535 Mail Service Center
Raleigh, NC 27699-1535
(919) 733-3250

1542 Mail Service Center
Raleigh, NC 27699-1542
(919) 733-2031

1548 Mail Service Center
Raleigh, NC 27699-1548
(919) 733-3141

## Traffic Engineering \& Safety Systems Branch

Contact the Traffic Engineering \& Safety Systems Branch for information regarding development reviews

## Highway Design Branch

Contact the Highway Design Branch for information regarding alignments for projects that are in the TIP

## Bicycle \& Pedestrian Division

Contact the Bicycle \& Pedestrian Division for information regarding projects in the TIP, funding, and events

## Public Transportation Division

Contact the Public Transportation Division for information regarding planning and funding for public transportation projects

## Rail Division

Contact the Rail Division for information regarding engineering and safety, operations, and planning for rail projects

1561 Mail Service Center
Raleigh, NC 27699-1561
(919) 773-2800

1584 Mail Service Center
Raleigh, NC 27699-1584
(919) 250-4001

1552 Mail Service Center
Raleigh, NC 27699-1552
(919) 807-0777

1550 Mail Service Center
Raleigh, NC 27699-1550
(919) 733-4713

1553 Mail Service Center
Raleigh, NC 27699-1553
(919) 733-7245

## Other NCDOT Departments

Contact information for other NCDOT departments, not listed here, is available at the NCDOT homepage on the World Wide Web (http://www.ncdot.org/) or by calling 1-877-DOT4YOU.

French Broad River Metropolitan Planning Organization (MPO):

Contact the French Broad River Metropolitan Planning Organization for information regarding socio-economic data, public involvement, regional topics, and transportation planning

## Land of Sky Rural Planning Organization (RPO):

 regional topics, and transportation planningPO Box 7148
Asheville, NC 28802
(828) 259-5457

25 Heritage Dr
Asheville, NC 28806
(828) 251-6622

## APPENDIX B

Definitions of Comprehensive Transportation Plan Categories

## Definitions for CTP Maps

## Highway Map

## - Freeways ${ }^{1}$

- Functional purpose - high mobility, high volume, high speed
- Posted speed - 55 mph or greater
- Cross section - minimum four lanes with continuous median
- Multi-modal elements - High Occupancy Vehicles (HOV)/High Occupancy Transit (HOT) lanes, busways, truck lanes, park-and-ride facilities at/near interchanges, adjacent shared use paths (separate from roadway and outside ROW)
- Type of access control - full control of access
- Access management - interchange spacing (urban - one mile; non-urban - three miles); at interchanges on the intersecting roadway, full control of access for 1,000 ' or for 350 ' plus 650 ' 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 ${ }^{1}$
- Functional purpose - high mobility, high volume, medium-high speed
- Posted speed - 45 to 60 mph
- Cross section - minimum four lanes with median
- Multi-modal elements - HOV lanes, busways, very wide paved shoulders (rural), shared use paths (separate from roadway but within ROW)
- Type of access control - limited or partial control of access;
- Access management - minimum interchange/intersection spacing 2,000 feet; median breaks only at intersections with minor roadways or to permit U-turns; use of frontage roads, rear service roads; driveways limited in location and number; use of acceleration/deceleration or right turning lanes
- Intersecting facilities - interchange; at-grade intersection for minor roadways; right-in/right-out and/or left-over or grade separation (no signalization for through traffic)
- Driveways - right-in/right-out only; direct driveway access via service roads or other alternate connections
- Boulevards
- Functional purpose - moderate mobility; moderate access, moderate volume, medium speed
- Posted speed - 30 to 55 mph
- Cross section - two or more lanes with median (median breaks allowed for Uturns 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
- 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 45 mph
- Cross section - ultimately three lanes (no more than one lane per direction) or less without median
- Multi-modal elements - bus stops, bike lanes/wide outer lane (urban) or wide paved shoulder (rural), sidewalks (urban)
- ROW - no control of access
- Access management - continuous left turn lanes; for abutting properties, use of shared driveways, internal out parcel access and cross-connectivity between adjacent properties is strongly encouraged
- Intersecting facilities - intersections and driveways
- Driveways - full movement on two lane with center turn lane as permitted by the current NCDOT Driveway Manual
- Existing - Roadway facilities that are not recommended to be improved.
- Needs Improvement - Roadway facilities that need to be improved for capacity, safety, or system continuity. The improvement to the facility may be widening, other operational strategies, increasing the level of access control along the facility, or a combination of improvements and strategies. "Needs improvement" does not refer to the maintenance needs of existing facilities.
- Recommended - Roadway facilities on new location that are needed in the future.
- Interchange - Through movement on intersecting roads is separated by a structure. Turning movement area accommodated by on/off ramps and loops.
- Grade Separation - Through movement on intersecting roads is separated by a structure. There is no direct access between the facilities.
- Full Control of Access - Connections to a facility provided only via ramps at interchanges. No private driveway connections allowed.
- Limited Control of Access - Connections to a facility provided only via ramps at interchanges (major crossings) and at-grade intersections (minor crossings and service roads). No private driveway connections allowed.
- Partial Control of Access - Connections to a facility provided via ramps at interchanges, at-grade intersections, and private driveways. Private driveway connections shall be defined as a maximum of one connection per parcel. One connection is defined as one ingress and one egress point. These may be combined to form a two-way driveway (most common) or separated to allow for better traffic flow through the parcel. The use of shared or consolidated connections is highly encouraged.
- No Control of Access - Connections to a facility provided via ramps at interchanges, at-grade intersections, and private driveways.


## Public Transportation and Rail Map

- Bus Routes - The primary fixed route bus system for the area. Does not include demand response systems.
- Fixed Guideway - Any transit service that uses exclusive or controlled rights-of-way or rails, entirely or in part. The term includes heavy rail, commuter rail, light rail, monorail, trolleybus, aerial tramway, included plane, cable car, automated guideway transit, and ferryboats.
- Operational Strategies - Plans geared toward the non-single occupant vehicle. This includes but is not limited to HOV lanes or express bus service.
- Rail Corridor - Locations of railroad tracks that are either active or inactive tracks. These tracks were used for either freight or passenger service.
- Active - rail service is currently provided in the corridor; may include freight and/or passenger service
- Inactive - right of way exists; however, there is no service currently provided; tracks may or may not exist
- Recommended - It is desirable for future rail to be considered to serve an area.
- High Speed Rail Corridor - Corridor designated by the U.S. Department of Transportation as a potential high speed rail corridor.
- Existing - Corridor where high speed rail service is provided (there are currently no existing high speed corridor in North Carolina).
- Recommended - Proposed corridor for high speed rail service.
- Rail Stop - A railroad station or stop along the railroad tracks.
- Intermodal Connector - A location where more than one mode of public transportation meet such as where light rail and a bus route come together in one location or a bus station.
- Park and Ride Lot - A strategically located parking lot that is free of charge to anyone who parks a vehicle and commutes by transit or in a carpool.


## Bicycle Map

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


## Pedestrian Map

## Format for the pedestrian map is under development. The following definitions only apply to the sample pedestrian maps shown in Figure 3, and may not represent the final definitions used once this map format is completed.

- Sidewalk-Existing - An existing facility intended for pedestrian travel as its main use that lies within the right-of-way of a public street. This existing sidewalk could be located on either side of a street, or both sides. Please refer to the tables in Appendix C to determine specific information about the side of the street on which a recommended facility lies.
- Sidewalk-Needs Improvement - An existing facility intended primarily for pedestrian use that lies within the right-of-way of a public street and requires capital improvements, such as widening or completion of small system gaps. This does not denote whether a sidewalk needs repair or routine maintenance. If a street has sidewalks on both sides, and only one side needs improvement, this is shown on the map as "Needs Improvement." Please refer to the tables in Appendix C to determine specific information about the side of the street on which a recommended facility lies.
- Sidewalk-Recommended - A pedestrian facility that is recommended for construction along a public street where a sidewalk does not currently exist. The sidewalk could be recommended for either side of the street, or both sides. If a street has a "recommended" facility on either side, it is shown on the map as "recommended." Please refer to the tables in Appendix C to determine specific information about the side of the street on which a recommended facility lies.
- Off Road-Existing - An existing facility intended for pedestrian travel as its primary use that lies within its own independent right-of-way. This is not the same as a "Multi-use Path-Existing" (described below), which is designed for use by multiple transportation modes. Examples could include stairways, boardwalks, alleys, or trails that are not open to use by bicycles and other vehicles.
- Off Road-Needs Improvement - An existing off-road pedestrian facility that requires capital improvements, such as widening, paving, or completion of small system gaps. This does not denote whether a facility needs repair or routine maintenance.
- Off Road-Recommended - A pedestrian facility that is recommended for construction on an independent right-of-way in a location where there is not any existing pedestrian facility.
- Multi-use Path Existing - An existing facility that is designed for use by multiple nonmotorized modes of transportation, such as pedestrians, bicyclists, and equestrians. Such a facility is usually on an independent right-of-way, but can sometimes be found adjacent to a street.
- Multi-use Path Needs Improvement - An existing facility that is designed for use by multiple non-motorized modes of transportation and which requires capital improvements, such as widening, paving, or completion of small system gaps. This does not denote whether a facility needs repair or routine maintenance. This category would include locations with existing pedestrian-only facilities (such as sidewalks or trails) where improvements are proposed to convert the facility to a multi-use path.
- Multi-use Path Recommended - A facility that is designed for use by multiple nonmotorized modes of transportation and is recommended for construction in a location where there is not currently an existing multi-use path or other pedestrian facility. This facility is most likely on an independent right-of-way, but could also be adjacent to a street.

[^0]APPENDIX C
Typical Comprehensive Transportation Plan Cross-Sections

## APPENDIX C:

## TYPICAL HIGHWAY CROSS SECTIONS



## Typical Bicycle Cross Sections

## WIDE CURB LANES

## B-1 4-LANE MEDIAN DIVIDED TYPICAL SECTION

With Wide Outside Lanes


## B-2 <br> 5-LANE TYPICAL SECTION

With Wide Outside Lanes


## Typical Bicycle Cross Sections

## B-3 BI CYCLE LANES ON COLLECTOR STREETS

## Existing Roadway



Restriping to Accommodate Bicycle Lanes (Does Not Allow On-Street Parking)


## Typical Bicycle Cross Sections

## B-4 <br> WIDE PAVED SHOULDERS

## Existing Roadway



Roadway Retrofitted with
4-Ft Paved Shoulders


## Typical Bicycle Cross Sections

## B-5 RECOMMENDED TYPICAL SECTION OF 10-FT ASPHALT PATHWAY With 2-Ft Select Material Shoulder



## APPENDIX D <br> Public Involvement

# MINUTES <br> Henderson County TRANSPORTATION ADVISORY COMMITTEE <br> June 28, 2007 

The Henderson County Transportation Advisory Committee met on Thursday, June 28, 2007 at 3:00 pm in the Commissioners' Meeting Room of the County Office Building.

TAC members in attendance were Jaime Adrignola, Bill Crisp, Chip Gould, Eddie Henderson, Vice-Chair Renee Kumor and Matt Matteson. Jon Laughter and Terry Hicks arrived later. TAC members absent were Steve Carter, Chair Jim Crafton, David Jones, Lee King, Keith Maddox, Hunter Marks, Virgle McClure, Steve Orr, and Tedd Pearce.

Also in attendance were Sarah Smith, NCDOT Mountains Planning Group Supervisor; Ivo Dernev, French Broad River MPO Coordinator in the Mountains Planning Group; Dan Baechtold, French Broad River Metropolitan Planning Organization Coordinator; Don Bryson, consultant with Martin/Alexious/Bryson, who is completing the CTP; Planning Director Anthony Starr; Planners Autumn Radcliff and Hope Bleecker; Bob Williford; and Larry Rogers. Commissioner Chuck McGrady arrived later.

## CALL TO ORDER

No quorum was present. Ms. Kumor sought guidance from those present whether to continue with the meeting or to reschedule it to a later date. Ms. Smith announced that NCDOT would be conducting a drop-in public workshop on the visioning process of the Comprehensive Transportation Plan on August 14, 2007, from 4:00 to 7:00 pm in the Commissioners' Meeting Room. Since the NCDOT staff and consultant were already here, it would be accommodating to NCDOT staff if the presentation could take place as planned. It was the consensus of the TAC to proceed with the meeting.

Anthony Starr introduced Hope Bleecker, Transportation Planner.

## REVIEW OF THE CTP

Don Bryson reviewed the CTP maps with the TAC. The maps are available in the Planning Department for review. No action was taken by the TAC but it was the consensus of the TAC that each subcommittee would review the maps and contact Mr. Bryson with any areas of concern as soon as possible so those issues could be addressed prior to the August $14^{\text {th }}$ workshop. The CTP is scheduled for completion at the end of September. At its meeting on August $23^{\text {rd }}$, the TAC will address any areas of concern that arose during the public workshop. After the TAC has received input from the municipalities, the TAC will solidify its recommendations on the CTP and send them to the Commissioners for endorsement. Then the CTP goes to the MPO for its approval and forwarding to the NCDOT Board for adoption into the long-range plan.

## UPDATES FROM THE MUNICIPALITIES

Jon Laughter informed the TAC that the City of Hendersonville had stressed to NCDOT the critical need of having three lanes in the area of Oakland Cemetery instead of the proposed two lanes.

Terry Hicks informed the TAC that the West Blue Ridge improvement project was underway.

## ADJOURNMENT

There was no further business. Vice-Chair Kumor adjourned the meeting at $4: 20$ pm. The next meeting of the TAC will be Thursday, August 23, 3:00 pm, Commissioners' Meeting Room.

## APPROVED BY:

## ATTEST:

AVALINA B. MERRILL, SECRETARY

Ads were run in the following newspapers to promote the public meetings and comment period: Legal Ads (one time each newspaper)

- Black Mountain News, publishing $8 / 8$ or 9
- Weaverville Tribune, publishing $8 / 8$ or 9
- The Mountaineer, publishing $8 / 10$
- Hendersonville Times-News, publishing $8 / 12$
- Asheville Citizen-Times, publishing 8/12

Display $A d s$ (one time each newspaper)

- Mountain Xpress, publishing 8/9
- The Mountaineer, publishing $8 / 15$
- Hendersonville Times-News, publishing $8 / 12$

Each ad was run with the following text:

## NOTICE OF PUBLIC MEETINGS AND COMMENT PERIOD FOR THE PROPOSED COMPREHENSIVE TRANSPORTATION PLAN FOR BUNCOMBE, HAYWOOD AND HENDERSON COUNTIES

The North Carolina Department of Transportation (NCDOT), assisted by the French Broad River Metropolitan Planning Organization (FBRMPO), and the Land of Sky Rural Planning Organization, will hold three public input sessions for the proposed Comprehensive Transportation Plan (CTP), one session in each affected county. The purpose of these workshops is to receive public input to the plan for the three-county area. The Comprehensive Transportation Plan is a multi-modal plan that will replace existing countylevel thoroughfare plans. The FBRMPO and the NC Board of Transportation will be asked to adopt the plan. You may attend at any time during any session. NCDOT and FBRMPO staff will be available to receive comments and answer questions about the entire plan. The workshops will be held:

- Tuesday, August 14, 2007, 4:00-7:00 p.m. Hendersonville City Operations Center, 305 Williams Street, Hendersonville, NC
- Wednesday, August 15, 2007, 4:00-7:00 p.m., Haywood Community College, Regional High Technology Center, 10 Industrial Park Drive, Waynesville, NC
- Thursday, August 16, 2007, 4:00-7:00 p.m., City of Asheville Public Works Building, 161 South Charlotte Street, Asheville, NC

Following the workshops, the proposed plan will be available for comment through September 17, 2007. You may review the proposed plan during that time on the FBRMPO website at www.fbrmpo.org, at your local government offices, or at your main branch county library during normal business hours. You may also review the plan at other times and locations by contacting Barb Mee at the FBRMPO by mail at P.O. Box 7148, Asheville, NC 28802, by telephone at (828) 259-5457 or by email at mpo@asehvillenc.gov.

The FBRMPO is committed to enabling participation in the public process. Accommodations will be made for people with disabilities, for people who need a translator to participate, or for people who are dependent on public transportation and cannot access the meeting or review sites and times using their transit system. Please request assistance as early as possible, but no less than 48 hours in advance, by contacting the MPO offices at the addresses or telephone number above.

> \#\#\#\#\#

Additional legal ads were run in the following newspapers to promote the final public hearing prior to the adoption of the plan:

- Black Mountain News, one time as close as possible to, but before Nov 8, 2007
- Mountain Xpress, one time as close as possible to, but before Nov 8, 2007
- Weaverville Tribune, one time as close as possible to, but before Nov 8, 2007
- The Mountaineer, publishing Nov 2
- Hendersonville Times-News, publishing Nov 4
- Asheville Citizen-Times, publishing Nov 4

Each ad was run with the following text:

## Regional Comprehensive Transportation Plan Public Hearing November 8, 2007

The French Broad River Metropolitan Planning Organization (MPO) will hold a formal public hearing on Thursday, November 8, 2007, from 6 p.m. to 8 p.m. in the Buncombe County Commissioners' Chambers, Buncombe County Courthouse, 60 Court Plaza, Asheville, NC 28801. This is an opportunity for members of the MPO's governing body to hear public comment before acting on adoption of the North Carolina Department of Transportation's Comprehensive Transportation Plan for Buncombe, Haywood and Henderson Counties. The plan encompasses highway, bicycle and transit planning. The final plan is available for review on the MPO website at www.fbrmpo.org, or by contacting the French Broad River MPO at (828) 259-5457, by email at mpo@ashevillenc.gov, or by mail at P.O. Box 7148, Asheville, NC 28802. People who have provided their comments to the MPO since midAugust do not need to attend the hearing to have those comments considered.

The French Broad River MPO is committed to enabling participation in the public process. Accommodations will be made for people with disabilities, for people who need a translator to participate, or for people who are dependent on public transportation that does not serve the meeting site or time. Request assistance as early as possible, but at least 24 hours in advance, by contacting the French Broad River MPO at (828) 259-5457, by email at mpo@ashevillenc.gov, or regular mail at P.O. Box 7148, Asheville, NC 28802.

COMMENT FORM Comprehensive Transportation Plan for Buncombe, Haywood, and Henderson Counties

Thank you for your interest in the future of our region. Please provide your comments and suggestions for the plan below and leave it with one of the plan representatives or in the comment box. If you would rather, you are welcome to speak with a representative today, to take this form with you and mail it, or send your comments by email to mpo@asehvillenc.gov. You need not attend the meetings to submit comments. Copies of the proposed plan maps will be available in local government offices, main branch libraries, and on the internet at www.fbrmpo.org. ALL COMMENTS MUST BE RECEIVED BY 5:00 P.M. ON MONDAY, SEPTEMBER 17, 2007. Again, thank you.

## Optional Information:

Name $\qquad$ Email address

Mailing Address
$\qquad$
$\qquad$ County Phone
How did you hear about these meetings? If it was in the newspaper, was it from an article, an events calendar listing, a legal advertisement, or a regular advertisement?

Additional Comments and Suggestions: $\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
fold
From:

To:
FRENCH BROAD RIVER MPO
POST OFFICE BOX 7148
ASHEVILLE NC 28802
$\qquad$

You can see the proposed plan maps at your local government offices in Buncombe, Haywood, or Henderson Counties, at your main branch library, at the French Broad River MPO office at 70 Court Plaza, Asheville, or on the internet at www.fbrmpo.org.

If you prefer, you can send your comments electronically to mpo@ashevillenc.gov.

## Report of Comments Received on CTP

August 14- September 17, 2007

## Section 1. Executive Summary

Comment was received from approximately 75 people who have made comments on the draft CTP maps at the public meetings, in person, or by email. The Asheville Bicycle and Pedestrian Task Force commented at one of their meetings, which had 12 members present, most of whom have not sent in other comments. The task force also provided results of a questionnaire from a series of public meetings they held in the Asheville area when the CTP process was first announced. About 90 people provided comment at those meetings.

There were many project-specific comments, though most (39) were in regard to widening US 25A/Sweeten Creek Road in Asheville ( 37 to 2 in favor). Other projectspecific comments included one person noting that there is interest in a connector between US 276 South (Pigeon Road) and US 23 Business (South Main Street) in Haywood County, and another encouraging that the Balfour Connector in Henderson County be moved forward. Another person questioned the value of improving Route 191 in Henderson County, and it's relationship to the Balfour Parkway proposal. There were several route-specific suggestions for bicycle transportation improvements, and one commenter who questioned the value of bicycle improvements in the presence of high levels of motor vehicle traffic. There were also two comments were wondering why specific roads or sections were listed as needing improvement.

There were several comments that included concerns that bicycle and/or pedestrian facilities be included in road projects. There were a few comments about transit needs, including one person who said that high speed transit or light rail should be included in the CTP. Transit providers from Buncombe and Henderson County met and provided comments on future transit routes.

We received some comments citing specific roads, streets or intersections as dangerous. While the comments are included here, they were also forwarded to appropriate municipal staff and to local NCDOT staff for their use.

One commenter questioned the classification of some roadways (i.e., boulevard, major/minor thoroughfare) and at least four questioned the designation of some or all "existing" on the bicycle maps for roads that lack paved shoulders or other bicycle facilities, citing concern that this designation would be equated with having adequate bicycling conditions.

One commenter suggested that medians were unnecessary for road projects and that two way left turn lane dividers were a less expensive choice, which would allow funds to remain for completion of other projects.

Many of the comments involved clarifications of or corrections to the maps, including road names, environmental and cultural features, and adding routes that bicyclists
already use. A few noted what may be changes to the underlying assumptions, including some current and near-term development in Hendersonville. Some suggested changes to the map design and labeling conventions to improve usability of the maps.

One commenter complained that the $11 \times 17$ " map format of the CTP was inadequate for reasonable public input. He also questioned the ability to reasonably comment on the CTP before the US 70 Corridor Study results are known. He further questioned whether local governments and the public had been adequately consulted, and questioned the proposed location of public transportation facilities in Black Mountain.

Report of Comments Received on CTP Section 2. - Individual Comments Received

## Section 2. Individual Comments Received

The following comments have been received on the CTP since it's first presentation on August 14, 2007 at a meeting in Henderson County. This compilation does not include inquiries received that did not include comments. Simply for the sake of organization, it is divided into groupings based on the method by which the comment was made. The comments in Section 2-A were received at the original three public meetings. Section 2-B contains comments received via email, Section 2-C are comments received at subsequent meetings, and finally, Section 2-D are comments received in person. In each grouping, the comments are in the order received. Email addresses of private citizens who provided comment are not included in this document.

## Section 2-A. Comments received in person at the public meetings (Aug 14-16) (as transcribed by Barb Mee, MPO Staff. Originals on file.)

Received at Henderson County Meeting, August 14, 2007:
From: Sue Anderson, Planning Director, City of Hendersonville,
Cultural feature map insert does not show churches.
Green dotted line not in key.
Other dotted lines not in key.
Public transportation map - is Ecusta line "inactive"?
US 25 now 225 S of 176 in Hendersonville
Environmental features ? floodway
*Signal Hill Road currently used from US 25 North and Barkley Rd. and Main Street to Thompson Street to avoid 64 and get to l-26 [This is my best interpretation of her handwritten note; I am sending scanned sheet as a separate attachment. -Barb]

Current development at 176 \& 25/225
10 acres south of Market St along 225
(176) Bi Lo Center redevelopment as new Harris Teeter site Walgreens at corner of 176 \& 225/25 (Bojangles site)
Ace Hardware @ 225 \& Golden Gate Drive

From: Identifying information left blank
Howard Gap Road is used by cyclists, provisions should be included in the bicycle part of the plan.

Report of Comments Received on CTP Section 2. - Individual Comments Received

## Received at Haywood County Meeting, August 15, 2007 :

From: Paul Benson

There is interest in Waynesville in a connector between US 276 South (Pigeon Road) and US 23 Business (South Main Street).

Ideally, this connector would join US 276 near the Crymes Cove Road intersection, and US 23B at Hyatt Creek Road.

## Received at Buncombe County Meeting, August 16, 2007 :

From: Identifying information left blank

- I notice that the when bicycles are mentioned, the best classification is "road conditions are considered adequate." Many of these roads have little or no shoulder or bike lanes. This may be adequate but far from desired, safest or best. Why is adequate the best there is?
- It is inconceivable to me that in a plan looking out to 2035 there is no high speed transit or light rail being considered.

Report of Comments Received on CTP Section 2. - Individual Comments Received

## Section 2-B. Comments received via Email

[Email] From: Jon Laughter
Sent: Saturday, August 18, 2007 11:11 AM
To: MPO
Subject: NEW EXPRESSWAY
REQUEST THAT BALFOUR PARKWAY BETWEEN I-26 AND US25 MOVE TO A LRTP TIER 1 OR 2. THE NEW INTERCHANFGE WILL GREATLY REDUCE THE CONGESTION ON FOUR SEASON BOULEVARD (US64) AND ALLOW TRUCKS FROM THE QUARRY AND ASPHALT PLANT TO ROUTE DIRECTLY ONTO THE INTERSTATE AVOIDING LOCAL SECONDARY ROADS AND SUBSTANDARD BRIDGES.

JON LAUGHTER
Laughter, Austin \& Associates, P.A.
Jon H. Laughter
Phone- 828-692-9089
Fax-828-693-8822
[Email] From: James Hilford Sent: Saturday, August 18, 2007 9:50 PM To: MPO
Cc: P. Fernandez, Asheville Citizen-Times
Subject: Comprehensive Transportation Plann
I attended your meeting in Asheville where your CTP was presented for comments.
I have one overall comment, it is a beautiful "Wish List".
I have one specific comment. We have recently spent hard to come by taxpayer money to improve several sections of motor ways, such as identified as; A15, A18, A20 and A24. These all were recently constructed with TWLTL dividers. I see no reason to waste taxpayers money to install a median. There are certainly many other projects of urgent need of completion.

May I take the liberty of adding one request which most likely doesn't come under the scope of the CTP but nevertheless, is urgent, before someone gets killed. Please put a traffic light at the intersection of Sand Hill Road and Sand Hill School Road. I don't want to be that fatality!

Report of Comments Received on CTP Section 2. - Individual Comments Received

Thank you.
James Hilford
20 Slosman Drive, Asheville, NC 28806-6103
8286673438
I read about the meeting in an AC-T article.
[Email] From: Pattie Moore
Sent: Monday, August 20, 2007 9:03 AM
To: MPO
Subject: CTP
I am concerned about the bicycle portion of the plan. There are a large number of roads that have been marked as having existing bike facilities. I am not sure where the information came from to determine that there are existing facilities, but as a bicycle commuter, I do not see how the majority of the roads that are marked as existing have any facilities to make bicycle travel safer. My concern is that if a road is marked that it has existing facilities, does that mean that no funding would be available to improve that road in the future?

Pattie Moore
[Email] From: Cheryl W. Hannah
Sent: Thursday, August 23, 2007 9:15 AM
To: Dan Baechtold
Cc: Sarah Smith; Barb Mee
Subject: draft CTP
Attachments: Card for Cheryl W. Hannah
Good morning Dan:
I am the new Rail Planner Shirley Williams sent you an email about. I look forward to working with you on the various projects in western NC.

Shirley and I reviewed the draft CTP maps and table and have the following suggestions.
a.. Please identify the selected Asheville multi-modal station site as Biltmore Station Shops instead of "old Depot" in the section on Public Transportation and Rail in the table.
b.. Map 3A-1 and Sheet 3 of 5 should both have a brown triangle outline (Recommended Intermodal Connector) in addition to the Recommended Rail Stop.

Let me know if I do anything to help you as you work through the CTP process.
Cheryl Hannah
[Email] From: Elizabeth Teague
Sent: Monday, August 27, 2007 9:02 AM
To: Dan Baechtold; Barb Mee
Cc: Tony Caudle
Subject: CTP Comments
Got to look through the maps and here are my initial comments...

## "Ranes Creek" Road should be Cane Creek Road

Is Broadway from Chestnut to 19/23/70 a boulevard? (if we want to start routing traffic through it to downtown (and off Merrimon and 240) then seems like it should be).

Similarly, is US70 from Asheville to Black Mountain also a boulevard? (I think if we label US25 a boulevard, than US70 from Asheville heading East is too - don't know about heading west into Haywood).

In Black Mountain, Cragmont Road from Rhododendron Ave to (and including the north side of) Blue Ridge Road should be a minor thoroughfare. (It's a significant connector on the north side of Town and we expect several new developments there that may warrant upgrade in signalization).

Haywood County Bike Map - I thought there was desire for a link b/n Waynesville and Clyde along Old Clyde Road? Paul Benson would know.

I wouldn't think Howard Gap Road was a boulevard but a major thoroughfare.
Fletcher and Regional Airport Area should be a map to itself (not just the inset provided with Hendersonville). Otherwise we can't adequately show NC280, Airport Road and US25 and those are high growth, high traffic areas that need better planning. Also, need to note what Roads are impacted by the Airport master plan that need improvements or changes - for example, I thought the Airport wanted it's own exit somewhere near Glen Bridge Road(?) and a rear access off of Old Fanning Bridge Road (?).

I'm not sure what circles in Hendersonville Map are - not labeled in legend and I didn't see them on other maps...

May want to footnote somewhere (or possibly do a cover sheet) that explains the various maps and how Pedestrian plans/improvements will be handled. This would be more for the local public than NCDOT, but I feel it's important that people know

Report of Comments Received on CTP
that pedestrian issues aren't left out and that Waynesville, Black Mountain and Asheville, and Hendersonville have pedestrian plans either on the books or in the works.

These are good CTP maps to work with! Great start guys-

## ET

Elizabeth Teague, AICP
Planning Director
Town of Black Mountain
106 Montreat Road
Black Mountain, NC 288711
Phone: (828) 669-9784
Fax: (828) 669-2030
elizabeth.teague@townofblackmountain.org
www.townofblackmountain.org
[E-mail] From: Claudia Nix
Sent: Monday, August 27, 2007 11:53 AM
To: Don Bryson
Cc: Barb Mee; MPO
Subject: CTP bike needs
Attachments: Comprehensive transport survey 06.doc
Good morning Don,
I hope you are well. I had given Daniel Holt a list of the findings that the Bike/Pedestrian Task Force received when we held our public meetings last year for the CTP. I am not sure you have received this information and would like to send it to you. We want to make sure that the bicycle needs are part of the public record. I have the findings from the survey we developed and the comments we received from each of the four public meetings we held. If you have any questions please feel free to contact me further.

Thanks,
Claudia Nix
N.C. Rec. Trails Committee
N.C. Bicycle Committee

Facilitator, Bike/Ped. Task Force
Ex. Council, Healthy Buncombe Coalition
Blue Ridge Bike Club Advocacy Chair
Co-Owner, Liberty Bicycles, Inc.

Report of Comments Received on CTP Section 2. - Individual Comments Received

## ATTACHMENT CONTENTS:

## Bike / Ped Task Force Community meetings Report

We had four meetings during the month of March, one in each quadrant of the city (West, East, North and South). North Asheville had by far the largest turn out of citizens. We also had several individuals who sent in responses after the meetings.

The following is a report of the findings we received.

1. Which of these best describes the level of traffic congestion in the area around your home?

- 9 said, Not a problem.
- 27 said, not too bad, it doesn't really affect me.
- 51 said, quite bad, but it is only really a problem at certain times \& places.
- 2 said, very bad, you have to allow considerable extra travel time.
- 1 said, at a critical level, it is severely hampering my everyday life.

2. Which measures do you think would be most effective in making it easier to get around in Asheville?

- 25 felt, better maintenance of roads, sidewalks \& pavements.
- 14 felt, improving existing roads to increase their capacity.
- 4 felt, charging for parking at work \& spending money on public transit.
- 4 felt, charging for using congested roads \& spending money on public transit.
- 5 felt, building new roads in more places.
- 41 felt, build new sidewalks in more places.
- 31 asked for, better bus services
- 13 asked for rail services.
- 4 asked for, cheaper bus fares.
- 70 asked for, better facilities for cyclists.
- 31 asked for better facilities for pedestrians.
- 7 asked for, better information for bus travelers.
- 0 wanted better information on current road traffic conditions.
- 13 wanted, traffic calming in residential areas.
- 6 wanted bus lanes \& bus priority routes.
- 13 wanted, more "park \& ride" facilities.

3. Which of these problems affect you the most?

- 49 said, pollution from traffic.
- 3 said, fear for personal security when traveling by public transport.
- 1 said, car theft / vandalism.
- 23 said, delays caused by too many cars.
- 34 said, pedestrians' safety.
- 71 said, cyclists' safety.
- 19 said, poor bus and rail services.
- 2 said, expensive bus and rail fares.
- 7 said, high cost of car parking.
- 20 said, poor road maintenance.
- 25 said, poor side walk maintenance.

4. "Bicycles and pedestrians should be considered in all phases of transportation planning, roadway design, engineering, new construction and transit projects."

- 85 of our participants marked they strongly agree with this statement.
- 5 generally agree with this statement

5. "Cyclists, pedestrians, and motorists need safety education to help reduce bicyclists and pedestrian injuries and to reduce hostility between the various transportation modes."

- 62 strongly agreed with this statement.
- 21 generally agreed with this statement.
- 7 generally disagreed with this statement.
- 1 said it was not applicable.

6. "Cyclists and pedestrians should expect to be ticketed by law enforcement for traffic offenses the same as motorists."

- 37 strongly agreed with this statement.
- 36 generally agreed with this statement.
- 13 generally disagreed with this statement.
- 4 strongly disagreed with this statement.
- 1 generally agreed but commented only if the ticket is based on the weight of the vehicle.

7. "Motorists should expect to be ticketed by law enforcement for offenses against pedestrians and cyclists."

- 78 strongly agreed with this statement.
- 13 generally agreed with this statement.
- 1 generally disagreed with this statement.

8 "Encouraging cycling and walking as a substantial component of the transportation modal mix can help reduce air pollution and traffic congestion."

- 89 strongly agreed with this statement.
- 3 generally agreed

9. "Encouraging cycling and walking as a substantial component of the transportation modal mix can help reduce air pollution and traffic congestion."

- 85 strongly agreed with this statement.
- 6 generally agreed with this statement.
10.89 Individuals have a driver's license. Only 3 do not have a license.
11.75 Individuals are employed, 17 are not employed.
12.25 Individuals own (1) motorized vehicle. 30 own (2) vehicles, 19 own (3) vehicles, 5 own 5 vehicles, 4 own (4) vehicles, 1 owns 8 vehicles and 1 does not own a motorized vehicle at all.

13. What primary method of transportation do you use to get to work during a typical "good weather" week?

- 44 drive alone in a car or truck.
- 8 drive car or truck with passenger (s).
- 1 is a passenger in car or truck.
- 25 bicycle
- 8 walk
- 1 uses a combination of bike/walk/drive.
- 1 carpools in AM and bus in PM.
- 1 drives 3 days a week and bikes for 2 days

14. What secondary method of transportation, if any, do you use to get to work?

- 21 have no secondary method
- 24 drive alone in car or truck.
- 4 drive car or truck with passenger (s).
- 22 are a passenger in car or truck.
- 4 use the bus.
- 20 use the bicycle.
- 7 walk.

15. How far is it from your home to the nearest public transportation?

- 48 are less than a mile
- 8 are 1 mile.
- 1 is 1.5 miles.
- 2 are 2 miles.
- 1 is 2.5 miles
- 3 are 3 miles.
- 6 are 5 miles.
- 3 are 6 miles
- 1 is 7 miles
- 4 are 10 miles
- 1 is 15 miles

16. Approximately what time do you leave home for work?

- 29 leave between 6:30 \& 7:45 AM
- 39 leave between 8:00 \& 9:30 AM
- 1 leaves at 10AM
- 1 leaves at 11AM
- 1 leaves at 1PM
- 1 leaves at 9PM
- 4 are retired
- 2 works at home
- 1 has a varied schedule
- 1 college student

17. Approximately at what time do you leave work?

- 24 leave from 3:00 to 4:45 PM
- 13 leave from 5:00 to 5:30 PM
- 19 leave from 6:00 to 8:00 PM
- 2 leaves at 10:00-10:30PM
- 1 leaves at 12:00 PM
- 1 varied schedule

18. How many miles is your place of work from where you live?

- 12 live less than a mile
- 26 live 1 to 5 miles
- 14 live 5.5 to 10 miles
- 18 live over 10 miles away
- 1 says their mileage varies

19. How much time does it take to get to work?

- 10 take 5 min or less
- 14 take $6-12 \mathrm{~min}$.
- 28 take 13-20 min.
- 9 take $21-30 \mathrm{~min}$.
- 7 take $35-50 \mathrm{~min}$.

20. What zip code do they live in?

- 18 live in 28801
- 6 live in 28803
- 20 live in 28804
- 8 live in 28805
- 10 live in 28806
- 7 live in 28704
- 4 live in 28711
- 1 lives in 28715
- 2 live in 28730
- 1 lives in 28732
- 1 lives 28753
- 2 live in 28787
- 1 lives 28791

21. The major factors that prevent individuals from using their bicycle to commute to work were rated a \#1 a minor factor \#2 a major factor or \#3 prevents me from using my bicycle.

- Time of day
- Lack of secure storage
- Distance

Minor
factor
23
15
18

Major factor
20
8
12

Keeps from using the bicycle

4
0
11

Report of Comments Received on CTP Section 2. - Individual Comments Received

- A hazardous route
- Personal security
- Lack of off street paths
- Lack of shoulders
- No alternative route
- Weather
- Lack of shower
- Need for car for job
- Takes child to day care
- Lack of transit connect
- Unable to take bike on bus
- Physically unable
- More efficient to walk
- Can't afford to fix bike
- Angry motorists
- Laziness

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[Email] From: Claudia Nix
Sent: Saturday, September 01, 2007 2:08 PM
To: MPO
Subject: Bicycle maps for the CTP
To Whom It May Concern:
I am writing to comment on the bicycle maps for all three counties, but more especially Buncombe and Henderson Counties. I have ridden many roads in all three counties and know that all roads are potentially being used by bicyclists and that they all are in need of improvement.

I am concerned about the designation of the existing bike routes in Buncombe County because these roads are not really bicycle routes. The only designated bike routes are 10 neighborhood routes. The Bicycle Transportation Map of 1998 rated roads according to traffic regarding suitability and were suggestions for cyclists to get around but they were not designated bicycle routes nor were they considered as not needing improvement at that time. Many of these routes have shoulder drop offs, gravel from unpaved driveways and side roads and blind curves. With the increased traffic which occurred over the past few years with rapid new development, these routes have become less suitable and are badly in need of improvement. I am unsure how the NC DOT plans to use these maps and designations are not clear. Many of these roads are not listed as needing improvement which I do not agree with and has me more concerned.

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I am extremely concerned that there is no bicycle/pedestrian committee for Haywood County and there does not seem to be an effort to gain one to assist in the planning process and ensure that bicyclist's needs are being considered.

I would like to propose that in any rural paved roadway whether designated or not, especially in the mountains, be slated for paved shoulders of at least 2 feet and those which are designated as existing be the given this improvement first. Paving the shoulders would make it much safer for bicyclists, automobiles and pedestrians in rural communities. Before any more unpaved roads are paved the shoulders should be a first priority. Blind curves are especially dangerous.

The NC DOT has a stated policy of making accommodations for bicyclist when roadways are improved. The problem that I see is there is a lack of consistency in doing this. I consider resurfacing as an improvement and this is often not being done. Quite often I have seen examples of a paved shoulder disappearing on a curve or straight away of a road when there is room to have continued it. Right of way is often sighted as the reason for not including the paved shoulder but it could be continued by narrowing the lane by one or two feet and not hindering the flow of traffic. This is an example of continuing business as usual rather than being aware of cyclists' needs. A prime example of this lack of consistency is seen on Meadow Road in the city of Asheville. I was pleased to see a paved shoulder being made but it runs out as the road climbs to go over the railroad tracks. This is when a cyclists needs to be protected from traffic behind as their speed slows while climbing, but the shoulder disappears. DOT kept the 12 foot lane when there was ample room to narrow the roadway a little and keep the shoulder. My comment is not made to place criticism or to be ungrateful for what we did receive but to point out the lack of safety for the bicyclists when it is most needed.

Claudia Nix, Facilitator
Asheville Bike/Pedestrian Task Force
NC Bicycle Committee member Region 13 \& 14
[Email] From: Anthony Starr
Sent: Tuesday, September 04, 2007 2:10 PM
To: Hope Bleecker
Subject: FW: Greenway Project
FYI. The draft bike map of the CTP shows this route. However, the text does not. Can we add the route from Hendersonville to Brevard along the existing rail line in the text portion instead of leaving it as part of the catch all section at the end?

Thanks,
Anthony W. Starr, AICP
Planning Director

```
Henderson County Planning Department
213 First Avenue East
Hendersonville, NC 28792
Phone: (828) 697-4819 Ext. 1051
Fax: (828) 697-4533
astarr@hendersoncountync.org
Subject: Greenway Project
Date: Thu, 23 Aug 2007 14:28:40-0400
From: majones@hendersoncountync.org
To: planningdir@citcom.net
CC: brevzone2@citcom.net; astarr@hendersoncountync.org;
sanderson@cityofhendersonville.org; jj81868@hotmail.com
Josh
```

Anthony researched the subject and it is on our Comp Plan, the Greenway's plan and the CTP already.

I have not found anything on ncdot.org addressing the line on any of their plans, but can call them to confirm....unless you already have a contact. Let me know.

## Thanks

Marcus A. Jones, P.E.
Engineering and Facility Services
(828) 694-6560

From: Jerry Smith, Jr.
Sent: Tuesday, September 04, 2007 2:04 PM
To: Marcus Jones; planningdir@citcom.net
Cc: Sarah Lutz; Anthony Starr; sanderson@cityofhendersonville.org
Subject: RE: Greenway Project

## Marcus,

I have talked to a Pam Davis, Assistant Director of Planning and Environment in the Rail Division of NCDOT. She said that Norfolk Southern had indicated to them that they plan to abandon the T\&R line. Furthermore, she said that NC has no interest in preserving that rail line at this time and would not interfere in its conversion to a greenway/trail/whatever. She was interested in our idea of connecting Hendersonville/Brevard and may be of assistance to us in the future.

Let me know what I can do to help at this point.
Jerry
[Email] From: Paul Benson
Sent: Tuesday, September 04, 2007 1:59 PM
To: Barb Mee; Kris Boyd, Rosemary Green, M. Ferguson, Nathan Clark;
S. Anderson; Region A; Joel Setzer; Reuben Moore; Charles Schafer

Cc: Dan Baechtold; Sarah Smith; ClaudiaNix; Jill.Stark; Carrie Runser-Turner; Linda Giltz
Subject: RE: Questions about the bicycle portion of the CTP
Hi Barb,

The bikeway map for the Waynesville area is almost completely wrong!
I will send in a revision before the deadline date.
Paul
[Email] From: Reuben Moore
Sent: Tuesday, September 04, 2007 4:19 PM
To: Barb Mee
Subject: Re: FW: Questions about the bicycle portion of the CTP
As per Paul Benson's comment, for one thing, the color is wrong. All those marked routes are on-road, not off-road, except that I'm not sure about the route around Lake Junaluska. Waynesville public works director Fred Baker is a bike rider, you might ask him (or Paul Benson) to identify interested bike groups. Fred's \# is 828-456-4410.

Is the intention to at least identify these as "bike route" with signs?
I scanned the other routes (for Haywood and Henderson) in the table, comparing them to the map where I could. There may be other reasons why these are shown or described as they are, but these are the items I noticed.

Map B14 already has good geometrics. It has many turn lanes but could use a few more. The Pavement Condition Survey says it already has a four-foot paved shoulder. Some of us were surprised this showed up as "needs improvement".

In general, having the county that the begin or end of the route is in is helpful, such as realizing that the proposed end of the six-laning of I-40 in Haywood County is in Buncombe county. Exit or milepost would be helpful for these freeway sections. This route (B1 ) would be from Exit 27 (Haywood) to Exit 44 (Buncombe).

Where a city street name is used (like in B3, Williams St.), the name of the town would be helpful, i.e. Williams Street (Canton).

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I don't know where "Winston Way" is. Where such streets are used as project termini, could we show the street name on the maps?

For maps B5 and B10, why is one on the boulevard list and one on the other major thoroughfares list? Shouldn't they be the same type of facility, whichever list they belong on?

Henderson County, map C5, you could say NC 280 (west intersection) and then for C6 say NC 280 (east intersection).

Do Bike Routex 1 and 8 in Henderson warrant mentioning the need for paved shoulders or marked bike lanes, like Route 3 does?

Hope this helps.
Reuben E. Moore, PE
Division Operations Engineer
NCDOT - Div. 14 - Sylva

From: Jaime Adrignola, AICP
Sent: Friday, September 07, 2007 10:33 AM
To: MPO
Subject: CTP Comments
I have several comments on the draft CTP. First, Mills River is not shown as a municipality. If you need a shapefile, I can send one along of the boundary. The second is that sections of 280 alternate from a boulevard to a major thoroughfare several times between Transylvania County line and I-26. It seems that having two sections of boulevard feed into a section of major thoroughfare (lower order) could facilitate congestion in an already congested area. (Likewise for the section leading into l-26) Further, those sections are in conflict with the North Carolina State Strategic Highway Corridors Map.

I believe that is all for now!
Jaime
Town Manager
Town of Mills River
5046 Boylston Hwy, Suite 3
Mills River, NC 28759
(828)890-2901

Fax (828)890-2903
[I sought clarification on Jaime's comment on the inconsistency between the CTP and the North Carolina State Strategic Highway Corridors Map, but her reply did not include a preference, just a hope that the two plans agree in some way -Barb Mee]

From: Jeff Bachar
Sent: Saturday, September 08, 2007 11:13 AM
To: MPO
Subject: comments on plans for Haywood County
Dear MPO members,
I would like to express my interest in seeing improvements to roads in Haywood County that would make bicycling safer. As roads are resurfaced, I suggest they be widened to allow more shoulder space to the right of the white line. Even 12 inches on each side would provide some buffer for cyclists; although more space would be better. Bicyclists recognize the beauty of Haywood County and better road conditions would make it easier to promote bicycling events as part of tourism.

Particular emphasis should be given to existing, numbered cycling routes but all roads need to be widened (with the exception of 110).

Thank you for your good work.
-Jeff Bachar
--
Cell: (828) 507-9762
Work: (828) 497-1970

Subject: FW: Greenway input on MPO's Transportation Plan
Date: Mon, 10 Sep 2007 13:28:30-0400
From: Linda Giltz

Barb,
(1) In Asheville all the greenways are marked "recommended" and none are marked as existing. This should be updated to show the ones that exist - along the French Broad River, Weaver Blvd., Broadway, Swannanoa River by Tunnel Road.
(2) I am starting working with Buncombe County to develop a greenways plan over the next couple months. Hopefully this plan can be added as an addendum when its complete.
(3) I think some of the primary/main regional greenway connections should be shown on the map - along the length of the French Broad River, between Old Fort/county line along the Swannanoa River to Asheville, one that connects Hendersonville, DuPont State Forest, Brevard and Pisgah Forest, possible a couple

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others. I can bring the regional map over later this week to help identify the routes for these.
(4) The Oklawaha Greenway in Hendersonville should show as existing instead of recommended. It is complete from Jackson Park to Patton Park.
[According to subsequent information from Jerry Smith, Apple Country Greenway Commission, Phase II of the Oklawaha Greenway which connects Patton Park to Jackson Park will probably not be finished until Spring/Summer 2008. -Barb Mee]

From: Jacqui Adams
Sent: Monday, September 10, 2007 8:23 PM
To: MPO
Subject: Asheville Bicycle Plan
I appreciate the opportunity to comment on your Bicycle Transportation Plan for Henderson County.

I am a resident of Henderson County and a frequent road biker. In addition, I am an active member of the Blue Ridge Bicycle Club; and ride \& sometimes lead their group bicycle rides. As a result, I am very qualified to comment on your designations of existing and needs improvement on road bicycle routes.

I have to admit, I am very confused at your designation of existing bike lanes. To my knowledge there are no bike lanes, and rarely any paved shoulders anywhere I have ridden in Western North Carolina, much less on the roads you have marked as "existing" in Henderson County. The only place to date I can recall riding on a designated bike lane was along a very short stretch in Transylvania County near the now closed Ecusta Plant. I have also seen some disconnected short bike lanes along a couple streets in Buncombe County. But, I have not seen any designated bike lanes nor paved shoulders that continue for more than a few hundred feet in Henderson County other than on Highway 280.

Thus, it is my recommendation that you change your designations of all roads in Henderson County as needing improvement. Currently the roads are very narrow, the shoulders either are of gravel not suitable nor safe to bike on, and quite often with a deep drop off that would cause a crash and injury if a biker was to drift or be forced off the road by a passing motor vehicle. Currently the only sign I see of a road being bicycle designated are the "share the road" signs and the "bike route" signs. While this is a first step in having motor vehicle drivers realize non-motorized bicycles do have a right to the road, it is certainly not enough to call that a "bike lane". Nearly every time I ride I have a motor vehicle pass to close or pass in a way that makes it clear they were not pleased at having to wait for the time it took to have a safe place to pass. This could be alleviated if all roads were designated to get paved shoulders and on designated bike routes, shoulders marked specifically as bike lanes. In the following paragraph I will list those roads I feel should be on the top of the list for these improvements (My list would be much too long if I included all

Report of Comments Received on CTP Section 2. - Individual Comments Received
the roads I wish had paved shoulders or bike lanes). However, I also strongly believe that any and all future road improvement projects should reuqire the addition of paved non-motorized lanes--whether they be paved shoulders or separated lanes for bikes and pedestrians.

Fanning Bridge Road--This road has several housing developments. I feel strongly that this road should have paved pathways that would link all these neighborhoods together and to Fletcher Park on Howard Gap Road.

Other roads that I find important: Cane Creek Road, Mills Gap, Hoopers Creek (another heavily residential area needing pedestrian/bike links), Butler Bridge, Howard Gap, Rutledge Road, Jackson Road, . . . the list could go on.

Essentially I ask you to revisit your current map. Take it out on the road. Park your car and try walking along the road and see if you think it is adequate. Or even better yet, if you don't have a bicycle, go rent one for a day and try riding on one of the "designated existing routes". See if you agree that these roads all need improvement. Also, please do write and let me know if there are existing bike lanes that I have just not had the opportunity to ride on.

I truly appreciate the fact that bicycles are being considered in transportation planning. Now I can only hope that the next step will occur: True road improvements with more than motorized vehicles in mind.

Thank you again for providing this opportunity to comment.

From: Paul Benson
Sent: Tuesday, September 11, 2007 11:37 AM
To: MPO
Cc: Dan Baechtold; Kris Boyd; Nathan Clark; Rosemary Green; Barb Mee
Subject: Town of Waynesville comments on CTP Bicycle Map
Please be advised that there are many errors in the draft Haywood County Bicycle Map element of the CTP for the Waynesville area.

Virtually none of the routes indicated as "Off-road" are planned as such, nor are they suitable. We do plan off-road bicycle and pedestrian facilities along Richland and Raccoon Creeks, some of which are existing. I have attached a map in .pdf format that shows these facilities along with many "On-road" bicycle routes currently in use by area cyclists. We would appreciate the inclusion of routes indicated on the attached map for the Waynesville area.

In addition, we were disappointed to learn that provisions for pedestrian transportation plans are apparently not being included in the CTP.

I have attached a .pdf pedestrian facility map for the Town of Waynesville's planning jurisdiction for inclusion in the CTP, should pedestrian facilities be addressed.

I have also attached 3 shapefiles for: 1) on-road bicycle routes, 2 ) off-road bicycle routes, 3) pedestrian routes. These are the files used for routes shown on the attached maps.

Please contact me if you need additional information or clarification of any of the attached information.

Paul Benson
Planning Director
Town of Waynesville
P.O. Box 100

Waynesville, NC 28786
(828) 456-2004

Attachments: Waynesville bicycle ctp.pdf (252 KB); Waynesville ped ctp.pdf (291 KB); GIS files named offroadbike, onroadbike, and ped plan, all of which were forwarded to NCDOT for use.

From: terry ayoub
Sent: Thursday, September 13, 2007 2:09 PM
To: MPO
Subject: Widen Sweeten Creek
My name is Terry Ayoub and I am the president of the Ballantree Homeowners Association, now is the perfect time to widen Sweeten Creek Rd. Everyday about three p.m. this highly used shortcut turns into a parking lot. Something needs to be done before it gets any worse. Thanks

Terry Ayoub
828-712-1026

From: Sarah McKeever
Sent: Thursday, September 13, 2007 2:12 PM
To: MPO
Subject: Sweeten Creek Widening
The review for widening Sweeten Creek Road is LONG overdue. This road should of been widened years ago. The amount of truck traffic increase dramatically when the 140 exit 51 opened. Each day brings the challenge of trying to turn left out of the Ballantree Subdivision. Waits have been over 5 minutes at times.

I would like turn lanes be built for the Ballantree entrance. This would make it so much safer. Unless you witness it, you don't understand how many people take driving risks in turning at the high volume times of morning and evening.

Thank you,
Sarah McKeever

From: Cecil \& Kathy Tallent
Sent: Thursday, September 13, 2007 2:38 PM
To: MPO
Subject: Sweetin Creek Rd --US25A widening project-Ballantree-GivensEstates
As a long time resident of the Ballantree subdivision of Asheville, I feel it is now time for serious consideration for immediate work on this project. Additional commercial buildup along this highway and increasing large truck travel is resulting in very hazardus traveling on this 2 lane road. With or without a median, at least a turning lane is badly needed for the growing residential areas. Thanks for your consideration. T. Cecil Tallent, 15 Campbell Circle, Asheville, N.C 28803
Ph 828-274-1183

From: Lewis
Sent: Thursday, September 13, 2007 2:38 PM
To: MPO
Subject: DOT transportation plan
Dear Clueless,
I don't care what the plans are for the area. But I do want I-26 to be paved now! Not new concrete some thirty years down the road ( no pun intended ).

I pay my taxes every day and I deserve to drive on an Interstate that is not dangerous due to bumps.

I witnessed a large piece of metal fall off a flat bed semi and hit a car because of the bumps.

The inside tie rods had to be replaced on my car because of the bumps.
I'm sick of it.

PAVE I-26 NOW!!!! It is a very dangerous road. PAVE IT NOW!!!!

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From: Lynn Eddy
Sent: Thursday, September 13, 2007 4:16 PM
To: MPO
Subject: Comprehensive Transportation Plan draft, category Boulevards, item ID A19: US25A

I understand the following

- that the French Broad River Metropolitan (Transportation) Planning Organization is taking comments prior to their study of transportation needs along US25A
- the group's current recommendation is to widen Sweeten Creek Road, from Rock Hill Rd to NC280, to four lanes with median.
I am a homeowner in the Ballantree subdivision. Our residents have been begging for this improvement and the need is increasing. Our needs are twofold:
- Safety. Traffic in front of our subdivision is heavy enough that our residents have a significant risk of accidents, both when leaving and entering Ballantree. Several have experienced near-misses. Most of us have experienced incidents of flaring tempers - offensive gestures and yelling. Cars pass on the right shoulder when turning cars are waiting for oncoming traffic (this happens a the Givens signal, as well). Older residents and guests, especially, are afraid of exiting during rush hours which can be more than two hours. Younger residents are afraid for their less-experienced teen-age drivers. Traffic signals at adjacent intersections (Givens and Rock Hill) are far enough away that we receive no benefit. We have requested a traffic signal at Ballantree Drive, but are told that we don't qualify. During rush hour, southbound traffic is often backed up all the way to Gerber or Mills Gap and left turns are nearly impossible.
I have personally experienced the danger of driving on a thoroughfare with five lanes, with the aptly-named center "suicide lane" (on Hendersonville Road in this case). Only last week I had a close call with a car from the other side trying to enter the center lane at the same time as I was. Neither of us was careless, but were subject to the inherent risk of that design.
- Aesthetics. Please consider that 25A has the potential to be a major entrance to Asheville and beauty should be critical to preserving our city as the charming city it is reputed to be.

Sincerely, Lynn Eddy
25 Gardenwood Lane
Asheville, NC 28803

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From: Kenneth Johnson
Sent: Thursday, September 13, 2007 4:34 PM
To: MPO
Subject:
Dear NC DOT,
I would like to see bicycle lanes included when US 19-23 is widened east of Canton to Candler.

Thanks,
Ken Johnson
Canton, NC

From: Chris Cavanaugh<br>Sent: Thursday, September 13, 2007 6:49 PM<br>To: MPO<br>Subject: Feedback on Comprehensive Transportation Plan

To whom it may concern:
I have just concluded reviewing the Comprehensive Transportation Plan for the French Broad MPO. I know this is a challenging task, and I think you have done a good job of capturing as much of the region's transportation needs as possible. I have two comments I would like to pass along for consideration, however:

- Regarding Facility \& Segment ID \#A51, I don't think simply widening Mills Gap Road to three lanes from US 25 to Concord Road will be sufficient for meeting the needs of this area over the next 25-30 years. This area of south Buncombe County is already experiencing rapid commercial and residential development. Mills Gap is the main (and in many cases, the only) access thoroughfare for numerous residential areas to the east of US $25 /$ /Hendersonville Road, an area that will continue to see housing development. It is one of the only connecting roads between Hendersonville Road and Sweeten Creek Road (US 25A) for several miles. Mills Gap Road should be widened to four lanes in this area, not three, and special attention given to its intersections with Sweeten Creek Road and Hendersonville Road.
- I was disappointed to see that there is no recommendation included for a connector road between US 25A (Sweeten Creek Road) and NC 80 (Swannanoa River Road, or the future Wilma Dykeman Riverway), crossing the Swannanoa River somewhere between South Tunnel Road and Biltmore Avenue. This was discussed in the past as a way of relieving traffic congestion in Biltmore Village by allowing Sweeten Creek Road to be used as a suitable alternative for northsouth traffic. Such an alternative could be used for traffic moving from south

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Asheville to the Tunnel Road area (by using NC 80 eastbound to South Tunnel Road), or for south Asheville traffic going toward the hospital area or downtown (using NC 80 westbound to Biltmore Avenue). This also positions Sweeten Creek Road as a more viable alternative to Hendersonville Road in the future, once it has been widened its entire length.

Thank you for the opportunity to provide feedback on the plan.
Regards,
Chris Cavanaugh

Chris Cavanaugh
Magellan Strategy Group
P.O. Box 5632

Asheville, NC 28813
(828) 651-9320 Phone
(828) 651-8921 Fax

From: eelsanders
Sent: Thursday, September 13, 2007 8:48 PM
To: MPO
Subject: widening of sweeten creek rd
Hello there,
This is regarding today 9/13/07 Citizen Times widening article. The road is in need ot widening to 4 lanes with a center median - preferably one like Broadway (in Asheville), it has trees and vegetation. Let's beautify this county.

Sincerely,
Megan Sanders

From: Lisa J Wood
Sent: Friday, September 14, 2007 10:33 AM
To: MPO
Subject: Widening of Sweeten Creek/Ballantree Estates
We support the widening of Sweeten Creek Rd to 4 lanes with a landscape median. Ballantree Estates is made up of empty nesters, and families with small children. We need to have safety as our number one concern, and aesthetics to follow. We do not support having 5 lanes, with a center lane known as "suicide lane". That
would not be good for our residents or the people traveling past.
Thank you,
Lisa and George Wood
93 Ballantree Dr
Asheville, NC 28803.

From: Bob Pressley
Sent: Friday, September 14, 2007 11:46 AM
To: MPO
Subject: 25A Widening
With increased development, traffic, speed and trucks on 25A
my vote is for widening sooner rather than later. All things being equal, my vote is for the safer design of a divided four lane with a median rather than a five lane.

Bob Pressley
16 Campbell Circle
Asheville, NC 28803

From: rburchfield3028
Sent: Friday, September 14, 2007 12:02 PM
To: MPO
Subject: Sweeten Creek road Widening!
WIDENING OF SWEETEN CREEK ROAD.
I want to urge you to expedite the project of widening this road and put it on your expedited list so it can be done as soon as possible. It should get started by next year at the latest.

I would accept which ever design (5 lane or 4 lane with a median) can be completed the quickest.

This road has been over crowded for some years now (especially since the widening up to Rock Hill Road) and continues to be a problem through out the day and during the travel times in the morning and afternoon traffic often backs up from Mills gap road all the way to and past the Blue Ridge Parkway (just think how many traffic
lights one must wait to change). This certainly creates a hazard for those who want to enter from either side and for those who want to make a left turn.
sincerely,
Roy Burchfield
34 Ballantree Dr
Asheville, NC 28803-2020

From: Jim Christian
Sent: Friday, September 14, 2007 1:40 PM
To: MPO
Subject: Widening Sweeten Creek Rd
my name is Jim Christian, and have been a resident in Ballentree Subdivison since 1988. As a taxpayer and voter, I need to let the MPO and council members serving on it, know how serious our traffic problems are on Sweeten Creek Road. In morning or evening traffic it may take 10-15 minutes waiting to find a break in the traffic. On numerous occasion I have seen near misses with neighbors of mine taking risks trying to get to work on time, or taking kids to school.. There is a steady stream of cars, trucks, tractor trailers, moving down sweeten creek. It appears because of all the development on Hendersonville Hwy, and its many lights, many commerical and passenger, traffic is chosing 25A. This really exacerbated when the l-40 exit was completed to 25A.

We need our council members and MPO to give this growth area and traffic problem the highest priority for State funding.

It is essential that the road contruction not become just another Hendersonville Hwy, but though be given and approved for a nice green way median between four lanes, and that the road provide for a biike path on both sides.. bikers are already riding dangerously up to the blue Ridge parkway from my Ballentree. I personally was run off the road by a car in my attempt to get to the parkway.. Please preserve an atmoshere of high residential living in our south Asheville neighborhoods..

There already is a peception that unless you are in north asheville you will not be listen too. Please recognize the serious traffic problems we are facing with the development in south Asheville. I ask you to give this project your highest priority for
funding, with greenway and environmentally safe road expansion as soon as possible.
thanks..

JIM Christian
828-174-8179
Leadership Asheville 1990
Former, Director, VA Medical Center

From: Tim Morrissey
Sent: Friday, September 14, 2007 2:12 PM
To: MPO
Subject: CTP Facility \& Segment ID: A19
I have looked at your plans and I am particularily interested in the plan to work on 25A and Mills Gap Rd. I would think that both of these projects should move forward as planned immediately.
The traffic on 25A from Rock Hill Rd to Mills Gap is dangerous and is getting worse daily. There are too many vehicles for the road to safely accomodate and there is no shoulder for bikes or pedestrians. In addition the absence of any turning lane makes left turns off of 25A hard to accomplish while further backing up the thru traffic.
Please do all you can to expedite this work.
Tim Morrissey
6 Elmwood Lane
28803

From: Tim Morrissey
Sent: Friday, September 14, 2007 3:03 PM
To: MPO
Subject: CTP Facility \& Segment ID: A19
From: Tim Morrissey, 6 Elmwood Lane, 28803
The people in Ballantree subdivision have a vital interest in the improvments planned or at least talked about for 25A Sweeten Creek Road, (SCR), With that in mind, a number of communications have gone back and forth amonst the residents. Rather than redo it all I have copied one for you below which I think helps to understand how we see things.
Thanks for you patience with this, I am sure you are getting inundated with messages.

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<<<<Maybe this should be called: Widening Sweeten Creek to Accomodate Those Traveling on Mills Gap Road.

Folks:
We basically have three roads that run south from I-40: I-26, 25 and 25A. That's it. I26 should be wider, was going to be widened and the idea was put on hold for enviromental/political reasons; 25 is choked beyond belief with control signals to accomodate uncontrolled growth/building from the 80's and on; until the exit went in on I40, 25 A was a suburban road that took people home at night. That has obviously changed. All one has to do is look at the traffic northbound in the morning and southbound in the evening to know about the problem. It is not going to just get better by itself.

Fix I-26? Well maybe, but my guess is that while some local folks use I-26 as a local road, that is, to get home or to work, most of the traffic is 'thru-traffic', that is, people going someplace else. So widen it, fix it etc, and the local traffic on 25 and 25 A will see no benefit.

Fixing the lights on 25 would offer some relief, and would make traffic move smoother in both directions. But. since few people actually live on 25 , that is they don't turn off 25 into their abode, they turn off onto another road, traffic will still be heavy and congested at those travel times.

SCR/25A: My guess is that most of the traffic that is not commercial is using SCR to Mills Gap...surely it looks that way at $5: 30$ with many, many cars turning east onto MG from SCR. (Certainly some commercial traffic turns too, but alot of it goes on to Airport Rd and on to I-26.) The line up MG from 25 to SCR is long also, and traffic moving north on SCR south of MG is heavy at that time too, and a majority of it turns east onto MG. MG is a main way home for a lot of people and it will only get heavier. Widening SCR to accomodate that traffic, and all the other traffic which uses SCR to move north and south is obviously a must. But it is just as important to widen MG between 25 and SCR, perhaps widen MG a mile or two east of SCR to keep that traffic moving. And what about Gerber? After 140 there are basically only 3 roads to connect to 25: Rock Hill, Gerber and MG. Can we widen Rock Hill too, between SCR and 25? Anybody want to make THAT presentation? But no one can deny it needs widening. And why not another road to connect SCR to 25 . It appears that Peachtree off 25 is but a hair's breath from connecting up at Hollybrook on SCR; it lacks of course a RR xing, or should that be RR \$\$ing.

So, call it residential, call it commercial. But 25A/SCR is going to move it all, and it will only get heavier. Are 5 lanes better than 4 with turn outs and divider? Is better prettier? Is better more efficient? Is better safer? Ya got me, as I am not, and I guess neither are the rest of us, traffic engineers. Is the movement and flow of traffic the only consideration here? Is noise an issue? Are esthetics an issue? Is the enviroment an issue? Does cost tip the scale everytime? Does the enviroment? Do businesses?

Report of Comments Received on CTP Section 2. - Individual Comments Received

Poor, really poor, planning put this mess into existence. More poor planning will only exacerbate the problem. My guess is that there is no one all encompassing solution. There will be compromise here, you can bet on that. But there needs to be vision and purpose working with enlightened self-interest to get it as right as it can be.

Or we can just invite the Asheville Bicycle Club to have their nightly mass club ride on SCR at 5:30...back and forth 6 times between MG and Rock Hill. That would probably do it and he road would be fixed in a week.

Slainte,
Tim
Next up: Biltmore Village...you remember that place right? Its where you go after you run out of SCR. What about that bridge on Biltmore Avenue that is going to have to be replaced? What about the trains that go through and back traffic up, including emergency vehicles, for miles? What about all the new construction and the traffic it will bring? What about enforcement of the 20 mph and the pedistrian crossings?
>>>>

From: Lynn Eddy
Sent: Friday, September 14, 2007 3:13 PM
To: MPO
Subject: Comprehensive Transportation Plan draft, category Boulevards, item ID A19: US25A

Residents of Asheville's Ballantree subdivision experience significant problems (quality of life as well as major safety issues) caused by the growing traffic volume and mix on State Highway 25A (Sweeten Creek Road). Most of our 170 homeowners emphatically approve the current CTP provision for item ID A19 to widen Sweeten Creek Road to four lanes with a landscaped median.

We beg for funding of the study and its implementation this fiscal year and for the study to be begun immediately.

Lynn Eddy
25 Gardenwood Lane
Asheville, NC 28803
From: Sybil Becker
Sent: Friday, September 14, 2007 3:59 PM
To: MPO
Subject: Widening of Sweeten Creek Road
We have lived just off US25A for 14 years, in the Ballantree Subdivision. By any reasonable measure, the road widening is long overdue, especially as the population using US25A has grown rapidly during this time. The truckers have long abused
what was "planned" as an access road (US25A) to residential neighborhoods planned parallel to US25.

It is our understanding that the decision was made to initiate a study of the needs for transportation along US25A by the elected officials representing the counties of Buncombe, Henderson Haywood and all the municipalities therein at the July meeting of the French Board River Metropolitan (Transportation) Planning Organization. We urge you to fund this study -- to widen Sweeten Creek Road (US25A) to 4 lanes with median -- and that its implementation be found now and for the study to begin this fiscal year.

Countless meaningless meetings, some of which we have attended, have been held in the name of "DOT" with fruitless results. The State Road dollars have gone elsewhere. Please don't disappoint all of us with another meeting with no progress in the road jam. Come take a look during the commute hours on US25A. We need this widening! It's not safe as it is!!

## Bill and Sybil Becker

From: Janet Price-Ferrell
Sent: Friday, September 14, 2007 4:12 PM
To: MPO
Subject: Widening of Sweeten Creek
To whom it may concern
As a homeowners in Ballantree, I strongly support a design that would include 4 lanes with a landscaped median. Sweeten Creek is residential and should not be given the commercial look that 5 lanes would give the road. There should be opening in the median at each current entrance to a neighborhood and a wish list would include lights that are set for peak hours.

I know some are concerned with the fastest solution and I can not see that 5 lanes would be any faster than 4 with median.

Please do not change your plan that is printed in the current list.
Janet Price-Ferrell
3 Ballantree Drive
Asheville, NC 28803
277-5926

Report of Comments Received on CTP Section 2. - Individual Comments Received

From: Bruce \& Day Ann Emory
Sent: Saturday, September 15, 2007 9:45 AM
To: MPO
Subject: comments on CTP
The proposed CTP continues to over-emphasize highway improvements. This area needs major improvements to transit service and pedestrian facilities in order to shift some travel away from the automobile. Asheville needs to do its part to combat global warming, and needs to prevent any deterioration in air quality. Maintaining the status quo, with most transportation funding going to highway improvements, will not achieve these objectives.

## TRANSIT:

With regard to transit, the most important need is to improve the frequency of bus service in Asheville. Persons who have access to cars cannot be expected to shift to transit when the bus only runs once an hour. Proposed park \& ride lots such as those at the VA Hospital, Gerber Village, or Merrimon/Beaverdam will be white elephants unless significant improvements are made to the frequency and speed of transit service. Also, the number of proposed $P \& R$ lots could be reduced; there are too many in close proximity to each other.

The plan includes proposed rail stations in Biltmore Village and Black Mountain, but it does not address the rail service that should be provided.

Express bus routes are proposed to Asheville from the east, north, and west. An additional express route linking Hendersonville and Asheville, perhaps via the Airport, should be included.

## PEDESTRIAN FACILITIES:

The plan is silent regarding sidewalks. A major expansion of the sidewalk system would improve access to transit, and would encourage more short trips to be made by walking instead of driving. NCDOT should construct sidewalks on all state roads in the City of Asheville, and on major roads in other municipalities. Sidewalks should also be added in unincorporated areas wherever there is a moderate level of development. All new roads or improvement projects should include sidewalks. New sidewalks should be set back from the curb to allow a landscaped buffer between pedestrians and moving traffic.

## HIGHWAY PROJECTS:

The proposed Wilma Dykeman RiverWay plan should be modified in the vicinity of Biltmore Avenue. The current proposal could aggravate congestion by forcing eastbound traffic from Meadow Road to turn onto Biltmore and then turn left off of Biltmore in order to continue east. Extending the proposed one-way pair (Swannanoa River Road and Thompson Street) west of Biltmore Avenue would solve this problem; the two roadways could reconnect in the vicinity of Meadow Road and Short McDowell.

Report of Comments Received on CTP Section 2. - Individual Comments Received

The proposed I-26 connector, including the widening of I-240 in West Asheville, should be limited to six, not eight, lanes.

Bruce Emory
9 Sandon Circle
Asheville NC 28804
828-225-4588

From: Don Kessler
Sent: Saturday, September 15, 2007 12:56 PM To: MPO
Subject: Comments on the MPO's CTP, ID A19
I support the MPO's Comprehensive Transportation Plan's recommendations concerning State Highway 25A/Sweeten Creek Road (ID A19), with widening to four lanes with a median and bike routes. However, I understand that any Sweeten Creek improvements are at least five years away. By then, many residential communities along Sweeten Creek Road may be completely unable to leave their subdivision during high traffic periods; already Ballantree residents cannot turn left without a courteous Sweeten Creek driver allowing the turn. Turning right is a ridiculous alternative, since there is no place to safely u-turn, or easily get to Hendersonville Road. The situation will be worse when Carolina Day School begins to use their major athletic facility, now under construction just south of the Blue Ridge Parkway. Something needs to be done to improve Sweeten Creek traffic well before 2012.

However, there seems to be an important issue missing from the plan. Where does the plan address the horrendous intersections where changes may alleviate the need for widening long stretches of road? It should be recognized that the flow of traffic is not totally dependent on the road's number of lanes. The intersections are usually the major bottleneck. For example, during rush hours, southbound Sweeten Creek traffic is often backed up for a mile because of two, possibly three, intersections: 1. At Givens Estates, the lack of a left turn lane often holds up traffic for more than a full cycle at the signal. 2. Once through the Givens light, traffic is again backed up by the signal at Gerber. There, the unnecessarily long left-turn arrow for northbound traffic, plus the unnecessarily long light favoring traffic on Gerber (and a business on the east side) holds up Sweeten Creek traffic for long periods of time for just a few east-west cars. 3. The Mills Gap intersection seems to have improved, but would be the major problem if the two previous intersections weren't holding up traffic.

This is a city-wide problem and the problems on one road can affect other roads. For example, intersection problems on Hendersonville Road are related to the problems of Sweeten Creek traffic, as the even-larger number of poorly placed and poorly timed signals on Hendersonville Road causes more people to use Sweeten

Creek. A particularly bad location is near Gerber Village/K-Mart/Walgreens, where there are 5 signals within 5 blocks. Many of these signals support the multiple entrance/exits of a single shopping area that justifies only one signal, maybe two. The excessively long cycles are timed to require a stop at every intersection for north-south traffic while just a few cars are entering the road from the business area. At times, cars leaving these businesses have no place to turn because of gridlock. These types of intersection problems have a much less expensive fix than widening an entire length of road, and should be given a high priority. Many times the argument is made that other agencies are responsible for these problems, and funding is from a different source. However, if the MPO does point out these needs and try to coordinate solving them, they may not get the attention they deserve.

Respectfully,
Donald J. Kessler
Ballantree Subdivision
25 Gardenwood Ln
Asheville NC 28803

From: George Ribaud
Sent: Saturday, September 15, 2007 3:11 PM
To: MPO
Subject: Sweeten Creek Rd widening
To all parties:
Re: CTP Facility and Segment ID: A19
As a long time resident of the Ballantree subdivision on Sweeten Creek Rd. I am very concerned that the planned widening of Sweeten Creek Rd. will negatively impact the quality of life in all residential areas along the road unless actions are taken to assure safe and timely entrance on to and exit from the Sweeten Creek Rd. at all times of the day, and to minimize the noise of the increased commercial traffic that the widened road will attract.

George Ribaud
7 Elmwood Lane
Asheville,NC 28803

From: T. Peterson
Sent: Saturday, September 15, 2007 6:15 PM
To: MPO
Subject: US 25A widening plans

I understand that Sweeten Creek Road is being considered for widening between Rock Hill Road and US 25. I live just off of Sweeten Creek in the Ballantree subdivision. I would recommend that the highway be widened to 4 lanes with a center median strip that would be planted and only have occasional turning ability. It is also important to have a bicycle lane on the sides or just a separate bike lane just off the road that can serve for bikes and pedestrians. I would like to bicycle down to work downtown but as it is right now such an activity would be risking life and limb. Watching someone try to walk along a highway without any sidewalk is really sad, so please accommodate pedestrians as well. Thank you.

Regards,
Tom Peterson
16 Elmwood Lane
Asheville, NC 28803

From: Eldon Ward
Sent: Saturday, September 15, 2007 7:03 PM
To: MPO
Subject: Widening Sweetencreek
We do not think that widening Sweetencreek Road to 5 lines is a good idea. Not only would it be costly but it would put more traffic on this road than we really need. It is hard enough to get out of our subdivision with the present traffic without a stoplight let alone trying to do it by having to try it with the additional traffic. Can you imagine how hard it would be to cross this 5 lane road on foot? Suicide, for sure. Once again, this is not a good idea.

Eldon and Wanda Ward
14 Gardenwood Lane
(in Ballantree subdivision off Sweetencreek Road)
Asheville

From: Jerry and Kay Maiers
Sent: Saturday, September 15, 2007 7:18 PM
To: MPO
Subject: Widening Sweeten Creek Road
In regards to the widening of Sweeten Creek Road we hope the proposed plans of 4 lanes with landscaping in between is carried out. As it stands now, we have lost too much of our beautiful county to commercial properties and shopping centers. We have lost too many trees to developments and too much pavement and asphalt take the place of those trees. Please keep this road as natural as possible which in our opinion will eliminate the possiblity of commercializing the surrounding land like what

Report of Comments Received on CTP Section 2. - Individual Comments Received
has happened to Hendersonville Road. Regards, Jerry and Kay Maiers 12 Elmwood Lane Asheville, NC 28803 (Ballantree)

From: Warren W Resh Jr.
Sent: Saturday, September 15, 2007 8:33 PM
To: MPO
Subject: CTP Proposed Widening of Sweeten Creek Rd.
To whom it may concern:
I am a resident and registered voter in the Ballantree subdivision off of Sweeten Creek Rd.
My biggest concern with the widening of Sweeten Creek wiith a median strip is that I want both North and South
access from our neighborhood onto Sweeten Creek Rd.
Thank you for taking my concern into consideration.
Warren W Resh Jr.
9 Elmwood Ln.
Asheville, NC 28803

From: Megan Sanders
Sent: Saturday, September 15, 2007 8:43 PM
To: MPO
Subject: widening sweeten creek
Good evening,
I am a resident in the neighborhood of Ballantree and I'm very interested in the future of Sweeten Creek. I think that 4 lanes NOT 5 will be essential to South Asheville. Additionally, 4 lanes with a grassy (trees, flowers too) median would help to continue to make Asheville more beautiful. I see the effects of a 5 lane Long Shoals daily and I hope that will not be the case for Sweeten Creek.

Thank you,
Megan Sanders

Report of Comments Received on CTP Section 2. - Individual Comments Received

From: Maureen Christian
Sent: Saturday, September 15, 2007 10:24 PM
To: MPO
Subject: Regional Transportation Needs- specifically US25A

As a citizen, a tax payer and long term resident of the Ballantree Subdivision directly impacted by the tremendously increased traffic and congestion in our area (South Asheville, specifically Sweeten Creek Road/ 25A) and in our neighborhood, I ask that YOU make THE DECISION TO INITIATE THE STUDY OF THE NEEDS FOR TRANSPORTATION ALONG US 25A AND THAT IT BE FUNDED AND IMPLEMENTED THIS FISCAL YEAR. RECOMMENDATIONS IN CTP FACILITY AND SEGMENT DRAFT: ITEM ID A19 US25A TO US25/NE280- ARE LONG OVERDUE.
Your attention to our overcrowded roads and resulting safety issues in South Asheville are also long overdue.

Maureen Christian

From: Patsy Keever
Sent: Sunday, September 16, 2007 12:13 AM
To: MPO
Subject: sweeten creek rd
To whom it may concern: please do something about 25-A between Mills Gap rd and Rock Hill Rd. whether it is 5 lanes or 4 with a median, please look at this problem area asap! Initiate a study or whatever you need to do to get going on an action plan for this overcrowded highway.
Thank you,
Patsy Keever, Ballantree Resident

From: Dan Costant
Sent: Sunday, September 16, 2007 10:56 AM
To: MPO
Subject: STUDY OF THE NEEDS FOR TRANSPORTATION ALONG US 25A

To Whom It May Concern;
Living in Balantree subdivision, I am highly concerned about the traffic development on US 25 A.

In this regard I would like to kindly request you to initiate a study of the needs for transportation along US 25 A.

Report of Comments Received on CTP Section 2. - Individual Comments Received

Due to the urgency of this matter this study needs to funded and executed this fiscal year.

Sincerely,
Dimitrie Costant
6 Gardenwood Drive
Asheville, NC 28803
From: Charles Patton
Sent: Sunday, September 16, 2007 12:44 PM
To: MPO
Subject: Sweeten Creek Road, Bunombe County
There will be many opinions on plans for SweetenCreek Road. The most important thing is to get it done as soon as possible. It is a safety hazard, an incovenience and abomination for entrants from Ballantree, Park Avenue, Givens Estates and smaller entrances. Traffic will be aggravated by the new athletic fields being constructed near the Blue Ridge Parkway. Let's not haggle over a particular style - DOT knows how to build a road to fit the needs.

Charles Patton
18 Ballantree Drive

From: John/Patty
Sent: Sunday, September 16, 2007 1:56 PM
To: MPO
Subject: Please, Please widen Sweeten Creek...for Safety's sake
We in Ballantree are risking our lives throughout the day to get into and out of our subdivision.
PLEASE, PLEASE WIDEN OUR PATH TO HOME ASAP!
John and Patty Grear

From: George Lycan
Sent: Sunday, September 16, 2007 2:26 PM
To: MPO
Subject: CTP Facility \& Segment ID: A19
Please move forward as quickly as possible on widening Sweeten Creek Road.
Thanks,
George G. Lycan

8 Ballantree Drive
Asheville, NC 28803
cel 828-231-4246
fax 866-557-2497

From: Rob Weinkle
Sent: Sunday, September 16, 2007 8:24 PM
To: MPO
Subject: Sweeten Creek Rd.
To Whom It May Concern:
I would like the study regarding transportation on Sweeten Creek Rd. funded this fisical year. As you already know all day, everyday, it is very dangerous to enter, exit, and drive on Sweeten Creek Rd. This needs to be done as soon as possible so lives will not be lost. I have three daughters and a wife who come out from Ballantree and I am afraid each time they do. Please help us. My property backs up to Sweeten Creek and I can hear all the near misses in my house.

Sincerely,
Rob Weinkle
1 Ballantree Drive
Asheville, NC
828-277-6874

## From: Gwen O'Brien

Sent: Sunday, September 16, 2007 11:48 PM
To: MPO
Subject: widening Sweeten Creek
I am a resident and homeowner in the Ballantree neighborhood off Sweeten Creek Rd. Please approve a 4 lane road with a median greenway. A calm and green road with more lanes, sidewalks, \& bike paths are what suit beautiful Asheville and our residents. If a stoplight is in the plan, please time them and make them flashing during off-hours. We have a congestion and traffic flow problem primarily during classic rush hours in the morning and evening. Thanks for your time and consideration.

Gwendolyn Perry
27 Campbell Circle
Asheville, NC
828 274-9109

Report of Comments Received on CTP Section 2. - Individual Comments Received

From: Natalie Sipes
Sent: Monday, September 17, 2007 7:31 AM
To: MPO
Subject: CTP Facility \& Segment ID: A19
The widening of Sweeten Creek should use a 4-lane-with-median design. Widening to 5 lanes will cause many more traffic problems for thousands of residents who live directly off of Sweeten Creek.

Ballantree Resident

From: Jana Childress
Sent: Monday, September 17, 2007 9:25 AM
To: MPO
Subject: request for study implementation
I am a tax-paying Asheville resident living on Sweeten Creek Road in the Ballantree subdivision. I want the decision to initiate a study of the needs for transportation along US 25A funded and implemented THIS FISCAL YEAR. Thank you, Jana Childress

Jana Allen Childress, BSN, RN
CarePartners Health Services
68 Sweeten Creek Road
Asheville, NC 28803

From: winnie
Sent: Monday, September 17, 2007 9:52 AM
To: MPO
Subject: widening Sweeten Creek Road
RE: the Comprehensive Transportation Plan draft category Boulevards, item ID A19: US25A (Sweet Creek Road - Rock Hill Rd. to US25/NC280) "to widen to 4 lanes with median"

I am a tax payer and voting resident of Ballantree development, off Sweeten Creek Road. In the time I have lived here, I have seen the traffic on Sweeten Creek increase from being a moderate problem during rush hours to being a major problem for almost any time of day. Making a left turn into or from Ballantree entails a long tedious wait and vehicles have little regard for the speed limit. The other thing I have seen is a tremendous increase in huge trucks using Sweeten Creek rather than Hendersonville Road. Sweeten Creek is a two lane road with no shoulders. It needs to be widened, and quickly. I am in favor
of four lanes with a median, as are many of the residents here. I'm sure you'll be hearing from them. In my opinion this widening is long over due.

I respectfully request that you convey to the transportation planners in Raleigh that they need to act on this now. We need this change badly.

Sincerely,
Winnie Barrett

From: Sally Boerschig
Sent: Monday, September 17, 2007 11:19 AM
To: MPO
Subject: CTP Facility \& Segment ID: A19
Re: improvements to Sweeten Creek
I am very concerned about the future of Sweeten Creek (25A) as development continues to go up along the stretch between Mills Gap Rd. and Rock Hill Rd. I live in the Ballantree subdivision and use this stretch of road every day.

I understand that there is a plan to make the road four lanes with a median. What I and many of my neighbors fear is Sweeten Creek turning into a Hendersonville Road. I do not want Sweeten Creek to turn into a mega shopping commercial district. There are too many neighborhoods and houses right off of the road on Sweeten Creek. There is no buffer.

I wholly support widening the road, especially given that more houses will going in along that stretch of road. The median should help keep traffic slower. I also strongly encourage bike lanes to be built. Currently, the lanes are too narrow and the traffic too fast to accomodate bikes on it.

Thank you for your consideration.
Sally Boerschig
8 Elmwood Lane
Asheville, NC 28803

From: John Dugan
Sent: Monday, September 17, 2007 11:59 AM
To: MPO
Subject: US 25A

Report of Comments Received on CTP Section 2. - Individual Comments Received

Please initiate a study of needs for transportation along US 25A for this fiscal year. Our opinion is to widen the road to 4 lanes with a median strip for landscaping.

> Thank you,
> Amy and John Dugan
> 3 Gardenwood Drive
> (in Ballantree)
> Asheville,NC

From: Tuffy Clark
Sent: Monday, September 17, 2007 1:03 PM
To: MPO
Subject: sweeten creek study must be done this year!!
PLEASE GET STARTED ON THE SWEETEN CREEK STUDY!!
BALLANTREE WAS TURNED DOWN FOR A TRAFFIC LIGHT AND AT TIMES OF THE DAY
WE ARE LITERALLY TRAPPED IN OUR SUBDIVISION BECAUSE OF THE CONTINUOUS TRAFFIC.

WE DESPERATELY NEED HELP ENTERING AND LEAVING OUR SUBDIVISION SAFELY.

YOURS TRULY,
GEORGE CLARK
95 BALLANTREE DR
ASHEVILLE, NC 28803
828 274-2501

From: Elaine McPherson
Sent: Monday, September 17, 2007 1:56 PM
To: MPO
Subject: widening of sweeten creek road
DEAR SIRS:
I THINK THERE SHOULD BE FIVE LANES OR IT DEFEATS THE PURPOSE OF WIDENING SWEETEN CREEK ROAD ASHEVILLE, NC. WE NEED A TURN LANE IN AND OUT OF BALLANTREE. IF NOT IT WILL STILL HOLD UP TRAFFIC. WHAT WOULD BE THE PURPOSE OF PUTTING IN MORE LANES AND NOT BEING ABLE TO KEEP THE TRAFFIC FLOWING? A MEDIA WOULD BE NICE BUT DEFEATS THE PURPOSE. WHO IS GOING TO MAINTAIN A MEDIA? I KNOW THE STATE CERTAINLY DON'T KEEP UP OURS IN FRONT OF THE SHOP. THIS IS SIMPLE AND TO THE POINT. ELAINE MCPHERSON

Report of Comments Received on CTP Section 2. - Individual Comments Received

From: Mr \& Mrs B Mouser
Sent: Monday, September 17, 2007 3:35 PM
To: MPO
Subject: SWEETEN CREEK ROAD WIDENING
We are requesting a decision to initiate a study of the transportation needs along Sweeten Creek Road (US25A), funded and implemented this fiscal year.

As residents of Ballantree the past 15 years, we have been tremendously affected by the increase in traffic in front of our neighborhood, making turns out of our neighborhood impossible at several times each day. (Turn waiting times of 25 minutes are not uncommon!) Expansion of SCR to accomodate the tremendous amount of traffic is way past due. Residents are inconvenienced and put at risk while attempting to turn either way (left or right) The traffic congestion will also make passage of emergency vehicles extremely difficult, if not impossible.

Your prompt attention to this matter is greatly needed.
Thank you.
Mr \& Mrs B Mouser

From: Eric and Jennifer Bray
Sent: Monday, September 17, 2007 3:58 PM
To: MPO
Subject: Comprehensive Transportation Plan
As residents of Ballantree off 25A/Sweeten Creek Rd, we submit our recommendation in the Comprehensive Transportation Plan draft category Boulevards, item ID A19: US25A (Sweet Creek Road - Rock Hill Rd. to US25/NC280). We request that funding for the study and its implementation be found now and the study begin this fiscal year. The widening of this road to 4 lanes with median is long over due!!

We support the current MPO Draft Comprehensive Plan (4-lane w/island), as well as recommend that the median be landscaped so it does not ruin the look of the many residential communities adjacent to this road. Sidewalks and bike paths would be an ideal concept and solution to traffic. It's important to include pathway systems in and around communities, promoting alternate methods of transportation, hence decreasing the traffic problems already consuming our roads. The communities and roads here would greatly benefit by these alternative pathways. If additional traffic lights are being considered, PLEASE have them spaced sufficiently and TIMED, so as not to defeat the purpose and cause more congestion. We see this problem
already created on nearby Hendersonville road, between Mills Gap and Overlook.
Thank you,
Eric and Jennifer Bray
> From: Sarah McKeever
> To: "Pat Hobbs",
"Dianne Crisp",
"Chuck \& Helen Snyder",
"BrianKitty King",
"Jan Elingburg",
"Dianne A Taylor",
"Jeff \& Betsy Boggs",
"Graham \& Greta Newman",
"Bob Pressley",
"Megan Sanders",
"Gwen O'Brien",
"Cecil \& Kathy Tallent",
"Gretchen May",
"Charles Patton",
"Peggy Smith",
"Eric \& Jennifer Bray",
"Patsy Keever",
"Jesse \& Marie Ledbetter",
"Herman Kruse",
"Greg Sessoms",
"Victor Lanahan",
"Robin Weinkle",
"Arthur Helms",
"Arthur \& Rosemary Kingsley",
"Alice Helms",
"Linda Lewis",
"Daniel Harris",
"Tricia Harris",
"John \& Marsha Ellis",
"Andy Hammett",
"Terry Ayoub",
"George Lycan",
"Bob Overby",
"Janet Price-Ferrell",
"Tim \& Brenda Farlow",
"Roy Burchfield",
"Kevin \& Crystal Chen",
"Carol Browne",
"'Barry and Carol Mouser"',
"Judy Scott",
"Winnie Barrett",

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"Elaine McPherson-Cole" ,
"Marc & Allison Brannigan",
"Lynn & Cheryl Dietrich",
"Kathy Noyes",
"Nancy & Alta & Mary Southers",
"Sindy Pisha",
"Ron & LouAnn Heninger",
"Natalie & Greg Sipes",
"John & Amy Dugan",
"Jim & Teresa Torpey",
"Denis or Sandra Mueller",
"Dan Costant",
"Greet Costant",
"Tom Colllins",
"Sybil Becker",
"Rich & Sarah McKeever",
"Nancy & Jerry Wilson",
"Lynn Eddy",
"Joe & Sandra Dunn",
"Jana Childress",
"Eldon & Wanda Ward",
"Don Kessler",
"Carla & Russell Mitchell",
"Cindy Klemm",
"Cynthia Thornton",
"Tim Morrissey",
"Kay Maiers",
"Tom and Susan Peterson",
"Bill & Bobbi Sue Resh",
"George & Ruth Ribaud",
"Maureen Christian",
"Donna Daniels",
"Wendy Solms",
"John & Suzanne Greene",
"Tuffy Clark",
"Lisa Wood",
"David Aiton",
"Emily Quinn",
"Kari Payne",
"Lynn & Alex Schneider",
"Tom Corbin"
> Subject: Widening Sweeten Creek - your input needed
> Date: Thu, 13 Sep 2007 12:29:59-0400
>
> This message is from Sarah McKeever
>
>
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## $>$

> Hello Members of Ballantree Homeowners Association!
$>$
$>$ Do you want to make comments of the widening of Sweeten Creek Road? $>$
$>$ Did you read in today's paper (September 13th), page one of section B - DOT taking comments on plan?
$>$
> As per the article, this is NCDOT's first plan considering the three countries (Buncombe, Haywood, Henderson) as one region, and it considers regional transportation needs through about the year 2035. The deadline for input is this Monday, September 17, 2007.
$>$
> The French Broad River Metropolitan Planning Organization is taking your comments. You can mail your comments to the French Broad River MPO, PO Box 7148, Asheville, NC 28802 or mpo@ashevillenc.gov.
$>$
$>$
$>$
> Below is a letter from Sandra Mueller, a Ballantree resident.
$>$
> TO: USERS OF SWEETEN CREEK ROAD/US HWY 25
$>$
> THIS MONDAY, SEPTEMBER 17TH IS THE CUT OFF DATE $>$
> YOUR ACTION WILL SPEAK VOLUMES
$>$
> FYI: The decision was made to initiate a study of the needs for transportation along US25A by the elected officials representing the counties of Buncombe, Henderson, Haywood and all the municipalities therein at the July meeting of the French Broad River Metropolitan (Transportation) Planning Organization.
$>$
> State Transportation Board member Alan Thornburg was present at that meeting along with District level DOT employees and heard the discussion which led to this decision.
$>$
> By any means you choose, quickly let the transportation planners in Raleigh know that their recommendation in the Comprehensive Transportation Plan draft category Boulevards, item ID A19: US25A (Sweet Creek Road - Rock Hill Rd. to US25/NC280) "to widen to 4 lanes with median," is long over due. REQUEST FUNDING FOR THE STUDY AND ITS IMPLEMENTATION BE FOUND NOW AND THE STUDY BEGUN THIS FISCAL YEAR.
>
> Your tangible response as a taxpayer - is important and will be counted.
$>$
$>$ Thank you sincerely for your action ASAP on this short notice,
> Sandra Mueller

From: uhauld
Sent: Monday, September 17, 2007 6:19 PM
To: MPO
Subject: Widening Sweeten Creek
Just wanted to voice my opinion on the widening, I am sure you already know that sweeten creek needs widening for help the flow of traffic and help lessen the risk of accidents. I also wanted to mention bicycle and pedestrian access witch is not total none existent. I myself commute and recreational bicyclist and feel Sweeten Creek is possibly one of south Asheville worst roads for cyclist, leaving pedestrians and cyclist only hwy 25 . Either are not commuter friendly. widening it with pedestrain acess would be great

From: Harry and Elaine Hamil
Sent: Monday, September 17, 2007 11:02 PM
To: MPO
Cc: BMFM
Subject: Comments on the draft FBRMPO Comprehensive Transportation Plan
Ladies \& Gentlemen,
First, let me file clear complaints about the following:

1. The fact that the public is being to asked to comment upon a "plan" that--as available to us--is only a series of small scale maps with a legend and a list of recommendations which is much shorter than problems identified on the maps. It is ludicrous to consider this an appropriate opportunity for public input.
2. If the Black Mountain portion of the draft CTP is representative of it all, the plan is replete with easily identifiable errors.
3. The US 70 Corridor Study is holding public meetings tomorrow and Wednesday nights which are after your deadline for comments. Without the information provided in those meetings, my comments may be inappropriate as the concern is already being addressed and I don't yet know it or plans may be coming out of that process which are not apparent or even in the "plan" upon which the public is being asked to comment.
4. There are matters which are clearly within the planning purview of the Town of Black Mountain about which there has never been a public discussion in Black Mountain nor has our Planning Board provided its input. These include, but are not limited to, the location of the rail station and the tri-modal transportation facility.
Second, here are my incomplete comments because I have been unable to get answers to my questions:

Report of Comments Received on CTP Section 2. - Individual Comments Received

1. There appear to be no Highway or Bicycle recommendations for Black Mountain nor the remainder of the East Buncombe Fire District despite the fact that this area is one of the fastest growing in the entire MPO.
2. Under Public Transportation and Rail ID\# A3 ("Open passenger rail terminal at Depot in Black Mountain") - There has been no public discussion of the location of this terminal. As a downtown businessperson for the last 20 years The proposed site will disastrously increase congestion and demand for parking in an already over congested area that is short of parking. Apparently, the likelihood of the station being used for mass transit commuters to Asheville in approximately 15-20 years due to the increase of the cost of fuel to international levels and shortages due to demand exceeding production have not been considered. Finally, in the period from the completion of I-40 up Old Fort Mountain until at least 5 years after its completion in the Swannanoa Valley, the downtown of Black Mountain was dead due too much automobile and truck traffic. The siting of the terminal at the Depot on extremely valuable property will could very well lead to that again when a much better site, largely owned by NCDOT, is available. This is the redundant south 2 lanes of the old I-40 stub from exit 65 to Flat Creek Rd.
3. Under Public Transportation and Rail ID\# A4 ("Maintain bus transfer center at Depot in Black Mountain to provide intermodal connector.") - This is currently being moved near the Town Hall due to the complaints of nearby businesses and the unwillingness of any other downtown spot (including the parking lot where the terminal in A3 is slated to be sited) is available.
4. Under Public Transportation and Rail ID\# A21 ("Proposed park and ride lot at Ingle shopping center along NC 9, adjacent to I-40 interchange.") - Has Ingles agreed to this location? It has announced a new superstore will be built there with additional services including gasoline sales. Once again, there has been no opportunity for public input. As most of the current residents of Black Mountain would have to travel right through the center of town to use this site so having it as the only "park \& ride" site is highly debatable. Furthermore, over time it may create parking problems for the businesses using the lot and be subject to reconsideration by Ingles. Once again, the site mentioned in \#2 on the old I-40 stub would use otherwise underutilized land already owned by NCDOT. It would also result in much traffic going around downtown or against the flow. Finally, if this is kept, it would be better identified if it were to contain the words "in Black Mountain" in the body of it.
5. There are numerous specific errors in the maps including wrong names for streets and wrong siting of the existing greenway adjacent to the Rec Park and Montreat College's In The Oaks campus. If someone will contact me, we can set up a time to go over them in detail.
6. What does the Bicycle Plan purport to show? Is it relatively flat roads? Or commonly used routes? What? As I frequently commute to work on my bike, I was interested to find much of my route on the map. However, I have never seen another bicyclist on the part shown on the map.
7. The minor thoroughfares shown on the Black Mountain area detail are clearly incomplete. At the minimum, they need to include the remainder of North Fork Rd, Tom Brown Rd., Flat Creek Rd, Cragmont Rd. and Old US 70 East.

Report of Comments Received on CTP Section 2. - Individual Comments Received
8. Having just attended the presentation of the first draft of the Pedestrian Plan, it seems to me that the Public Transportation and Rail routes, etc. need to be more carefully coordinated with it.
Finally, I'm a bit confused by the boundaries of the FBRMPO. The scale of the maps made it difficult for me to tell sometimes where it is in east Buncombe County. It appears that the bottom of Bee Tree and North Fork are not included despite having significant development in progress and planned. Is it true that they aren't included? To a lesser extent the same is true for Broad River (NC 9 south of the continental divide). I didn't download the cover so I cannot confirm it for certain but I believe the cover map does not include the Town of Montreat inside the boundary of the FBRMPO though it is a member.

I strongly urge the TAC to have a formal presentation with lots of publicity of the "final" draft before adopting it so that the public will understand what the CTP is and its importance. Unhappily, too many times in the past "plans" like the CTP have resulted in ideas becoming "written in stone" inappropriately and without the needed input of the community.

Please confirm receipt of the comments by reply e-mail.
Sincerely,
Harry Hamil
15 John Myra Ave.
Black Mountain, NC 28711
828/669-4003

From: Ken Fitch
Sent: Monday, September 17, 2007 11:53 PM
To: MPO
Subject: Comprehensive Transportation Plan Comments

## HENDERSON COUNTY/HENDERSONVILLE IMPACTS

Many of the recommendations indicated on the maps for Henderson County and Hendersonville are disturbing and suggest major impacts on residential and commercial areas of the city and environs.
(The following comments, which address some of the Henderson County and Hendersonville issues, are based on Maps available at the Henderson County Library. No other accompanying commentary was available to support these maps and the online links were non operational for my computer, so if there is

Report of Comments Received on CTP Section 2. - Individual Comments Received
corroborating explanation for these proposals, it was not accessible to inform these comments).

What is most distressing is a seeming disconnect between these plans and local conditions and the consequent potential severe impacts on residential areas of the city and local commerce. Indeed, some proposals might be construed by many as an attack on residential areas and citizens.
ROUTE 191
The prescriptions that 191 "needs improvement" and the need for the recommended bicycle path/route will probably require alteration of the roadway that will have major negative impact on the residential areas through which it passes. Yes, there are some commercial businesses here, but residents have been strongly opposed the large commercial projects that have attempted to invade here.

Clearly, an upgrade or "improvement" will exacerbate tensions and provide encouragement and facility for predatory development that often confronts the City and County.
(There are also schools and educational campuses along this route that will be subject to the impacts changes will bring).

It is well known that upgrading a thoroughfare encourages higher volumes and speed of thoroughfare traffic as well as the residual and consequential commercial encroachment that are incompatible with residential use.

## BALFOUR EXPRESSWAY

The proposed Balfour Expressway is, of course, a very controversial proposal on its own terms. There are considerable strong feelings locally (that may or may not have resulted in actual comments to you).
Some feel this process has been inadequately promoted and reported, adding to the suspicions that there is a "behind the scenes, wheeling and dealing" taking place separate from or in contravention of the needs of local residents and existing businesses, all of which generates a negative public perception in many areas.

Clearly, the Balfour Expressway may also contribute to an increase of traffic on 191 (and also US 25) that will not be welcome.
"Improving" the roadway of 191 with the consequent greater traffic volume and speed will also add further traffic and congestion to the MALFUNCTION JUNCTIONS at US 25 and 191 and Five Points in Hendersonville.

These are already stressed crisis points, and recent locally approved major commercial and residential development projects will make these nexus locations even more hazardous.
Increasing the flow into these areas will not be beneficial for safety and traffic conditions.

Report of Comments Received on CTP Section 2. - Individual Comments Received

It is all well and good to recommend these "improvements" from a dispassionate boardroom planning display or a regional connectivity imperative, but the impacts on residents and residential use are often dismissed in favor of conceptual growth plans and individual development projects, and one must be aware that the major changes that this plan may bring are seldom factored into the ongoing local planning and vice versa.
The disconnect between State and Local is often painfully apparent, and the failure to coordinate or see the full range of impacts is often present on both the local and state level.

One assumes that improvement of the 191 roadway AND the addition of a bike lane or bikeway will require additional incursion into "residential space." This brings traffic closer to residential use.
IN ADDITION, the City of Hendersonville will be undertaking a sidewalk construction project along 191 (on at least one side, perhaps two). Are you aware of this? !!!!

The cumulative impacts of all these proposals will alter 191 in ways that responsibly require more thorough assessment and CITIZEN involvement, unless the purpose is, as some will suggest, is to avoid public interference with "progress." Yes, the discourse on these issues can be "toxic" partly because of the past history of addressing similar issues, but the planning process here for projects that entail "public" funding does need to fully address local concerns..

176/US 25/225
The roads from this intersection are proposed to "need improvement." One should note a disconnect in dealing with the issues at this specific area.
Local planners, City Officials, and commercial property owners and developers have expressed dismay with recent DOT proposals and there are conflicts with new planned projects here with intensifying negative impacts.
There is an urgent need for greater coordination in this particular area that reflects ACTUAL USE not colorful routing maps.
There are also proposed contributing roadways not shown on these maps!!!

## BICYCLE PLAN

Unfortunately, the Bicycle Plan is mired in unreality.
One does question the functionality, safety and possibility of what are otherwise clearly desirable amenities.
Those residents who actually do try to implement bicycle transport in their daily personal transportation face considerable hazards negotiating the higher speed thoroughfares and inadequately honored intersections.
Encouraging more bicycle presence will not minimize the hazards, but perhaps ensure more unfortunate interactions because of increased traffic volumes, illconsidered and poorly situated new developments (especially on US 25, 64, North Main Street, etc.,etc.,)

Report of Comments Received on CTP Section 2. - Individual Comments Received

1) Specific sections of the Plan require reality check attention:

Crossing US 25 is one of the more frightening dangers in the City. Many nightmare stories exist.
2) Will bike routes generate Traffic Signals? Or will you wait for the inevitable fatalities to implement these features? If not, in some cases, you will be contributing to a hazard.
3) The North Main Street segment needs some attention, given the massive development that will soon alter this corridor. There has been little attention to the future traffic density and flow in this area. If one asks a developer about this aspect, he or she will be at a loss to provide an answer or admit a problem, and local officials do not give priority attention to the potential major problem in this area.
4) The greatest minefield in the bicycle plan is the utilization of Church and King Streets. How is it possible to add bike lanes to these already overcapacitated routes through the city? Especially with the awareness of what is coming to this area of the city!!!! At certain times of the day, the traffic problem is major, and it will only increase. The City has thus far failed to address this.

Have you addressed the issue with the City? The County also has some critical involvement here with their facilities and operations and future plans. Are they involved?
There has been NO transportation or traffic study of this area! WILL DOT COME UP WITH THE FUNDS?????

THE PHYSICAL SPACE HERE IS LIMITED. The roadway is fully utilized. There is not enough parking in the area. If you propose to eliminate street parking spaces you will incur the lasting intense enmity of a wide variety of citizens and business owners.

Yes, the dream here is a desirable ideal, but dreamsmashers have rendered this particular area of the City a minefield and there are agendas at play in the ongoing turf wars and extensive legal maneuvering, so that even a historic status quo is threatened with subversion.

## PLAN EXISTENCE

The existence and possible adoption if this plan is ominous. A plan, once in existence, tends to generate its own inevitability, and many elements here have potential for great harm and destructibility.

The problem is that a Plan like this, whether challenged or unchallenged, is often cited as a rationale sometime later for future projects that have major inherent liabilities and negative impacts. So while there may appear to be a dazzling framework on the drawing boards, a reality check is necessary, and implementation should not be considered inevitable.

Report of Comments Received on CTP Section 2. - Individual Comments Received

Ken Fitch<br>1046 Patton Street<br>Hendersonville, NC 28792

Section 2-C. Comments Received at Meetings
Comments Received at Asheville Area Bicycle and Pedestrian Task Force (ABPTF) meeting, 8/23/07.

The meeting was attended by:

Claudia Nix
Jim Barton
Katie Chappell
Joey DeJesus

Frank Douglas
Imke Durre
Roberta Greenspan
Terri March

Barb Mee Pattie Moore Michael Soule Joseph Viola

The people present reviewed the Buncombe County bicycle maps, and made notes on the maps. The following is the input they offered. (Actual comments received are in bold seriffont, any illumination by collector is enclosed in [square brackets].)

Map sheet 4A-1:

- "Livingston, although a bit of a climb, is a safe and wide road to ride on. There is also a baseball field there too."
- Regarding a street north of Hillside Street that goes west off Broadway: "This road should be highlighted and incorporated into the plan." and "This is a sweet road too."
- "I'm not sure Montford Ave needs improvement. I ride it often. With all there is to do, Montford Ave is low priority."
- "Heading from S. Asheville up Biltmore on a bike is unsafe during high traffic hours. The sidewalk, however, is wide and rarely used by peds. Could the sidewalk be shared w/bike?"
- Regarding the legend: "What does existing mean? Do it imply that existing roads are safe for bicycles?"


## Map sheet 4A-2

- On legend, after On-road Existing symbol and label: "means what?" Enka/Candler inset
- Regarding Candler School Road:"needs paved shoulder"
- Regarding Beaverdam Road: "needs paved shoulder"
- Regarding Queen Road: "needs improvement - paved shoulder"
- Regarding Enka Lake Road near apparent intersection with proposed greenway at the NW corner of the lake and northeast of Elementary and High Schools: "needs improvement paved shoulder fades out at corner"
- Regarding road (marked as "existing") that goes east and south of the Lake:
"needs paved shoulder"
- Regarding Monte Vista Road: "needs improvement for access to middle school"
- Regarding Asbury Road: "needs improvement for school access"
- Regarding intersection of Asbury Road/Sand Hill Road and 19/23:"dangerous intersection"
- Regarding Sand Hill Road: "needs wide paved shoulder or bike lane" and "Sand Hill Rd is a very important road for Candler residents who ride to work in Ashville!"
- Regarding Vista Road (it's probably really Sand Hill School Road there): "Sand Hill School Rd needs improvement for access to school"
- Regarding Sardis Road (with arrows pointing to Sardis/Sand Hill intersection and to Sardis at the first grey road SE of Sand Hill Road intersection: "Shoulder falls out just before intersection"

Map sheet 4A-2
Black Mountain inset
No comments
Map sheet 4A-3:

## South Asheville inset

- Regarding US25/Hendersonville Road:"Agree H[enderson]ville Rd 25 needs improvement where wide - shared road sign, where narrow improve for bikes."
- Regarding US25A, Sweeten Creek Road: "25A - would love bike lane"
- Regarding Long Shoals Road: "would like bike lane marked - has wide outside lane.... Make clear it is shared"

Weaverville/Woodfin inset

- Regarding New Stock Road: "Needs improvement"
- Regarding US19B/23B apparently North of intersection with Elkwood Ave:"put lane in here"
- Regarding 19B/23B:"19/23 YES - I want to bike to W[eaver]ville on this road - can't do that now" and "Put lane in here"
- Pointing from "needs improvement" symbol to Merrimon Ave: "please!"

Map sheet 4A-4

- On legend:"Does existing mean adequate? If so, much noted in brown is not!"


## East Asheville inset

- Regarding US70 (Tunnel Road):"Climbing lane from entrance of Haw Creek to top of hill past Fire Station \#8 on Tunnel Road"
- Regarding Riceville Road: "need sidewalkfor apt complex to walk to post office, drug store, Ingles and bank, etc."
- Regarding proposed greenway at it's apparent eastern terminus south of US70:
"Would be nice to continue G.W. [greenway] following river to Swannanoa."


## Asheville CBD inset

- Regarding corner area NW of Hill Street/Montford Avenue intersection:"Isaac Dickson School"
- Regarding Hill Street:"All of Hill St from Montford to needs improvement area needs improvement"
- Regarding intersection of Charlotte Street and Chestnut Street:"intersection needs to accommodate left turn for cyclists"


## Comments Received at meeting of some area transit providersTransit Providers meeting, $8 / 23 / 07$, at AdvantageWest at the Asheville Regional Airport.

## Attendees:

Bruce Black, Asheville Transit
Marietta Echeverry, Asheville Transit
David White, Apple Country Transit
Hope Bleecker, Henderson County

Tom Herman, NCDOT-PTD Dan Baechtold, FBRMPO, organizer
Barb Mee, FBRMPO

## Discussion and Comment:

- Future economic development will have an impact on route development.
- All transit should be classified as "needs improvement."


## BUNCOMBE COUNTY:

- It would take $40-50$ buses to effectively increase service frequency in Asheville. Since that is a capital expense, as is something like a road widening, shouldn't the system be shown as "needs improvement?"
- Existing service not on maps:
- Mountain Mobility Community Service Route in Enka-Candler
- Warren Wilson College route
- Future service should be shown on:
- Sweeten Creek Road
- Old US 70
- Mills Gap off Sweeten Creek Road to transfer center at Cane Creek
- Sand Hills/Sardis Road
- Asheville Transit extension to AB Tech Enka Campus
- Existing facilities not on maps:
- Transfer facility at Gerber Village (between Sweeten Creek and Hendersonville Rd)
- Transfer facility at Wal-Mart at Riverbend (off NC 81) This already exists.
- Future facilities to be shown:
- Transfer facility at Cane Creek Road at Mills Gap Road
- Transfer facility at Leicester
- Transfer facility at Woodfin


## HAYWOOD COUNTY:

Though invited, Haywood County was not represented.

## HENDERSON COUNTY:

Entire system should be shown as "needs improvement." A prime goal of the system is to expand service hours to at least 10:00 p.m. and to offer weekend service.

- Future service should be shown on:
- 64 East/West - Inter-city service to Brevard and Edneyville
- Express bus on I-26 between Mars Hill to Saluda or Tryon
- Upward Road to I-26
- Connecting Sugarloaf and Edneyville with the current white route at Wal-Mart on US 64 East
- Connecting white and red routes on east side of Hendersonville
- Connection to Etowah community via 64 and Sugarloaf
- 280 to Airport area and Fletcher
- Connecting along 191 to Biltmore Square Mall
- Future facilities to be shown:
- Park and Ride facility at 64/26


## Section 2-D. Comments Received in Person or by Telephone

From: John Schneider, part time N. Asheville resident \& part time Fletcher resident, (828) 254-5193 (days). Received in person on 8/28/07, transcribed by Barb Mee, MPO Staff. (Information in [brackets] is staff illumination of citizen comments.)

## BUNCOMBE COUNTY

- Yes, 19B/23B needs improvement.
- River Road is a very popular route, but facility needs improvement. A wider shoulder would help in ducking the garbage trucks that use the road.
- Mills Gap from the Henderson County line to Sweeten Creek Road needs improvement.
- US 25 [Hendersonville Road] is so bad that it is better to cut through the parking lots. A path to do that would be nice.
- River Road [Meadow Road] past Amboy to Biltmore Village RR crossing to p/u Sweeten Creek needs improvement.

Asheville Area [Asheville area comments were made using Asheville bicycle plan maps, but are applicable to CTP]:

- Kimberly needs improvement
- Beaverdam needs sidewalk and crosswalk at Culvern Street for school
- A greenway on Dover from Beaverdam and around lake is a good idea
- Greenway along river and through Woodfin is a nice idea
- Consider railroad ROW south of Metropolitan Sewage District offices to Plasti-tech for conversion to off-road path.
- Riverside greenway would be wonderful
- Broadway bicycle lane is a good idea
- Amboy Road greenway would be nice
- Amboy Road - Brevard Road connector would be great. It opens up wonderful options for connections to NC 191 and beyond. It would also help cars merging into l-240.
- A climbing lane on Mills Gap Road would be nice. It's a connection to Henderson County.
- A striped shoulder on Sweeten Creek would be great; it is a main North-South connector.
- A greenway tying to Lake Julian would be a boon for connections to other places.
- Town Mountain Road: Would a climbing lane be helpful?


## HENDERSON COUNTY

- Hooper's Creek: An off road facility from Terry's Gap is a nice dream, but is it feasible?
- There are great riding routes not marked:
- Jackson Road as a connector between Fletcher to Hooper's Creek
- Fletcher Park greenway, because it connects Jackson Road to a potable water source and to the park

Report of Comments Received on CTP Section 2. - Individual Comments Received

- Howard Gap should be marked. It parallels a busier route. It also needs markings and climbing lanes
- The route from Mills Gap to Henderson County offices. I can't remember the exact connections I choose, but it's a place I have to go occasionally as a Henderson County resident
- Canooga Road is popular riding road; needs improvement
- Connector from end of St Paul to US 64 should be marked as "existing."
- US 64 is a riding road; needs improvement
- Jackson Road connects to Hooper's Creek and Souther Road; can be used to avoid congestion on Howard Gap Road and in Fletcher.
- Clear Creek Road is a good route from Fruitland to Howard Gap Road and connects to a good bicycle route. It should be marked "existing."

Larry R. Ammons, Chairman
J. W. "Kirk" Kirkpatrick, ilI, Vice Chairman

## NOTICE OF PUBLIC HEARING

The Haywood County Board of Commissioners will hold a Public Hearing at 5 p.m., Monday, Sept. 17 in the County Commissioners' Meeting Room \#3451 of the Haywood County Justice Center, 285 N. Main Street, Waynesville, North Carolina. The Public Hearing is for the presentation of a regional Comprehensive Transportation Plan by the North Carolina Department of Transportation and consideration for adoption by Haywood County.

For more information, contact the County Manager's Office at 452-6625.

David B. Cotton, County Manager
Haywood County Board of Commissioners
Published as a Legal Notice on:
Friday, September 7, 2007

# TAC - TRANSPORTATION ADVISORY COMMITTEE 

# French Broad River Metropolitan Planning Organization 

Regional Partnership for Transportation Planning
Long-Range Transportation Plan • Transportation Improvement Program
Highway Planning • Bicycle and Pedestrian Planning •Transit Planning •Air Quality Issues
Public Involvement
DRAFT AGENDA
Public Hearing on TAC Adoption of NCDOT Comprehensive Transportation Plan for Buncombe, Haywood and Henderson Counties

November 8, 2007, 6:00-8:00 p.m.

| 5:50 p.m. - 8:00 p.m. | Speaker sign up | MPO Staff |
| :--- | :--- | ---: |
| 6:00 p.m. | Call to Order |  |
|  | Changes or Additions to Agenda <br> Welcome and Introductions | Presiding TAC Member <br> Presiding TAC Member |
|  | Start of Hearing | Presiding TAC Member |
| Between 8:00 p.m. | Close Hearing Member |  |
| and 8:30 p.m. | Adjournment | TAC Member or Staff |

## Rules for Speakers

- Sign up on sheet in hallway between 5:50 p.m. and 8:00 p.m.
- People will be allowed to comment in the order they signed up to speak.
- Please speak clearly and state your name and address before beginning your comment.
- Comments should be focused on the comprehensive transportation plan maps and whether they should be adopted by the MPO.
- You are welcome to state that you agree with what has been said regarding a specific subject or by a specific person, but please do not repeat a comment made by someone else.
- Time limit of three minutes for individuals.
- Time limit of ten minutes for a representative of a group or organization with three or more people present.
- The hearing will close by 8:30 p.m.
- The presider may amend these rules regarding the length of time allotted to each speaker and designation of representatives to speak for large groups in order to allow as many interested parties to speak as is practical.
- Written comments will be accepted through 5:00 p.m. on Monday, Nov 12, 2007, provided they are delivered to the MPO in person, by mail, or by email to one of the addresses below.
Email Address: mpo@ashevillenc.gov


## Mailing Address:

French Broad River MPO
P.O. Box 7148

Asheville, NC 28802

Delivery Address:
French Broad River MPO
70 Court Plaza, Room 100-C
Asheville, NC 28802

# November 8, 2007 MPO TAC Public Hearing on Adoption of the CTP Buncombe County Commissioners' Chambers Buncombe County Courthouse, Asheville NC 

Attendees:
Lynn Eddy, Ballantree Homeowner's Association (Buncombe County)
Don Kessler, Ballantree Subdivision Resident (Buncombe County)
R.L. Clark, Taxpayer (Buncombe County)

Brent Garrett, Citizen (Buncombe County)
Leslee Kulba, Asheville Tribune
Sandra Mueller, Ballantree Subdivision Resident (Buncombe County)
Tim Peck
Claudia Nix, Asheville Area Bicycle and Pedestrian Task Force
Mr. Mixon (Buncombe County)
Joel Setzer, NCDOT Division 14
Chuck McGrady, TAC Chairman, Henderson County Commissioner
Keith Maddox, TAC, Town of Laurel Park (Henderson County)
Dan Baechtold, MPO Staff
Barb Mee, MPO Staff
The meeting was recorded by staff of Buncombe County Television, and will be made available by BCTV to Asheville, Haywood County, and Henderson County government television stations.

The meeting was called to order by Chuck McGrady. Mr. McGrady reviewed the agenda and rules for speakers with those present.

Dan Baechtold gave a brief introduction about the Comprehensive Transportation Plan (CTP).

Due to the small number of speakers, Mr. McGrady waived the three-minute time limit for speakers, and allowed questions to be posed by speaker to be answered by Mr. Baechtold.

Lynn Eddy spoke about the importance of widening US 25A, Sweeten Creek Road, and asked some general questions about the plan process, which Mr. Baechtold answered.
R.L. Clark lives between Woodfin and Weaverville and spoke about the importance of completing the I-26 Connector project in Asheville, and said that coming to Asheville on I-26 from North Buncombe County is a disaster. Mr. Clark said that the area also needs to immediately plan and fund a northwest outer loop around Asheville, similar to one that was discussed in the 1990s. Mr. Clark said that idling 18-wheelers are causing pollution. He said that congestion and traffic concerns outweigh other environmental concerns with a bypass.

Don Kessler spoke about the importance of widening Sweeten Creek Road, and asked where information goes after it is presented. Mr. Baechtold explained how public comments will be documented and also explained how the recommendations from the plan will be used.

Brent Garrett of Fairview said that he was happy to see a multi-modal plan, and spoke about the importance of making the system friendly to bicycles, especially in and around Asheville. Mr. Garrett said that area roads are not bike friendly and that it is extremely difficult to get from Fairview in to Asheville by bike.

Mr. McGrady called for other speakers. None identified themselves, and so he adjourned the hearing. Mr. Maddox, staff, and some attendees remained in case other people came to speak.

Sandra Mueller came asking to speak, and Mr. Maddox reopened the hearing. Ms. Mueller spoke about how long the US 25A widening had been under consideration, and the importance of beginning to work toward the widening of US 25A. Ms. Mueller stated that the project has been on the books for 24 years. She wondered why other similar projects had been moved ahead, and asked that the Sweeten Creek project study begin as soon as possible. Ms. Mueller stated that she has concerns for emergency vehicle access and relayed an account of an incident with a blocked emergency vehicle. Ms. Mueller said that she was pleased that the MPO's TCC made a recommendation to advance the project on the Priority Needs List to move it closer to getting funding, but expressed disappointment that the effort to fund the project has not produced results.

Mr. Maddox called for other speakers, and none being heard, adjourned the meeting. Again staff and some attendees remained, waiting for other speakers to arrive. At 8:05 p.m., having had no others come, staff and all attendees left the building.

## Written Comments Received November 8, 2007 MPO TAC Public Hearing on Adoption of the CTP

As a part of the public hearing, written comments were accepted until 5:00 p.m. on Monday, November 12, 2007. Comments could be emailed to mpo@ashevillenc.gov, mailed to the MPO's post office box, or delivered to the MPO office. The following comments were received:
[Email] From: Julie White
Sent: Thursday, November 08, 2007 7:39 PM
To: MPO
Subject: comment on transportation plan
Thank you for the opportunity to comment on this plan. I was pleased to
see that you had included the Master Plans for the Asheville and Black Mountain greenways. Please be advised that the Black Mountain plan is under revision. This revision should be finished in the next few months. I would like to see a greenway connection joining the Black Mountain Greenway and the Asheville greenway included in this plan in some way. While there is currently no formal plan for this connection I know that there are several groups working on this. This section of greenway will provide an important transportation corridor for cyclists. As a cyclist who often rides into Asheville from Black Mountain, I know that as traffic increases in the valley it will be important to have a safe and efficient route into the city. Once again, thanks for the chance to give my input.

Julie White
205 Ninth Street
Black Mountain, NC 28711
669-6445
[Email] From: cheryljohnson
Sent: Friday, November 09, 2007 9:16 AM
To: MPO
Subject:
Please forward this a part of your public comment for November 15, 2007, since I won't be able to make the public hearing meeting tonight.

I live in East Asheville and I use New Haw Creek Rd to get to my home and downtown. NEW HAW CREEK ROAD feeds into Tunnel Rd. I see my neighbors in the middle of NEW HAW CREEK running, walking, and pushing baby carriages. We all want desperately to walk, but there is no place to walk, run, or bike, except in the middle of the road. If we walk on the narrow shoulder we are in weeds. The speed limit is 35 , but most vehicles speed by at 55 miles per hour. It is very dangerous to walk, run, or bike on New Haw Creek as it is currently designed. The closest bus stop is 1.5 miles from my house.

At a time when we are told that the cost of gasoline may become prohibitive, I don't understand why you are not planning to make every neighborhood walkable. Yet your plans show that your first priority is expanding the lanes on highways. For what? The more lanes you build the more traffic you will have. You actually invite people to drive more when you increase the lanes on the highway. You say you will include the pedestrian plans later, I doubt that you will. Walking is not highly rated in our culture. Cars are king and you put all our money into making it possible for cars to keep whizzing up and down the road, belching out pollution.

NEW HAW CREEK RD. needs to be included in the bike plan and pedestrian plan. You need to make NEW HAW CREEK walkable and bikeable. You need to connect it to main roads that will let bikers and walkers, get downtown without a car. None of
your plans show NEW HAW CREEK as part of your planned improvement. I ask you to include New Haw Creek in your plans for bikers and walkers.

Sincerely, Cheryl J. Johnson
105 Sondley Parkway
Asheville,NC. 28805
828-299-8000
[Email] From: Janet Barlow
Sent: Sunday, November 11, 2007 2:18 PM
To: MPO
Subject: comment on CTP
Thank you for the opportunity to comment on the Comprehensive Transportation Plan for Buncombe, Haywood, and Henderson counties. In reviewing the materials provided, it's quite difficult to know what is actually planned. While I can read that improvements are recommended for particular roadway segments, it really doesn't tell me much. I am particularly interested in pedestrian and transit facilities.

Does a boulevard automatically include pedestrian facilities? When intersection improvements are made, do they include pedestrian crosswalks, curb ramps, pedestrian signals, and accessible pedestrian signals? I suspect not, based on what I've seen built in recent months and years.

All improvements listed on this plan (except expressways where pedestrians are prohibited) should include pedestrian facilities.

I note that the web page says that pedestrian facility plans are being developed otherwise. Pedestrian facilities should be an integral part of the comprehensive transportation plan; without them, it is not a comprehensive plan. We need to be encouraging people to use non-motorized transportation, walking or bicycling, and to use transit, but incomplete or inadequate facilities are discouraging and dangerous. For example, pedestrians can be observed along Leicester Highway and Patton Ave/Smokey Park Highway. However, these roads don't have sidewalks, don't have marked crosswalks, have inadequate medians for pedestrian refuge and have signals with split phasing and right turn overlaps that make it very difficult for pedestrians to figure out when to cross.

When roads are widened (or improved), sidewalks, curb ramps, truncated dome detectable warnings, crosswalks, and pedestrian signals, including accessible pedestrian signals, need to be included
in the plans. Please make sure that facilities are provided for those who do not drive.

Sincerely,
Janet M. Barlow

Janet M. Barlow, COMS
Certified Orientation and Mobility Specialist
Accessible Design for the Blind
3 Manila Street
Asheville, NC 28806
770-317-0611


[^0]:    ${ }^{1}$ Every effort will be made to ensure that all Tier 1 (Statewide importance) facilities on the NCMIN (North Carolina Multimodal Investment Network) will be Freeway or Expressway on the Comprehensive Transportation Plan

