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Introduction

In 2012, the Thomas Jefferson Planning District Commission (TJPDC), also known as Region 10, started an initiative to study, promote and improve its portion of U.S. Bicycling Route 76 (BR 76). This report is the first step in this initiative, creating an inventory of existing conditions and highlighting recommendations for improving the safety and recreational value of the Route.

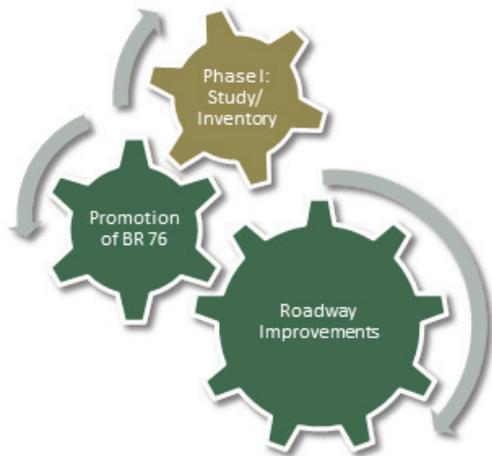


Figure 1: TJPDC's Bike Route 76 Initiative

Purpose and Audience

This report is a technical document, intended to highlight roadway deficiencies that diminish cycling safety along BR 76, in Region 10. As a technical document, the intended audience includes regional and state transportation planners, along with cycling advocates. This report is intended to document cycling compatibility, with a secondary goal of recording cycling amenities and tourist destinations.

This report may also serve as a guide to local officials, to aid in decision-making for transportation-related investments. Since BR 76 is also a recreational and tourist amenity, this report may also be helpful for identifying strategies for supporting tourism efforts.

Goals and Objectives

This report is intended to fulfill four main goals:

Goal A: Inventory Road Conditions

Inventory all roadway conditions along the Region 10 portion of BR 76.

Goal B: Safety Recommendations

Develop recommendations for improving overall cycling compatibility along the corridor.

Goal C: Recreational Value

Identify strategies for improving the recreational experience along BR 76.

Goal D: Data Collection

Collect data and develop maps that will assist with subsequent efforts to promote BR 76.

U.S. Bicycling Route 76

U.S. Bicycling Route 76 is an on-road Bike Route that spans the eastern half of the Country, from Missouri to eastern Virginia, in Yorktown. The concept for BR 76 originated with a large cycling event in 1976, which celebrated the Country's bicentennial. As part of the event, the Adventure



TransAmerica Trail - Courtesy Adventure Cycling Association

Cycling Association (at that time known as Bikecentennial) first mapped a cross-country bike route named the TransAmerican Bicycle Trail. That trail still exists today and stretches from Oregon to Virginia, spanning approximately 4,242 miles from coast to coast. While the Adventure Cycling Association acts as overseer to this trail, there were no official bike route designations until 1982.

In 1978, the American Association of State Highway and Transportation Officials (AASHTO) established the U.S. Bicycling Route System (USBRS), the cycling equivalent to the numbering system for highways and interstates. The purpose of these route numberings and markings is to facilitate recreational riding between states, by way of roadways that are reasonably suitable for bicycling. While U.S. Bike Routes include off-road paths, the vast majority of route mileage consists of on-road facilities (public highways).

In 1982, AASHTO designated the first two U.S. Bicycling Routes (Routes 1 and 76), both of which pass through Virginia. This made the Commonwealth one of the first states with a USBR and the first with two routes. In recent years, AASHTO approved additional Bike Routes and there are more under review. At this time, there are over 6,200 miles of approved Bike Routes, spanning 12 states.



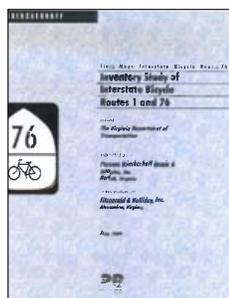
Route 76 and Route 1 Bike Routes in Virginia

There is common confusion between BR 76 and the Trans-American Trail. While the TransAmerican Trail spans the entire country, AASHTO officially designated only the eastern portion of that trail (Missouri to Virginia) as BR 76. While the USBR and TransAmerican Trail are related and overlap in most cases, there are areas where these routes diverge.

Bicycling Route 76 in Virginia

In Virginia, BR 76 accounts for 559 miles of roadways, from the Cumberland Plateau and Appalachian Mountains to the lowlands of Hampton Roads. Along its path, BR 76 traverses 23 counties, including: Dickenson, Buchanan, Russell, Washington, Smyth, Grayson, Wythe, Pulaski, Montgomery, Roanoke, Botetourt, Rockbridge, Augusta, Nelson, Albemarle, Fluvanna, Goochland, Louisa, Hanover (overlaps with U.S. Bicycling Route 1), Henrico, Charles City, James City, and York. The Bike Route also passes through four of Virginia's cities: Radford, Lexington, Charlottesville, and Williamsburg – before the eastern terminus at Yorktown.

Across the Commonwealth, there have been several studies and initiatives to improve BR 76. In 1999, VDOT completed the Inventory Study of Interstate Bicycle Routes 1 and 76. This study provided a general snapshot of existing conditions along the entire length of both bike routes in Virginia. In 2012, the Department of Conservation and Recreation (DCR) and Virginia Department of Transportation (VDOT) released the Official State Bicycle Map: Bicycling in Virginia, which featured BR 76. The map included information on public destinations along the Route, along with road profiles that illustrated changes in topography.



Project Study Area

The study area of this report includes all sections of BR 76 in Region 10, including small portions in Augusta and Goochland Counties. Within the TJPDC boundaries, BR 76 accounts for over 135 miles of roadway that include:

Nelson County

Route 48: Blue Ridge Parkway
Route 250: Rockfish Gap Turnpike
Route 6: Afton Mountain Road
Route 750: Old Turnpike Road
(See Map 2)

Western Albemarle County

Route 750: Old Turnpike Road
Route 250: Rockfish Gap Turnpike
Route 796: Brooksville Road
Route 690: Newtown Road
Route 691: Greenwood Road
Route 691: Jarmans Gap Road
Route 684: Lanetown Road
Route 788: Railroad Avenue
Route 789: Buck Road
Route 810: White Hall Road
Route 614: Garth Road
Route 676: Garth Road
Route 601: Garth Road
Route 601: Old Garth Road
Route 601: Old Ivy Road
(See Map 3)

Charlottesville

Route 250: Ivy Road
Route 250: University Avenue
Route 250: West Main Street
Route 652: Water Street
Route 3413: Second Street SE
Route 620: Garrett Street

Route 20: Avon Street
Route 20: Monticello Avenue

Eastern Albemarle County

Route 20: Scottsville Road
Route 53: Thomas Jefferson Parkway
Route 795: James Monroe Parkway
Route 620: Rolling Road
Route 619: Ruritan Lake Road
(See Map 4)

Fluvanna

Route 619: Ruritan Lake Road
Route 660: Ruritan Lake Road
Route 53: Thomas Jefferson Parkway
Route 15: James Madison Highway
Route 601: Courthouse House
Route 608: Wilmington Road
Route 601: Venable Road
Route 603: Tabscott Road
Enter Goochland County
(See Map 5)

Louisa

Enter Goochland County
Route 605: Shannon Hill Road
Route 605: Willis Proffitt Road
Route 522: Pendleton Road
Route 522: Mineral Avenue
Route 618: East 1st Street
Route 618: Fredericks Hall Road
Route 700: Johnson Road
Route 652: Kentucky Springs Road
Route 650: Pottiesville Road
Route 618: Fredericks Hall Road
Route 618: Belsches Road
(See Map 6)

Since AASHTO established BR 76 in 1982, traffic conditions along these roadways have changed significant. In the past 33 years, traffic counts have continued to increase, while roadway dimensions remained unchanged in many areas. Consequently, there are several dangerous corridors in this Region as seen throughout this report.

Process

In 2012, the TJPDC proposed an initiative to study, promote and improve its portion of BR 76. This work fell under the TJPDC's Transportation Programs, which are funded annually by VDOT. Since most of the study area is within the region's rural boundaries, TJPDC staff designated its Rural Technical Advisory Committee (RTAC) as the Project Steering Committee for this report. The Committee's first meeting on the corridor study took place in November of 2013, with follow-up meetings every other month. The Committee reviewed draft documents and provided guidance on subsequent phases of the overall BR 76 initiative.

At the beginning of 2014, the TJPDC established an online presence for the project. Staff developed a project website that included drafts of deliverables, agendas and minutes from the Steering Committee. The site also provided op-

portunities for public comment. In March, staff created a Facebook® page for the study, as another tool for collecting feedback and distributing information. By the end of March, the TJPDC began an outreach effort to engage local bicycle shops, clubs and advocates from across the region. Staff conducted several one-on-one interviews with those in the local cycling community. In April, staff developed an online survey that helped gather detailed input from riders, which included questions on how to improve cycling safety. TJPDC staff worked with bike clubs to distribute the online survey to the cycling community.

TJPDC staff attended additional cycling meetings to discuss the Corridor Study and collect feedback. In May of 2014, staff made a presentation to the Charlottesville/Albemarle Bicycle Advisory Committee and held a lengthy discussion on the project. Starting that month, staff began to participate in meetings held by the Charlottesville/Albemarle Visitor's Bureau, to discuss promotion of BR 76.

In the summer of 2014, the TJPDC assembled a Bicycle Technical Committee, consisting of cycling experts from around the region, along with a representative from the Virginia Bicycling Federation and VDOT. The group also included stakeholders from tourism groups.

Methodology

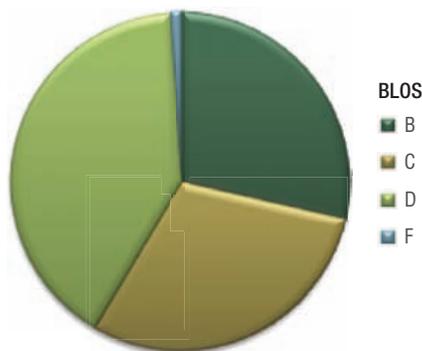
TJPDC staff worked closely with VDOT on data collection and conducted multiple site visits of the study area. VDOT representatives provided their expertise on roadway conditions and cycling deficiencies along the corridor. The Statewide Planning System (SPS) data was critical for this analysis, providing roadway dimensions, traffic counts and Level of Service information. If any roadway data seemed inaccurate, staff would verify dimensions with site visits and measurements from aerial photography. The Bicycle Technical Committee was another valuable resource for data collection.

Bike Level of Service

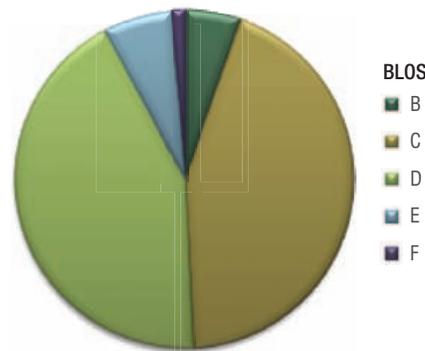
Staff used a Bike Level of Service (BLOS) calculator from the League of Illinois Bicyclists (LIB), as recommended by VDOT, to calculate bike compatibility. The equation provided a general score of bike compatibility for a given roadway. The calculator requires inputs on 8 critical indicators, which included:

1. Number of through-lanes per direction: (Default = 1 feet)
2. Width of outside lane, to outside stripe, in feet: (Default = 12 feet)
3. Paved shoulder, bike lane, OR marked parking area - outside lane stripe to pavement edge, in feet: (Default=0 feet)
4. Bi-directional Traffic Volume in ADT: (Default = 4000 ADT)
5. Posted speed limit in mph: (Default = 30 mph)
6. Percentage of heavy vehicles: (Default = 2%)
7. FHWA's pavement condition rating: (5 = Best, 1 = Worst; Default = 4)
8. Percentage of road segment with occupied on-street parking: (Default = 0%)

Current BLOS by Mileage

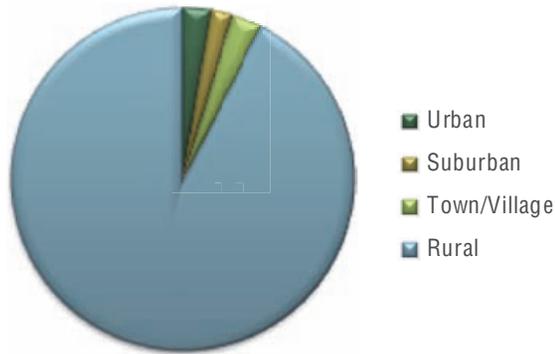


2035 BLOS by Mileage



<http://www.bikelib.org/>

Road Mileage by Environment



The BLOS equation provided a score between 'A' and 'F'. According to LIB, a score of 'A' through 'C' indicated roadways that were compatible or "comfortable enough" for experienced cyclists. The worst score is an 'F', representing a roadway that is not compatible for cycling.

BLOS scores and definitions:

BLOS A: High Level of Bike Compatibility

BLOS B: Compatible

BLOS C: Moderate Compatibility

BLOS D: Moderately Low Compatibility

BLOS E: Low Bike Compatibility

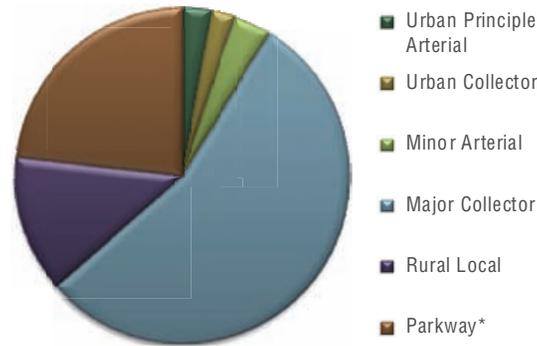
BLOS F: Extremely Low Compatibility

Overview

Environments

Across the study area, a rural landscape frames BR 76. Over 93 percent of the Route is within this rural environment. The remaining 7 percent of road mileage passes through small villages, the Town of Mineral, suburban areas and the City of Charlottesville. Consequently, cycling safety is linked with the challenges of rural transportation: high travel speeds, poor sight-distances and curvy roadways. Conversely, rural environments typically translate

Mileage by Road Classification



into lower traffic counts, which is why AASHTO targets rural roadways from the USBRS.

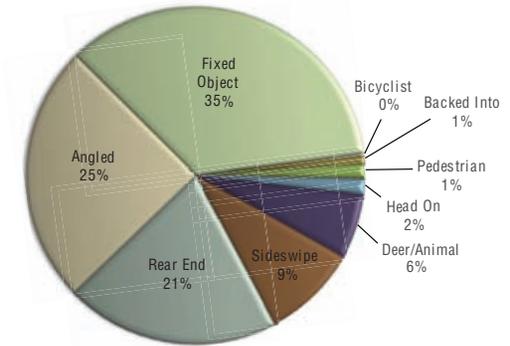
Functional Classifications

Due to the rural nature of the study area, BR 76 consists mostly of rural road-types, including rural collectors and local roads. Those roadways typically have fewer traffic counts and serve more local traffic, rather than higher speed through traffic. Since relatively small portions of the route are in urbanized areas, there are few urban roadway classifications in the study area.

Crash Data

The environments and roadway functions influence the types of safety issues along the corridor. Traffic accident data for the study area reveals that many accidents involve off-road collisions with fixed objects. This may be the result of narrow travel lanes on rural highways, a condition that can be particular hazardous to cyclists, since riders travel along the road's edge. The roadways of BR 76 also experience several angled collisions and sideswipes at intersections, which are where most cycling-related crashes occur. A positive from the crash data is the lack of collisions between motorists and bicyclists. The only bike-related crashes are in the City of Charlottesville, where vehicular and bike traffic is high. There may be bike-related crashes

Traffic Accidents by Type (2005-2011)



in the rural areas, but recording is generally less accurate.

Bike Level of Service (BLOS)

Using the LIB equations, TJPDC staff calculated the BLOS for all roadways along the Region 10 portion of BR 76. This report provides a detailed description of the scores for all roadways in the study area. Overall, approximately 42% of road mileage in the study area is incompatible for cycling (BLOS D-F).

VDOT's traffic forecasts show significant increases in Annual Average Daily Trips (AADT) along the corridor, for 2035. Without highway improvements to address cycling and road safety, the bike compatibility of BR 76 will noticeably decline. By 2035, 51% of the Bike Route will be incompatible for cycling. Additionally, there would also be a 24% decrease in road miles scoring a BLOS B.

Traffic Counts

The BLOS results are tied to the roadway geometries and traffic counts. While traffic heavily influences bike compatibility, Chart 1 implies that there are other factors involved as well.

Countywide Overview

Nelson County

In Nelson County, BR 76 accounts for over 32 miles of roadway, primarily along the Blue Ridge Parkway (Map 1). In terms of cycling safety, there are several locations with limited sight-lines, particularly the areas referenced in Map 2. The Nelson County map also illustrates the various overlooks along the Parkway and proximity to destinations, such as Wintergreen Resort and wineries. There is a short section of BR 76 on US 250, in the Afton area. This roadway is one of the most dangerous in the corridor and scored an 'F' on the BLOS calculations.

Western Albemarle County

The western side of Albemarle County is home to some of the most valued scenic vistas on BR 76, along with several tourist destinations. In terms of safety, the over 26 miles of BR 76 also presents frequent cycling hazards. Map 3 illustrates the various safety deficiencies, involving sight-distances, uneven road surfaces, dangerous intersections and guardrails.

City of Charlottesville

While the study area consists mostly of rural roadways, the streets in Charlottesville present a unique experience for cyclists. On the City's 3.5 mile section, riders have access to numerous services and resources, as well as historic landmarks. Consequently, this corridor can serve as a destination for most cyclists.

Additionally, the League of American Bicyclists identified Charlottesville as a Silver Level, Bicycle Friendly City. This is the highest rated locality on the Virginia portion of BR 76, whereas Williamsburg, Richmond, and Roanoke received Bronze ratings.

Eastern Albemarle County

In the eastern half of Albemarle County, BR 76 meanders 13 miles, between the City of Charlottesville and Fluvanna

County. The curvy roadway creates several deficiencies with sight-distances, as seen in Map 4. In terms of recreation and tourism, this area has some of the most desirable destinations, with the homes of two presidents and proximity to local wineries.

Fluvanna County

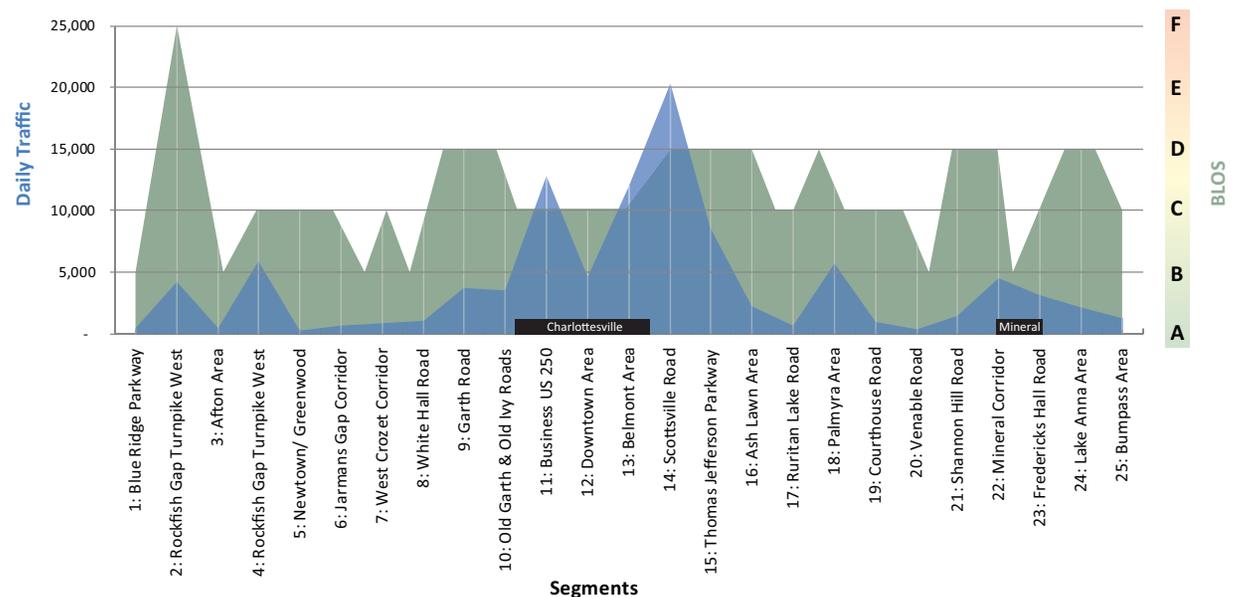
In Fluvanna County, BR 76 passes through the Village of Palmyra and several small crossroads. The route accounts for over 23 miles of roadway. Most cycling hazards involve sight-distances and guardrails. Refer to Map 5.

Louisa County

There are nearly 35 miles of BR 76 in Louisa County, passing through the only incorporated town along the study area. In Louisa County, the most common road hazards are narrow roadways with guardrails. Refer to Map 6.

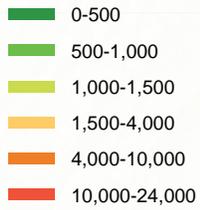


Annual Average Daily Traffic (AADT) and Bike Level of Service (BLOS) by Roadway Segments



Vehicle Per Day

(Average Annual Daily Traffic)



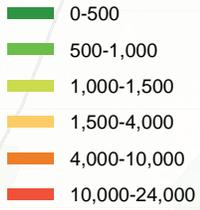
- | | |
|---------------------|-----------------------|
| Police Station | Library |
| Fire/Rescue Station | Tourism Destination |
| Bike Shop | Winery/Legend |
| Gas Station | Urban Areas |
| Store/Grocery | Parks |
| Lodging | Poor Sight Distance |
| Camping | Uneven Road Surface |
| Visitor Center | High Crash Area |
| Post Office | Guardrail/No Shoulder |



Map 2 - Nelson

Vehicle Per Day

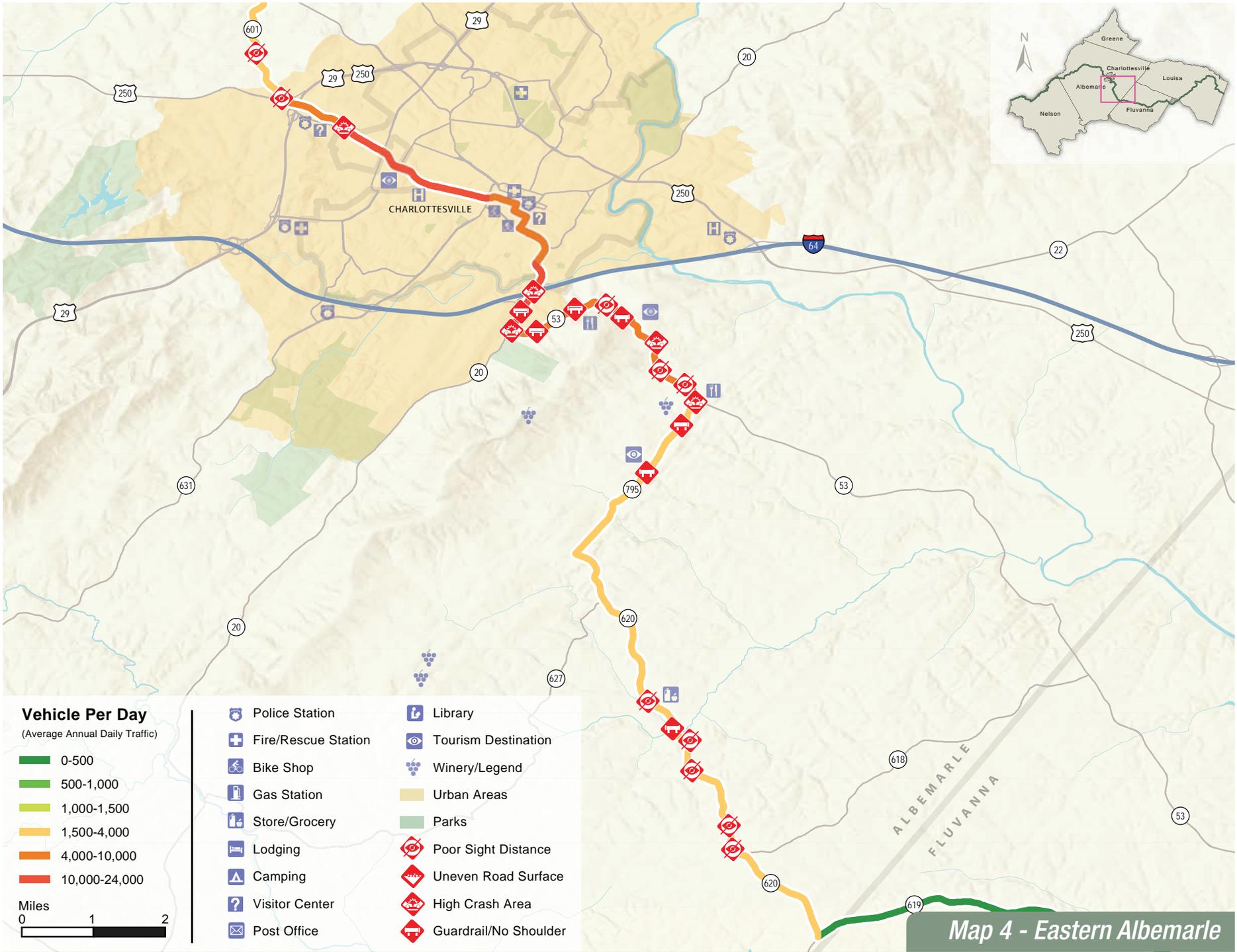
(Average Annual Daily Traffic)

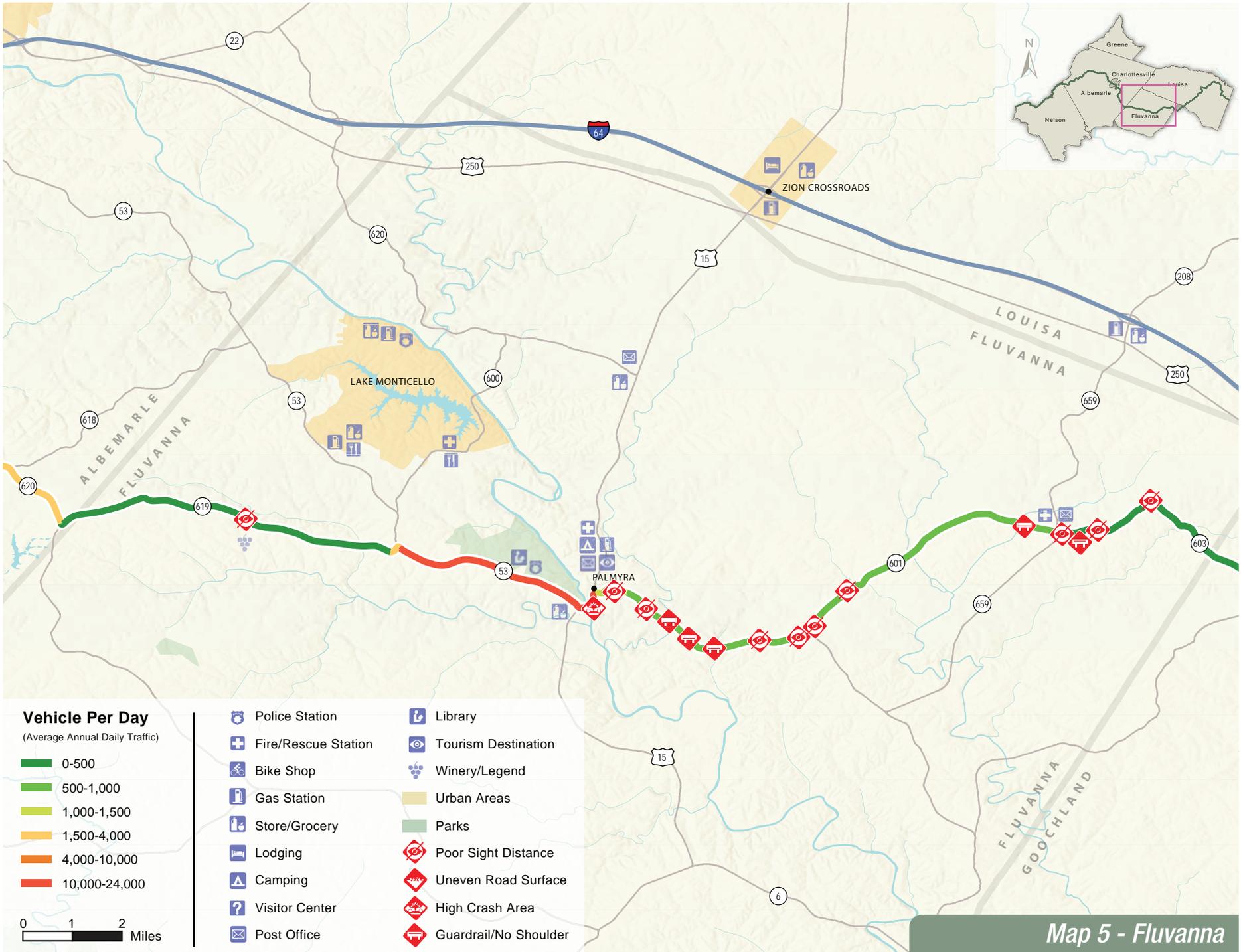


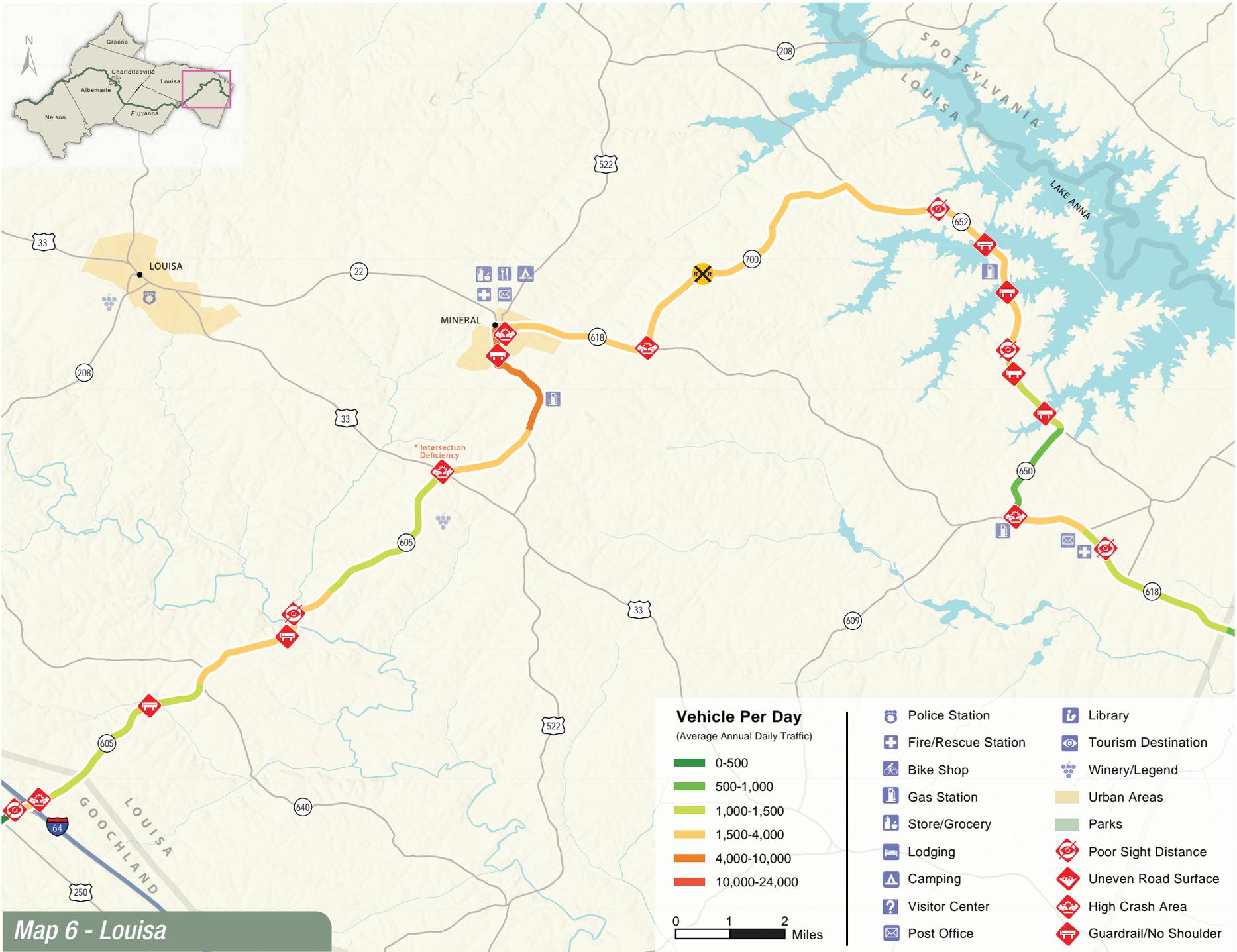
- | | |
|---------------------|-----------------------|
| Police Station | Library |
| Fire/Rescue Station | Tourism Destination |
| Bike Shop | Winery/Legend |
| Gas Station | Urban Areas |
| Store/Grocery | Parks |
| Lodging | Poor Sight Distance |
| Camping | Uneven Road Surface |
| Visitor Center | High Crash Area |
| Post Office | Guardrail/No Shoulder |



Map 3 - Western Albemarle







Segment Corridors

The following segments are the main deliverables of this report, providing a detailed inventory of all road, traffic and recreational conditions along this portion of BR 76. This existing conditions inventory is divided into 25 segments, or sub-corridor studies.* Each segment includes roadways that are grouped together based on functional classifications, road dimensions and general corridor characteristics. The goal is to have concise but comprehensive assessments for every segment of BR 76 in the region. Each segment functions as its own mini-plan, with a detailed inventory, assessments and recommendations. Stakeholders can refer to a given segment to find information and recommendations on these targeted areas.

In every segment, there are six (6) sections, to provide an overview of the cycling conditions and recreational value of each corridor. These sub-headings cover:

- Segment characteristics,
- Road features,
- Traffic conditions,
- Recreational,
- Cycling Assessment, and
- Recommendations.

** Customized versions of this report were created for each of the five localities in the study area. This version may not include all 25 segments.*

Segment Characteristics

Each segment begins with a general description of the corridor. This includes an overview of the roadway designations and adjacent land uses, along with feedback from local cyclists.

Environment

Roadways are classified as either rural or urban, based on VDOT and AASHTO definitions. These classifications deter-

mine whether AASHTO's rural or urban cycling standards should be applied to the corridor (Refer to Appendix).

Functional Classification System

The functional classification system identifies the function and design of roadways. For the purposes of this report, these classifications help to highlight how motorists use the roadways and whether the corridor is intended to serve high-speed, through-traffic or low-speed, local trips. The categories include:

- Urban principal arterial
- Urban minor arterial
- Urban collector
- Urban local
- Rural principal arterial
- Rural minor arterial
- Rural major collector
- Rural minor collector
- Rural local

(Refer to Glossary)

Roadways

A list of roadways helps to define the boundaries of each segment. This list includes mileage to communicate the length of each corridor. Please note that the distances are measured in road-miles, not lane-miles.

Land Uses

Land use is a critical component to transportation and can heavily influence recreational cycling. Consequently, the segments include a description of the land uses along each corridor. (For a more detailed look at existing land uses, refer to the appendix).

Public Comments

While local cyclists are aware of BR 76, many do not intentionally target their rides for those roadways. Instead, local riders pick unofficial routes that provide the safest and most satisfying rides. At the same time, local riders will know the existing roadway and traffic conditions better than out-of-town riders. Consequently, feedback from locals was critical to the review of existing conditions.

Road Features

The assessment of road features is the first of two sections that identify bike compatibility of each road section. Roadway widths and geometrics are critical considerations for cycling.

Road Sections

Road widths are the simplest and fundamental aspect of roadway geometries. Under each segment, there are detailed measurements of the travel lanes and shoulders. Each segment also includes assessments of existing bike facilities. While shared use lanes are the most common facility along BR 76, there are also bike lanes, wide shoulders, and wide outside lanes. (Refer to Glossary.)

Bike Signage

Signage can direct cyclists along the Bike Route; provide information or warnings to riders; and, inform motorists of areas with heavy bike traffic. In each segment, there is a count of all bike-related signs that are currently in the corridor.

Featured Intersections

Intersections are the most dangerous places for cyclists and are where most bike-related accidents occur. Due to this importance, each segment includes a list of intersections in the corridor. The text includes a brief description of the intersections and identifies any apparent deficiencies.

Sight Distance

Particularly on rural roads, sight-lines can be fundamental to cycling safety. Under each segment, there is an overview of sight distances throughout the featured roadways.

Additional Road Hazards

In certain segments, there are additional road hazards that do not fall under a specific section heading. The report identifies any of these additional hazards, road surfaces, guardrails, or dangerous curves.

Planned Road Improvements

The segments include lists of any existing recommendations, projects, assessments or studies that may influence road conditions on BR 76. In many cases, existing recommendations will benefit cycling safety. These findings help to feed into the action items of this study, guiding VDOT and other stakeholders to give priority to projects along BR 76.

Traffic Conditions

The traffic conditions assessment is the second part to the equation for bike compatibility. Traffic flow is one of the most important characteristics that affect cycling safety.

Traffic Counts

The ADT data in this report originates from VDOT's 2012 traffic counts. The segments also include 20-year forecasts from VDOT, to anticipate future traffic volumes. These future counts help to prioritize roadway improvements and determine whether portions of BR 76 should be rerouted to lower volume roads.

Truck Traffic

The amount of truck traffic can greatly influence bike compatibility. Truck blast occurs when heavy vehicles generate high winds that can blow cyclists off-balance. Other than safety, heavy vehicles can also diminish overall comfort for riders. The truck traffic assessment is expressed as a percentage of total ADT, as seen in the sub-headings.

Travel Speeds

The segments include inventories on the posted speed limits. Due to traffic congestion and road conditions, the actual travel speeds may be lower or higher than what is posted. Consequently, the segments include estimates of those actual speeds.

Level of Service

The Level of Service (LOS) serves as a congestion stan-

dard for roadways (refer to glossary). The existing LOS data originates from VDOT's 2012 records. The segments also include VDOT forecasts for the year 2035.

Traffic Accidents

Crash data is a key indicator of general roadway safety, especially if the accidents involve cyclists. VDOT provided crash data, for the years 2005 to 2011. In each segment, there is an analysis that shows a breakdown of crash types and locations.

Additional Traffic Hazards

This final section addresses any miscellaneous traffic hazards, such as distracted drivers, high levels of pedestrian and bus traffic or other traffic conditions that could endanger cyclists.

Recreational

Since BR 76 serves mostly recreational purposes, the location and quality of attractions is an important consideration. In each segment, there is an assessment of historic and scenic resources, tourist destinations, cycling services and resources, access points and terrain.

Historic Resources

Whether open to the public or visible from the roadway, historic resources can be an important part of recreational cycling. These resources give the Bike Route a unique character and allow cyclists to connect with the history of our region, state and nation. The Virginia Department of Historic Resources (VDHR) provided mapping data on the sites along the corridors.

Highway Markers

At the roadside, highway markers can be valuable resources, allowing visitors to pause and learn more about historic places and famous residents who lived in the area. The 25 segments include a list of any highway markers or historic plaques on or near the Route.

Scenic Resources

Scenic resources are difficult to measure but provide great value to recreational riding. While a corridor can be attractive to visitors, there may not be any identified vistas or views from the roadway. The segments indicate any official designation or scenic byways. There is also a short description of notable views.

Other Destinations

Other than historic sites, there may be other destinations that interest cyclists. These destinations could include wineries, orchards, parks, trails, small towns and other interesting places.

Cycling Services & Resources

For long distance riders, there is great interest in cycling services and resources. These amenities may include items such as: restrooms, food and water, air pumps, medical services, post offices and internet access, along with bike shops, information centers and lodging.

Access Points

Access is an important consideration for recreational cycling. While some cyclists attempt to complete BR 76 at once, others may break this ride into multiple trips. There are still others who may want to access BR 76 for a shorter rider, with no intention of completing other portions of the Route. In addition to short route cycling, long distance riders frequently have support and gear (SAG) vehicles that need short term parking, as cyclists often "leap frog" the SAG vehicle, taking turns driving. Each segment includes an inventory of these public parking areas.

Topography

In this region, cyclists experience frequent changes in topography, as the Route passes through the foothills and into the Blue Ridge Mountains. The segments include a cross-section of the terrain in each corridor, along with a brief description.

Cycling Assessment

The cycling assessment provides an overview of the inventory found in each segment corridor. This includes a score of bike compatibility and recreational value. The recreational assessment is less scientific, resulting in a general range of values from low to high. The recreational range is based on the presence and quality of destinations and amenities in the segment.

Recommendations

The recommendations section includes a preliminary list of actions that can improve cycling safety and experience in the segment corridors. A more thorough, in-depth list of recommendations is included in a consolidated project list, found at the back of the report.

Overview of Segments

To provide a quick reference of the conditions throughout the study area, the following matrix highlights the key indicators. This data feeds into the BLOS equations, to identify an overall bike compatibility rating. Since road and traffic conditions can vary within a segment, some BLOS scores may be displayed in a range. The 25 segments are listed in order, from west to east.



BLOS Key Indicators

	Segment	BLOS	Road Conditions		Traffic Conditions		
			Lane Widths (Feet)	Width of Shoulder/Bike Lane (Feet)	Annual Average Daily Trips (AADT)	Truck Traffic (% of AADT)	Posted Speed (MPH)
Rural	1: Blue Ridge Parkway	B*	10	None	440	0%	45
	2: Rockfish Gap Turnpike West	F	10	0 – 2	8,450	7%	35 – 55
	3: Afton Area	B – C*	8 – 11	0 – 2	435	1%	55 (NP)
	4: Rockfish Gap Turnpike East	C	10 – 12	1 – 2	5,890	4%	55
	5: Newtown/Greenwood	C	9	None	290	0%	55 (NP)
	6: Jarmans Gap Corridor	C	8	None	635	1%	40
	7: West Crozet Corridor	B – C	9	None	875	.5%	40
	8: White Hall Road	D	9	.5	2,020	2%	45
	9: Garth Road	D	9 – 10	0 – .5	3,700	1.5%	35 – 50, 45 (TR)
SU	10: Old Garth & Old Ivy Roads	D	9 – 11	0 – .5	3,495	1%	30
Urban	11: Business US 250	B – C	10 – 14	5 + 8 (Parking)	12,850	2%	25 – 35
	12: Downtown Area	B – C	9 – 12	8 (Parking)	4,625	3%	25
	13: Belmont Area	B – C	10 – 12	8 (Parking)	12,000	2%	25 – 35
SU	14: Scottsville Road	D	12	0 – 12	20,345	2%	45
Rural	15: Thomas Jefferson Parkway	D	10	1 – 2	8,525	3%	45
	16: Ash Lawn Area	C – D	10	None	2,200	1%	45 - 55
	17: Ruritan Lake Road	C	9	None	600	0%	45
	18: Palmyra Area	C – D	11	.5 – 10	5,650	8%	35 – 55
	19: Courthouse Road	C	9	None	980	0%	40
	20: Venable Road	B – C	9	None	385	0%	55
	21: Shannon Hill Road	D	9 – 10	None	1,470	4%	45 – 50
	22: Mineral Corridor	B – D	12	1 – 3	4,535	3.5%	25 – 55
	23: Fredericks Hall Road	C – D	10	None	3,100	2%	25 – 45
	24: Lake Anna Area	D	10	0 – 1	2,160	3%	55
	25: Bumpass Area	C	9 – 10	None	1,255	1%	35 – (55) NP

*Other conditions may diminish BLOS; SU = Suburban; NP = Not Posted; TR = Trucks

Segment F1: Ruritan Lake Road

Albemarle & Fluvanna Counties

Segment F1 evaluates the existing cycling conditions on Ruritan Lake Road, between VA 620 (Rolling Road), to the west, and US 53 (Thomas Jefferson Parkway), to the east. Ruritan Lake Road provides an alternate path through western Fluvanna County, bypassing sections of US 53 that are less bike-friendly. Consequently, this corridor serves as an important role as a safer alternative for linking Albemarle and Fluvanna Counties.

Segment Characteristics

Rural Environment

- Rural Local
- Secondary Routes

Road Segments

- » *Total Road Mileage: 5.74 Miles*
- VA 619 (Ruritan Lake Road) – 5.6 Miles
- VA 660 (Ruritan Lake Road) - .14 Mile

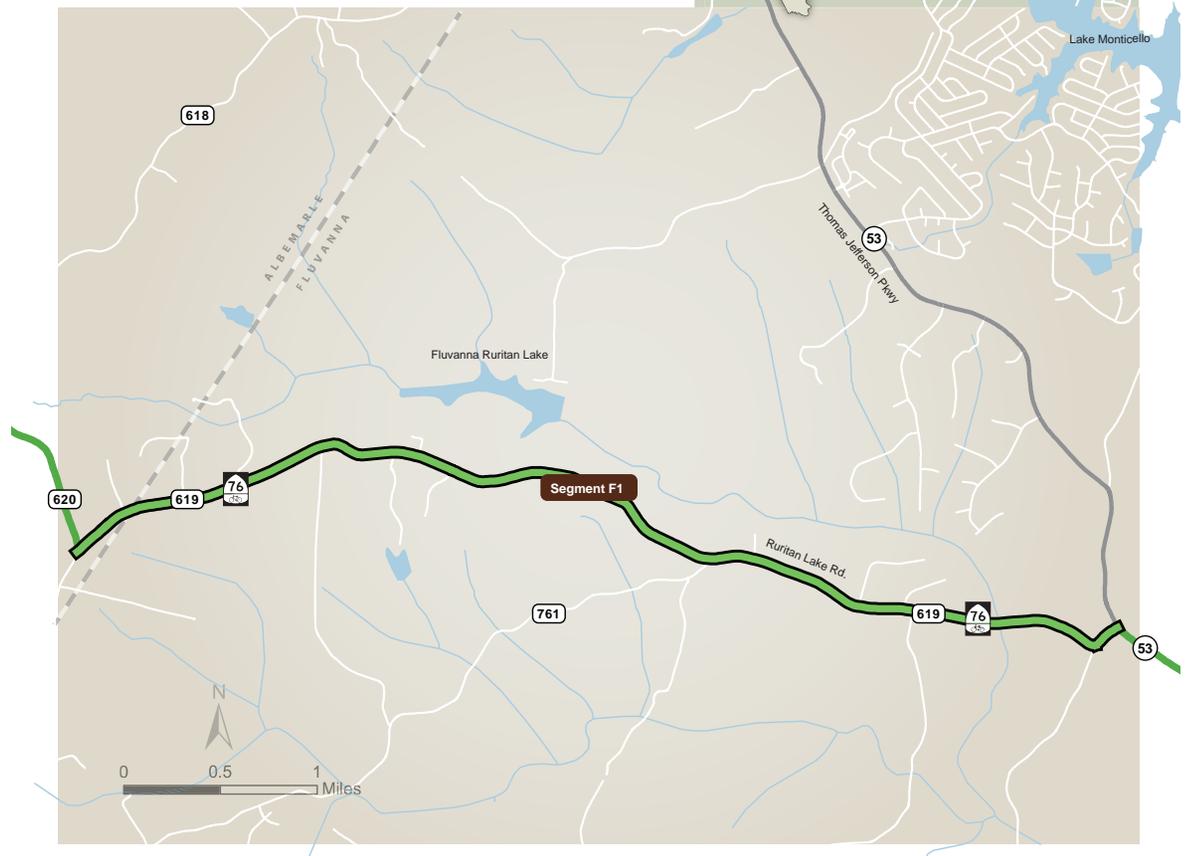
Land Uses

» *Rural*
This corridor consists mostly of wooded tracts, pastures and large residential properties with agricultural uses. There are also several smaller residential lots that have access directly to Ruritan Lake Road.

Public Comment

» *General Comments*
There were only two comments from local cyclists about Ruritan Lake Road. In the online questionnaire, both cyclists listed this road as a place where they commonly ride.

C Bike Level of Service	600 Annual Average Daily Trips	45 Posted Speed (MPH)
9' Average Lane Widths (feet)	0' Shoulder/Bike Lane Width (feet)	0% Truck Traffic (percent)
Positive Contributing Factor		Negative Contributing Factor



- Route 76 Profile Segment
- Route 76 Bike Route
- Water Body
- County Boundary



Road Features

Road Sections

» Rural Two-Lane

Ruritan Lake Road is a narrow rural roadway, with an 18-foot road surface that consists of two nine (9)-foot travel lanes. (Figure 17-1)

» Shared Lane Bike Facility

At the road edge, there are narrow grass shoulders, vegetated ditches and lawns.

Bike Signage

» Adequate Signage

There are eight (8) BR 76 signs, guiding cyclists through this corridor. While these signs are effective at directing cyclists, there were no other bike-related signs.

Featured Intersection

» US 53 (Thomas Jefferson Parkway)

There do not appear to be any immediate deficiencies at this T-intersection. There is a relatively high volume of vehicles that pass through this area, which increases the chances for crashes. Despite those counts, there were three (3) crashes reported at this intersection, between 2005 and 2011.

» Other intersections in this corridor include:

- VA 660 (Sclaters Ford Road)
- VA 620 (Rolling Road)
- VA 761 (Branch Road)

Sight Distance

» Clear Sight-Lines

Additional Road Hazards

» No Additional Hazards

Planned Road Improvements

» No Planned Improvements

Traffic Conditions

Traffic Counts

» 500 to 700 ADT

The traffic counts on Ruritan Lake Road are among the lowest in the BR 76 study area. The section in Albemarle County carries 715 ADT, whereas the Fluvanna County portion carries 488 ADT. VDOT forecasts for this corridor suggest a total of 1,000 ADT by the year 2035.

Truck Traffic

» 0 Percent

Travel Speeds

» 45 MPH

The speed limit in this corridor is set at 45 MPH, but the actual travel speeds are likely closer to 55 MPH.

Level of Service

» A – Free Flow

On VA 619, traffic flows freely and vehicles are able to travel at or above the posted speed limit. For the segment in Albemarle County, VDOT forecasts show that the LOS will degrade to LOS B, though there should still be free flowing traffic.

» C - Stable Flow, at or Near Free Flow

On VA 660, the roadway remains safely below capacity, though motorists may experience limited congestion. VDOT forecasts show that LOS will remain at a 'C' over the next twenty years.

Traffic Accidents

» 18 Crashes, 0 Fatal

Between 2005 and 2011, there were 18 recorded crashes on Ruritan Lake Road. Off-road collisions were the most common crash type. Deer collisions were also common. Note: There are no records of crashes between motorists and cyclists.

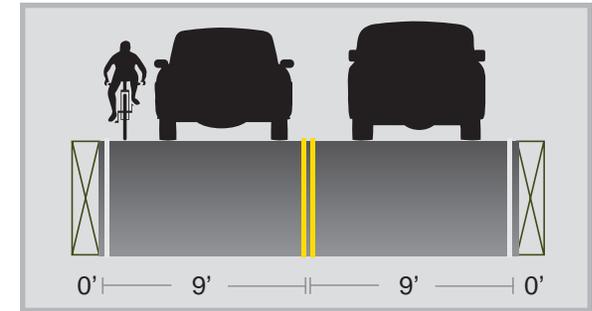


Figure 17-1: Typical Road Section

Recreational

Historic Resources

» No Identified Resources

Scenic Resources

» No Designations

Other Destinations

» No Cycling Destinations

Cycling Services & Resources

» No Identified Resources

Access Points

» No Access

Topography

» Flat

Route Assessment

Bike Compatibility: BLOS C

Overall, Ruritan Lake Road provides a reasonably safe environment for cyclists. While the travel lanes are narrow, traffic counts and speeds are favorable to cycling. There

are no immediate deficiencies at intersections. There are clear sight distances and no truck traffic. There are minimal crashes in this area. The road surfaces are in good condition and there are no additional hazards, such as guardrails. The only safety concern is the lack of shoulders.

Recreational: Low Value

While this Ruritan Lake Road passes through a rural corridor, there are neither recreational amenities nor cycling resources in this area. There are no historic resources and a lack of scenic vistas, as well.

Recommendations

Additional Signage

The TJPDC should work with VDOT and Fluvanna County to install additional bike signage that informs cyclists and warns motorists of frequent bike traffic.

Explore Shoulder Improvements

The TJPDC should work with VDOT and Fluvanna County to explore the need for shoulder improvements that would create additional space for cyclists.



Segment F2: Palmyra Area

Fluvanna County

Segment F2 evaluates the existing cycling conditions on US 53 (Thomas Jefferson Parkway) and US 15 (James Madison Highway). This corridor includes the area between VA 660 (Ruritan Lake Road), to the west, and VA 601 (Court-house Road), to the east. Segment F2 passes through central Fluvanna County, including the village of Palmyra. While there are services and recreational opportunities in the area, there are several dangers on the roadways that threaten cycling safety and comfort levels. Despite those road hazards, this corridor (especially the Village of Palmyra) serves as a destination for cyclists.

Segment Characteristics

Rural Environment

- Major Collector
- Minor Arterial (US 15)
- Primary Routes

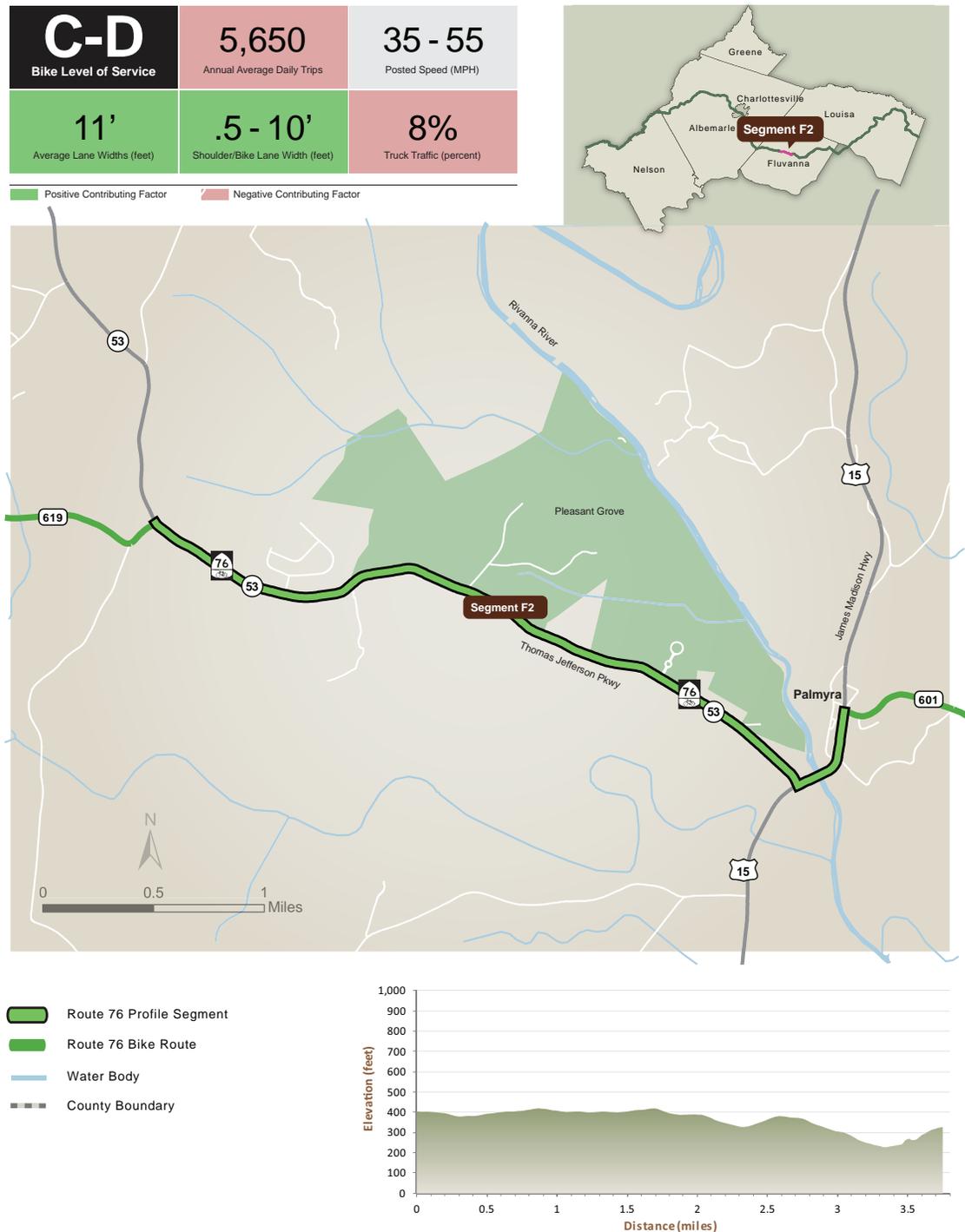
Road Segments

- » *Total Road Mileage: 3.76 Miles*
- US 53 (Thomas Jefferson Parkway) – 3.32 Miles
- US 15 (James Madison Highway) - .44 Mile

Land Uses

» Rural & Small Town

There is a mix of land uses in this area. On US 53, most of the adjacent properties are large wooded tracts, farms and smaller residential properties. There are also several public properties, including the Fluvanna County High School, a local library, police offices and Pleasant Grove Park. The setting around US 15 is consistent with a small town environment. The Village of Palmyra consists of a mixture of land uses, including commercial services, parkland, small residential properties and the County Office Building.



Public Comment

» *Safety Concerns*

In an online questionnaire, local cyclists said that US 53 was “incredibly” dangerous, though it is likely that respondents were referring to the segment of US 53 in eastern Albemarle County.

Road Features

Road Sections

» *Rural Two-Lane*

While US 53 and US 15 have the same lanes widths, the shoulders of these roads vary significantly. On US 53, the road surface is 22 feet wide, consisting of two 11-foot lanes. At the road edge, there may be a narrow grass shoulder or vegetated ditches. (Figure 18-1)

» *Wide Outside Lane*

On US 15, there are seven (7) to ten (10)-foot paved shoulders, except for the section between the County Office Building and Courthouse Road, where there is no shoulder. (Figure 18-2)

» *Shared Lane Bike Facility*

For much of this corridor, cyclists share the same travel lanes as motorists, except for those parts of US 15 with wide shoulders.

Bike Signage

» *Adequate Signage*

There are six (6) BR 76 signs. While these signs are effective at directing cyclists, there are no other bike-related signs.

Featured Intersections

» *VA 1001 (Main Street)/ VA 1007 (Stoneleigh Road)*

VDOT recommends that this four-way intersection be designed as a roundabout. The main issue with the intersection is the volume of traffic, which is relatively high. (Figure 18-3)

» *VA 601 (Courthouse Road)*

Courthouse Road forms a T-intersection with US 15, though there are additional legs that are close to this intersection. Those additional legs include Church Street, Palmyra Way and Court Square. With these additional legs and entrances, there is potential for conflict points, where motorists and cyclists could cross paths. Five (5) crashes that occurred at this intersection, between 2005 and 2011, though none involved cyclists. (Figure 18-4)

» *Other intersections in this corridor include:*

- US 53 (Thomas Jefferson Highway)/ US 15 (James Madison Highway)
- VA 619 (Ruritan Lake Road)

Sight Distance

» *Clear Sight-Lines*

Additional Cycling Hazards

» *Guardrail*

There are several locations where the road section includes guardrails. These hazards are minimal on US 53, because of a wide grass shoulder. On US 15, the wide paved shoulder narrows between the County Office Building and Courthouse Road. In that area, there is a 200-foot long guardrail on the northbound lane, with no shoulder. Since this guardrail is on the uphill side of the road, it is particularly hazardous because cyclists travel at slower speeds and require additional space to maneuver. (Figure 18-5)

Planned Road Improvements

» *Byway Status*

The Virginia Outdoors Plan recommends an evaluation of VA 53 for consideration as a Virginia Scenic Byway.

» *Road Widening*

The RLRP identifies operations and geometric deficiencies along the US 53 (Thomas Jefferson Parkway). The plan recommends full-width lanes and shoulders. This recom-

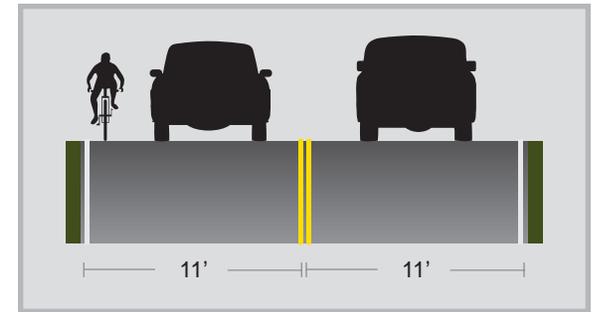


Figure 18-1: Typical Road Section



Figure 18-2: Road Section with Wide Shoulder



Figure 18-3: Main Street/Stoneleigh Road

mendation is listed as a local priority, but is also described as a long-term project.

» *Intersection Improvements*

Improvements to the VA 53/US 15 intersection are listed in the Comprehensive Plan, RLRP and SYIP. In the SYIP, the project includes the addition of a rural, single lane round-



Figure 18-4: Courthouse Road Intersection



Figure 18-5: Guardrails on US 15

about. The preliminary engineering is completed. The project is a local priority, per the RLRP. The Fluvanna County Comprehensive Plan also recommends a new roundabout or signalized intersection at South Main Street.

The Palmyra Community Plan includes a recommendation to construct a roundabout or other safety and capacity improvements at the intersection of US 15 and VA 601.

» *Bike and Pedestrian Facilities*

The Fluvanna County Comprehensive Plan includes recommendations for roadway/ streetscape improvements along US 15. The plan recommends the addition of a median for a three-lane commercial boulevard with gateways. The Palmyra Community Plan calls for the installation of curb and gutters along Route 15 through the commercial district. That plan recommends pedestrian and bicycle features

similar to those on the new Route 15 Bridge, for the north- and southbound sections of US 15.

» *Bike Signage*

The Fluvanna County Comprehensive Plan recommends cautionary signs to alert motorists where frequent bicycle travel exists. The plan also states that BR 76 should be more clearly marked for the safety of cyclists.

Traffic Conditions

Traffic Counts

» *4,900 to 6,400 ADT*

The traffic volumes along these roads are among the highest in the rural segments of the study area. On US 53, volumes reach 4,907 ADT, while on US 15 those counts are even higher, with 6,414 ADT. The high volume of traffic is the main contributing factor for the poor bike compatibility score for this corridor.

Since VDOT predicts that traffic will continue to rise over the next twenty years, the bike compatibility score will continue to diminish. By 2035, volumes on US 53 could reach 10,000 ADT. For US 15, VDOT predicts that traffic counts could reach 12,500 ADT. These forecasts indicate a doubling in traffic.

Truck Traffic

» *3 to 13 Percent*

The percent of truck traffic varies in this corridor. On US 53, there is a moderate amount of traffic from heavy vehicles, representing 3 percent of total ADT. Along US 15, truck traffic is considerably higher, accounting for 13 percent of total ADT. This is the highest percent of truck traffic in the BR 76 study area and a major contributor to the poor bike compatibility score on US 15.

Travel Speeds

» *35 to 55 MPH*

The speed limit varies throughout this corridor. On US 53,

the speed is set at 55 MPH, though it drops to 35 MPH near the new Fluvanna County High School. On US 15, the speed limit is 35 MPH, through the village of Palmyra. Overall, the actual travel speeds can be 10 MPH higher than the posted limit, when congestion is low.

Level of Service

» *C - Stable Flow, at or Near Free Flow*

Throughout this corridor, roads remain safely below capacity, and motorists are able to travel at or above the posted speed. VDOT forecasts show that LOS will degrade to a 'D' over the next twenty years, where the roadway will begin to reach capacity.

Note: VDOT records indicate that US 15 has a LOS E, indicating the presence of traffic jams or stop-and-go traffic. This is likely an error and it is more likely that US 15 has a LOS C.

Traffic Accidents

» *46 Crashes, 0 Fatal*

Between 2005 and 2011, there were 46 crashes in this corridor. Most of those crashes occurred on US 53, where there were 39 recorded traffic accidents. Off-road collisions were the most common accidents. There were seven (7) crashes on US 15. Most Of those incidents occurred at the Courthouse Road intersection. *Note: There were no records of crashes between motorists and cyclists in these areas.*

Recreational

Historic Resources

» *Historic Properties*

There are several farms and homes with historic significance but none are open to the public, except for the Pleasant Grove Farm property on US 53. In Palmyra, there are several historic resources, including the historic courthouse and jail, which is on the State and National Registers.

Highway Markers

» *Palmyra Courthouse*

There is one historic marker in this area. Near the intersection at Courthouse Road, a marker describes the history of the Palmyra Courthouse.

Scenic Resources

» *No Designations*

While this corridor provides an attractive rural setting, there are no identified scenic resources. Most views are of wooded tracts and small fields.

Other Destinations

» *Village Destination & Parks*

Palmyra offers a town environment, filled with services and destinations. Cyclists can also find a park along the Rivanna River, which includes several trails and River access.

Cycling Services & Resources

» *Town-Level Services*

With a grocery store and other establishments, there are ample opportunities to resupply on food and water. There is one (1) service station in the corridor, with an air pump available. A library on US 53 allows visitors to access the internet and restrooms. A post office in Palmyra may be useful to cyclists, who need to send/receive equipment, emergency repair parts and other supplies. At Pleasant Grove Park, there are opportunities for cyclists to rest.

Access Points

» *Palmyra & Pleasant Grove*

There are several opportunities for cyclists to access BR 76. There is ample parking in the Village of Palmyra. On US 53, there is public parking at the local library and Pleasant Grove Park.

Topography

» *Rolling*

The rolling topography in this area includes several small hills and false flats.

Route Assessment

Bike Compatibility: BLOS C - D

Overall, this corridor is incompatible for cycling, as cyclists must adapt to several hazardous conditions. On US 53, the lack of shoulders confines riders to the travel lanes, where traffic volumes and speeds can be high. On US 15, the high percentage of truck traffic and presence of guardrails creates significant dangers for cyclists. With increases in traffic predicted for the next twenty years, cycling safety will continue to diminish.

In the corridor, there are positive features for cycling. On the US 15 bridge, the paved shoulders are wide and provide significant room for cyclists. The travel speeds are lower in Palmyra. The road surfaces are generally in good condition and there are limited conflict points, where vehicles and cyclists could cross paths.

Recreation: High Value

The Palmyra area may be a destination for cyclists. There are views of historic properties. There are abundant services for cyclists, including access to supplies, restrooms and other resources. The rolling topography can create interesting hills and challenges some cyclists. There is also abundant parking to access the Bike Route.

Recommendations

Additional Signage

The TJPDC should also work with VDOT and Fluvanna County to install additional bike signage that informs cyclists and warns motorists of frequent bike traffic.

Designate Shoulders as Bike Lanes

The TJPDC should work with VDOT to determine the feasibility of designating the shoulders on US 15 as official bike lanes. If those bike lanes are established, then the TJPDC

should coordinate efforts to install bike sharrows and signage.

Road Widening

The TJPDC should work with VDOT and Fluvanna County to provide further study on the road widening recommendations for US 53, listed on the RLRP.

Intersection Improvements

The TJPDC should work with VDOT and Fluvanna County to study the proposed intersection improvements, listed in the RLRP. Staff should also ensure that cycling accommodations are considered in the designs.

Shoulders at Guardrails

The TJPDC should work with VDOT and Fluvanna County to install additional shoulders on US 15, at the guardrails south of Courthouse Road.

Rerouting/Alternate Routes

The TJPDC should explore opportunities for alternate routes in this area. With minor rerouting, there may be inexpensive ways of avoiding areas that are dangerous to cyclists.

Camping at Pleasant Grove Park

The TJPDC should work with Fluvanna County to consider camping opportunities for cyclists, at Pleasant Grove Park. There may be opportunities to limit camping to cyclists.

Information Center

The TJPDC should work with Fluvanna County to consider a BR 76 information center at the Pleasant Grove Library. The center could include cycling information and access to cycling repair kits.



Segment F3: Courthouse Road

Fluvanna County

Segment F3 evaluates the existing cycling environment on Courthouse Road, between US 15 (James Madison Highway), to the west, and VA 608 (Wilmington Road), to the east. Courthouse Road serves as a connector for BR 76, linking the Village of Palmyra with eastern Fluvanna County and beyond. This corridor has relatively low traffic counts and includes roadway features that are friendly to cyclists. While this area does not offer abundant destinations or services, the traffic conditions are ideal for a US Bike Route.

Segment Characteristics

Rural Environment

- Major Collectors
- Secondary Routes

Road Segments

- » *Total Road Mileage: 4.23 Miles*
- VA 601 (Courthouse Road) – 4.21 Miles
- VA 608 (Wilmington Road) - .02 Mile

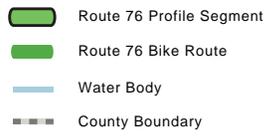
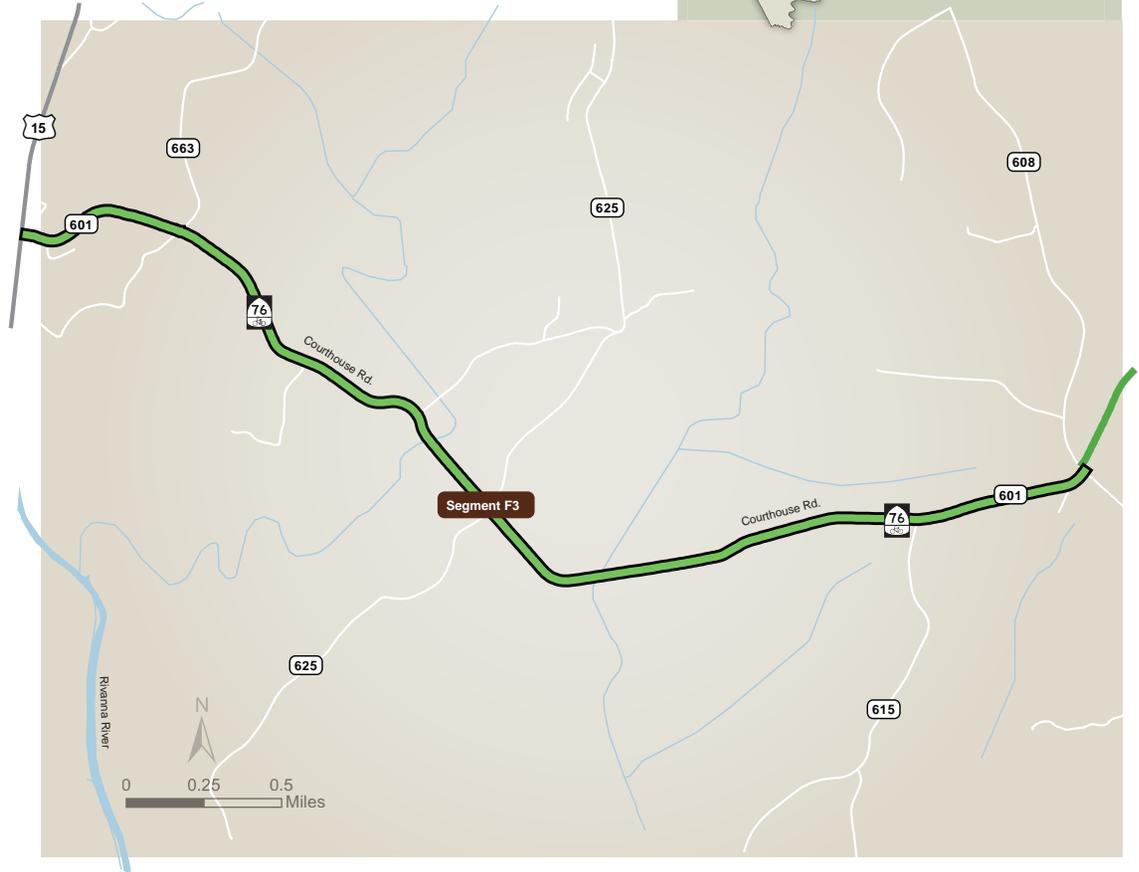
Land Uses

» *Rural*
This rural setting consists mostly of large wooded tracts, farms and large residential properties. To the west, the Village of Palmyra includes a wide variety of land uses, as is described in Segment F2.

Public Comment

» *No Comments*

C Bike Level of Service	980 Annual Average Daily Trips	40 Posted Speed (MPH)
9' Average Lane Widths (feet)	0' Shoulder/Bike Lane Width (feet)	0% Truck Traffic (percent)



Road Features

Road Sections

» Rural Two-Lane

Courthouse Road is relatively narrow, with an 18-foot paved surface that includes 9-foot travel lanes. (Figure 19-1)

» Shared Lane Bike Facility

There are no paved shoulders in this corridor. The road edge varies from grass shoulders to small embankments, vegetated ditches or drop-offs with guardrails.

Bike Signage

» Adequate Signage

There are four (4) BR 76 signs. While these signs are effective at guiding cyclists, there are no other bike-related signs.

Featured Intersection

» VA 608 (Wilmington Road)

At the intersection with Wilmington Road, VA 601 essentially creates two (2) T-intersections. Between those intersections, there are two (2) structures that are directly adjacent to the roadway. The home at the corner abuts the road, obstructing sight-lines. There is also a driveway behind this corner lot, creating additional conflict points near the intersection. Despite these concerns, there are relatively few accidents in this area, with 3 recorded crashes. (Figure 19-2)

» Other intersections in this corridor include:

- US 15 (James Madison Highway)
- VA 663 (Georges Mill Road)/ VA 1007 (Stoneleigh Road)
- VA 625 (Oak Creek Road)
- VA 615 (Carysbrook Road)

Sight Distance

» Clear Sight-Lines

There are no identified deficiencies with sight-distance in this corridor, except for minor issues at select intersections.

While there are obstructed views on several curves, motorists have sufficient sight-lines to avoid cyclists.

Additional Cycling Hazards

» Guardrails

There are four (4) locations where the road section includes guardrails, which limits the ability of cyclists to maneuver away from the road in case of emergency. (Figure 19-3)

Planned Road Improvements

» Road Widening

The RLRP identifies geometric deficiencies along VA 601. The plan recommends road reconstruction that includes full-width lanes and shoulders. This is listed as a long-term project, but there are no specific funds or timelines assigned to the work.

» Intersection Improvements

In the Palmyra Community Plan, there is a recommendation to construct a roundabout or other safety/capacity improvements at the intersection of US 15 and VA 601.

Traffic Conditions

Traffic Counts

» 660 to 1,300 ADT

Courthouse Road has relatively low traffic counts, with lower volumes on the eastern end of Segment F3. VDOT forecasts that traffic counts will not change significantly for the eastern end of Courthouse Road. Over the next twenty years, the segment closer to Palmyra may increase to 2,600 ADT, doubling the current traffic volumes.

Truck Traffic

» 0 percent

Travel Speeds

» 40 MPH

While the posted speed limit is 40 MPH, the actual travel speeds are likely closer to 50 MPH.

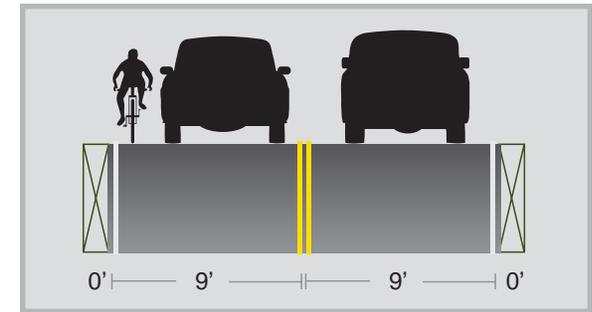


Figure 19-1: Typical Road Section



Figure 19-2: Structures at Wilmington Intersection



Figure 19-3: Guardrails on Courthouse Road

Level of Service

» A – Free Flow &

» B - Reasonably Free Flow

Currently, motorists are able to travel at or above the posted speed limit. VDOT forecasts show no change in LOS over the next twenty years.

Traffic Accidents

» *15 crashes, 0 fatal*

Between 2005 and 2011, there were 15 crashes on Courthouse Road. Most of these accidents involved deer or off-road collisions, where vehicles struck trees or signs on the roadside. *Note: There are no records of crashes between motorists and cyclists.*

Recreational

Historic Resources

» *Historic Properties*

There are several farms and homes with historic significance but none are open to the public.

Scenic Resources

» *No Designations*

While this corridor includes an attractive rural setting, there are no identified scenic resources. Most views are of wooded tracts and small fields.

Other Destinations

» *Village Destination*

At the western end of this corridor, the Village of Palmyra offers several potential destinations for cyclists, as described in Segment F2.

Cycling Services & Resources

» *No Services*

Access Points

» *Palmyra*

In the Village of Palmyra, at the western end of this corridor, there are several opportunities for cyclists to access BR 76.

Topography

» *Rolling*

The topography on Courthouse Road consists of a rolling terrain, along with at least two (2) larger hills. Those hills

are on either side of Ballinger Creek and include seven (7) percent grades.

Route Assessment

Bike Compatibility: BLOS C

Courthouse Road is moderately compatible for cycling, offering a relatively safe environment for riders. There are limited conflict points. Sight-lines are generally clear. Traffic counts, congestions and travel speeds are relatively low. Also, there is no recorded truck traffic and the roadway surface is in good condition.

While Courthouse Road is generally safe, there are features that diminish cycling safety. The travel lanes are narrow and there are no paved shoulders. There are also spot dangers, such as guardrails that limit the ability of cyclists to bail from the roadway.

Recreation: Low Value

Courthouse Road offers little in the way of recreational assets. There are no destinations, services or scenic resources.

Recommendations

Additional Signage

The TJPDC should work with VDOT and Fluvanna County to install additional bike signage that informs cyclists and warns motorists of frequent bike traffic.

Maintenance of Vegetation

The TJPDC should work with VDOT to examine the need to address vegetation at intersections, which may obstruct sight-lines.

Road Widening

The TJPDC should work with VDOT and Fluvanna County to

provide further study on the road widening recommendations listed on the RLRP.

Spot Improvements

The TJPDC should work with VDOT and Fluvanna County to establish recommendations for shoulders or bike lanes at the road sections that include guardrails. Additional space would increase comfort and safety for cyclists.



Segment F4: Venable Road

Fluvanna and Goochland* County

Segment F4 evaluates the existing cycling conditions on Venable and Tabscott Roads, between VA 608 (Wilmington Road), to the west, and VA 605 (Shannon Hill Road), to the east. This segment of BR 76 serves as a connector, linking eastern portions of Fluvanna County with Louisa County. This corridor has the lowest traffic counts in the study area, providing a relatively safe and comfortable ride for cyclists. While this area does not offer abundant destinations or services, the traffic conditions are ideal for a US Bike Route.

Segment Characteristics

Rural Environment

- Major Collector
- Local Road (VA 603)
- Secondary Routes

Road Segments

- » **Total Road Mileage: 9.78 Miles**
- VA 601 (Venable Road) – 7.03 Miles
- VA 603 (Tabscott Road) – 1.5 Miles
- VA 603 (Tabscott Road)* – 1.25 Miles

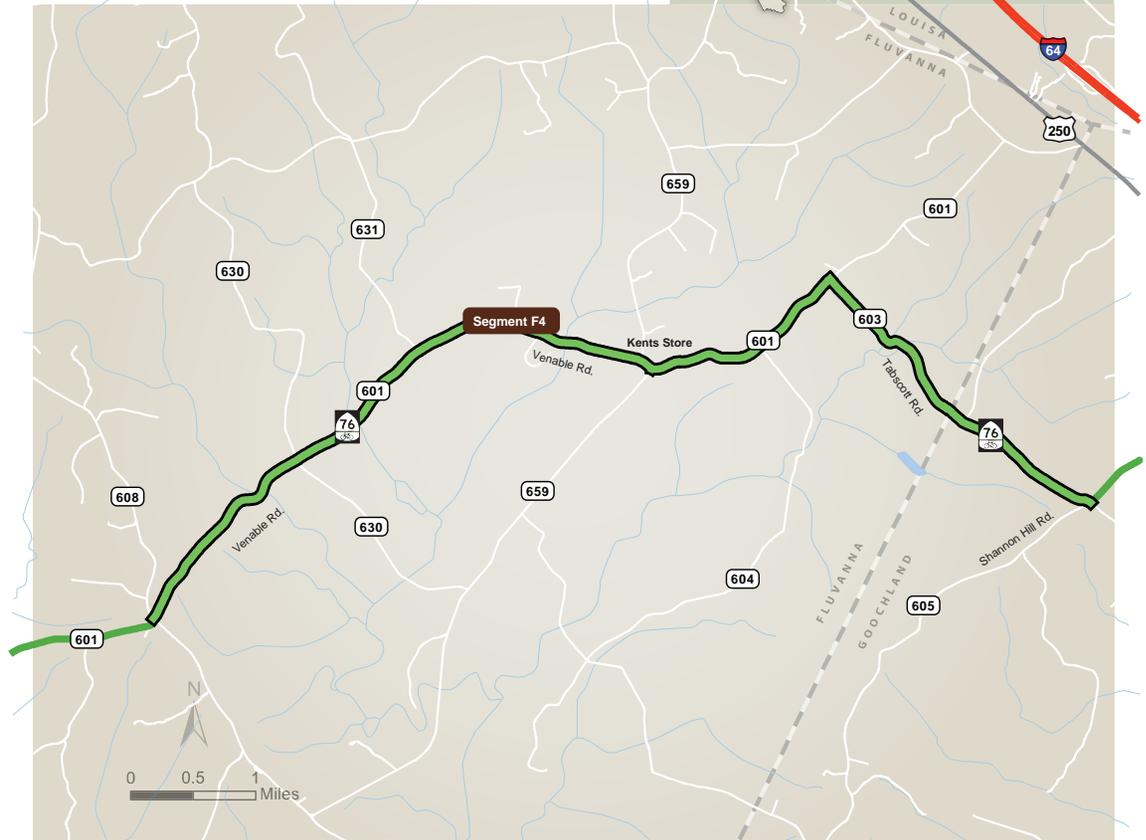
Land Uses

» **Rural**
 This rural setting consists mostly of large wooded tracts, farms and large residential properties. The Kents Store intersection has the greatest diversity in land use categories, with the presence of a community center, post office, fire station and other services.

Public Comment

» **No Comments**

B-C Bike Level of Service	385 Annual Average Daily Trips	55 Posted Speed (MPH)
9' Average Lane Widths (feet)	0' Shoulder/Bike Lane Width (feet)	0% Truck Traffic (percent)
Positive Contributing Factor		Negative Contributing Factor



- Route 76 Profile Segment
- Route 76 Bike Route
- Water Body
- County Boundary



Road Features:

Road Sections

» Rural Two-Lane

Venable and Tabscott Roads are relatively narrow, with an 18-foot, paved surface (9-foot travel lanes). In the Goochland County section of VA 603, the roadway is narrower, consisting of a 16-foot paved surface (8-foot travel lanes). (Figure 20-1)

» Shared Lane Bike Facility

Along most road sections, there are no paved shoulders, so cyclists must share the same travel lanes as traffic. The road edge is framed by shallow ditches and lawns.

» Bike Lanes

There are two (2) sections of Venable Road with bike lanes, both coinciding with culverts that span creeks (Phils Creek and Kent Branch). The bike lanes create additional space for cyclists, as there are guardrails on the road edges. The bike lanes are generally four (4) feet wide. (Figure 21-2)

Bike Signage

» Adequate Signage

There are eight (8) BR 76 signs. While these signs are effective at guiding cyclists, there are no other bike-related signs.

Featured Intersections

» Kents Store

The two (2) intersections at Kents Store are within 500 feet of each other. To the west, VA 659 (Kents Store Way) creates a Y-intersection with Venable Road. To the east, Cedar Lane Road forms a T-intersection.

There are no immediate deficiencies at these intersections, other than seasonal issues with sight-distance due to vegetation. There are multiple entrances near the intersections and the general roadway design can cause confusion between cyclists and motorists. Although, the low

traffic counts limit the number of accidents, as there were no recorded crashes in this area between 2005 and 2011. At the southwest corner of the Cedar Lane Road intersection, tall grasses can obstruct views from Venable Road, looking south.

» VA 601 (Venable Road)/ VA 603 (Tabscott Road)

There are potential sight distance issues at this T-intersection. From Tabscott Road, there are limited sight-lines to the southwest, requiring vehicles to pull into the intersection before gaining a clear line of sight. Between 2005 and 2011, there were no recorded crashes at this intersection.

» Other intersections in this corridor include:

- VA 608 (Wilmington Road)
- VA 630 (Mountain Laurel Road/Plain Dealing Road)
- VA 631 (Dogwood Drive)
- VA 604 (Covered Bridge Road)
- VA 646 (Duval Road)
- VA 605 (Shannon Hill Road)

Sight Distance

» Clear Sight-Lines

Additional Road Hazards

» Guardrails

There are three (3) locations with guardrails in this corridor, but only one location presents hazards to cyclists. At the other locations, the addition of bike lanes provides space for cyclists. At the Phils Creel culvert, there is 1,650 feet of bike lanes, in each travel lane. At the Kent Branch culvert, there is 850 feet of bike lanes. (Figure 20-3)

Planned Road Improvements

» No Planning Improvements

»

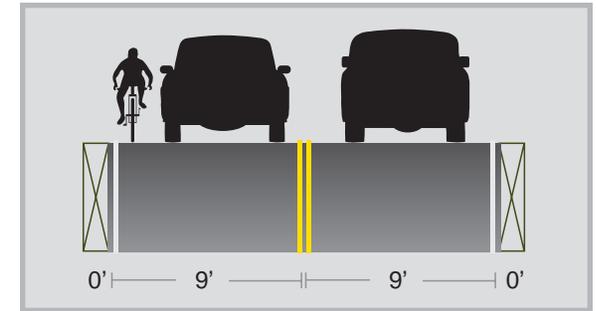


Figure 20-1: Typical Road Section



Figure 20-2: Bike Lanes



Figure 20-3: Hazardous Guardrails on Venable Road

Traffic Conditions

Traffic Counts

» 100 to 670 ADT

This corridor has the lowest traffic counts in the study area. On Venable Road, volumes range from 423 to 673 ADT, while VDOT records show 114 ADT on Tabscott Road.

VDOT's forecast for 2035 shows that traffic counts will remain low or even decrease along these roads.

Truck Traffic

» *0 Percent*

Travel Speeds

» *55 MPH*

With a 55 MPH speed limit and low congestion, actual travel speeds are closer to 60 or 65 MPH.

Level of Service

» *A – Free Flow*

On VA 601 and VA 603, traffic flows freely and vehicles are able to travel at or above the posted speed limit. VDOT forecasts show that LOS will remain at A over the next twenty years.

Traffic Accidents

» *19 crashes, 1 fatal*

Between 2005 and 2011, there were 19 crashes on Venable Road. The majority of these crashes were off-road collisions. In 2008, one of these off-road collisions was fatal.

Note: There are no records of crashes between motorists and cyclists.

Recreational

Historic Resources

» *Historic Structures*

There are several historic homes that are visible from the roadway. Only one (1) of these properties is officially designated historic under the Virginia and National Historic Registries.

Scenic Resources

» *No Designations*

Other Destinations

» *No Cycling Destinations*

Cycling Services & Resources

» *First Aid & Post Office*

There is a fire station in the Kents Store area. Since emergency response personnel are trained in first aid, this station can be a valuable resource for cyclists. In the same area, a post office may be useful to cyclists, who need to send/receive equipment, emergency repair parts and other supplies.

Access Points

» *Post Office*

At the post office, there is parking that could allow riders to access BR 76.

Topography

» *Flat & Rolling*

The topography in this area is relatively flat, with subtle rolling hills, near the small creeks that pass through culverts under VA 601. On Tabscott Road, the terrain is flat.

Route Assessment

Bike Compatibility: BLOS B – C

While the BLOS varies, this corridor is compatible for cycling. While the roadways are narrow, the traffic counts are among the lowest in the study area. Without heavy vehicles, there are minimal hazards from truck blast. There are also clear sight distances and relatively few conflict points. Due to these conditions, crashes and traffic congestion is essentially nonexistent. Finally, while there are guardrails, those locations pose few hazards for cyclists.

There are only a few safety concerns in this corridor. The travel speeds are relatively high for the lane widths. There are also minor deficiencies with sight distance at intersections, which could be hazardous to cyclists.

Recreational: Low Value

This corridor does not offer much in the way of recreational

assets. There are no destinations for cyclists, other than the roadway itself. There are no scenic vistas and there are limited resources for cyclists.

Recommendations

Additional Signage

The TJPDC should work with VDOT and Fluvanna County to install additional bike signage that informs cyclists and warns motorists of frequent bike traffic.

Maintenance of Vegetation

The TJPDC should work with VDOT to identify areas where vegetation obstructs sight-lines at intersections. The next step would be to improve sight distances by removing or trimming vegetation.

Partner with Richmond Regional

The TJPDC should coordinate with Richmond Regional Planning District Commission to explore any potential road improvements on the Goochland County section of Bike Route 76.



