Transportation Matters

montgomery matters

Montgomery County Transportation Master Plan

Draft
August 2023

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List of Acronyms

AADT: Annual Average Daily Traffic

CT: Community Transit

CTB: Commonwealth Transportation Board

DRPT: Department of Rail and Public Transportation

LOS: Level of Service

LRTP: Long Range Transportation Plan

MMTF: Multi-Modal Transit Facility

MPA: Metropolitan Planning Areas

MPO: Metropolitan Planning Organization

NRVMPO: New River Valley Metropolitan Planning Organization

NRVRC: New River Valley Regional Commission

NRVSS: New River Valley Senior Services

OIPI: Office of Intermodal Planning and Investment

ROA: Roanoke Regional Airport

RVTPO: Roanoke Valley Transportation Planning Organization

TAC: Technical Advisory Committee

TDM: Travel Demand Management

TDP: Transit Development Plan

TIP: Transportation Improvement Program

UDA: Urban Development Area

VDOT: Virginia Department of Transportation

VTTI: Virginia Tech Transportation Institute

VMT: Vehicle Miles Traveled

VTMEA: Virginia Tech Montgomery Executive Airport

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EXECUTIVE SUMMARY

PLAN STRUCTURE

This plan consists of five parts, laying out a narrative for Montgomery County's vision and implementation strategies. Each part includes chapters that address various topics and inventories the technical aspects of Montgomery's roads, bike and pedestrian investments, transit services, and other travel modes.

Part I – Introduction: Visit Part I to learn more about the County's transportation planning process and related efforts. The introductory section presents an overview of the document and consists of two chapters.

- Chapter One (Introduction) describes the plan's purpose, regional context, past and present transportation efforts, and plan summary.
- Chapter Two (The Planning Process) explains the County's transportation planning process, the public and stakeholder engagement results, and other administrative elements of the document.

Part II – Where We Are and Where We Are Going: Refer to Part II to review existing conditions and future trends. This section documents the existing conditions for each travel mode and anticipates future needs. This section also includes a visioning chapter that details Montgomery County's transportation vision and goals, guiding subsequent chapters.

- Chapter Three (Existing Conditions) documents the existing transportation network, including roadways, bike and pedestrian facilities, micro transit, transit services, Travel Demand Management (TDM), freight and rail, and inter-regional services. This information identifies existing deficiencies and functions as a baseline for future trends.
- Chapter Four (Trends) explores demographic and employment trends, commuting patterns, land development, and future traffic projections.

  Chapter Five (Transportation Visioning) uses the previous two chapters to establish a countywide transportation vision, goals, policies, and objectives. This chapter also includes performance measures and targets that guide recommendations and project improvements.

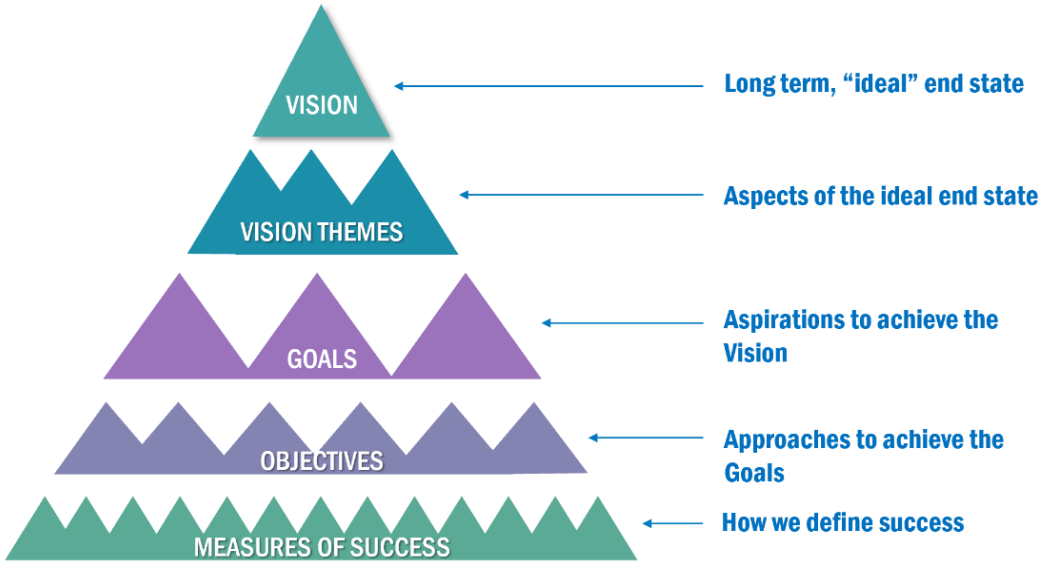


Figure 1: The transportation vision guides the County's goals, which in turn form objectives and actions.

Figure 2: Transportation Matters defines projects by starting with preferred solutions that address the County's various travel needs.

Part III – Needs and Proposed Solutions: Refer to Part III to find documentation of the County's transportation needs and the project identification process. The list of needs guides new transportation network improvements, defined in Part IV and V.

- Chapter Six (Transportation Needs) documents defined needs from Virginia's Statewide Transportation Database, called VTrans, which Virginia's transportation agencies use to evaluate transportation funding applications. This chapter also describes the County's process for identifying and prioritizing local needs.
- Chapter Seven (Project Identification) consolidates all known transportation projects and investments into a single list. This chapter also flags any unaddressed needs and locations that would be ideal for new capital improvements.

Part IV – Evaluating Proposed Solutions: To learn more about Montgomery's transportation solutions and project evaluation, visit Part IV. Solutions are general approaches that determine the most appropriate improvements for addressing a known need. The plan then evaluates subsequent projects to create a countywide project list, as shown in Part V.

- Chapter Eight (Strategies and Solutions) defines preferred strategies and solutions for addressing known travel needs in Montgomery County. Local officials can refer to the solutions when evaluating new transportation deficiencies or concerns.
- Chapter Nine (Project Evaluation) matches new and existing projects to these preferred solutions to determine the County's best and most cost-effective investments.

Part V: Recommendations: Refer to Part V for a complete list of recommendations and strategic steps for implementation. In these chapters, the plan presents details on priority projects and identifies the next steps. This includes a format that will allow local officials to easily track progress on implementation.

- Chapter 10 (Project Recommendations) consists of the County's transportation projects list with profiles on high-priority investments. Each profile serves as a user-friendly reference.
- Chapter 11 (Next Steps and Implementation) is the strategic element of the plan. It includes a tracking sheet, responsible parties, cost estimates, and other information on each recommendation and action.

Appendices: Refer to the appendices for additional information and technical reports on specific projects. These attachments include a glossary of transportation terms, acronyms, project details, public and stakeholder engagement documents, and other technical reports.

SUMMARY OF PLAN

Transportation Matters sets vision-related statements and recommendations in the subsequent chapters. For easy reference, the following is a summary of the plan's main points. Refer to later chapters for additional details.

Envisioning Montgomery County: Transportation

Five major transportation goals were established for the *Transportation Matters* plan:

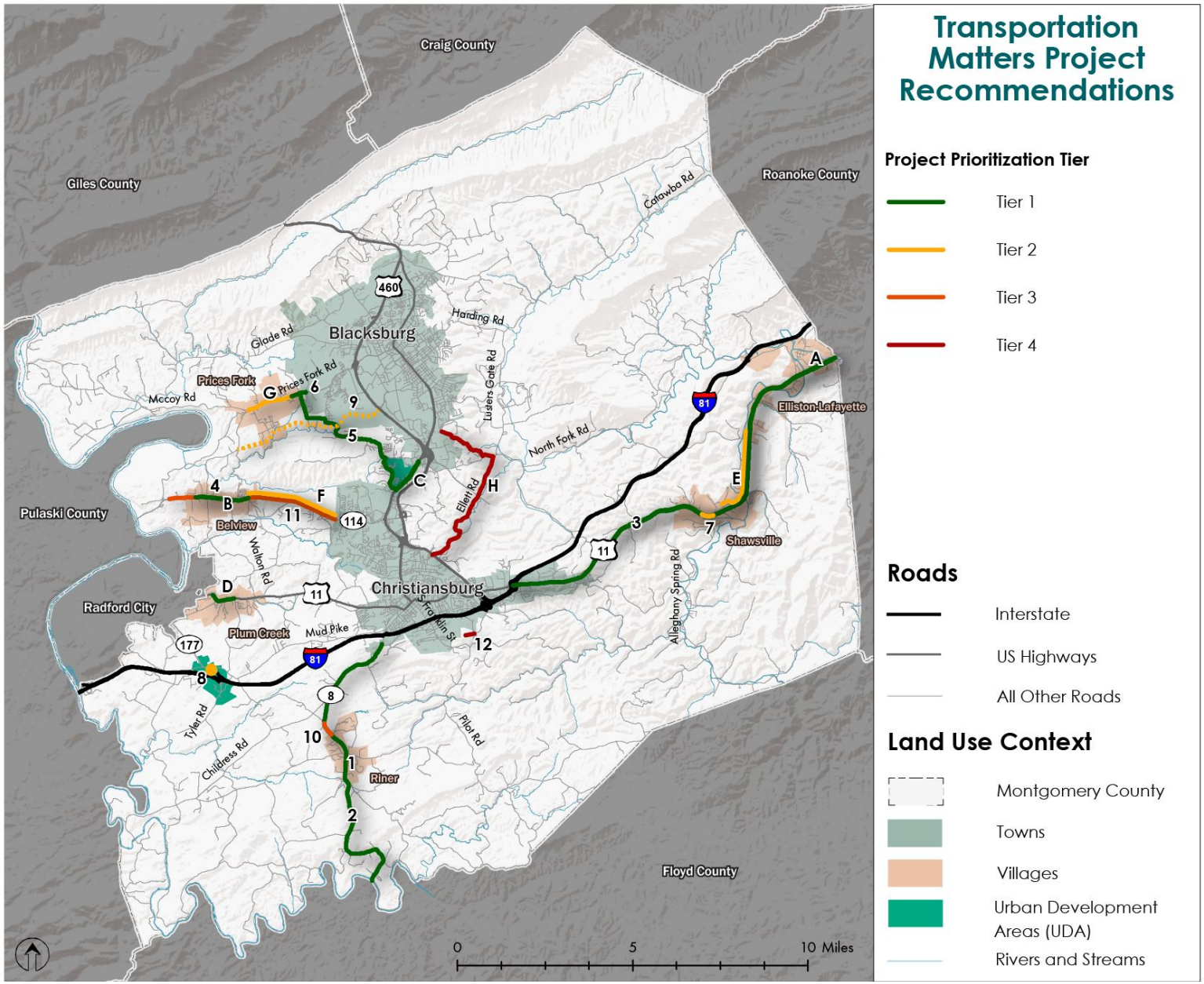
- **Goal A – Safety for All Users:** Significantly reduce traffic fatalities and serious injuries on all public travel-ways and for all travelers, including motorists, cyclists, pedestrians, and riders.
- **Goal B – Congestion Relief:** Invest in improvements and adopt strategies that lessen traffic delays and improve reliability on the County's travel-ways.
- **Goal C – Multimodal Travel Options:** Develop a robust transportation network that offers travel options and viable transportation alternatives.
- **Goal D – Connectivity:** Connect neighborhoods, commercial areas, and other destinations for more direct and convenient routes.
- **Goal E – Economic Competitiveness and Prosperity:** Invest in a transportation system that safely and efficiently moves freight, grows the local economy, and fosters economic prosperity.

Project Recommendations

After reviewing transportation data and prior studies, *Transportation Matters* identified twenty (20) projects to enhance Montgomery County's transportation system. Although every project would offer benefits to the County, these projects were further classified into four prioritization tiers based on the extent to which each corresponds to the County's transportation and land use goals. The locations of these projects are shown in Map 1 on the following page.

The recommended projects were divided into separate lists for roadway improvement projects (Table 1) and multimodal improvement projects (Table 2). This division corresponds to the funding sources that are typically available to these projects.

A third grouping of Other Improvement Recommendations (Table 3) identifies priority transportation improvements that are not yet associated with specific locations, which does not allow them to be evaluated using this plan's standard process.



Map 1: Transportation Matters Project Recommendations

Table 1: Priority Roadway Improvement Projects

Map ID	Corridor/ Facility	From	To	Project Description	Prioritization Tier
1	Route 8 (Riner Road)	250 ft south of Union Valley Road	0.2 mi south of Union Valley Road	Turn Lane Improvements	Tier 1
2	Route 8 (Riner Road)	Town of Christiansburg Corporate Boundary	Floyd County Corporate Boundary	Route 8 Safety Improvements	Tier 1
3	US 11/460 (Roanoke Road)	Interstate 81	Roanoke County Corporate Boundary	Intersection Improvements and Intelligent Transportation Systems Solutions	Tier 1
4	Route 114 (Peppers Ferry Road)	Waterworks Road	Belview Drive	Prices Fork Road Intersection and Pedestrian Improvements	Tier 1
5	Route 657 (Merrimac Road)	Prices Fork Road	North Franklin Street	Merrimac Road Safety Improvements	Tier 1
6	Route 685 (Prices Fork Road)	at Merrimac Road Intersection		Merrimac Road Intersection Improvements	Tier 1
7	US 11/460 (Roanoke Road)	Trump Lane	Lewyn H Gardner Lane	Alleghany Springs Road Intersection Improvements	Tier 2
8	Route 177 (Tyler Road)	at Mud Pike Road Intersection		Intersection Improvements	Tier 2
9	460 Connector Road (New)	Southgate Drive	Prices Fork Road	New Road Construction	Tier 2
10	Route 8 (Riner Road)	at Riner Park Entrance		Access and entrance for new park facilities	Tier 3
11	Route 114 (Peppers Ferry Road)	Town of Christiansburg Corporate Boundary	Constitution Road	Widen to four lanes	Tier 3
12	Falling Branch Industrial Park Road	Falling Branch Corporate Park		Access road for new industrial park properties	Tier 4

Table 2: Priority Multimodal Improvement Projects

Map ID	Corridor/ Facility	From	To	Project Description	Prioritization Tier
A	US 11/460 (Roanoke Road)	Stones Keep Lane	North Fork Road	Add Lafayette off-road shared use path	**Tier 1**
B	Route 114 (Peppers Ferry Road)	Bradford Lane	Mass Circle	Add Belview bicycle and pedestrian facilities	**Tier 1**
C	US 460 Business (South Main Street)	Hightop Road	Ferguson Drive	Business 460 Multimodal Improvements	**Tier 1**
D	US 11 (Lee Highway)	Truman Avenue	Fire Tower Road	Add Plum Creek bicycle and pedestrian facilities	**Tier 2**
E	Old Town Road / US 11/460 (Roanoke Road)	Shawsville Middle School	Seneca Hollow Road	Add off-road shared use path	**Tier 2**
F	Route 114 (Peppers Ferry Road)	Mass Circle	Christiansburg Town Limits	Add off-road shared use path	**Tier 2**
G	Route 685 (Prices Fork Road)	Tucker Road	Blacksburg Town Limits	Add Prices Fork bicycle and pedestrian facilities	**Tier 2**
H	Route 723 (Ellett Road) / Route 603 (Cedar Run Road)	Town of Christiansburg Corporate Boundary	Town of Blacksburg Corporate Boundary	Add on-road bicycle facilities	**Tier 4**

Table 3: Other Project Recommendations

Project Name	Project Description
Interstate 81 Truck Rest Area	Create a rest stop or truck parking area near the Interstate 81 Exit 118 interchange to provide a safe alternative to parking on the interstate shoulder.
Valley to Valley Trail	Support efforts to acquire right of way and construct facilities to complete the proposed Valley to Valley trail network.
Village Bicycle and Pedestrian Facilities	Encourage the addition or inclusion of bicycle and pedestrian facilities along all streets and roads in designated village and UDA growth areas.
Village Transit Connections	Support efforts to extend transit service to designated village growth areas to enhance accessibility and to further support their development as compact and walkable communities.

PART I: INTRODUCTION

CHAPTER 1

Introduction

PURPOSE

Transportation Matters is Montgomery County's first stand-alone transportation plan, providing specific guidance and support to the County's Comprehensive Plan, **Montgomery Matters**. The County's Planning and GIS Department initiated the transportation planning process in the summer of 2021, working with its on-call consultants, EPR, P.C. and Clark Nexsen. *Transportation Matters* serves various County objectives, including the following:

- **Support the Comprehensive Plan:** *Transportation Matters* is a stand-alone County document that is a more detailed extension of the Montgomery Matters Comprehensive Plan. While the Comprehensive Plan affirms vision, goals, and policies, Transportation Matters offers additional detail on recommendations, strategic steps, and implementation.
- **Consolidate Various Plans:** Various local, regional, and state plans influence Montgomery County's transportation system. *Transportation Matters* consolidates those findings and recommendations into a single document creating a more cohesive and coordinated vision for meeting the County's future travel needs.
- **Create an Updated Vision:** The transportation planning process developed a new vision for the County's movement of people, goods, services, and information. Visioning includes more detailed goal statements that guide local actions.
- **Develop Policies:** The plan sets updated County policies and objectives to accomplish its vision and goals.
- **Set Strategic Approaches:** *Transportation Matters* includes recommendations, priorities, and implementation guidance. This next level of detail forms a strategic planning approach to make the County's vision a reality.
- **Guide Officials and Stakeholders:** This document helps to coordinate the actions of local, regional, and state officials by defining a clear transportation vision and County-approved approaches. The plan also guides developers on future development proposals and outlines the County's expectations.
- **Incubates Transportation Funding Materials:** *Transportation Matters* also develops the data, information, and technical details that make for successful funding applications.

HISTORIC CONTEXT

Transportation Matters is the latest of Montgomery County's planning efforts. In recent decades, County residents have seen the community shift from relative isolation to a development center crisscrossed by the mainline of the Norfolk-Southern Railroad, Interstate

81, and an expanded US 460 that provides direct access to I-77 and the upper Midwest. As the transportation facilities changed and expanded, so too did the economic conditions and character of Montgomery County. In the 1950s, agriculture, education, and manufacturing functioned as the community's economic base. The construction of Interstate 81 in the 1960s and 1970s brought Roanoke and the rest of Virginia closer by significantly decreasing the driving time required to reach Woodrum Field (Roanoke Regional Airport) and the eastern and northern portions of Virginia. During these two decades, the Virginia Department of Transportation (VDOT) added two additional lanes to US 460 through Giles County to what would become the West Virginia Turnpike (subsequently I-77). VDOT also extended Interstate 81 further south and west. The changes in I-81 and US 460 effectively decreased Montgomery's isolation with the outlying areas while increasing the County's viability as a regional center. By the early 1970s, rapid growth of Virginia Tech and nearly 20 years of industrial expansion defined the region's economy. The development of the New River Valley Mall in the late-1970s signaled a significant shift in the economic patterns—a shift made possible, in large part, by changes in the highway transportation system. By the 1980s, growth in the retail and commercial sectors transformed this landscape.

The County's long-range planning efforts go back to the 1970s. In 1973, Montgomery adopted the first of a series of comprehensive plans, each more detailed than the last. To one degree or another, each of the comprehensive plans focused on the need for ongoing stewardship of local resources. In 1990, the Board of Supervisors adopted a new comprehensive plan, which aimed to guide growth for the final decade of the 20th century. Some of the goals, objectives, and policies in the 1990 plan reflect those included in the two previous versions, from 1977 and 1983. The last update occurred in 2005 and had

many of the same recurring themes, including issues of affordable housing, environmental protection, and preservation of agricultural uses and lands.

Today, Montgomery County is the regional employment, education, retail, and service center for the New River Valley. Cohesive planning, both in terms of transportation and land use, is necessary to address the issues created by a growing population and by expanding needs both in and outside of the County. As with the changes created by the extended highway systems in the past, new expansions are likely to spawn changes in development patterns and increase development pressures in areas of Montgomery that have been left reasonably unchanged.

Regional Context

Montgomery County is within the New River Valley Region and part of an inter-connected regional community. The County is within two regional entities, the New River Valley Regional Commission (NRVRC) and the New River Valley Metropolitan Planning Organization (NRVMPO). An eastern portion of Montgomery County falls within the Roanoke Valley Transportation Planning Organization (RVTPO). It is also home to two of the Commonwealth's biggest towns, Blacksburg and Christiansburg. Surrounding communities also heavily influence the County and are essential partners, especially with regional efforts like transportation. The following is a summary of these localities and regional entities and an overview of how these organizations affect Montgomery County.

New River Valley Regional Commission (NRVRC)

NRVRC is one of 21 Planning District Commissions in Virginia and exists to encourage collaboration on regionally significant issues and opportunities. Also known as PDC 4, the Regional Commission encompasses the counties of Floyd, Giles, Montgomery, and Pulaski, and the City of Radford. Regional programs include community development, economic development, housing, natural resources, GIS services, and transportation planning. NRVRC also provides support to 8 of the region's incorporated towns, including both Christiansburg and Blacksburg. Transportation Matters contains findings and recommendations from various NRVRC plans and reports.

New River Valley Metropolitan Planning Organization (NRVMPO)

Virginia is home to 15 Metropolitan Planning Organizations, which are transportation policy-making bodies comprised of representatives from local governments and transportation agencies. Federal transportation laws and regulations require the establishment of MPOs in every urbanized area with a population over 50,000. MPOs facilitate a continuing, cooperative, and comprehensive (3-C) planning process that identifies ways to address the metropolitan area's transportation needs.

In 2003, the New River Valley region formed the NRVMPO, which encompasses Blacksburg, Christiansburg, Radford, and urbanizing portions of Montgomery and Pulaski counties. The MPO develops and maintains several of the region's transportation plans, such as the Long-Range Transportation Plan (LRTP). This plan unlocks federal funding for transportation projects in the MPO's defined boundaries. Montgomery County provides all administrative support for the MPO, providing staffing, office space, and other resources. This structure is unique in Virginia, where most MPOs operate within Planning District Commissions. Transportation Matters references recommendations from NRVMPO's recently updated LRTP and other efforts.

Roanoke Valley Transportation Planning Organization (RVTPO)

A portion of Montgomery County, the Elliston-Lafayette Village, falls within the RVTPO. While only a relatively small part of Montgomery is part of the RVTPO, it allows the County to participate in the Roanoke Valley's planning processes.

The Town of Blacksburg

According to the U.S. Census Bureau, the Town of Blacksburg is the second largest town in Virginia. It is home to over 44,000 residents, Virginia Tech, various employment centers, the region's bike share program, and Blacksburg Transit. The Town is part of Montgomery County but is incorporated as a municipal local government. Blacksburg adopts a comprehensive plan that is separate from the County and last updated this plan in 2021. Blacksburg operates its own transportation infrastructure, while VDOT maintains the County's roadway network.

The Town of Christiansburg

With over 23,000 residents, the Town of Christiansburg is the Commonwealth's fourth largest town. It is directly south of Blacksburg and, like Blacksburg, is an incorporated local government with a separate comprehensive plan. *Transportation Matters* identifies opportunities to coordinate with these relatively large towns on various transportation-related efforts. Like Blacksburg, Christiansburg operates its own transportation infrastructure.

Virginia Tech

Virginia Tech (VT) is a critical stakeholder, as an employer, attraction for events, home to thousands of students, and resource for the region. It subsidizes Blacksburg Transit. VT owns the Smart Road, a transportation research corridor which passes through the Catawba Valley and is planned to eventually connect to I-81. It is also responsible for the Multi-Modal Transit Facility, a six-acre project that will serve as a hub for multiple modes of alternative transportation, including Blacksburg Transit, the Smart Way Bus, Virginia Breeze, and the area's bike share program. The University Foundation, whose projects directly impact Transportation, is another major landholder in the County.

Surrounding Jurisdictions

Several jurisdictions surround Montgomery County and influence the region's transportation systems. Adjacent counties include Giles, Craig, Roanoke, Floyd, and Pulaski. Travel to and from Floyd causes traffic congestion along Route 8 (Riner Road) – a concern that arose through *Transportation Matters*' stakeholder and public engagement process. Travel along the I-81 corridor moves through Pulaski, the Roanoke region, and destinations beyond. Pulaski supports a transit shuttle that connects to Montgomery County and provides access to the towns. The City of Radford and Pulaski County are on the County's western edge and significantly influence traffic on I-81, Route 11 (Lee Highway), and Route 114 (Peppers Ferry Road). It operates Radford Transit, which provides connections to Montgomery County. The City is currently reviewing locations for a new bus terminal, with one potential location within the County. *Transportation Matters* involved stakeholder discussions, including coordination with local officials from some of these jurisdictions. Refer to Part II for more information on commuting patterns.

Past and Present Processes

Numerous local, regional, and state plans overlap with Montgomery County's borders and affect the *Transportation Matters* process. The chapters enclosed in this plan help to consolidate past and present efforts into a single user-friendly account. The following summarizes those documents that influenced Montgomery's transportation goals, objectives, policies, projects, or recommendations.

Bicycle and Pedestrian Master Plan (2014)

Late in 2012, NRVMPO recognized that pending federal legislation identified alternative transportation as a focus area. Consequently, the MPO partnered with the New River Valley Regional Commission to develop a Bicycle and Pedestrian Master Plan for the region, encompassing Montgomery County, the two towns, the City of Radford, and Pulaski County. The NRVMPO Bicycle and Pedestrian Master Plan aimed to develop a long-range multimodal transportation system strategy. During this effort, a working group reviewed the MPO's existing LRTP, local plans, and the Statewide Transportation Plan (VTrans 2035) to develop six bike and pedestrian network goals. Regional planners used the State's Multimodal System Design Guidelines to sketch a multimodal system plan.

The *Transportation Matters* process incorporated these six goals and subsequent objectives into the visioning elements (refer to Chapter 5). The corridor types and accessibility analysis influenced the strategies and solutions in Chapter 8. This analysis also affected the bike and pedestrian recommendations in Chapter 10.

Bike and Pedestrian Mast Plan: Goals and Key Objectives

Goal A: Mobility, Connectivity, and Accessibility
- Facilitate the movement of people (of all ages and abilities) and goods
- Create transportation options for underserved segments of the population
- Ensure linkages and reliability between various modes of transportation throughout the NRVMPO region

Goal B: Safety
- Target safety investment dollars at locations with known automobile/cyclists/pedestrian related incidents

Goal C: Cost Efficient Use of Public Dollars
- Optimize and market the use of existing facilities
- Invest in projects that benefit the movement of people vs. vehicles

Goal D: Economic Vitality
- Coordination of economic development, housing, and transportation planning
- Provide greater access to existing and future employment, activity, and education centers

Goal E: Environmental Stewardship
- Reduce idle time of motor vehicles
- Reduce the region's percentage of single occupant vehicles

Goal F: Public Health
- Support active lifestyles by creating more opportunities for walking and bicycling
- Create more access to goods, services, and local food

US Bike Route 76, New River Valley Report (2014)

June 2014, the Virginia Bicycling Federation requested assistance from the New River Valley Planning District Commission to prepare a regional report on US Bicycle Route 76. A team of local cyclists volunteered to assist with developing report content and data collection. The primary goals of the report are three-fold:

1. Verify signage exists to guide cyclists,
2. Determine if the existing signed route aligns with the latest Adventure Cycling map, and
3. Review the existing roadway conditions and route selection.

New River Valley Passenger Rail Study (2015)

This study aims to identify a potential location for a passenger rail station and document the ridership demand in the New River Valley region. The MPO Technical Advisory Committee (TAC) collaboratively developed site evaluation criteria, reviewed public input, and provided study oversight.

The region identified six sites that met or exceeded minimum site requirements for a passenger rail station. Potential locations included properties in Christiansburg, Dublin, Radford, and Pulaski. The NRVRC evaluated quantitative and qualitative factors against 32 criteria. In January 2016, the MPO Policy Board recommended that a location immediately adjacent to North Franklin Street and the Norfolk Southern mainline in Christiansburg be further explored. There was a follow-up "Operational Analysis" that identified specific infrastructure needs to offer passenger rail service to the New River Valley.

Transportation Matters included these considerations in the analysis of the inter-regional services, under Chapter 3, and in the discussion of the future trends, seen in Chapter 4.

Virginia State Rail Plan (2017)

The *Virginia State Rail Plan* sets the Commonwealth's vision for freight and passenger rail. It is an essential prerequisite for any railway improvements. The plan states that "Virginia's rail network is a valuable asset that grows the economy, relieves congestion, saves lives, improves air quality, and saves money. Continued investment in rail infrastructure will ensure the mission and vision of the Commonwealth's transportation network is achieved." This document supports the proposed passenger rail extension to Montgomery County. It depicts rail-related assets along the Norfolk Southern corridor that bisects the County. The plan's recommendations also aim to reduce truck traffic, a recurring topic important to the New River Valley and other communities along the I-81 corridor. *Transportation Matters* incorporates these considerations in "Part II: Where We Are and Where We Are Going."

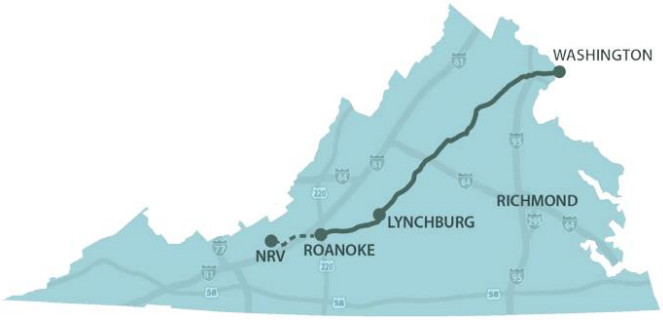


Figure 3: Extended Amtrak service would further connect Montgomery County and the New River Valley with the Commonwealth and destinations beyond. (Source: New River Valley Rail Study)

Regional Freight Plan for Virginia's New River Valley (2018)

The NRVMPO and NRVRC partnered on the 2018 regional freight study to inform local, regional, statewide, and federal partners about mobility goals that continually improve Virginia's and the New River Valley's competitive economy. The region's Freight Plan identifies the multimodal critical freight network and incorporates both urbanized and rural areas of the New River Valley. *Transportation Matters* considered the plan's recommendations and performance measures. Chapter 7 considers some of the recommendations from the Regional Freight Plan.

Key Findings and Recommendations from the Regional Freight Plan

Overarching regional strategies include:

1. Invest in new technologies that optimize infrastructure capacity.
2. Bring critical regional freight network intersections with Corridors of Statewide Significance up to current design standards.
3. Anticipate significant growth in freight truck and rail tonnage. Partner with the Virginia Department of Transportation and Department of Rail and Public Transportation to increase Virginia's global economic competitiveness.
4. Improve coordination between public and private sectors to address freight system needs. Identify strategies that minimize costs and address key challenges.
5. Increase data collection and levels of accuracy to better understand regional freight trends.

Figure 4: The Virginia State Rail Plan graphic depicts how freight rail investments can reduce truck traffic. (Source: Virginia State Rail Plan)

Interstate 81 Corridor Improvement Plan (2018)

In 2018, the Commonwealth Transportation Board (CTB), with assistance from the Office of Intermodal Planning and Investment (OIPI), VDOT, and the Department of Rail and Public Transportation (DRPT), studied the entire length of the Interstate 81 corridor in the Commonwealth. The CTB approved the *I-81 Corridor Improvement Plan* later that year and forwarded the study's findings to the General Assembly. This effort identified a $2 billion package of projects for the corridor and led to the IMPROVE 81 Program, https://www.improve81.org/.

During the 2019 General Assembly, legislators introduced two bills (Senate Bill 1716 and House Bill 2718) regarding the *Interstate 81 Corridor Improvement Plan*. However, the bills stopped short of identifying dedicated revenue sources for the package of recommended improvements. On March 28, 2019, Governor Northam announced amendments to the bills, which would provide for dedicated funding sources. The General Assembly passed the amendments, which received Governor Northam's signature on April 3, 2019.

Figure 5: The New River Valley MPO adopted this process with its 2045 Long Range Transportation Planning, which concluded in 2020.

The I-81 corridor and truck traffic were recurring themes during the *Transportation Matters* engagement process. The State's corridor improvement plan functioned as a helpful resource for developing the County's transportation direction. The State's findings populated the existing conditions and future trends chapters. *Transportation Matters* also considered recommendations in its later chapters.

2045 Long-Range Transportation Plan (November 2020)

Federal law requires that MPOs adopt a LRTP for their Metropolitan Planning Areas (MPA) to develop a comprehensive assessment of the region's travel needs and proposed improvements. The federal code also requires that the MPO update this plan every five years to remain consistent with existing conditions, confirm proposed plans and projects, and validate performance measures. The NRVMPO 2045 LRTP builds on the strategies and initiatives identified in its previous update and includes projects that are anticipated to occur over the next 25 years. Transportation projects must be incorporated in the LRTP to be eligible for federal funding.

Adopted in November 2020, the LRTP includes a comprehensive list of existing and planned highway, bicycle, pedestrian, transit, transportation demand management, rail, and air transport systems. The plan contains projects for the towns of Blacksburg and Christiansburg, the City of Radford, Pulaski County, and Montgomery County.

Transportation Matters incorporated several LRTP elements. Visioning statements influenced the goals and objectives in Chapter 5. This plan includes the LRTP's project recommendations in the County

Multimodal Plan (May 2021)

The NRVMPO and their consultants, Michael Baker International, developed a Multimodal Plan as an update of the region's 2014 *Bicycle and Pedestrian Master Plan*. The update reexamines the goals and methods the region used to create the original framework and used the newly updated DRPT *Multimodal System Design Guidelines*. This process concluded as *Transportation Matters* began and allowed Montgomery County to pull results and conclusions from the Multimodal Plan.

During the development of the Multimodal Plan, the consultants held stakeholder meetings and public engagement. This effort included discussions with each of the region's localities to provide background

into the multimodal planning work. In December 2020, due to COVID-19 restrictions, the public outreach occurred online. The community generally expressed specific comments on locations, such as certain intersections and road segments. Feedback included topics like intersections without crosswalks, roads where on-street parking creates dangerous situations, or locations where bicycle lanes end short of potential destinations. A second public meeting occurred on April 6, 2021, to present the draft document of the Plan and discuss the findings and recommendations.

Transportation Matters incorporated public engagement and other updated conclusions from the Multimodal Plan. It includes the Multimodal Plan's conclusions in Chapter 8: Strategies and Solutions.

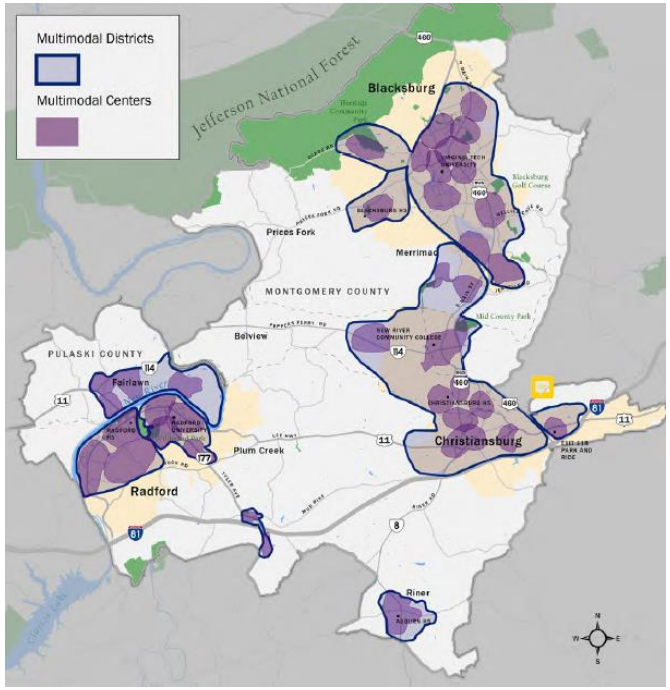


Figure 6: The Multimodal Plan identified Multimodal Centers and approaches included in the Transportation Matters process.

Huckleberry Trail Master Plan (Underway)

Overlapping with the *Transportation Matters* process, Friends of the Huckleberry Trail initiated an effort with NRVRC, Blacksburg, Christiansburg, and Montgomery County to develop a Trail Master Plan. The Friends of the Huckleberry Trail launched a survey to gather feedback that can help shape the region's future vision for this bike and pedestrian facility. The *Transportation Matters* plan incorporates some of these engagement results in Chapter 2. It also pulls results into visioning (Chapter 5) and project identification.

Valley to Valley Trail Study (Underway)

The Valley to Valley study aims to develop recommended alignments that will connect the Roanoke River Greenway to the New River Trail. The recommended alignment will include short-term investments and segments with independent utility. Segment by segment, these improvements will ultimately serve as part of the greater route. It would also connect to other recreational facilities in the region, such as the Huckleberry Trail.

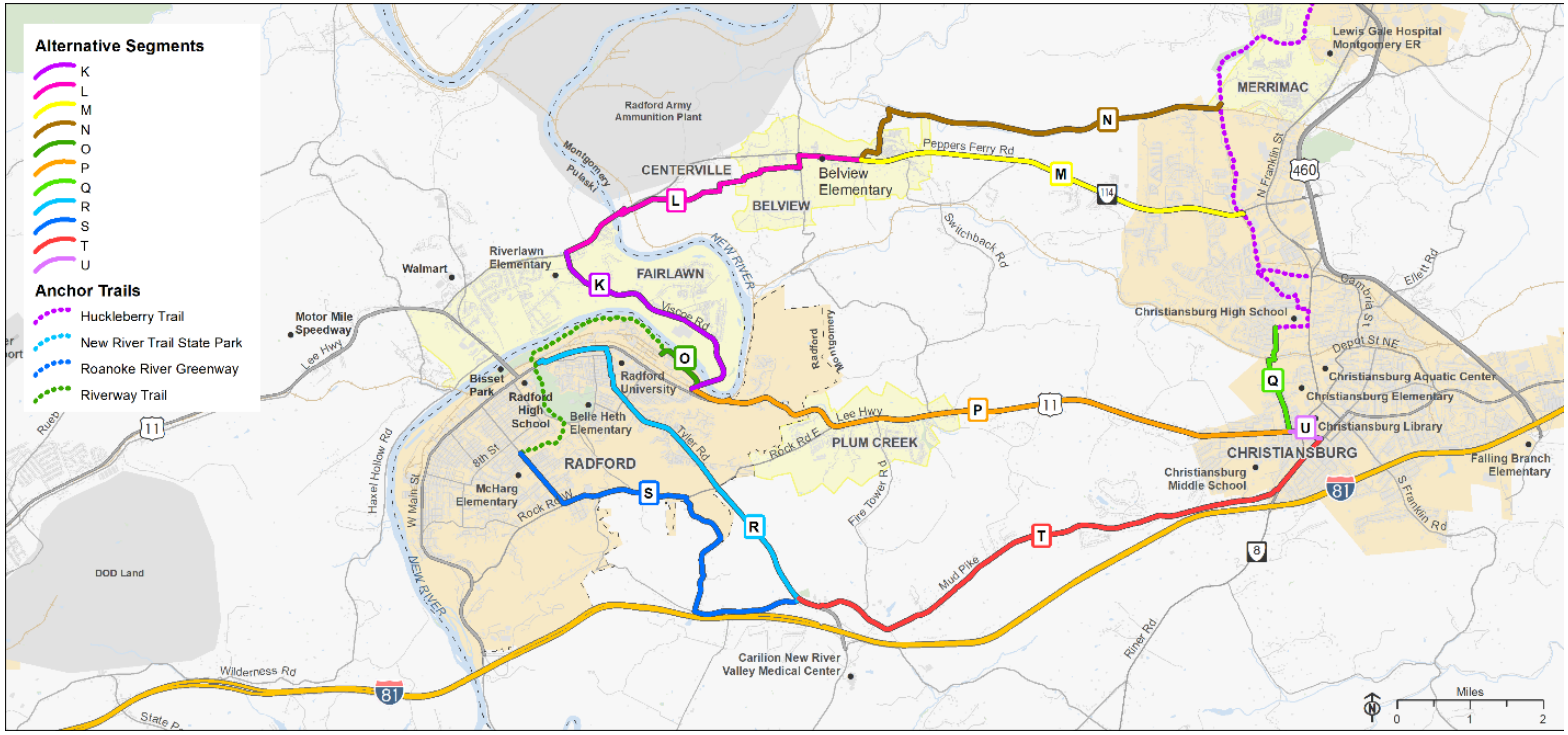


Figure 7: The Valley to Valley Trail process identifies various alternative routes through Montgomery County.

VDOT Salem District Efforts (Ongoing)

VDOT owns and maintains the public roads within Montgomery County, and Salem District staff actively assesses the County's transportation needs. In a recent initiative, VDOT District staff worked with the public and stakeholders to identify and prioritize the County's top transportation projects. A spreadsheet serves as the report on this effort and documents sixteen projects with the following information:

- Priority
- Project name and description
- Project start and end locations (latitude and longitude)
- What problem the project solves
- Status of any studies or engineering work
- Descriptions of those studies
- Local political support and endorsements
- VTrans needs
- Previous and potential funding sources
- Cost estimates
- Other comments or questions

Transportation Matters incorporates these projects into the Chapter 10 recommendations. VDOT data populates the existing conditions section, and their project prioritization influences the evaluation process in Chapter 9.

More on the Huckleberry Trail

The Huckleberry Trail is a 13.75-mile rail trail connecting the towns of Blacksburg and Christiansburg. It follows an old rail line with a rich history of providing transportation between Blacksburg and Christiansburg. The paved trail is a great place to exercise, spend time in nature, and commute to school or work via bicycle. The Huckleberry Trail currently stretches from the Jefferson National Forest north of Blacksburg, goes past Price Mountain in Montgomery County, and connects to the Christiansburg Recreation Center. The trail winds through a mixture of rural and rolling landscape, passing through forests and farmland.

The Friends of the Huckleberry operate as a non-profit with the goal of promoting and expanding the Huckleberry Trail. Friends of the Huckleberry also accepts donations towards future trail projects and benches.

VTrans (Ongoing)

VTrans is Virginia's statewide transportation plan and one of the most important considerations during the *Transportation Matters* process. The Commonwealth Transportation Board, through OIPI, oversees this document. VTrans lays out the overarching vision and goals for transportation in the Commonwealth and identifies ways to achieve those goals. In the latest update, OIPI envisioned VTrans as a resource and tool, rather than a static planning document. It has four focus areas symbolized by four pillars. These are:

- **Transportation Vision:** The vision established in VTrans provides a sense of purpose for transportation decision-making which is Good for Business, Good for Communities, and Good to Go.
- **Transportation Needs and Priorities:** VTrans Mid-term (0-10 years) transportation needs and priority locations inform investment decisions for studies and construction.
- **Long-term Risk & Opportunity Register:** VTrans Long-term (20+ years) Risk Map; Opportunity Register allows transportation agencies to be prepared for future risks and make the most of potential opportunities.
- **Strategic Actions:** VTrans Strategic Actions inform business plans of transportation agencies to advance the vision, accelerate solutions for transportation needs, and prepare for long-term challenges.

Consistency with VTrans is a prerequisite to qualify for the State's transportation funds. Consequently, *Transportation Matters* incorporates these pillars in nearly every chapter. The State's transportation vision influenced the County's goals in Chapter 5. The needs and priorities information served as the starting point for Chapter 6, the County's transportation needs analysis. *Transportation Matters* considers the long-term risk and opportunity register. It also incorporates strategic actions into Chapter 8's strategies and solutions.

CHAPTER 2
The Planning Process

PROCESS STEPS AND APPROACH
The *Transportation Matters* planning process spanned about one and a half years, from June 2021 to November 2022. Montgomery County initiated this effort with a kickoff meeting that included their consultant team, EPR, P.C. and Clark Nexsen. The team then reviewed past and present planning documents impacting the region during the summer of 2021 and analyzed Montgomery County's existing transportation network. The County launched a stakeholder and public engagement process in the fall of 2021 that included stakeholder interviews, creation of a project website, and a community survey. In the new year, consultants began drafting chapters and organizing project recommendations. Staff used public feedback from the community survey to finalize the County's transportation goals and identify travel needs. In the fall of 2022, consultants and County staff presented the draft plan to the County's Planning Commission for review. On xx,xx,xxxx, the Planning Commission forwarded a recommendation of approval to the Board of Supervisors, who held a public hearing and adopted the plan on xx,xx,xxxx. Refer to **Appendix 4** for the resolution of approval.

Planning Approach
The *Transportation Matters* process was a strategic and systematic approach that consisted of five main steps. While the following elements did not necessarily occur in sequential order, results from Step 1 guided Step 2, and so on. This process included the following:

1. **Visioning:** The County's consultants drafted goal statements using past and present planning documents. The vision, goals, and objectives helped define County needs and guided desired solutions. Public engagement efforts vetted this language and helped develop a clear vision for Montgomery County's future transportation system.
2. **Needs:** This term includes transportation problems, deficiencies, community concerns, or other defined issues that the County would like to address. The needs step involved an inventory of travel issues at road segments and intersections. The analysis also included neighborhood-level needs.
3. **Solutions and Strategies:** With a vision and a list of needs, Montgomery County developed preferred approaches for how to address its travel issues. These are general solutions, such as multimodal strategies, intelligent roadways, alternative intersections, and other methods. Step 3 identifies a general direction on how the County will address its needs.
4. **Projects:** Using the approaches from Step 3, the County assembled a list of more specific projects that can apply the preferred solutions and strategies.
5. **Evaluate:** In the final step, the County evaluated and prioritized the list of transportation investments from Step 4 to create a final project list.

PUBLIC AND STAKEHOLDER ENGAGEMENT
The *Transportation Matters* engagement process was robust and involved outreach to stakeholders and the public. Strategies included assessments of past engagement efforts, community open house events, stakeholder interviews, a community survey, the launch of a project website, and presentations to local officials.

Figure 8: Transportation Matters defined a concise vision, identified local needs, developed approaches for addressing those issues, then evaluated detailed project alternatives.

Engagement Goals

For an efficient and successful public engagement process, the County's consultants crafted well-defined goals that guided the development of meetings, discussions, surveys, and other activities. These guiding statements included the following.

- **Educate and Inform:** This goal applies to all phases of the planning process. As part of all engagement tools and efforts, the County strived to educate decision-makers and the public on best transportation practices and what the data reveals about Montgomery County's travel needs. The term "informing" also means bringing awareness to the plan and its importance.

- **Identify Transportation Needs:** An early goal was to identify transportation needs and perceived problems. While quantitative data revealed most issues, the engagement process validated this data analysis, identified concerns not reflected in the existing data, and highlighted problems that may require additional analysis.
- **Evaluate Goals and Vision:** This study also established a broader vision for the County's future transportation network. Visioning can be one of the most challenging parts of engagement, because goal statements can be broad and involve significant nuance. Consequently, visioning exercises invited smaller stakeholder groups. The public played the role of reviewing and prioritizing goals.
- **Identify Opportunities:** After identifying transportation deficiencies or needs, the process determined how the community will address these problems in a manner that is consistent with the stated goals. Stakeholders were better suited for identifying opportunities, whereas the public reviewed and validated those solutions.
- **Review and Validate:** Stakeholders and the public reviewed draft documents, goals, and final deliverables. This was an opportunity to provide comments or validate those materials.

Guiding Principles

Guiding principles directed all engagement activities in the *Transportation Matters* effort. County staff and their consultants established and maintained these four values.

- **Quality over Quantity:** While engagement efforts should foster as much participation as possible, *Transportation Matters* focused on quality interactions with the public and stakeholders. This approach meant additional time spent developing questions, agendas, and engagement materials. This principle also resulted in more small group discussions with stakeholders, where planners used probing and follow-up questions to learn more nuance, depth, and detail with local travel needs.
- **Meaningful Engagement:** Meaningful engagement means that public and stakeholder feedback will influence the process and the final deliverables. The County and its consultants communicated to participants how comments would feed into the final plan.
- **Building on Past Engagement:** This process honored previous efforts, integrating stakeholder and public comments from past and present planning work. An inventory of past engagement also helped planners identify questions that the community had already answered so that consultants could avoid redundant dialogues.

Engagement Activities

Transportation Matters involved a robust variety of engagement activities to fully develop goals, policies, approaches, and desired actions. The following is a summary of the engagement steps.

Past Engagement Efforts

Public and stakeholder feedback from recent years is still valid and applicable to the County's transportation planning efforts. Various local and regional planning initiatives overlapped with Montgomery County's *Transportation Matters* process and yielded valuable insights. The County's consultants reviewed the past and present plans listed in Chapter 1 and incorporated results from those other public meetings, surveys, and stakeholder interviews.

Community Open House Events

The planning process included two public open house events that coincided with essential milestones in the planning process. These meetings occurred in person and incorporated timeslots to interview stakeholders. The first open house happened on November 17, 2021, at the Montgomery County Government Center. The County hosted its second open house on September 29, 2022, at the same location.

- **Open House #1:** At the first public open house, County staff mounted posters and other displays about Montgomery's County's transportation network. The materials informed participants about the planning process and gathered feedback on two items. First, attendees helped to prioritize the County's draft transportation goal statements. Second, participants marked areas of concern on a map. Montgomery's consultants used this information to develop an inventory of locations to examine further.
- **Open House #2:** The second open house allowed the public and stakeholders to comment on the draft *Transportation Matters* document. This meeting included posters that showed recommendations, policies, and other proposed actions. Comments informed final edits to the plan.

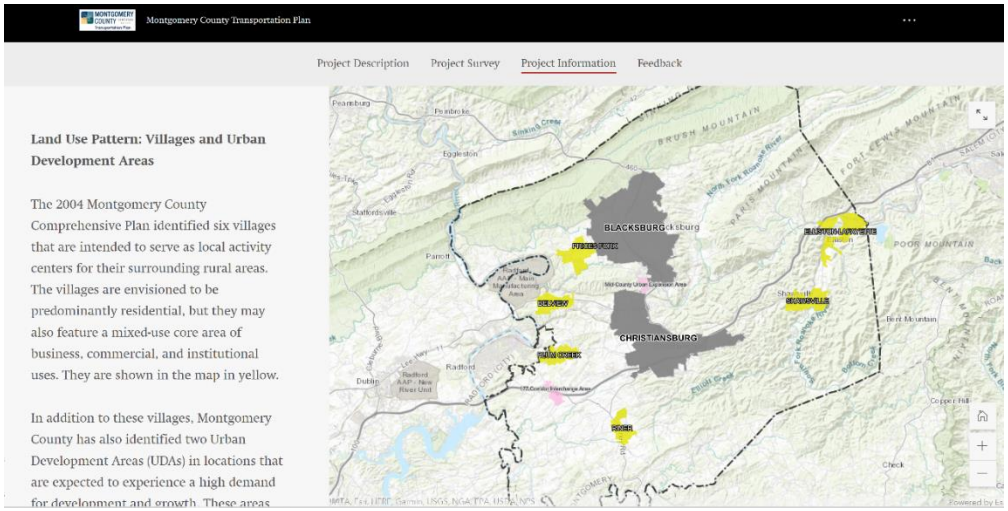


Figure 9: The ArcGIS story maps site allowed participants to scroll through a series of online maps and learn more about Montgomery's transportation network.

Stakeholder Interviews

The County hosted a series of stakeholder interviews in late 2021 that provided technical information on Montgomery County's travel needs. On November 17, 2021, these discussions started in person and continued with virtual interviews in the new year. The County's consultants recorded comments into a spreadsheet and marked site-specific comments on an interactive mapping platform, called Social PinPoint. County staff and their consultants interviewed department and agency officials, transportation providers (such as transit operators), and emergency services staff.

Project Website

The County's consultants launched a *Transportation Matters* website in late 2021. An Arc GIS story maps platform illustrated the County's various roadway corridors and travel modes. This format allowed visitors to scroll through dynamic maps and zoom in on parts of the community. It also included a link to the community surveys, an online comments box, and other project information.

Survey Instrument

The NRVRC hosted a community survey on another online platform, called MetroQuest. The questions asked respondents to prioritize transportation goals, suggest what travel modes needed new investments, and identify site-specific concerns. The survey collected nearly 300 responses and closed on March 31, 2022.

County Meetings

This process included meetings with the County's Planning Commission, Board of Supervisors, and other groups. Local officials discussed the plan and guided staff on revisions.

Engagement Findings

Survey participants indicated that "Safety for All Users" and "Relieving Congestion" are the two most important goals for the County to address (Figure 10).

Nearly all participants indicated that driving was their primary mode of transportation. When asked why they did not use other modes of transportation like biking, walking, or riding the bus, the most common answers included excessive travel time and the lack of safe and consistent infrastructure (Figure 11).

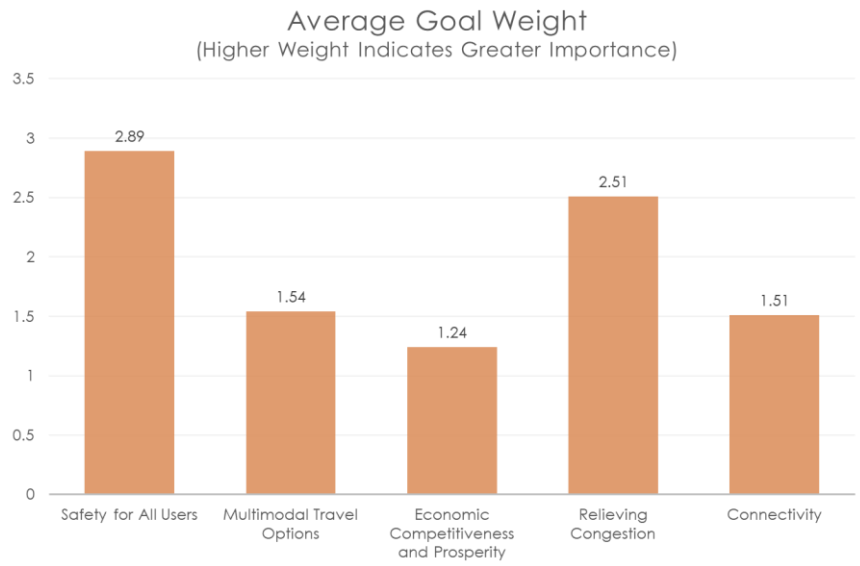


Figure 10: Public Survey Goal Weighting Results

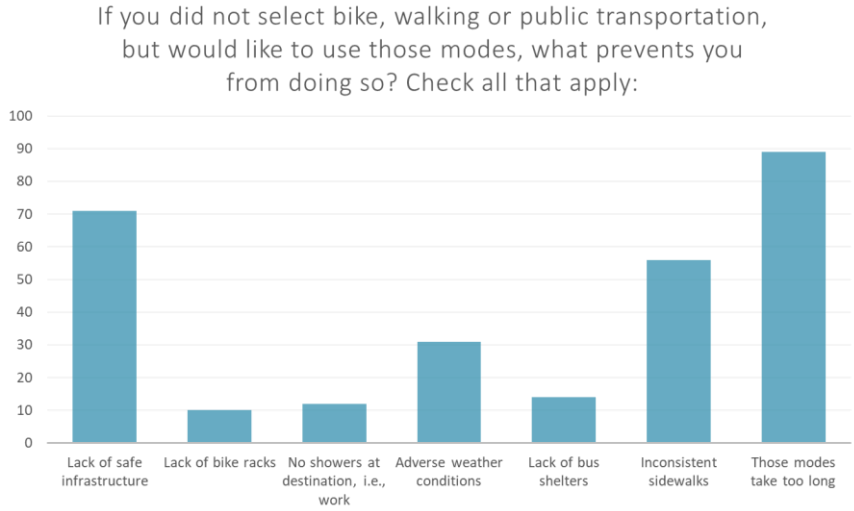
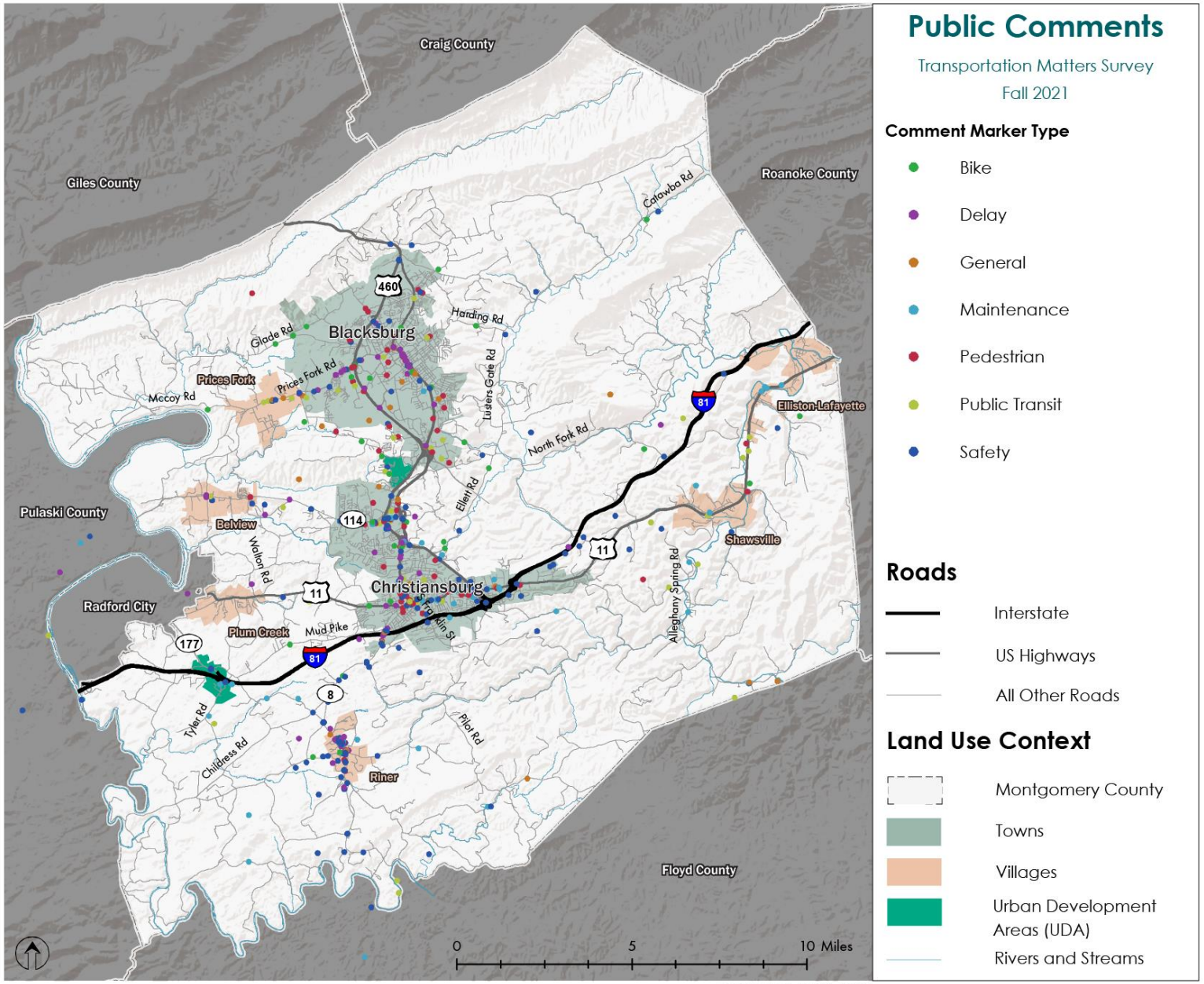


Figure 11: Public Survey Multimodal Obstacles Responses



Map 2: Transportation Matters Public Survey Responses

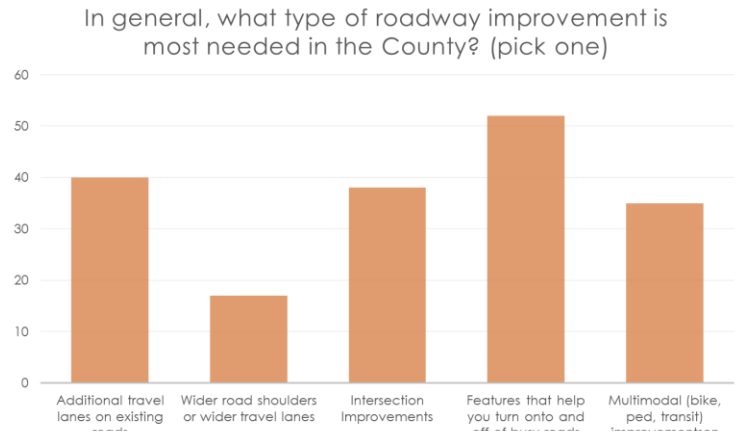


Figure 13: Public Survey Transportation Deficiencies

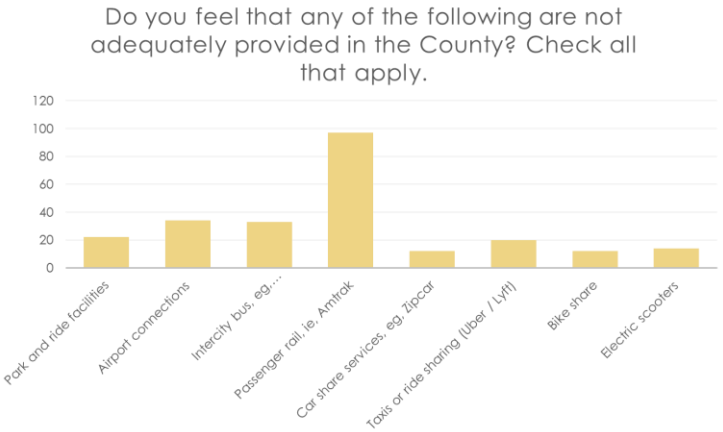


Figure 12: Public Survey Desired Transportation Improvements

When asked about the types of roadway improvements that are most needed in the County, the most popular response was for features that would allow drivers to safely turn on and off busy roads. Intersection improvements, multimodal improvements, and additional travel lanes also received large numbers of responses (Figure 12). A significant number of respondents also suggested that passenger rail service would be a valuable addition to the County (Figure 13).

The online survey also included a mapping exercise that allowed respondents to identify the locations of specific transportation concerns. The results of this exercise can be found on Map 2 on the previous page and were used to identify specific concerns or improvements that could be addressed by recommended projects.

The full results of the online survey can be found in **Appendix 2.**

Part II: Where We Are and Where We Are Going

Chapter 3

Existing Conditions

The existing conditions analysis presented in this chapter provides an inventory and basic assessment of Montgomery County's transportation network. It identifies the major facilities and services that later chapters will evaluate.

This plan assigns network elements to one of four categories:

1. **Inter-Regional Transportation Elements:** Facilities and services that connect Montgomery County to other cities and regions.
2. **Intra-Regional Transportation Elements:** Facilities and services that establish and enhance the connections between the towns and villages of Montgomery County.
3. **Growth-Center Transportation Elements:** Facilities and services that create safe, dynamic, and interactive spaces within Montgomery County's villages and designated growth areas.
4. **Rural Transportation Elements:** Facilities and services that provide access to homes, farms, and other destinations in Montgomery County's rural areas.

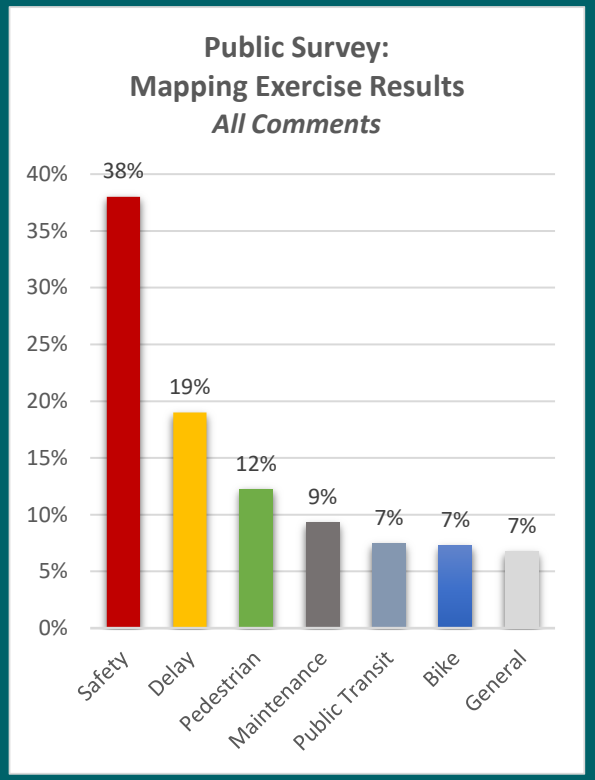


Figure 14: Categories of Public Survey Comments

The Transportation Matters public survey included a mapping exercise that allowed participants to identify specific types and locations of concern. The chart above shows how the 579 comments collected by the survey were distributed among topic areas. Further results will be included throughout this chapter.

Inter-Regional Transportation Elements

Connecting Montgomery County to Other Cities and Regions

The first category includes facilities that aim to connect Montgomery County to other cities and regions by facilitating the fast and efficient movement of goods and services. Many businesses and institutions rely on transportation services that can quickly and reliably move people, goods, and materials over long distances in the modern global economy. The infrastructure and services used in these activities prioritize measures such as speed and volume and seek to minimize areas of congestion and interference. The inter-regional transportation elements identified in Montgomery County include limited access highways, railroad, and air travel.

Limited Access Highways

Limited access highways are high-speed roadways that attempt to minimize congestion and decrease travel time by eliminating intersections and direct driveway access. Vehicles are only able to enter or depart these roadways at the designated entrance and exit ramps.

Interstate 81

I-81 is a north-south interstate corridor that runs between eastern Tennessee and upstate New York. It passes south of Christiansburg as it follows a northeast-to-southwest corridor through Montgomery County. I-81 offers a direct connection to the City of Roanoke, approximately 15 miles north of Montgomery County. South of the County, I-81 provides access to the City of Radford and the Towns of Dublin, Wytheville, and Abingdon. While the interstate does not enter the Town of Pulaski's corporate limits, the corridor provides access to this area.

This corridor opens Montgomery County to national and global markets. It connects with I-77, just outside of the New River Valley, connecting the region to broader commerce. Further south, I-81 reaches the City of Bristol, on the Virginia and Tennessee border, approximately 100 miles from the County seat. Interstate 81 does not pass through the corporate limits of the City of Kingsport but does cross into the City of Bristol. The corridor provides access to Kingsport and other portions of East Tennessee from Interstate 26, which intersects I-81 in Sullivan County.

This Corridor of Statewide Significance is a major freight resource and receives the highest traffic volume of all roads in Montgomery County. The Average Annual Daily Traffic (AADT) for the corridor is approximately 45,000-55,000 vehicles per day. An estimated 25% of these vehicles are trucks or other heavy vehicles.

US 460 Bypass

US 460 is an east-west highway corridor that runs between Norfolk, VA, and Frankfort, KY. The US 460 Bypass is a segment of limited-access highway that begins at the US 460/I-81 interchange on the east side of the Town of Christiansburg and continues to the north side of the Town of Blacksburg. This road provides direct highway access to both towns and relieves traffic on the heavily developed US 460 Business corridor. The Bypass' AADT varies among corridor segments, but generally falls between 35,000-45,000 vehicles per day. In recent years, the Town of Blacksburg worked with Virginia Tech and VDOT to remove the remaining signalized intersection at Southgate Drive.

After passing Blacksburg, US 460 continues west along the New River and eventually enters West Virginia. Although this portion is not entirely a limited-access design, the corridor does serve inter-regional transportation. It connects Montgomery County with Princeton and Bluefield, West Virginia. The corridor also accesses several smaller towns and villages in neighboring Giles County, Virginia.

Air Travel

Air travel offers the fastest and most direct form of inter-regional transportation. Due to the limited capacity and higher expenses associated with this form of transportation, air travel serves a specialized role. Montgomery County features one airport, the Virginia Tech Montgomery Executive Airport (VTMEA) in the Town of Blacksburg. It began operations in 1931 but does not offer passenger or freight service. However, the airport serves corporate and private air travel. VTMEA recently expanded its runway to accommodate increased demand. The closest airport offering passenger air travel is Roanoke Regional Airport (ROA) in the City of Roanoke. Freight air service is also available through the New River Valley Airport in neighboring Pulaski County.

Rail Service

Freight rail service in Montgomery County includes lines belonging to the Norfolk Southern Railway Company. These lines connect the County to destinations in West Virginia, Ohio, Tennessee, Georgia, Alabama, and various locations along the eastern seaboard. In recent years, Norfolk Southern made significant investments in its infrastructure and rail lines to provide more efficient freight

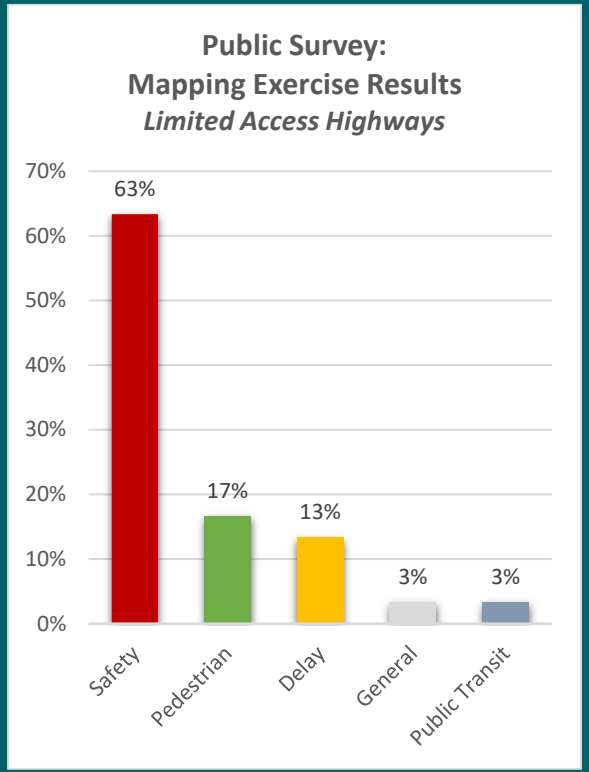
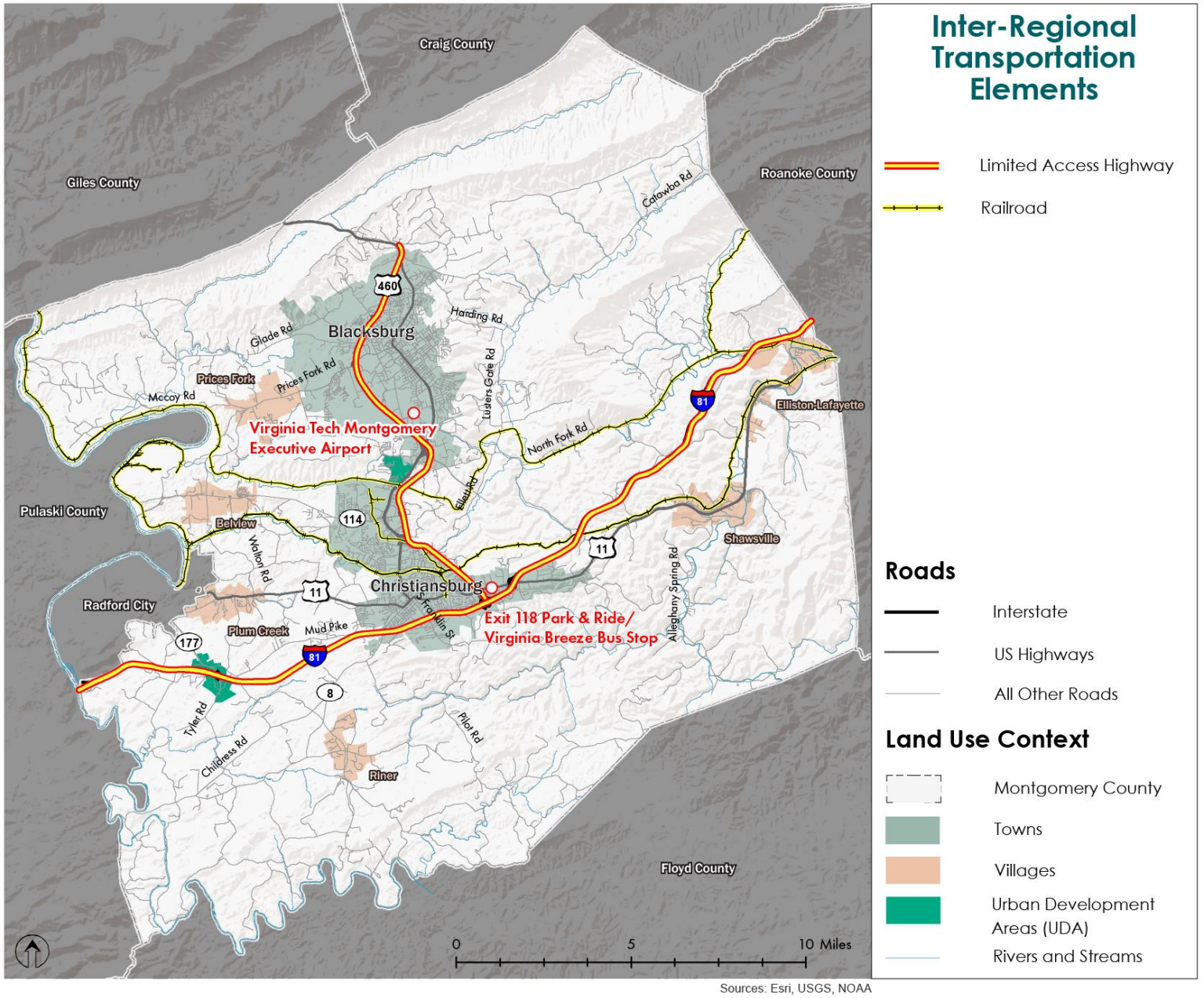


Figure 15: Limited Access Highway Comment Types

Survey comments marked along the county's limited access highways suggest that "safety" is the primary issue of concern on these roadways. Many of the comments were directed toward truck-related issues on I-81. "Pedestrian" concerns, which were second most common on these roads, were related to pedestrian crossings on overpass bridges.



Map 3: Interregional Transportation Elements

transportation. These improvements include projects to enhance tunnel clearances in Montgomery County. While the County does not feature a rail yard for large scale loading and unloading of freight, local businesses can access freight service in the County via rail-siding facilities.

Currently, passenger rail service is not available in Montgomery County. Plans are underway, though, to extend passenger rail to the County soon. In 2015, the New River Valley Passenger Rail Study identified potential locations for a passenger rail station and documented the ridership demand in the New River Valley region. The region developed six sites that met or exceeded minimum site requirements for a passenger rail station. Potential locations included sites in Christiansburg, Dublin, Radford, and Pulaski. In recent events, the General Assembly established a Passenger Rail Station Authority that partnered with localities who already committed financial support. The number of potential sites narrowed to two locations near Uptown Christiansburg, on US 460 Business/North Franklin Street. This passenger rail service will be an essential inter-regional link with the Commonwealth and destinations beyond Virginia's borders.

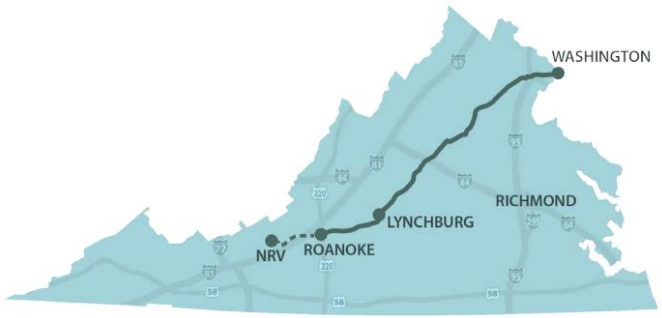


Figure 16: Extended Amtrak service would further connect Montgomery County and the New River Valley with the Commonwealth and destinations beyond. (Source: New River Valley Rail Study)

Inter-City Bus Service

Inter-city bus travel offers a relatively affordable long-distance transportation option for those who do not have access to a car or would prefer an alternative to driving. The County has access to two services, connecting the New River Valley to surrounding areas and beyond. Those options include the following:

Smart Way Commuter Service

The Smart Way is a commuter bus service that links the Roanoke and New River Valleys. It begins in downtown Roanoke at Valley Metro's 3rd Street Station and ends at the Virginia Tech Squires Student Center in Blacksburg. It includes a stop at the Exit 118 Park and Ride lot in Christiansburg. This service provides access to downtown Roanoke, as well as the Roanoke-Blacksburg Regional Airport and the Roanoke Amtrak Station. An express route connects the Virginia Tech Main campus in Blacksburg with the Virginia Tech Carilion School of Medicine and Research Institute in Roanoke. As of the date of this report, the Smart Way Bus fare is $4.00 each way.

Virginia Breeze

The Virginia Breeze is an inter-city bus service connecting Blacksburg, Virginia, with Union Station in Washington, D.C. The daily route includes several stops in the New River Valley, Shenandoah Valley, and Northern Virginia. The service is open to the public and operates on a regular schedule. It has a fixed route, and all buses can carry luggage. There is one north-bound and one south-bound trip offered seven days a week, and 365 days a year except for inclement weather. As of the date of this report, ticket prices range from $15-$50, depending on the selected trip.

Intra-Regional Transportation Elements

Connecting Destinations within Montgomery County

The next category of transportation elements provides connections between the towns, villages, and other destinations within Montgomery County. These infrastructure and service elements aim to facilitate travel between the homes, stores, schools, institutions, jobs, entertainment, and other services in the County's towns and villages. Although some of these travel corridors may accommodate higher travel speeds, some congestion is naturally expected. The transportation priorities for these network elements typically emphasize safety and accessibility. The major elements included in this section are the primary corridors that connect Montgomery County's village growth areas to the towns and/or to surrounding counties.

Local Highways

US 460

As described in the first section, US 460 is an east-west highway corridor between Norfolk, VA, and Frankfort, KY. For significant portions of its corridor in Montgomery County, this road functions more as an intra-regional corridor than an inter-regional route. In the County's eastern areas, between the Town of Christiansburg and the County's eastern border, US 460 is a four-lane divided highway that runs roughly parallel to the I-81 corridor. It passes directly through the Villages of Shawsville and Elliston-Lafayette.

Once US 460 enters the Town of Christiansburg, it divides into the limited-access route described previously and a "business" route that follows its original path through the County. This business route connects downtown Christiansburg and Blacksburg. Between the towns is an Urban Development Area (UDA), which US 460 supports. It provides access to major activities centers, including Uptown Christiansburg (formerly the New River Valley Mall), the Marketplace retail development, and Lewis Gale Hospital. US 460 has an AADT of between 15,000-25,000 vehicles per day.

US 11

US 11 is a north-south highway corridor that runs between southern Louisiana and Upstate New York. Despite the inter-regional character of this highway, the design in Montgomery County causes it to function more as a corridor for intra-regional travel between local destinations. Within Montgomery County, its route is roughly parallel to I-81. It passes through the Town of Christiansburg and the Villages of Plum Creek, Shawsville, and Elliston-Lafayette. Its AADT ranges between 5,000-12,000 vehicles per day.

Riner Road (Route 8)

Riner Road is in the southern portion of Montgomery County. It passes south from the Town of Christiansburg and eventually connects to Floyd County. It is the primary road connecting the Village of Riner to I-81 and the Town of Christiansburg. This two-lane road has an AADT of 7,000-12,000 vehicles per day.

Peppers Ferry Road (Rt 114)

Peppers Ferry Road is in the western portion of Montgomery County. It goes west from the Town of Christiansburg to the New River and Pulaski County within the region. The corridor features four lanes for the approximately 1-mile segment from the New River to the Radford Armory Ammunition Plant

entrance. East of the ammunition plant, the road decreases to two lanes. It remains in that configuration until it reaches the Town of Christiansburg. The Village of Belview is also along Route 114, approximately 3.5 miles west of Christiansburg. The corridor has an AADT of about 12,000 vehicles per day.

Prices Fork Road (Rt 685)

Prices Fork Road is in the western portion of Montgomery County. It connects the Town of Blacksburg to Peppers Ferry Road in the Village of Belview. Route 685 passes through the Village of Prices Fork and provides access to US 460 and the Town of Blacksburg. It is a two-lane road and has an AADT of 6,000-10,000 vehicles per day.

Tyler Road (Rt 177)

Tyler Road is in the southwestern corner of Montgomery County between I-81 and the City of Radford. It is a four-lane divided road that serves as a key access route for Radford University and features an AADT of 12,000 vehicles per day. Montgomery County designated the area surrounding its interchange with I-81 as a future Urbanized Development Area (UDA).

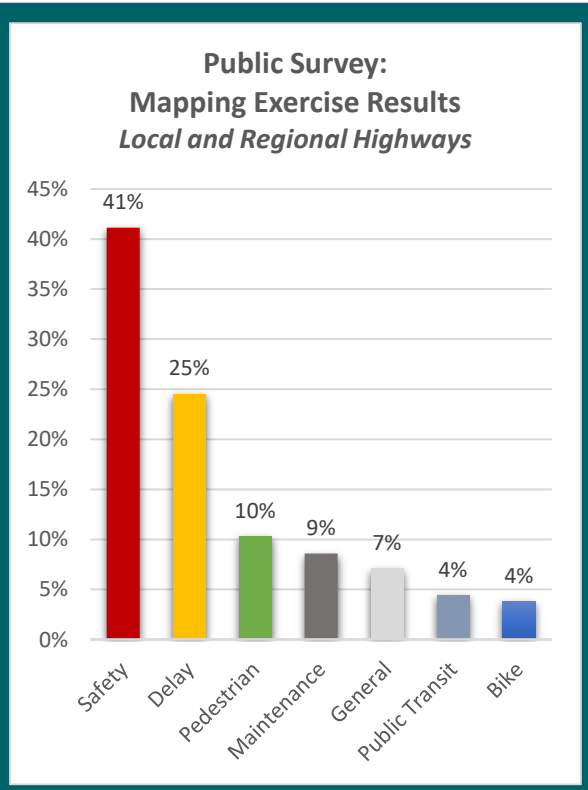
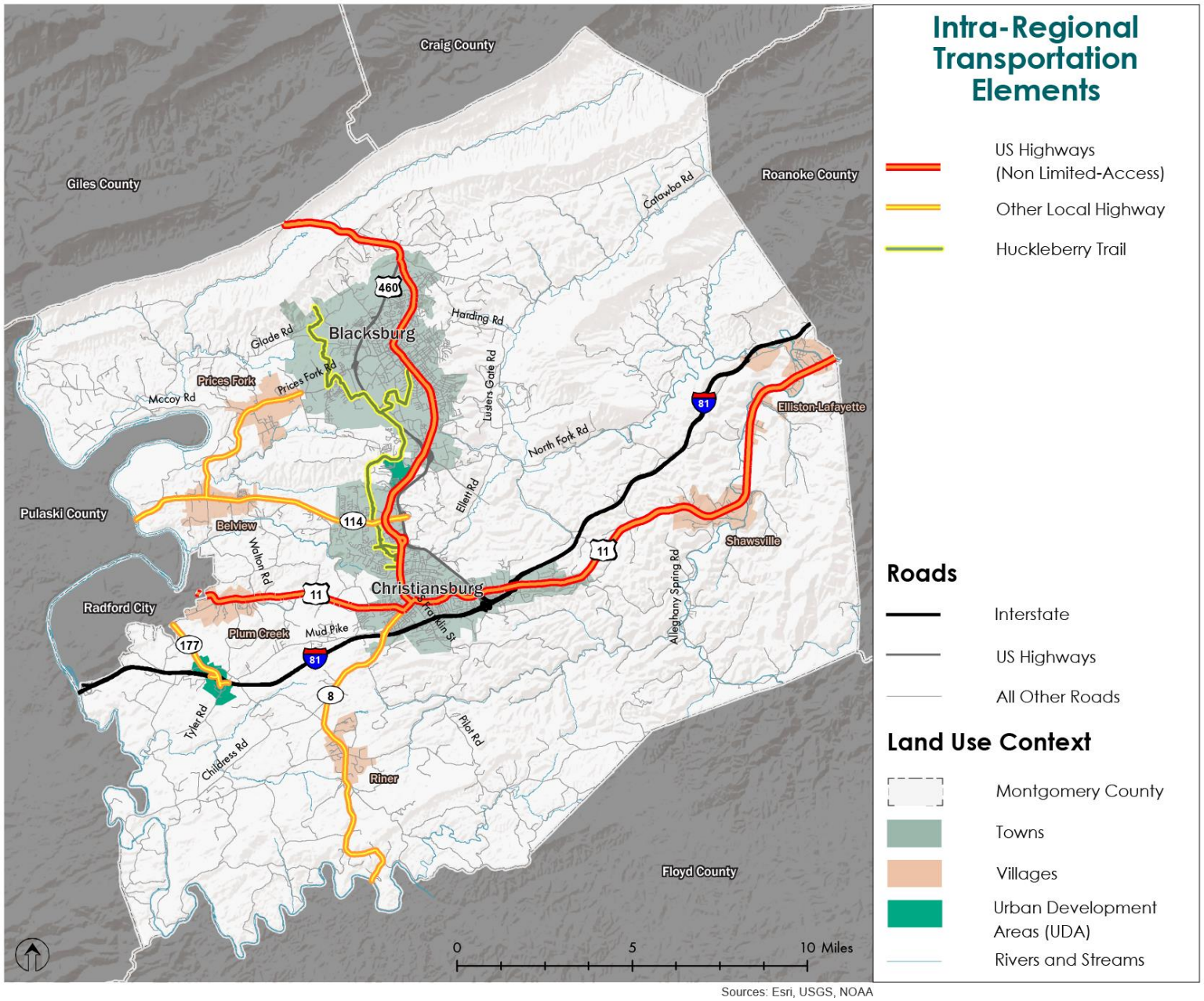


Figure 17: Local and Regional Highway Comment Types

Survey comments marked along the County's local and regional highways again identified "safety" as the primary issue of concern on these roadways. "Delay" was the next most common concern and was identified on these roads at a significantly higher rate than it was on limited-access highways.



Map 4: Intraregional Transportation Elements

TRANSIT

Blacksburg Transit

Blacksburg Transit is the primary fixed-route transit service in Montgomery County and primarily serves the Towns of Blacksburg and Christiansburg. It currently operates fourteen routes in Blacksburg, two routes in Christiansburg, and one route that serves both towns. The agency's transit development plan includes recommendations for possible service to include the Villages of Riner, Prices Fork, and Belview in the future. Virginia Tech plays a critical role with Blacksburg Transit. Staff, faculty, and students are the prime riders.

New River Valley Senior Services (NRVSS)

New River Valley Senior Services has been providing transportation for qualifying seniors for over 40 years. The service footprint includes the entire New River Valley footprint (PDC 4). It is a private non-profit organization, governed by a Board of Directors. NRVSS operates 35 vehicles, all of which are ADA accessible and equipped with safety equipment. Primary service involves transportation services to six friendship cafés throughout the region. The program also provides shopping assistance to the Agency on Aging clients and public who are 60 years of age or older and have no transportation alternatives.

Community Transit (CT)

Community Transit serves individuals in the community who live with behavioral health issues. Specifically, they offer trips to and from day support and treatment programs. In addition, CT provides transportation to hospital and doctors' visits for individuals with Medicaid funds. The service area includes the entire New River Valley footprint (PDC 4). CT has a fleet of 10 buses and six minivans. All vehicles are accessible with wheelchair lifts or ramps and securement areas. In addition, all CT drivers are certified in Passenger Service and Safety (PASS) training.

Other Services

In addition to Blacksburg Transit, several transit agencies from nearby localities operate routes that provide service to Montgomery County. Radford Transit provides a route between the City of Radford, Christiansburg, and Blacksburg that uses US 11 and US 460. All stops are in the towns of Christiansburg and Blacksburg.

Similarly, Pulaski Area Transit's New River Express route provides service between Pulaski, Dublin, Fairlawn, and Christiansburg. It uses Peppers Ferry Road (Route 114) in Montgomery County, but only offers one stop in Montgomery County (Christiansburg).

Finally, Valley Metro in the City of Roanoke operates the "Smart Way Bus," which provides service between Roanoke and Blacksburg. It offers five stops in the Towns of Christiansburg and Blacksburg. It can connect riders to destinations in Roanoke, such as the airport, Amtrak station, and Virginia Tech's medical campus.

The Blacksburg Transit Multi-Modal Transit Facility

The Town of Blacksburg worked in close coordination with Virginia Tech to develop the new Transit Multi-Modal Transit Facility project, which creates a central transportation hub and alternative transportation facilities on Perry Street, within the North Academic District. This facility encompasses over six acres and will include a 13,000 gross-square-foot, two-story transit center that will serve as a hub for multiple

modes of alternative transportation. Service will include Blacksburg Transit, the Smart Way bus, Virginia Breeze, and bike share.

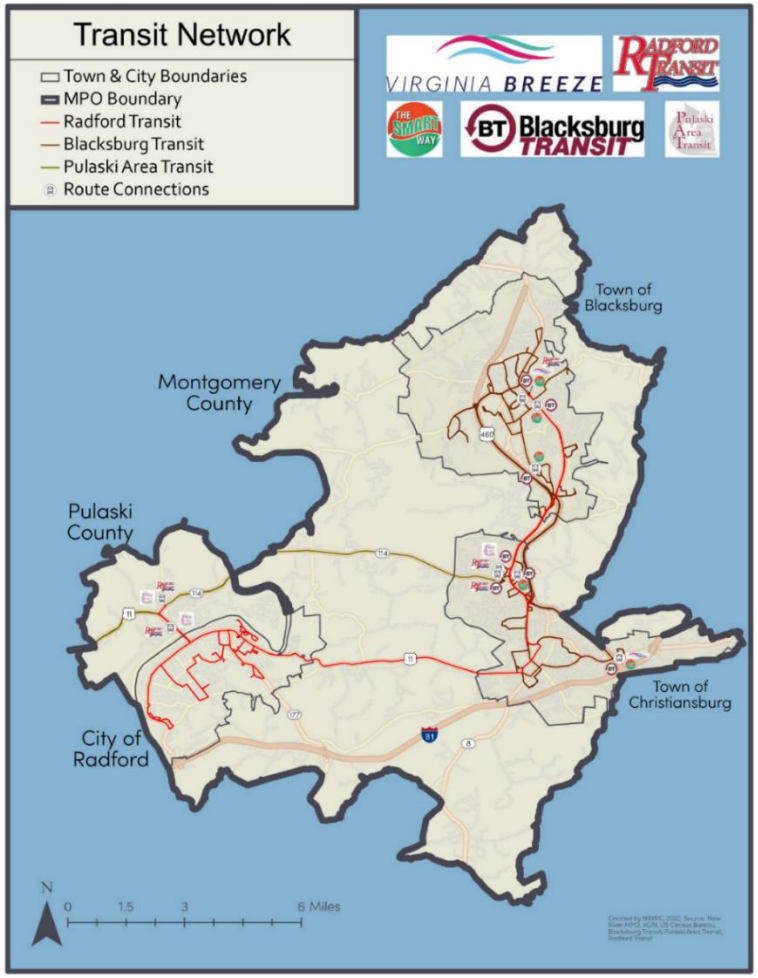


Figure 18: The NRVMPO's 2045 Long Range Plan depicts the region's various transit services.

Bicycle and Pedestrian Facilities

Huckleberry Trail

The Huckleberry Trail is a 15-mile paved trail that extends from Heritage Park in Blacksburg to Christiansburg High School in the Town of Christiansburg. The path functions as a recreational and commuting facility between the towns. While few segments of the trail are within unincorporated parts of Montgomery County, the Huckleberry Trail serves as a spine that can connect town residents to other parts of the County. It also connects with the Poverty Creek Trail System.

Poverty Creek Trail System

The Poverty Creek Trail system is a network of more than 20 miles, consisting of non-paved recreational trails in the Jefferson National Forest, north of Blacksburg. The Gateway Trail connects this network to the northern terminus of the Huckleberry Trail. There is parking access at the Gateway Trail trailhead and in two locations near Pandapas Pond.

Electric Scooters

Originally launched in the fall of 2019 as an 18-month research project, Virginia Tech partnered with the company SPIN to start a scooter sharing program on the Virginia Tech Blacksburg campus. The initiative was part of a study, conducted by the Virginia Tech Transportation Institute (VTTI) to study naturalistic driving behaviors. During the study, scooter use was limited to the Virginia Tech campus and enforced through geofencing. Scooters were available during daylight hours and removed from campus at night and during high traffic events. Some of the scooters were equipped with cameras to better document behaviors on and around the equipment. The cost to use the scooter was $1 to unlock and $0.15 per minute of use. The scooters were on campus through

August 2020 and VTTI expects to present the findings of the research project after examining the collected data.

Bike Share

A bike share program, known as RoamNRV, offered 13 bike share stations in Montgomery County. The majority were in the towns of Blacksburg and Christiansburg, but one station was located along the Huckleberry Trail, in Merrimac, in an unincorporated part of Montgomery County. These stations allowed users to rent electric assist bicycles (e-bikes) using a smart phone application. Despite local popularity, the service was abruptly discontinued in the fall of 2022.

Transportation Demand Management (TDM)

Park and Ride Lots

Montgomery County has two park and ride lots along the I-81 corridor. The Exit 118 Park and Ride Lot is near the I-81 and US 460 Bypass interchange. In addition to a paved parking lot, it offers covered bicycle racks and bus shelters. The lot includes a bus stop by Blacksburg Transit, the Smart Way Bus, and Virginia Breeze bus lines. The other park and ride lot is at Exit 128, near the intersection of Northfork and Pedlar Road. It offers a paved parking lot, but no bicycle or transit services.

RIDE Solutions

The New River Valley Regional Commission offers a service to commuters called "RIDE Solutions." One of the primary purposes of this program is to provide a carpool matching service that connects users with other people in their area who are interested in carpooling and share similar commuting patterns. RIDE Solutions also provides information about biking, walking, and transit. NRVRC staff works with employers to incentivize alternative transportation commuting options, and hosts a variety of promotional and educational events to raise awareness about these issues.

Growth-Center Transportation Elements

Creating Safe, Dynamic, and Interactive Spaces

The third category of transportation elements includes the facilities and services in the County's designated growth areas. These growth areas primarily include six villages: Belview, Elliston-Lafayette, Plum Creek, Prices Fork, Riner, and Shawsville. The County also designated two Urban Development Areas (UDAs): The "177 Corridor Interchange Area" surrounding I-81's Exit 109, and the "Mid-County Urban Expansion Area" between the towns of Blacksburg and Christiansburg.

These areas play a key role in Montgomery County's land use strategy for future growth and development. The County will maintain a balance between its urban and rural areas by directing most of its future growth into designated growth areas. The primary growth areas are the towns of Blacksburg and Christiansburg, which are intended to accommodate two-thirds of future growth in the County. The secondary growth areas include Montgomery County's villages and UDAs, and are intended to receive 80% of the remaining growth that occurs outside of the towns. The County envisions these villages as the primarily residential areas, but may also feature mixed-use centers for business, commercial, and institutional uses at higher densities. The UDAs are similar but may feature higher

densities of development and a greater emphasis on commercial or institutional uses.

Roadways

Each growth area is along one of the County's "Collector" or "Arterial" highway corridors. The juxtaposition of highway travel and local activity can create competing interests between thru-traffic trips and community life in these growth areas. While thru traffic may prioritize speed and minimal congestion, local traffic typically benefits from slower speeds of travel and many points of access to destinations. The roadway design of these highways typically does not change significantly within the County's villages and UDAs. However, accommodations for local traffic occur with features like decreased speed limits and separated turn lanes.

Aside from these collector and arterial roadways, most streets in the villages and growth areas are two lane, undivided local roads that serve as residential streets.

Urban Development Areas (UDA)

The UDA program was established in Virginia in response to the fact that dispersed development patterns increase the financial burden of maintaining and expanding the transportation system. UDAs are designated areas of concentrated development that are intended to improve the future efficiency of the transportation system.

A UDA is defined as (Section §15.2-2223.1):

- Areas designated by a locality that may be sufficient to meet projected residential and commercial growth in the locality for an ensuing period of at least 10 but not more than 20 years.
- Where an urban development area in a county includes planned or existing rail transit, the planning horizon may be for an ensuing period of at least 10 but not more than 40 years.
- Areas that may be appropriate for development at a density on the developable acreage of at least four single-family residences, six townhouses, or 12 apartments, condominium units or cooperative units per acres and an authorized floor area ratio of at least 0.4 per acre for commercial development, or any combination thereof
- Urban development areas shall incorporate principles of traditional neighborhood design (TND).

Source: VDOT

Note that Transportation Matters depicts UDAs and Development Growth Areas (DGAs) on various maps. VTrans recognizes both designations as UDAs.

Pedestrian and Bicycle Facilities

Another notable feature about the transportation infrastructure in Montgomery County's villages is their lack of pedestrian and bicycle infrastructure. Street elements such as sidewalks and trails can play an important role in helping create safe, dynamic, and interactive spaces that support community life and help establish a sense of place. Additionally, elements like sidewalks, paths, and bike lanes can allow village residents to safely walk and bike to destinations within their community. The lack of these elements within the County's villages and UDAs may limit access to destinations, present safety concerns, and discourage some types of business development.

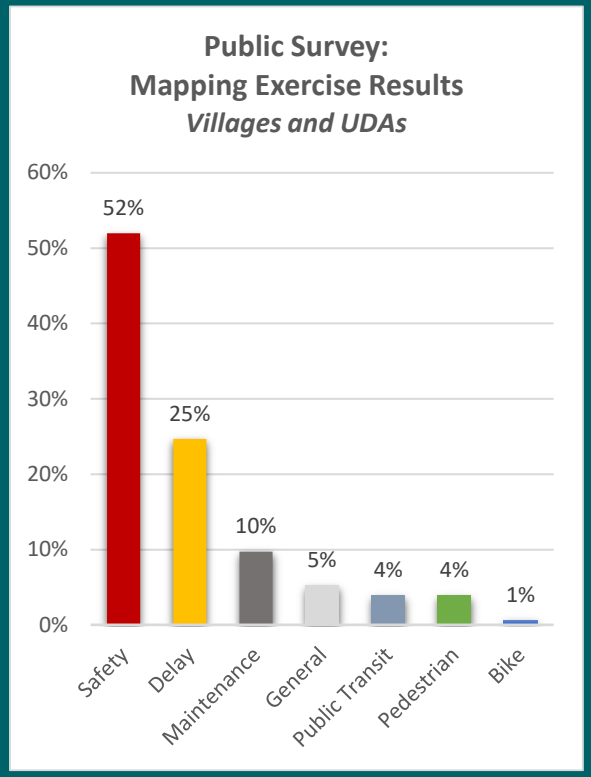


Figure 19: Village and UDA Comment Types

Like local and regional highways, "safety" and "delay" were the most common concerns identified within the County's villages and UDAs.

Rural Transportation Elements

Providing Access to Montgomery County's Rural Destinations

The final category of transportation elements represents those facilities that provide access to the homes, farms, and other destinations located in Montgomery County's rural areas. These elements consist almost exclusively of two-lane or unpaved roadways that experience low traffic volumes. The County features approximately 600 miles of rural roadways. The primary transportation goals associated with these roads are to preserve travel safety and maintain a state of good repair.

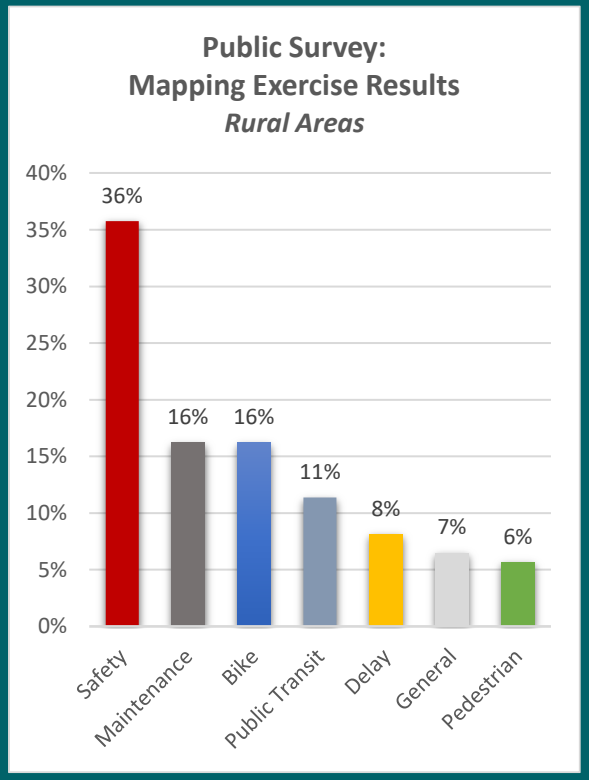


Figure 20: Rural Area Comment Types

After "safety," the issues most identified along rural roadways included "maintenance" and "bike" concerns. Bike comments included drivers who were concerned about bicyclists on narrow rural roads, as well as bicyclists who were expressing a desire for wider roads with more space for safe bicycle travel.

CHAPTER 4

Trends

A community's transportation priorities and needs are continually evolving. Changes in population, technology, cultural preferences, and numerous other factors can all affect how people travel and where they choose to go. This chapter introduces some key patterns and trends in Montgomery County and briefly considers how they might shape its future transportation system.

TRAVEL MODES

Every trip involves a type, or mode, of transportation. Common modes of travel include private automobiles, buses, bicycles, and walking. Each mode benefits from different forms of infrastructure and services that allow its users to enjoy a safe and comfortable travel experience. Consequently, part of effective transportation planning is the effort to match a community's transportation investments to its residents' preferred modes of travel.

To better understand what modes the residents of Montgomery County are using, *Transportation Matters* reviewed commuting data collected by the U.S. Census over the past 10 years. Commuting trips represent a minority of the total trips taken each day, but this data serves as the most reliable and predictable transportation pattern. It should not be considered comprehensive but does offer a general summary of travel choices in the County.

COVID-19 Impacts

As of the writing of this report in the spring of 2022, communities around the world are still determining the full impact of the COVID-19 pandemic on their transportation systems. Social distancing measures instituted during the height of the pandemic significantly disrupted travel patterns and made reliable transportation data difficult to collect. Even as these measures are gradually being removed, many people have chosen to continue working remotely and use other virtual technologies that have replaced or altered their pre-COVID travel behaviors. Montgomery County should continue to assess transportation data over the coming years to more fully understand any significant changes brought about during this time.

PRIVATE VEHICLES

Commuting data indicates that most trips in Montgomery County occur with private automobiles. In 2019, 83.6% of County residents reported that they used a car, truck, or van to travel to work. This percentage has decreased slightly since 2010, when 85.7% of residents traveled by car, truck, or van.

The Census further divides these commuters into those who drove alone and those who carpool to work. Since 2010, there has been a notable decrease in residents who carpool to work. This percentage declined from 10.7% in 2010 to 7.5% in 2020, which is equivalent to a decrease of approximately 1,500 people.

During that same period, however, there was a small increase in the percentage of residents who drive alone to work. 75% of residents drove alone to work in 2010, while 76.1% of County residents drove alone in 2020.

Public Transportation

Public transportation, or transit, accounts for a small but growing number of trips in Montgomery County. The percentage of people using public transportation to commute to work increased from 2.9% in 2010 to 4.3% in 2019. This is equivalent to an increase of approximately 700 people. In 2020, this figured dropped to 2.7%, which likely was related to COVID-19 concerns.

Prior to 2020, data suggests that transit commuters include an increasing number of people who may be choosing to ride the bus rather than use another available mode—commonly referred to as "choice riders." For example, the percentage of public transportation commuters who earned an income over $50,000 increased from 4.9% in 2010 to 11% in 2019. During that same time, the median earnings of public transportation commuters increased from $12,124 to $19,173. Finally, the percentage of public transportation commuters who lived in a household with two or more available vehicles increased from 53.7% in 2010 to 61% in 2019.

Finally, the use of public transportation is likely to increase with the planned extension of Amtrak's passenger rail service to Montgomery County. Once established, this service will provide an alternative mode of travel for regional trips to destinations like Roanoke and Lynchburg. It will also serve as an option for longer trips to destinations like Washington D.C. and other cities along the north-east seaboard.

Walking and Biking

A small but significant number of trips in Montgomery County occur by walking or biking. The percentage of people living in Montgomery County who walked to work increased from 4.3% in 2010 to 5.8% in 2020. This is equivalent to an increase in the number of people who walk to work from approximately 1,800 in 2010 to 2,600 in 2020. The percentage of people who biked to work has remained steady at approximately 1% throughout that same time.

Table 4: Montgomery County Future Population Projections

	Actual		Projected*		
	2010	2020	2030	2040	2050
Montgomery County Population	92,527	99,721	103,544	109,945	117,991

**Population Projections Produced by Demographics Research Group of the Weldon Cooper Center for Public Service, July 2022; http://demographics.coopercenter.org*

Population Growth and Demographic Changes

Transportation investments must not only consider what modes of travel residents are choosing, but also how many people will be using them. Growing communities may need to expand the size and capacity of their infrastructure and services to accommodate the increasing number of users.

Montgomery County experienced significant growth in recent decades and expects this trend to continue through the foreseeable future. As shown in Table 4,

the County's population grew from approximately 92,500 residents in 2010 to nearly 100,000 in 2020. By 2050, the population is projected to reach almost 118,000.

In addition to a growing population, the demographic characteristics of the County's residents have also changed. Between 2010 and 2019, for example, Montgomery County's population became wealthier, more highly educated, and older. Each of these trends may have an impact on the County's future transportation needs.

Income

The mean earnings of workers in Montgomery County increased significantly during the 2010s, rising from $55,342 in 2010 to $79,680 in 2020. This increase in income could affect transportation patterns and behaviors in numerous ways, such as changing the types and locations of housing or the types of transportation chosen.

Education

The average education attainment level of County residents has steadily increased. In 2010, 39.4% of residents aged 25 years and older held a bachelor's degree or higher. In 2019, this figure had risen to 45.5% of the population. These changes in education may affect the types of jobs that County residents hold, which may in turn affect commuting patterns by shifting the location and hours of their work.

In addition to overall education attainment levels, the growth of Virginia Tech University in the Town of Blacksburg has also been a major influence on the location and style of growth in Montgomery County. Enrollment at Virginia Tech increased from 31,519 in 2010 to over 37,000 students in 2022. This growing student population has increased demand for bus, bicycling, and pedestrian transportation access near the university, and has increased traffic in the County as a whole.

Aging

The number of people aged 65 and older living in Montgomery County increased by over 3,000 people from 2010 to 2019. This increased the age group's relative size from 9.4% to 12.2% of the total population. As residents grow older and potentially retire, the frequency and timing of their trips may change. Additionally, safety and comfort considerations may encourage some older residents to make fewer trips driving alone and more trips using other transportation modes.

Land Use Patterns

Land use patterns heavily influence transportation choices. Low density developments and sprawl favor the use of private automobiles, while higher density patterns encourage the use of walking, biking, and transit.

The Montgomery County Comprehensive Plan established the goal to direct new development and

	2020	2030	2040	2050
Montgomery County Population*	99,721	103,544	109,945	117,991
Total Projected Population Growth (Since 2020)	--	3,823	10,224	18,270
Projected Population Growth of Towns (Since 2020)	--	2,523	6,748	12,058
Projected Population Growth of Villages and UDAs (Since 2020)	--	1,009	2,699	4,823

**Population Projections Produced by Demographics Research Group of the Weldon Cooper Center for Public Service, July 2022; http://demographics.coopercenter.org*

Table 5: Projected Population Growth of Towns and Villages

Place of Residence	*Place of Employment*				
	Town of Blacksburg	**Town of Christiansburg**	**Roanoke County (Including the Cities of Roanoke and Salem)**	**City of Radford**	**Pulaski County**
Blacksburg	**52%**	8%	8%	4%	2%
Christiansburg	**29%**	22%	14%	6%	6%

Data Source: 2020 U.S. Census Longitudinal Employer-Household Dynamics (LEHD)

growth into designated growth areas to maintain a balance between the County's urban and rural areas.

It intends to capture two-thirds of future development within the Towns of Blacksburg and Christiansburg, and 80% of the remaining growth within its villages and Urban Development Areas (UDAs). If these development patterns are applied to the County's projected population growth, as shown in Table 5, it would mean that the Towns of Blacksburg and Christiansburg will grow by approximately a combined 12,000 people by 2050, while the villages and UDAs will grow by a combined 4,800 people.

These development patterns would not only help preserve the county's rural and natural areas but would also lead to a noticeable increase in the density of Montgomery County's towns and villages. These higher-density development areas will provide the opportunity to create more spaces where people are able to travel safely and comfortably, using modes like walking, biking, and transit.

Table 6: Employment Locations of Town Residents

Travel Patterns

Designated growth areas not only concentrate development in certain places, but also have the effect of concentrating travel along certain transportation corridors. Facilities like roads, trails, and bus routes that connect two or more growth areas can expect to experience higher than average increases in traffic as they become the primary routes of travel for more people, goods, and services.

Once again, commuting information collected by the U.S. Census offers a general understanding of where the residents of each growth area are traveling and which transportation corridors they are most likely to use. This data, shown in Table 6, indicates that over half of the residents living in both the towns of Blacksburg and Christiansburg also work in one of the two towns. 52% of Blacksburg residents and 29% of Christiansburg residents work in Blacksburg, while 8% of Blacksburg residents and 22% of Christiansburg residents work in Christiansburg.

Commuters traveling to jobs located in the towns where they live can be expected to use the local transportation network, while those traveling to the neighboring town are likely to use US 460, the Huckleberry Trail, or a BT bus route.

A significant number of residents in both towns also work in the cities of Roanoke, Radford, and Salem. US 460 and I-81 are the primary travel corridors for these destinations. Those traveling to the City of Radford or Pulaski County may also use US 11 or Route 114.

Commuting data also offers information about travel to and from Montgomery County's villages. Table 7 shows that the Town of Blacksburg is the most common working destination by a large margin for residents in the villages of Belview and Prices Fork. Residents of both villages are likely to use Route 685 (Prices Fork Road) as a primary travel corridor.

The workplaces of Plum Creek and Riner residents are more evenly distributed between the towns of Blacksburg and Christiansburg. A significant number of people from both communities are employed in the City of Radford. These commuters are likely to use US 11 and Route 8 as primary travel corridors. Finally, people from the villages of Shawsville and Elliston-Lafayette have an even employment distribution in the towns of Blacksburg and Christiansburg, as well as the cities of Roanoke and Salem. US 460 and I-81 are likely to serve as the primary travel corridors for residents of these villages.

A final pattern to note is the large number of people who commute to Montgomery County from other localities. In 2019, there were 19,543 people working in Montgomery County but living in other jurisdictions. This group comprises 51% of the total workforce in the County. This percentage has remained mostly steady over the past decade, fluctuating between 49% and 53% of the total workforce. These numbers emphasize the importance of continued support for I-81 and US 460 as key regional connections. These numbers also highlight the potential value of commuter bus lines

Place of Residence	*Place of Employment*				
	Blacksburg	**Christiansburg**	**Radford**	**Salem**	**Roanoke**
Belview	**138**	61	32	9	15
Elliston-Lafayette	67	63	16	38	**69**
Plum Creek	128	**133**	70	21	44
Prices Fork	**162**	66	38	7	21
Riner	57	**63**	42	5	21
Shawsville	**63**	52	11	43	49
Total	***615***	*438*	*209*	*123*	*219*

Table 7: Employment Locations of Village Residents

and train service connecting Montgomery County to surrounding counties.

CHAPTER 5

Transportation Visioning

TRANSPORTATION VISION

Transportation Matters developed visioning statements that guide how Montgomery County would like to manage the movement of people, goods, services, and information. These statements include goals related to specific transportation outcomes, as well as principles related to the overarching values and priorities that will guide all planning work. Both the goals and principles arose from past and parallel transportation planning processes such as the County's previous comprehensive plan, *Montgomery County, 2025*, and the NRVMPO's recent LRTP.

This planning process identified five goals for the *Transportation Matters* plan. The public and other stakeholders responded to draft goals and their feedback helped to reshape goal themes into detailed language designed to inform Montgomery's future policies, regulations, programs, and transportation investments. These goals appear in order of priority, according to public feedback through the engagement process.

- **Goal A – Safety for All Users:** Significantly reduce traffic fatalities and serious injuries on all public travel-ways and for all travelers, including motorists, cyclists, pedestrians, and riders.
- **Goal B – Congestion Relief:** Invest in improvements and adopt strategies that lessen traffic delays and improve reliability on the County's travel-ways.
- **Goal C – Multimodal Travel Options:** Develop a robust transportation network that offers travel options and viable transportation alternatives.
- **Goal D – Connectivity:** Connect neighborhoods, commercial areas, and other destinations for more direct and convenient routes.
- **Goal E – Goal Economic Competitiveness and Prosperity:** Invest in a transportation system that safely and efficiently moves freight, grows the local economy, and fosters economic prosperity.

In addition to these goals, *Transportation Matters* identified four Transportation Principles that span across each goal area. These principles identify methods and priorities that will be applied to all transportation planning efforts. These principles include:

- **Environmental Preservation**: Work with communities to provide high-quality development opportunities while protecting and cultivating the natural environment.
- **Regional Coordination**: Coordinate planning efforts with local, regional, and statewide partners to ensure an effective alignment of goals and investments.
- **Participatory Planning**: Prioritize and expand public awareness and participation in transportation planning decisions.
- **Land Use Coordination**: Coordinate land use planning with transportation planning to reduce traffic congestion and balance development needs with the desire for livable communities.

TRANSPORTATION GOALS

As described in Chapter I, a review of past and present planning processes in the region served as a starting point for *Transportation Matters*. Staff created an inventory of goal statements from various state,

regional, and local planning documents. This section describes each goal area in more detail and identifies specific planning considerations that are related to each. Chapter 8 (Strategies and Solutions) explores these ideas in more detail.

Goal A: Safety for All Users

Significantly reduce traffic fatalities and serious injuries on all public travel-ways and for all travelers, including motorists, cyclists, pedestrians, and riders.

Safety is a universal theme in transportation planning. It is explicitly called out as a goal or factor in VTrans, SMART SCALE, the NRVMPO's 2045 Long Range Transportation Plan, and the NRVMPO's Multimodal Plan. Montgomery County, 2025 implicitly addressed this topic under the "Highway System" goal. However, these were not the only considerations that formed this theme. During the engagement process, the public and stakeholders mentioned safety as a core topic. The existing conditions and needs analysis also highlights this theme. Given the County's vision for a multimodal transportation system, safety would be a high priority for all travelers, including motorists, cyclists, pedestrians, transit riders, freight operators, and anyone else using the transportation network.

Key safety planning considerations include:

Intersection Design: Enhancing traffic patterns, road design, and traffic control measures at high crash rate intersections.

Access Management: Eliminating or redesigning dangerous driveway and street access points along major roads.

Multimodal Safety: Providing new or enhanced infrastructure and services that support safe non-automotive travel modes.

Truck Traffic: Modifying roadway designs or traffic patterns to reduce accidents involving heavy trucks.

Goal B: Congestion Relief

Invest in improvements and adopt strategies that lessen traffic delays and improve reliability on the County's travel-ways.

Traffic congestion is another common topic in transportation planning. Some plans, like SMART SCALE and the NRVMPO's 2045 LRPT specifically identify Congestion Mitigation as a goal. Others, like VTrans and NRVMPO's Multimodal Plan, address it through goals like "Connectivity and Accessibility." As with safety, this goal theme applies to more than roads. The efficient movement of people, goods, services, and information relates to other modes, too. The *Transportation Matters* engagement process also highlighted congestion as a concern. Respondents to the County's transportation survey indicated this as their second priority.

The congestion theme includes different aspects of traffic. The County's efforts can focus on transportation facilities that experience regular, predictable backups. This topic can address locations with high peak hour traffic. Montgomery County can also strive to address reliability issues, where traffic congestion is unpredictable due to accidents or some other variables. Stakeholders identified reliability issues on Interstate 81, where accidents cause motorists to choose parallel routes (primarily US 460), which suddenly become overwhelmed.

Key congestion relief planning considerations include:

Intelligent Transportation Systems: Utilizing high-tech information and communication systems to provide real-time travel guidance and information.

Access Management: Eliminating or redesigning driveway or street access points along major roads to minimize disruptions in traffic flow.

Roadway Expansion: Adding travel lanes or expanding intersections at strategic locations where the number of vehicles exceeds the designed capacity of the roadway.

Goal C: Multimodal Travel Options

Develop a robust transportation network that offers travel options and viable transportation alternatives.

After several decades of focusing primarily on automobile travel, transportation planning has increasingly embraced the fact that an effective transportation network requires the use and management of multiple modes of transportation. VTrans and SMART SCALE emphasize the importance of providing multiple travel options for healthy and accessible communities and seek to maintain the safety of all travel modes. The NRVMPO's 2045 LRTP utilizes multimodal strategies to address goals like safety, congestion reliability, economic vitality, and environmental sustainability. The LRTP also offers a specific strategy to create this multimodal transportation network in the NRVMPO's Multimodal Plan.

Montgomery County, 2025 had two goals on multimodal transportation. In the County's transportation survey, respondents identified this theme as their third highest priority.

While planning processes commonly present these travel options as alternatives to driving, *Transportation Matters* envisions a more meaningful multimodal network. Rather than secondary options, these other modes ought to be a priority and viable choice for travelers. This theme assumes the benefits to:

- Roadway congestion, by removing vehicular trips from highways,
- Air quality and other environmental resources,
- Equity and access to travel options, and
- Economic development through job access and a higher quality of life.

Key multimodal travel planning considerations include:

Street Design: Ensuring the inclusion of elements like sidewalks, bike lanes, and bus stops with shelters along roadways to make non-automotive travel safer and more enjoyable.

Codes and Ordinances: Evaluating local land development policies to identify changes that could require or incentivize the inclusion of bicycle, pedestrian, and transit facilities in new developments.

Transit Services: Increasing transit services and improving transit infrastructure to make transit a more effective, reliable, and comfortable mode of transportation.

Trail Networks: Enhancing and expanding multi-use trail systems to better connect users to neighborhoods and key activity centers.

Travel Demand Management: Working with businesses and local governments to identify incentives and amenities that may encourage residents to use non-automotive modes of transportation.

Goal D: Connectivity

Connect neighborhoods, commercial areas, and other destinations for more direct and convenient routes.

Connectivity refers to creating more direct and alternative routes that allow travelers to reach their destinations. The best example of a highly connected roadway network would be gridded streets, where travelers can easily find the shortest route for their trip and choose parallel streets if there are failures on any given road segment. In a suburban context, there can be connections between residential subdivisions and connections between businesses. These links apply to bike and pedestrian facilities, transit routes, and other transportation services.

Connectivity is a key strategy in the accessibility goals of VTrans and SMART SCALE. The NRVMPO 2045 LRTP goals of congestion reliability and environmental sustainability also implies this topic.

Overall, connectivity means greater convenience through more direct routes to destinations and alternative options to avoid backups. This theme can also help preserve major roadways, such as Peppers Ferry Road, by keeping local traffic on parallel routes. In the transportation survey, respondents identified connectivity as the fourth priority.

Key connectivity planning considerations include:

Development Standards: Reviewing development standards related to street network design and multimodal accommodations to help create new developments that offer high levels of connectivity and accessibility.

Access Management: Evaluating ingress, egress, and connectivity requirements for new developments and supporting changes that would provide multiple and direct connection points between new developments and surrounding areas.

Connecting Corridors: Identifying locations where the strategic addition of a new road, sidewalk, or trail can establish new and more effective connections between existing developments.

Goal E: Goal Economic Competitiveness and Prosperity

Invest in a transportation system that safely and efficiently moves freight, grows the local economy, and fosters economic prosperity.

The economy is a goal under VTrans and a core scoring factor under Virginia's funding evaluations such as SMART SCALE. It is also a local priority, addressed in the NRVMPO's LRTP and *Montgomery County, 2025*. From a transportation perspective, this theme includes access to jobs, efficient freight movement, inter-regional connections to other markets, and projects that would help to spur business investments. While the County's transportation survey found that respondents rated this as a lower priority compared with the other goals, economic competitiveness remains an essential consideration.

Key economic competitiveness planning considerations include:

Interregional Connections: Investing in infrastructure and services that support the faster and more efficient movement of goods and people to other regions, states, and countries.

Intermodal Facilities: Supporting the enhancement or creation of intermodal facilities that allow freight to be easily transferred from one mode of transportation to another.

Equitable Investment Strategies: Prioritizing improvements in communities and areas that received disproportionately low levels of investment in the past.

Transportation Principals

As it developed a vision for the future of Montgomery County, *Transportation Matters* not only considered the goals that the County hopes to achieve in its transportation network, but also the principals that will guide its efforts to achieve them. These principles include the overarching values and priorities that cannot be confined to a single goal. Instead, they span multiple goals and should be carefully considered in relation to every future transportation project and service.

Environment

Work with communities to provide high-quality development opportunities while protecting and cultivating the natural environment

Montgomery County's natural environment and rural setting is one of its most distinctive and desirable assets. It offers beauty, recreation opportunities, and food access. These natural lands also support a variety of work opportunities.

The County's land use policy has a long-standing goal of preserving and enhancing these natural and rural environments. This should be supported by a similar transportation policy to invest in projects and improvements that help to preserve the County's rural and natural lands. This would mean ensuring that future transportation investments should impose minimal damage on natural environments, and that they would also strategically support the County's efforts to concentrate development in its towns, villages, and Urban Development Areas.

Key considerations and issues included in this principle include:

- Wildlife Habitat Protection

- Rural Preservation
- Air Quality Improvements
- Water Quality Improvements
- Viewshed Preservation

Regional Coordination

Coordinate planning efforts with local, regional, and statewide partners to ensure an effective alignment of goals and investments

Most major transportation corridors in a community extend beyond its boundaries into neighboring cities, counties, and regions. To make effective investments on these corridors, it is critical to establish collaborative working relationships among these neighboring jurisdictions. These partnerships can allow each participating member to coordinate their efforts with those of their neighbors to support a common vision and to maximize the efficiency of each investment.

Coordination efforts in Montgomery County should include collaboration with:

- Counties, cities, and towns in the New River Valley Region
- Neighboring regions; particularly the Roanoke Valley-Alleghany Region
- Statewide Agencies and Planning Efforts

Participatory Planning

Prioritize and expand public awareness and participation in transportation planning decisions

Transportation plans have a significant impact on the character and future development of a community. Often, however, these plans and studies generate little public interest due to their technical nature and long-term time frames. Rather than accepting this outcome as inevitable, Montgomery County will strive to find meaningful and creative ways to share information with and gather feedback from County residents.

Efforts to enhance public participation in planning efforts can include:

- Public access to information
- Study and meeting notification methods
- Innovative public outreach events and technologies

Land Use Coordination

Coordinate land use planning with transportation planning to reduce traffic congestion and balance development needs with the desire for livable communities

Few factors have a greater impact on travel patterns and traffic volumes than a community's land use and development patterns. Effective transportation planning therefore requires close coordination with land use planning to ensure mutual support between both.

Montgomery County's transportation planning efforts will support and promote the land use and economic development goals of the County. It will prioritize improvements that allow residents to travel safely and efficiently within and between its designated growth areas. Key elements of consideration may include:

- Designated Growth Areas
- Traditional Neighborhood Design
- Complete Streets
- Transportation Access Regulations
- Rural Transportation Services

PART III: NEEDS AND PROPOSED SOLUTIONS

CHAPTER 6

Transportation Needs

This purpose of this chapter is to evaluate the needs of roadways in Montgomery County. This evaluation uses VDOT and VTrans data, which Virginia's transportation agencies apply to score transportation funding applications. This chapter also describes the County's process for identifying and prioritizing local needs. Coordinating the transportation project needs into a refined and prioritized list helps to identify opportunities and risks for advancing recommended improvements. Aligning the County's priorities and needs with VTrans goals is key to maximizing the County's chances of obtaining funding for the types of projects addressed in this chapter.

COUNTY PRIORITIES

Chapter 3 provides an assessment of Montgomery County's transportation network and includes public feedback on how the transportation network is serving the needs of the traveling public. The survey data relates current transportation conditions and deficiencies to what future improvements are needed. They survey also helps define goals and considerations for the development of project priorities.

The study team reviewed community survey results and prioritized goals based on feedback. The results of this survey are shown in Figure 16 below.

The prioritized goal areas provide important guidance for correlating Montgomery County's most critical needs with VTrans, Virginia's transportation plan. VTrans conducts a comprehensive assessment of transportation needs, long-term risks, and opportunities to guide the Commonwealth of Virginia's vision, goals, and objectives. Those goals and objectives guide the identification and prioritization of transportation needs.

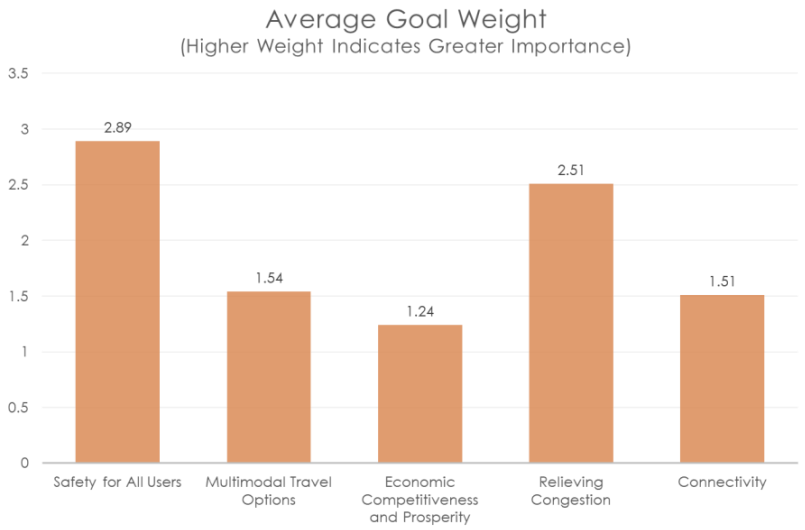


Figure 21: Public Survey Goal Weighting Results

VTRANS GOALS

In Virginia, the Commonwealth Transportation Board determines funding for projects that receive state and federal dollars. Consequently, possible transportation investments should align or consider the State's goals and scoring criteria. This consistency begins with VTrans, Virginia's Statewide Transportation Plan.

According to VTrans, the vision for Virginia's transportation system is: "Good for Business, Good for Communities, and Good to Go." The VTrans goals are critical for measuring progress towards the Vision and identifying transportation needs.

VTRANS GOALS

Goal A – Economic Competitiveness and Prosperity
Invest in a transportation system that supports a robust, diverse, and competitive economy

Goal B – Accessible and Connected Places
Invest in a transportation system that supports a robust, diverse, and competitive economy

Goal C – Safety for All Users
Provide a safe and secure transportation system for passengers and goods on all travel modes

Goal D – Proactive System Management
Maintain the transportation system in good condition and leverage technology to optimize existing and new infrastructure

Goal E – Healthy Communities and Sustainable Transportation Communities
Support a variety of community types promoting local economies and healthy lifestyles that provide travel options, while preserving agricultural, natural, historic, and cultural resources

Table 8 shows the clear correlation between local and statewide goals, which demonstrates how the transportation needs closely align. This correlation helps to strengthen the potential for funding resources. Each goal area has been assigned a weighting factor to help prioritize the County's projects, which is further detailed in the Project Prioritization section.

	Transportation Matters Goals				
VTrans Goals	Safety for All Users	Relieving Congestion	Multimodal Travel Options	Connectivity	Economic Competitiveness and Prosperity
Goal A- Economic Competitiveness and Prosperity					✓
Goal B- Accessible and Connected Places			✓	✓	
Goal C- Safety for All Users	✓				
Goal D- Proactive System Management		✓		✓	
Goal E- Healthy Communities and Sustainable Transportation Communities	✓		✓	✓	✓

Table 8: VTrans Goal Correlations

VTrans Needs Assessment

Aligning Montgomery's County's needs with VTrans is a key aspect of prioritizing projects to help ensure funding opportunities. The study team evaluated the VTrans Multimodal Transportation Plan – 2025 Needs Assessment (November 2017) report, which provides valuable information from a variety of sources. The State's process included stakeholder and public outreach, review of existing transportation plans and programs, and extensive data analysis and research. From those sources, VTrans identified 169 statewide needs, broken down by VDOT District.

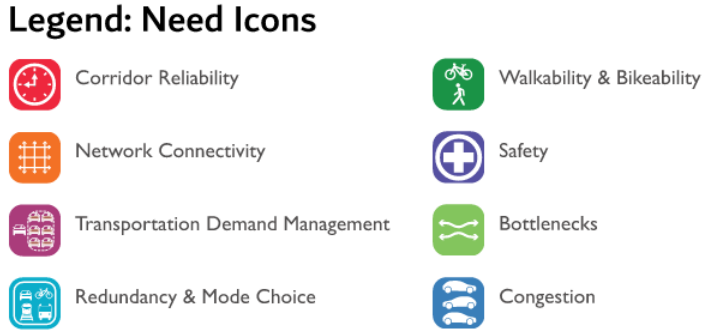
The need types used in this assessment are:

- Corridor Reliability
- Network Connectivity
- Transportation Demand Management
- Redundancy & Mode Choice
- Walkability & Bikeability
- Safety
- Bottlenecks
- Congestion
- Circulation and Access within the UDA
- Accessibility
- Transportation Networks beyond the UDA

The VTrans Multimodal Transportation Plan 2025 (VMTP) includes a needs assessment for the Salem District. Table 9 on the following page presents how the VMTP needs directly correlate to the *Transportation Matters* goals.

Table 9: Correlation of VMTP Needs and Transportation Matters Goals

VMTP TIERED CONSOLIDATED NEEDS - SALEM DISTRICT			
Need ID	**Need Description for Montgomery County Projects**	**VMTP Need Icons**	**Transportation Matters Correlation**
S.4	Within NRVMPO, US 11 and I-81 have TDM, safety and parallel redundancy needs.		Safety, Relieving Congestion and Multimodal Travel
S.11	Within the Salem District, I-81 (north of RVTPO), US 460, and US 11 have reliability, congestion, redundancy, mode choice and safety needs.		Safety, Relieving Congestion and Multimodal Travel
S.7	Within NRVMPO, Pepper's Ferry Rd has connectivity, congestion, safety, and TDM needs.		Safety, Relieving Congestion and Connectivity
S.6	Within NRVMPO, US 460/Main St. has safety, congestion and TDM needs to serve economic connections in around towns.		Safety and Relieving Congestion
S.8	Within NRVMPO, regional trails, activity centers, and UDAs have pedestrian and bicycle access needs.		Multimodal Travel Options
S.5	Within NRVMPO, the I-81 corridor has a need for more regional mode choice to access activity centers that serve key economic linkages		Multimodal Travel Options
S.16	Within the Salem District,VA 8,VA 57,VA 100,VA 220,VA 221, and VA 311 in Giles and Madison County have reliability and mode choice		Safety, Relieving Congestion and Connectivity



Project Evaluations

Every project included in the *Transportation Matters* recommendations found in Chapter 10 was analyzed and prioritized using three major evaluations: Land Use Coordination, Transportation Need, and Ease of Implementation.

The Transportation Need evaluation was intended to determine the extent to which a project was consistent with Montgomery County's five transportation goals. To do this, three measures were assigned to each goal area that would indicate the presence of a need at each project location.

The measures used in this evaluation are described in more detail on the following pages. Many of the measures utilized VDOT or VTrans data sources that are likely to be used in future project evaluations at the state level. In addition to descriptions, maps of the available data are provided for reference.

Safety

Fatal and Serious Injury Crashes

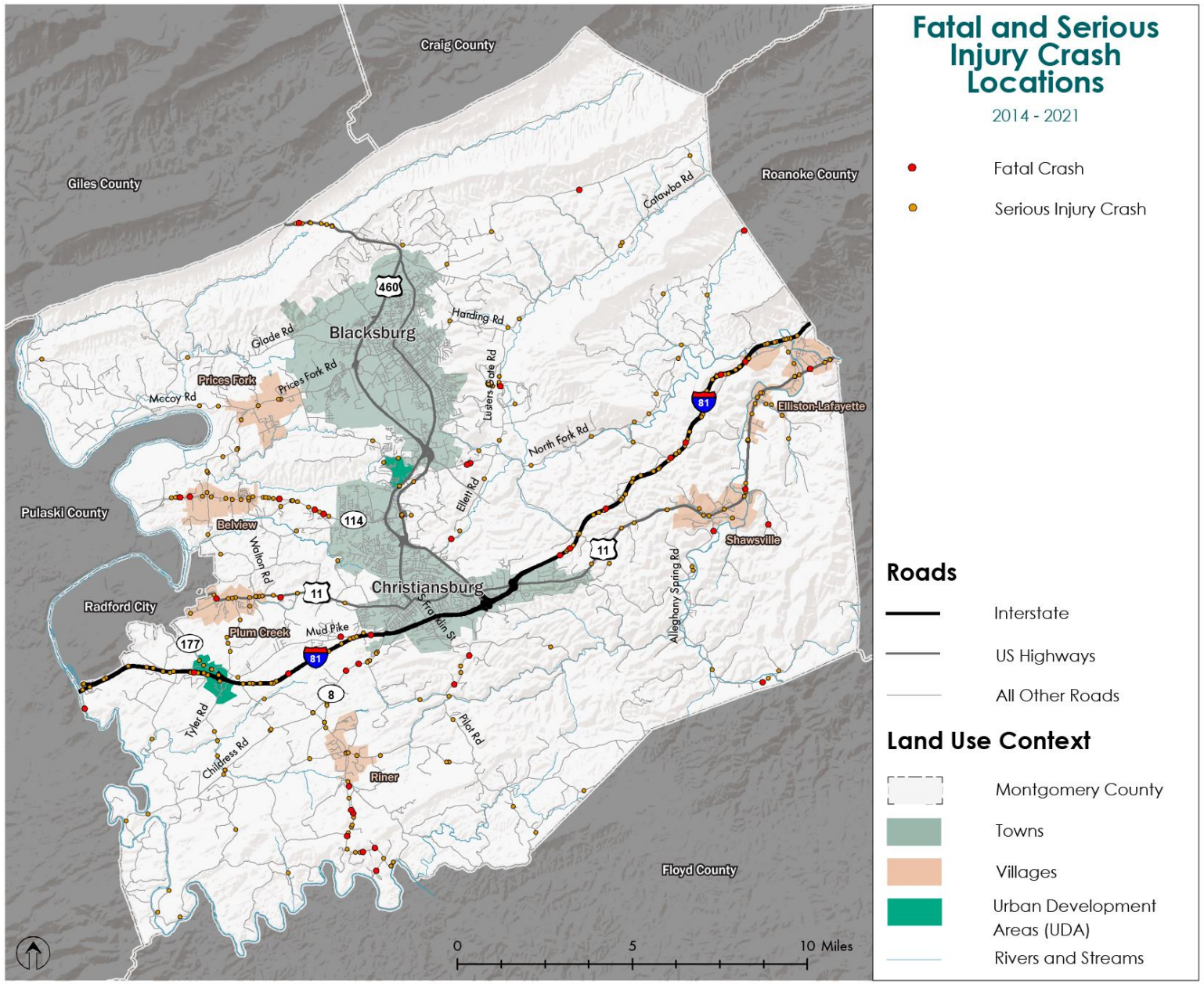
Transportation Matters reviewed the locations of all recorded fatal or serious injury crashes in Montgomery County from 2014 to 2021. (Map 5)

PSI Locations

The Potential for Safety Improvement (PSI) analysis is a VDOT safety evaluation tool that compares the number of crashes at a given location over a 5-year period to the expected number of crashes based on roadway characteristics (traffic volumes, roadway geometry, and roadway classification). The higher the discrepancy between expected and actual crashes, the higher the PSI ranking. PSI rankings are calculated for both roadway segments and intersections. (Map 6)

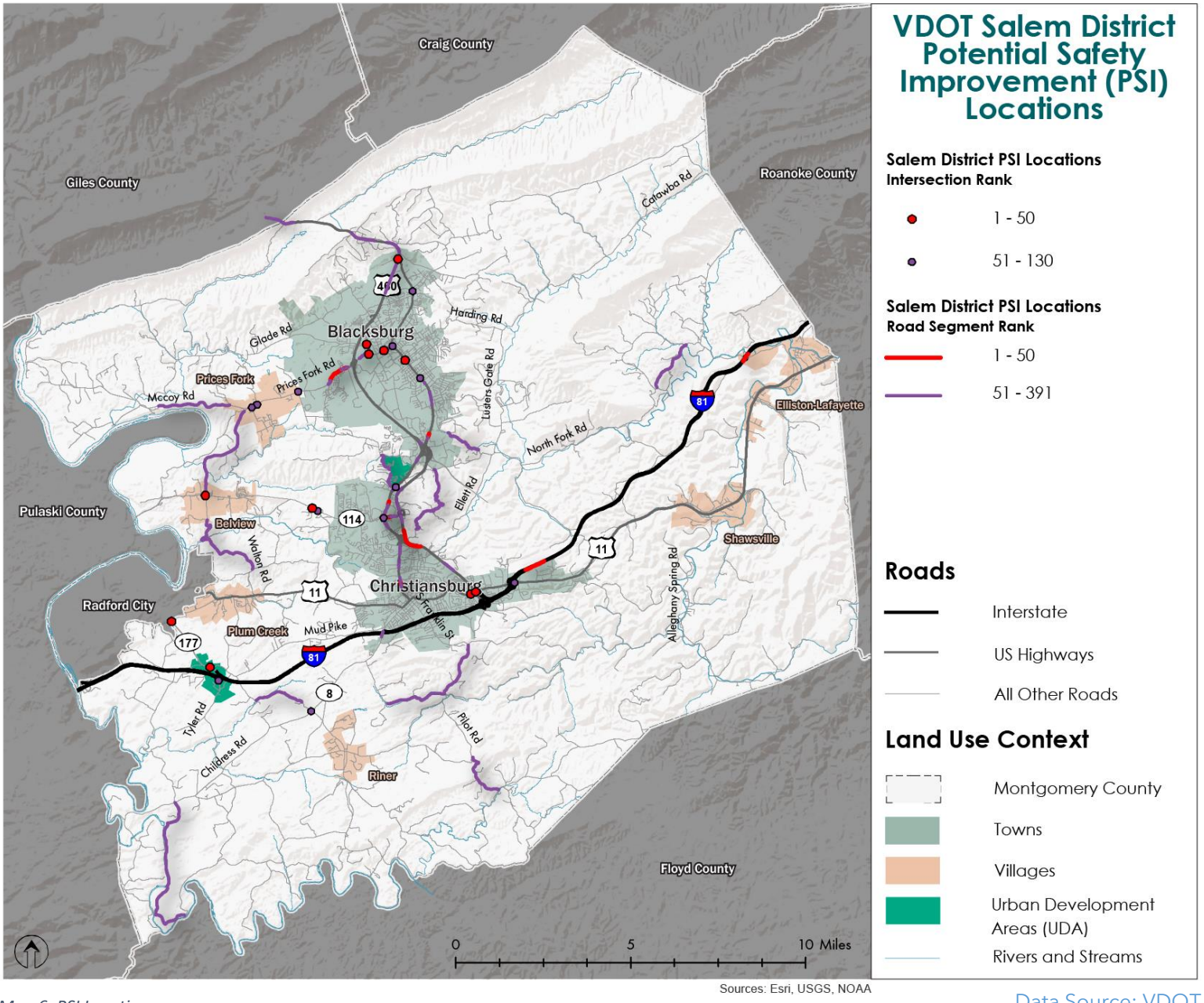
Pavement/Structure Conditions

Transportation Matters also considered roadways with poor pavement or structural conditions. Poor pavement conditions can pose safety issues and affect traffic flow, while poor structural conditions may represent the need to invest in rehabilitation projects. (Map 7)



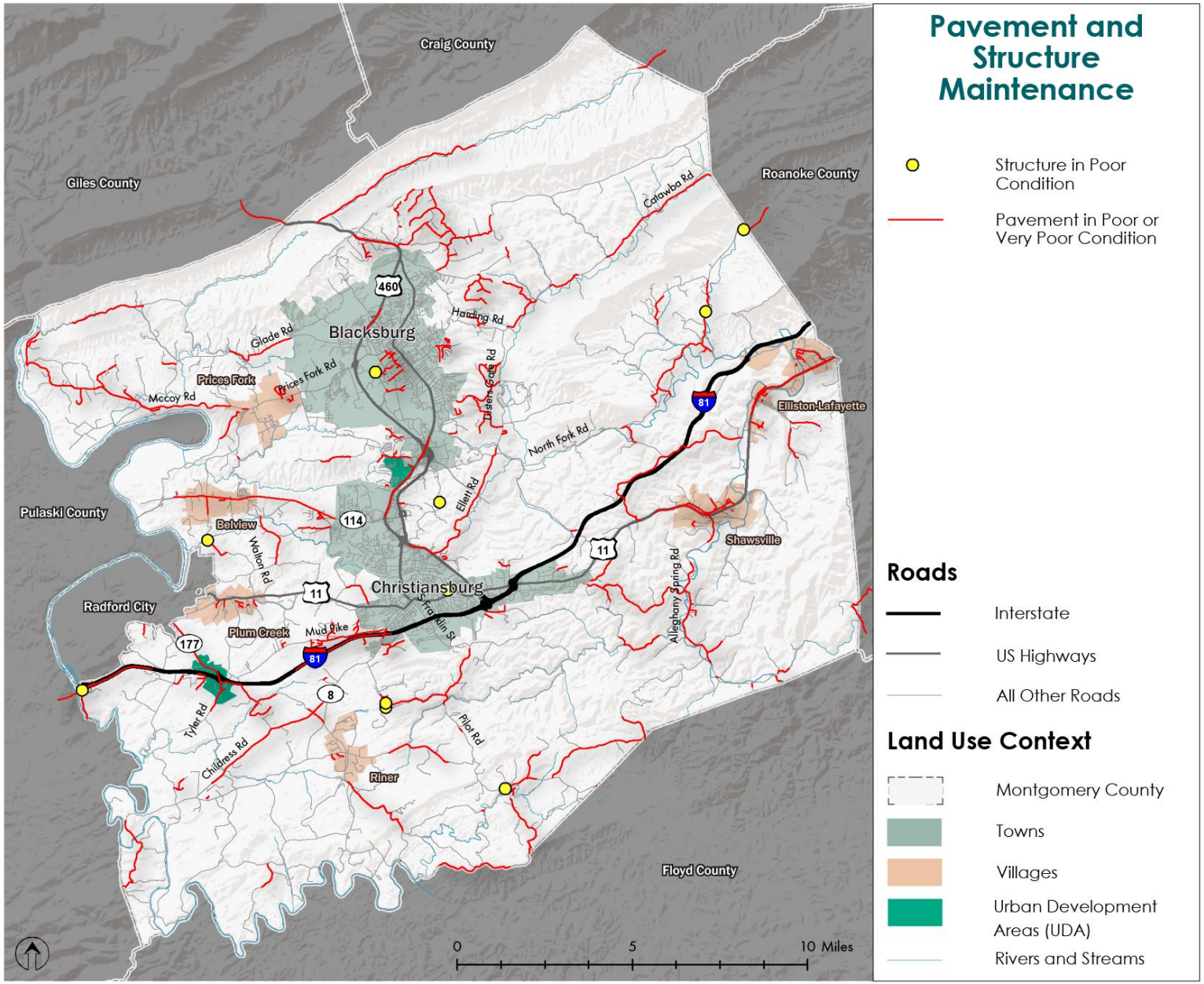
Map 5: Fatal and Serious Injury Crash Locations

Data Source: VDOT



Map 6: PSI Locations

Data Source: VDOT



Map 7: Pavement and Structures in Poor Condition

Data Source: Interact VTrans

Relieving Congestion

Level of Travel Time Reliability

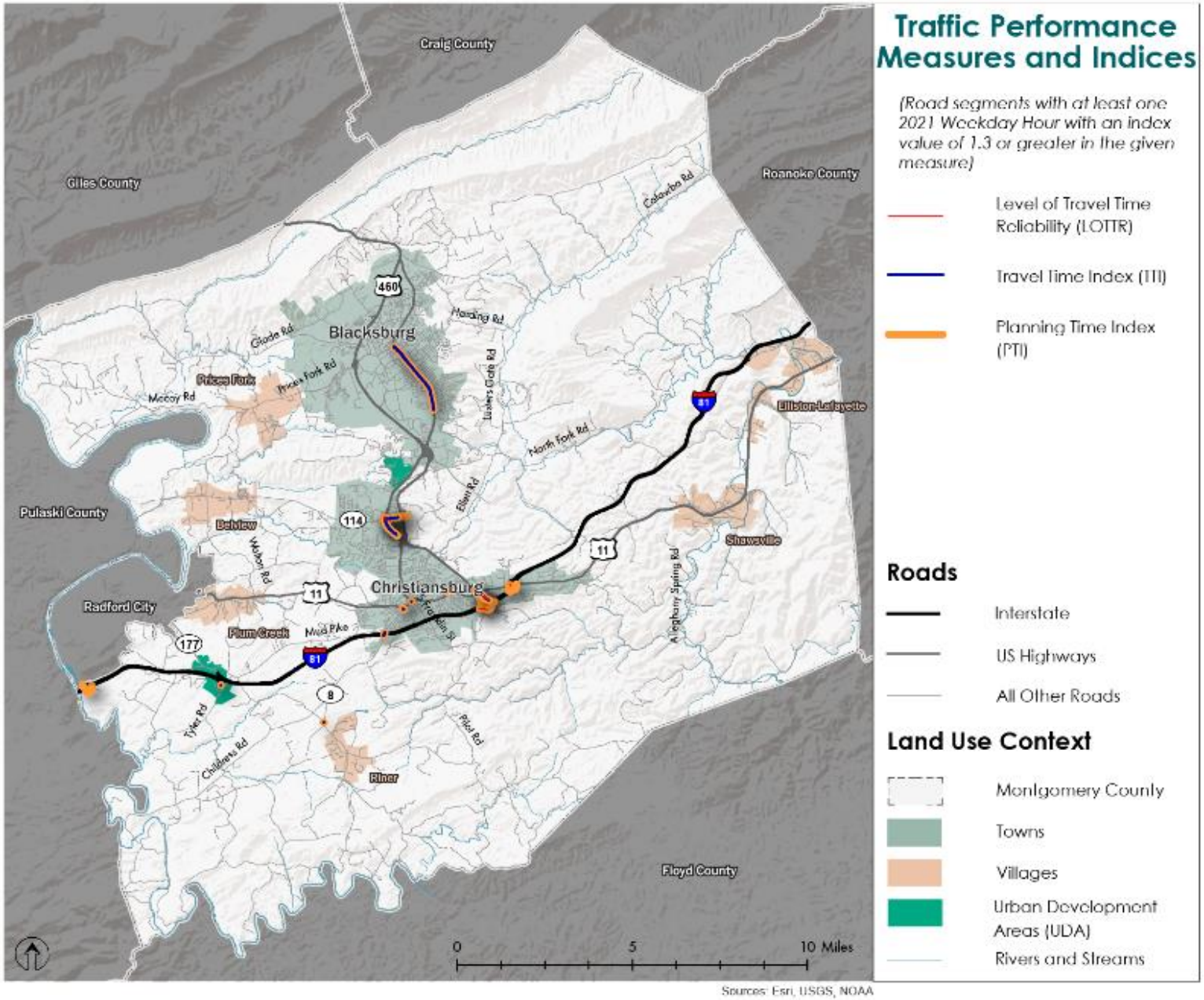
Level of Travel Time Reliability (LOTTR) measures the dependability of travel time from day to day. It is calculated as the number of hours where the ratio of longer (80th percentile) travel times to "normal" (50th percentile) travel time exceeds 50%. A higher number indicates less reliable travel. (Map 8)

Travel Time Index

Travel Time Index (TTI) is the ratio of the travel time during the peak period to the time required to make the same trip at reference (aka typical) speeds. For example, a TTI of 1 indicates average conditions or reference speed while a TTI of 1.3 indicates a travel time that is 30% longer than free-flow conditions. A higher number indicates more congestion. (Map 8)

Planning Time Index

Planning Time Index (PTI) is the ratio of the 95th percentile travel time to the free-flow travel time and indicates the planned travel duration that is required for an on-time arrival for 95% of trips on a given segment. For example, a PTI of 1.6 at a given time means that a trip that takes 15 minutes in average conditions or reference speed should be planned to take 24 minutes (15 x 1.6 = 24) to ensure that 95% of trips will arrive on time. (Map 8)



Map 8: Traffic Performance Measures and Indices

Data Source: Interact VTrans

Multimodal Travel Options

Multimodal Corridors

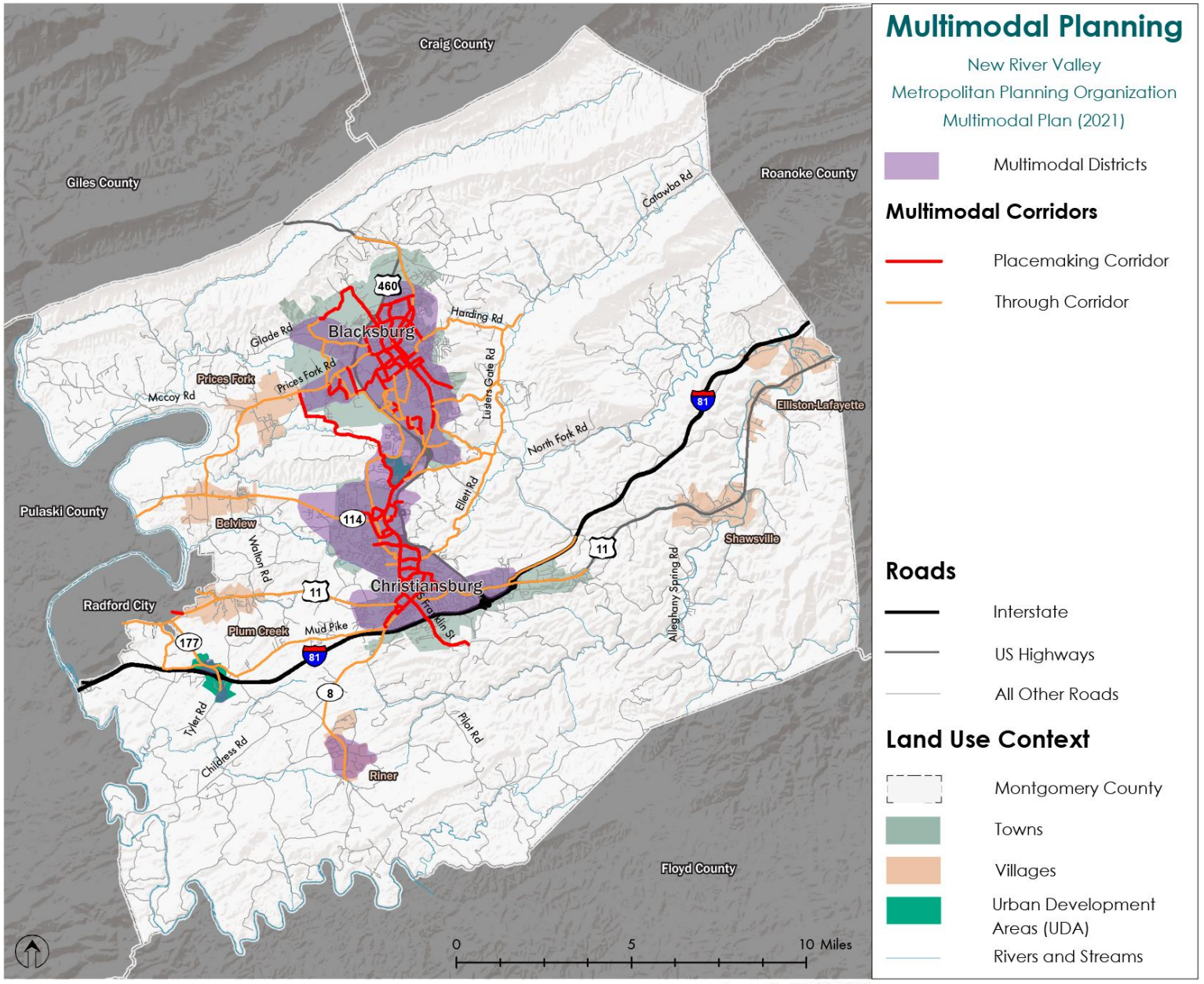
The New River Valley Metropolitan Planning Organization developed a Multimodal Plan in 2021 as an update of the region's 2014 Bicycle and Pedestrian Master Plan. The update reexamined the goals and methods the region used to create the original framework and used the newly updated DRPT Multimodal System Design Guidelines. It identified key corridors that could be used to support a multimodal transportation system. These corridors are classified either as "multimodal through corridors," which are roads that are recommended to include elements like bicycle and pedestrian travel areas, or as "multimodal placemaking corridors," which are recommended to accommodate high levels of multimodal travel and casual pedestrian activity. (Map 9)

Multimodal Districts

The NRVMPO Multimodal Plan also identified multimodal districts in the County, which are areas with land use patterns that are most likely to support multimodal travel. (Map 9)

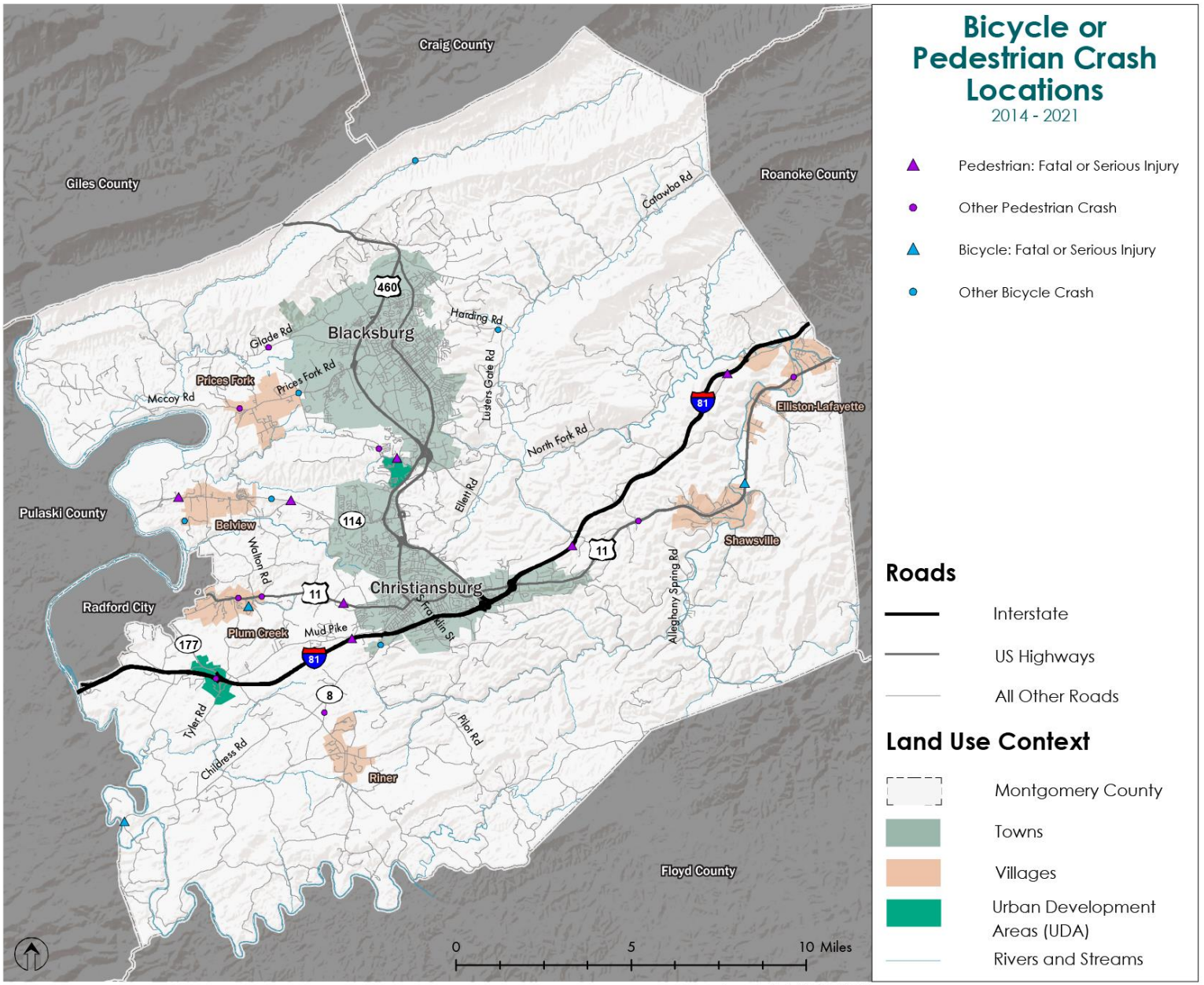
Bicycle or Pedestrian Crashes

Transportation Matters reviewed the locations of all recorded crashes involving bicyclists or pedestrians in Montgomery County from 2014 to 2021 to determine if they correspond with proposed project locations. (Map 10)



Map 9: Multimodal Planning

Data Source: New River Valley MPO



Map 10: Bicycle or Pedestrian Crash Locations

Data Source: VDOT

CONNECTIVITY

Designated Growth Areas

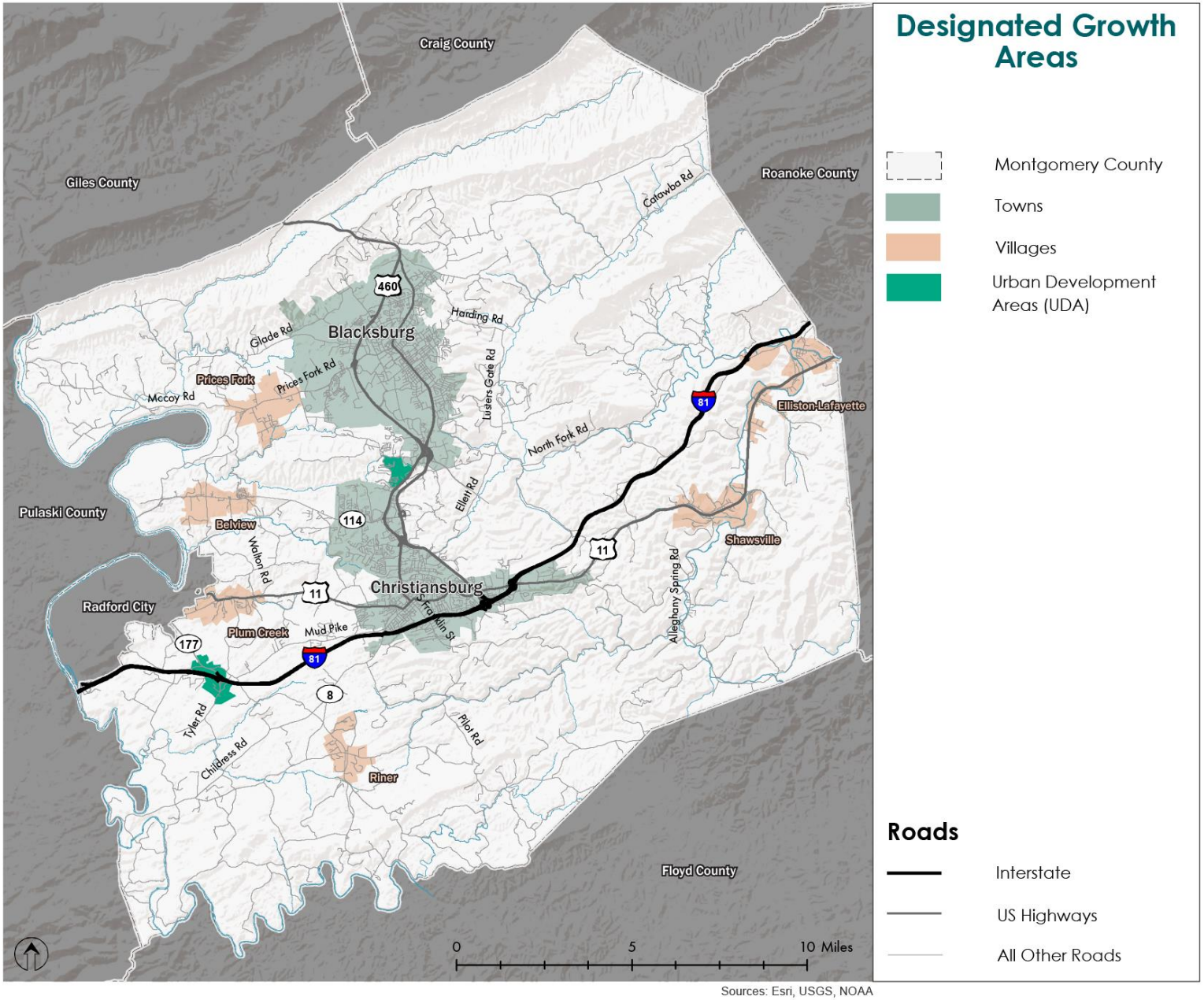
Montgomery County's land use strategy seeks to maintain a balance between its urban and rural areas by directing most of its future growth into designated growth areas. The Towns of Blacksburg and Christiansburg are intended to accommodate two-thirds of future growth in the county, and 80% of the remaining growth that occurs outside of the towns will be directed into these villages and urban development areas (UDAs). The villages are envisioned to be primarily residential areas, but may also feature mixed-use core areas of business, commercial, and institutional uses at higher densities than the surrounding rural areas. The UDAs are similar but may feature higher densities of development and a greater emphasis on commercial or institutional uses. (Map 11)

New Transportation Connections

A project was determined to provide new transportation connections if it established a new link between two existing routes or destinations. A new link could be a new roadway or the addition of new infrastructure along an existing roadway (example, the addition of a sidewalk along an existing road corridor).

Corridor of Statewide Significance

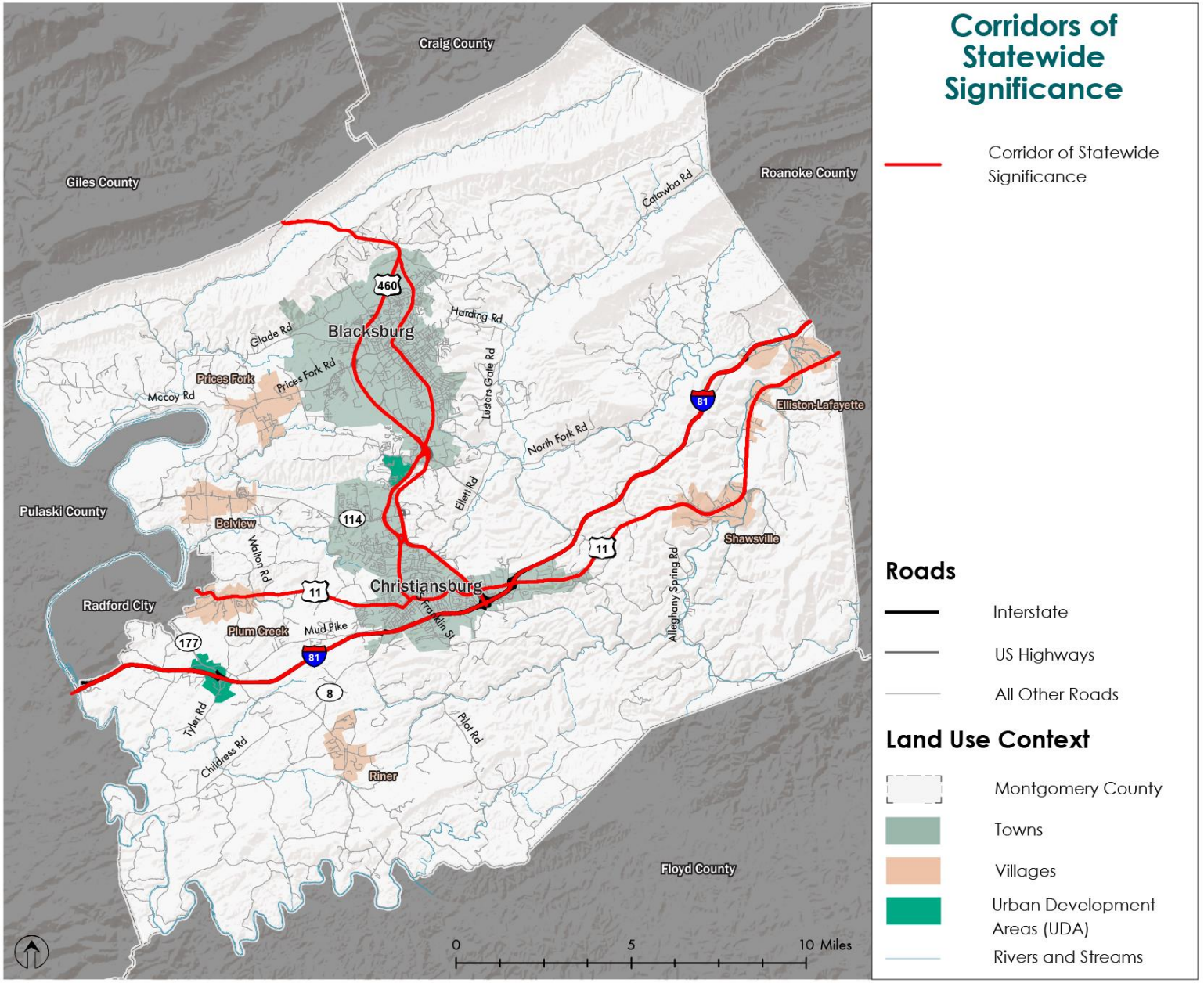
Corridors of Statewide Significance are transportation corridors throughout Virginia that represent the multimodal connections to the Commonwealth's major activity centers. These corridors help people and goods move between regions in Virginia and to areas outside Virginia. The corridors are transportation facilities that must be protected to ensure appropriate levels of mobility to allow for long distance travel. (Map 12)



Map 11: Designated Growth Areas

Data Source: Montgomery County

Map 11: Designated Growth Areas



Map 12: Corridors of Statewide Significance

Data Source: VDOT

Economic Competitiveness and Prosperity

Equity Emphasis Areas

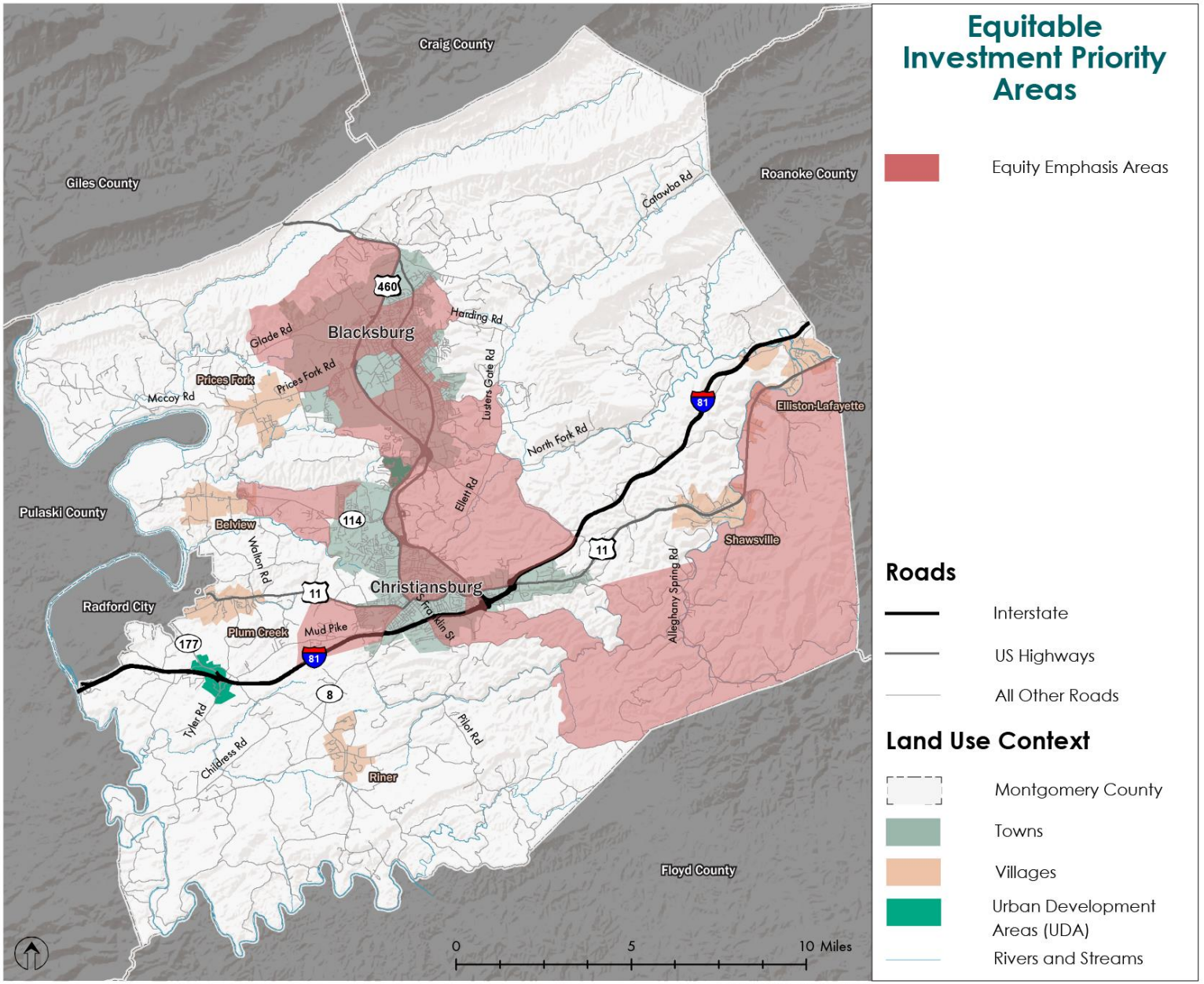
An Equity Emphasis Area is a designation generated at the state level by VTrans. These areas are defined as Census Block Groups that have a higher concentration of residents who are considered low-income, minority, Limited English Proficiency (LEP), disabled, over the age of 75, or Hispanic/Latino than the regional average concentration. The identification of these areas is intended to encourage investments to be equitably distributed to all members of a community, as well as to help planning efforts consider the unique transportation needs that may be present in some areas. (Map 13)

Truck Volume Percentages

VDOT traffic counts not only record the total number of vehicles traveling on a road, but also the percentage of those vehicles that are categorized as heavy trucks. For the purposes of this study, a 2% or greater truck volume classified a corridor as having high truck volumes. (Map 14)

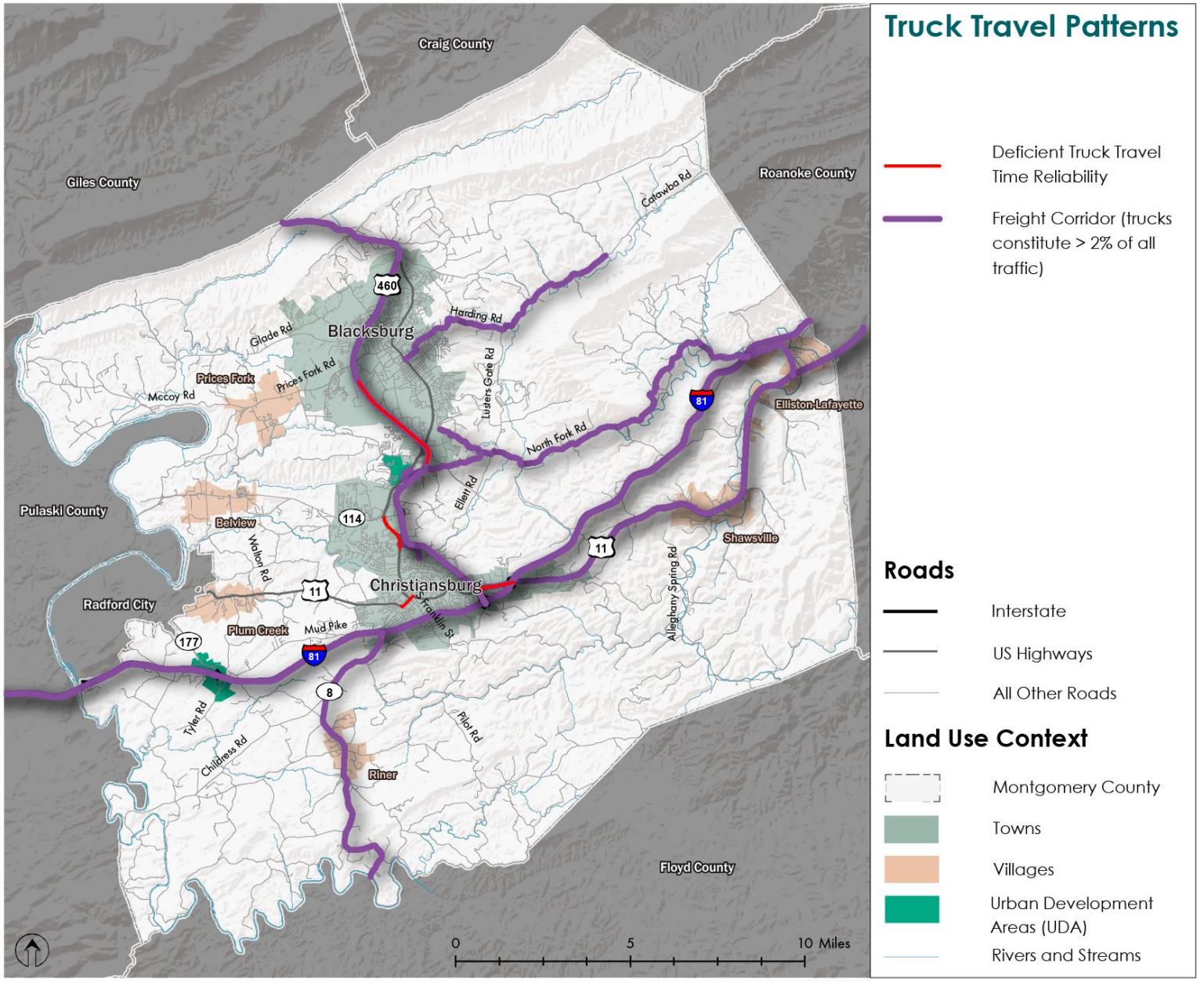
Freight Reliability

As described earlier in the "Congestion" measures, Level of Travel Time Reliability (LOTTR) measures the dependability of travel time from day to day. It is calculated as the number of hours where the ratio of longer (80th percentile) travel times to "normal" (50th percentile) travel time exceeds 50%. A higher number indicates less reliable travel. The Truck Travel Time Reliability uses the same measures, but applies them exclusively to truck traffic. (Map 14)



Map 13: Equitable Investment Areas

Data Source: Interact VTrans



Data Source: Interact VTrans

Map 14: Truck Travel Patterns

CHAPTER 7

Project Identification

Although *Transportation Matters* is Montgomery County's first stand-alone transportation plan, it builds on the work of many prior study efforts that have identified and evaluated potential transportation improvements in the County.

To create a list of recommended transportation improvement projects, the *Transportation Matters* study team began by reviewing the work and findings of these prior studies. This chapter summarizes the findings of this review and describes the ways that these prior recommendations overlap or elaborate on one another.

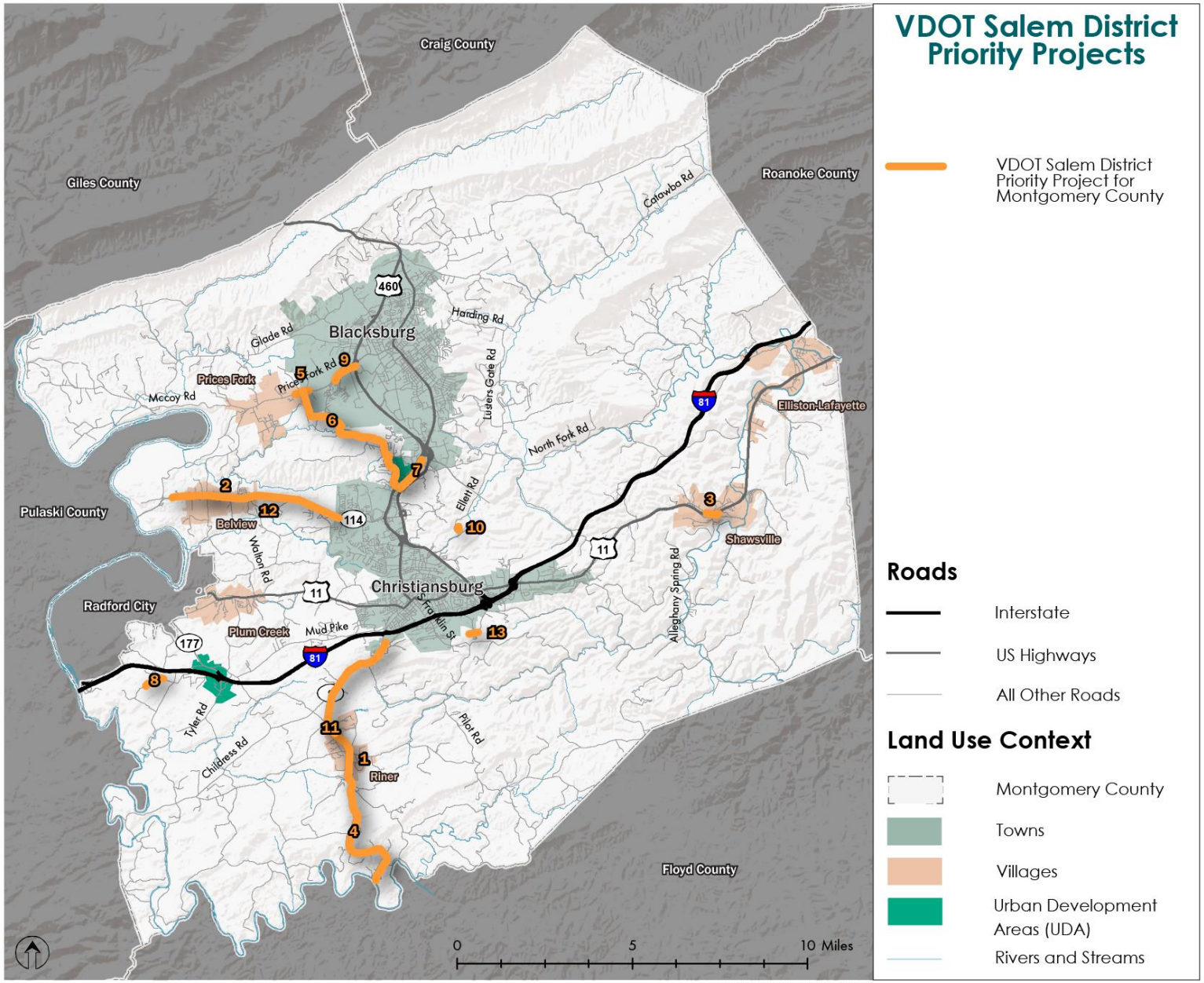
PRIOR STUDIES AND RECOMMENDATIONS

One of the primary resources that guided the *Transportation Matters* project identification process was a list of Priority Projects for Montgomery County developed by staff at the VDOT Salem District. The locations and descriptions of these project recommendations are shown on Map 15 and Table 10 on the following pages.

This list of projects served as a reference point with which to compare the findings and recommendations of other studies and plans. The additional project recommendations reviewed in this effort include:

- The New River Valley Metropolitan Planning Organization's (NRVMPO) Long Range Transportation Plan (LRTP) Constrained Project List
- The New River Valley Metropolitan Planning Organization's (NRVMPO) Long Range Transportation Plan (LRTP) Vision Project List
- The Virginia Department of Transportation's Interstate 81 Corridor Improvement Plan
- The NRVMPO's Multimodal Plan
- The New River Valley Metropolitan Planning Organization and New River Valley Regional Commission's Regional Freight Plan for Virginia's New River Valley

In addition to presenting the project recommendations of each of these plans, this chapter briefly describes how those recommendations relate to the findings of the VDOT Priority Project list.



Map 15: VDOT Salem District Priority Projects

Table 10: VDOT Salem District Priority Projects

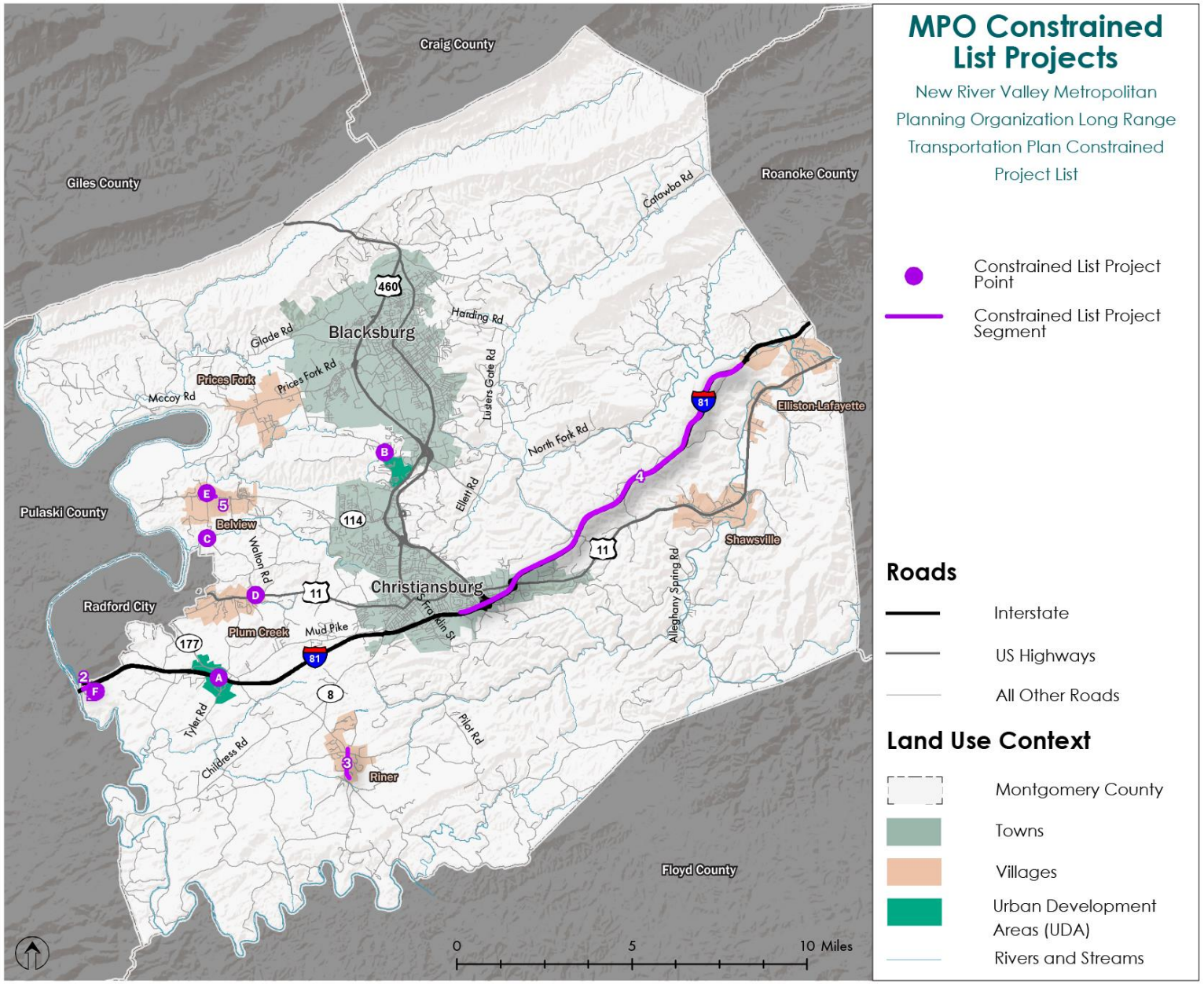
Map ID	Facility	From	To	Description
1	Route 8	250ft S Union Valley Road	0.2 mi S Union Valley Road	Turn Lane Improvements
2	Route 114	Waterworks Road	Belview Drive	Prices Fork Road Intersection and Pedestrian Improvements
3	US 460	Trump Lane	Lewyn H Gardner Lane	Alleghany Springs Road Intersection Improvements
4	Route 8	Town of Christiansburg	Floyd County	Route 8 Safety Improvements
5	Route 685	Merrimac Road		Merrimac Intersection Improvements
6	Merrimac Road	Prices Fork Road	N Franklin Street	Merrimac Road Safety Improvements
7	US 460 Business	Hightop Road	Ferguson Drive	Business 460 Multimodal Improvements
9	New	Near Prices Fork Road		US 460 Connector Road
10	Pike Lane	Ellett Road	End	Reconstruct portion of VDOT maintained road
11	Route 8	Riner Park		Access and entrance for new park facilities
12	Route 114	Town of Christiansburg	Constitution Road	Widen to four lanes
13	Falling Branch Industrial Park Road	Falling Branch Corporate Park		Access road for new industrial park properties

New River Valley Metropolitan Planning Organization (NRVMPO) Long Range Transportation Plan: Constrained Project List

An MPO's Constrained Project List includes improvements that have officially been designated to receive funding within the next 25 years. It may include projects that are currently underway, as well as those planned for the near future. The likely completion of these projects means that they do not need to be included as a future priority project. They should, however, be reviewed to better understand upcoming changes that may affect future needs.

The Constrained List projects are identified on Map 16 and in Tables 11 & 12. VDOT Salem District priority projects that may be affected by a Constrained List project include:

1) **Route 8 (Riner Road) Turn Lane Improvements south of Union Valley Road**
   This location is designated to receive pedestrian and curb improvements (Constrained List Project Segment 3). If the turn lane improvements are not directly included in this project, the design should accommodate future roadway enhancements.
2) **Route 114 (Peppers Ferry Road) Intersection and Pedestrian Improvements at Prices Fork Road**
   This location is designated to receive turn lane improvements (Constrained List Project Point E) and pedestrian improvements (Constrained List Project Segment 5).
6) **Route 657 (Merrimac Road) Safety Improvements from Prices Fork Road to North Franklin Street**
   An initial safety improvement along this corridor is designated to occur with intersection improvements at Hightop Road (Constrained List Project Point B).



Map 16: NRVMPO Constrained List Projects

Table 11: NRVMPO Constrained List Project Segments

Map ID	Facility	From	To	Description
1	Interstate 81	New River		Replace north-bound New River bridge and Route 232 bridges
2	Interstate 81	New River		Replace south-bound bridge over New River
3	Route 8	Five Points	Fairview Church Road	Pedestrian and curb improvements
4	Interstate 81	Mile Marker 116	Exit 128	Widen to three lanes
5	Route 114	Prices Fork Road	Belview Drive	Pedestrian Improvements

Table 12: NRVMPO Constrained List Project Points

Map ID	Facility	Location	Description
A	Interstate 81	at Tyler Road	Install signals at exit ramps
B	Merrimac Road (Route 657)	at Hightop Road	Improve intersection
C	Walton Road (Route 663)	Crab Creek	Replace bridge over Crab Creek
D	Radford Road (US 11)	at Walton Road	Intersection safety improvement
E	Peppers Ferry Road (Route 114)	at Prices Fork Road	Turn lane improvements at the Route 114 and Route 685 intersection
F	Interstate 81	Exit 105	Extend north bound acceleration lane

New River Valley Metropolitan Planning Organization (NRVMPO) Long Range Transportation Plan: Vision Project List

An MPO's Vision Project List identifies desired improvements that are not currently designated to receive funding in the next 25 years. These projects may be considered again for funding in future years, or they may be completed with other sources of funding.

VDOT Salem District priority projects that correspond with or may be affected by Vision List projects include:

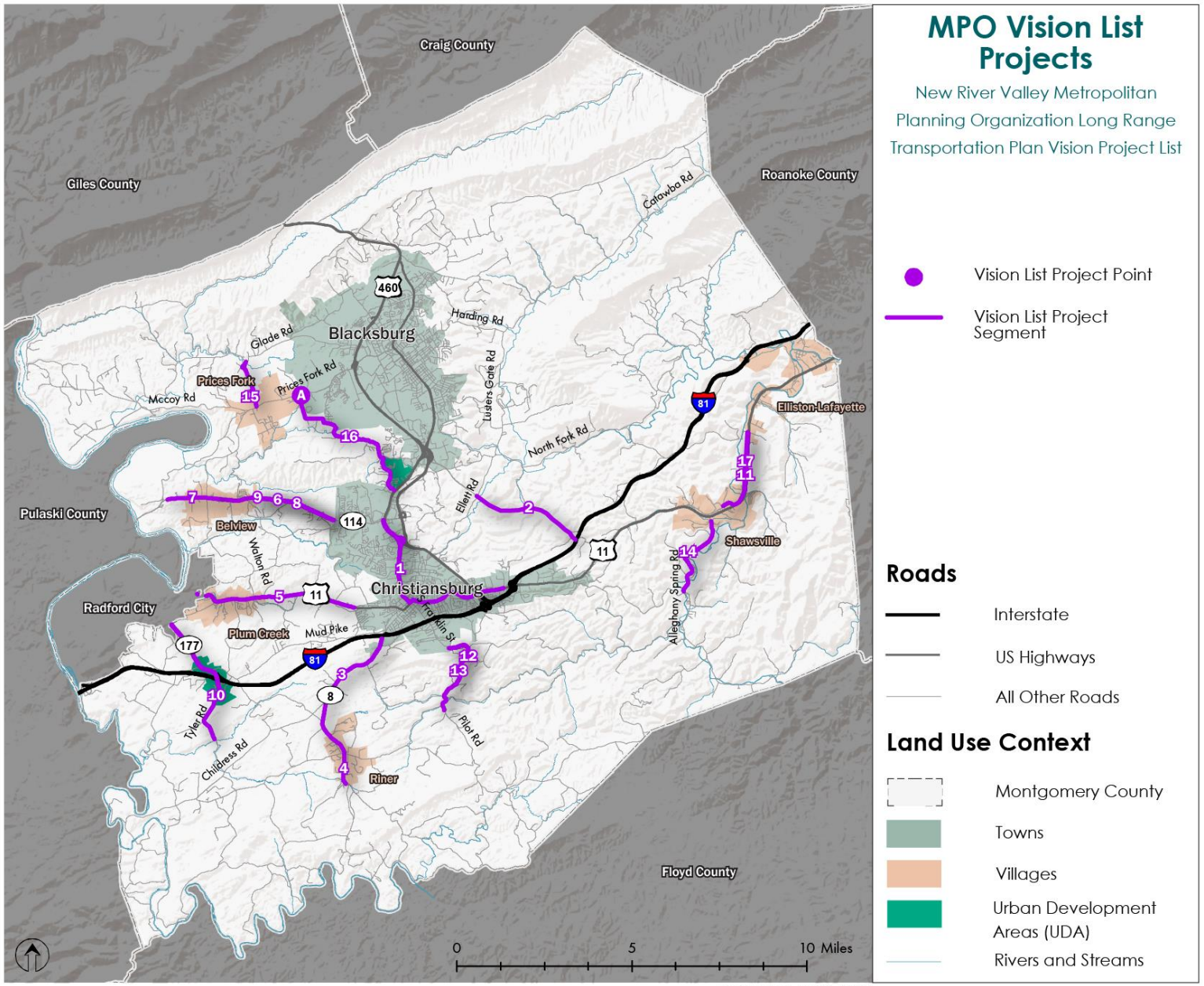
1) **Route 8 (Riner Road) Turn Lane Improvements south of Union Valley Road**
   Road widening and intersection improvements are proposed for this location (Vision List Project Segment 4), which would likely include the turn lane improvements suggested by this project.
3) **US 11/460 (Roanoke Road) Intersection Improvements at Alleghany Springs Road**
   Although none of the Vision List projects directly address this location, there are three proposed projects in the vicinity of Shawsville that would add bicycle and pedestrian accommodations (Vision List Project Segments 11, 14, and 17). Roadway improvements such as this intersection enhancement should strongly consider including bicycle and pedestrian accommodations in their design to support these other projects.
4) **Route 8 (Riner Road) Safety Improvements from the Town of Christiansburg Corporate Boundary to Floyd County**
   The desire for safety improvements along this corridor is confirmed by the road widening and intersection improvements proposed by Vision List Project Segments 3 and 4.
5) **Route 685 (Prices Fork Road) Intersection Improvements at Merrimac Road**
   This location is also identified for improvements by Vision List Project Point A.
6) **Route 657 (Merrimac Road) Safety Improvements from Prices Fork Road to North Franklin Street**
   This corridor is also identified for improvements by Vision List Project Segment 16, which calls for the roadway to be reconstructed to meet current roadway design standards.
11) **Route 8 (Riner Road) Access and Entrance Improvements for new Riner Park Facilities**
   This location falls within the improvements proposed by Vision List Project Segment 3, which calls for a road widening and intersection improvements from Interstate 81 to the Village of Riner. Potential access and entrance improvements made at Riner Park should be designed in a way that anticipates potential future road widenings.
12) **Route 114 (Peppers Ferry Road) 4 Lane Roadway Widening from the Town of Christiansburg Corporate Boundary to Constitution Road**
   The proposal to widen this corridor to four lanes is also made by Vision List Project Segments 6 and 7. Additionally, however, Vision List Project Segments 8 and 9 propose the addition of a multiuse path and a paved shoulder for bicyclists along Route 114 from the Village of Belview to the Town of Christiansburg. These multimodal elements should be included in any major corridor widenings that occur in the future.

Other Recommendations

One notable category of improvements that the Vision List Projects include are roadway enhancements that add bicycle accommodations to roadways in and around villages and Urban Development Areas. (Vision List Project Segments 5,

8, 10, 11, 12, 13, 14, 15) These projects are not currently included in the County's Priority Project list.

The Vision List also includes the potential extension of the Virginia Tech "Smart Road" corridor to serve as an additional connection between US 460 and Interstate 81. In the future, however, the cost of this project is likely to exceed the benefits that it would provide.



Map 17: NRVMPO Vision List Projects

Table 13: NRVMPO Vision List Projects

Map ID	Facility	From	To	Description
1	US 460 Business	Peppers Ferry Road	Industrial Drive	Bike/Ped/Transit Improvements
2	Smart Highway	Route 723	Interstate 81	Construct new 2-lane roadway
3	Route 8	Interstate 81	Route 669	Widen road and improve intersections
4	Route 8	Route 669	MPO Boundary	Widen road and improve intersections
5	US 11	Radford Corporate Limits	Christiansburg Corporate Limits	Paved Shoulder for Bicyclists
6	Route 114	Christiansburg Corporate Limits	0.5 mi east Route 685	Widen to 4 lanes
7	Route 114	Radford Army Ammunition Plant	0.5 mi east Route 685	Widen to 4 lanes
8	Route 114	Eastern Belview Village boundary	Christiansburg Corporate Limits	Paved shoulder for bicyclists
9	Route 114	Eastern Belview Village boundary	Christiansburg Corporate Limits	Multiuse trail adjacent to Peppers Ferry Road
10	Tyler Road (Route 177)	Radford Corporate Limits	5.1 mi south Radford Corporate Limits	Paved shoulder for bicyclists
11	US 460	Shawsville VL	Elliston VL	Paved shoulder for bicyclists
12	S Franklin Street (Route 615)	Christiansburg Corporate Limits	2.24 mi south Christiansburg Corporate Limits	Paved shoulder for bicyclists
13	Pilot Road (Route 615)	Jones Street	3.53 mi east of Jones Street	Paved shoulder for bicyclists
14	Alleghany Spring Road (Route 637)	Georges Run Road	Kirk Hollow Road	Paved shoulder for bicyclists
15	Brooksfield Road (Route 654)	Prices Fork Road	Toms Creek	Paved shoulder for bicyclists
16	Merrimac Road (Route 657)	Prices Fork Road	N Franklin Street	Reconstruct to meet current design standards
17	New	Shawsville Middle School	Seneca Hollow	Multiuse Trail/Greenway
Map ID	**Facility**	**Location**		**Description**
A	Prices Fork Road (Route 685)	at Merrimac Road		Intersection Improvements

Interstate 81 Corridor Improvement Plan

The Interstate 81 Corridor Improvement Plan is part of a statewide program to address safety and operational needs of the interstate corridor in Virginia. It provides recommendations along the entire corridor, but some of these improvements would involve projects in Montgomery County. These projects are identified on Map 18 and in Table 14.

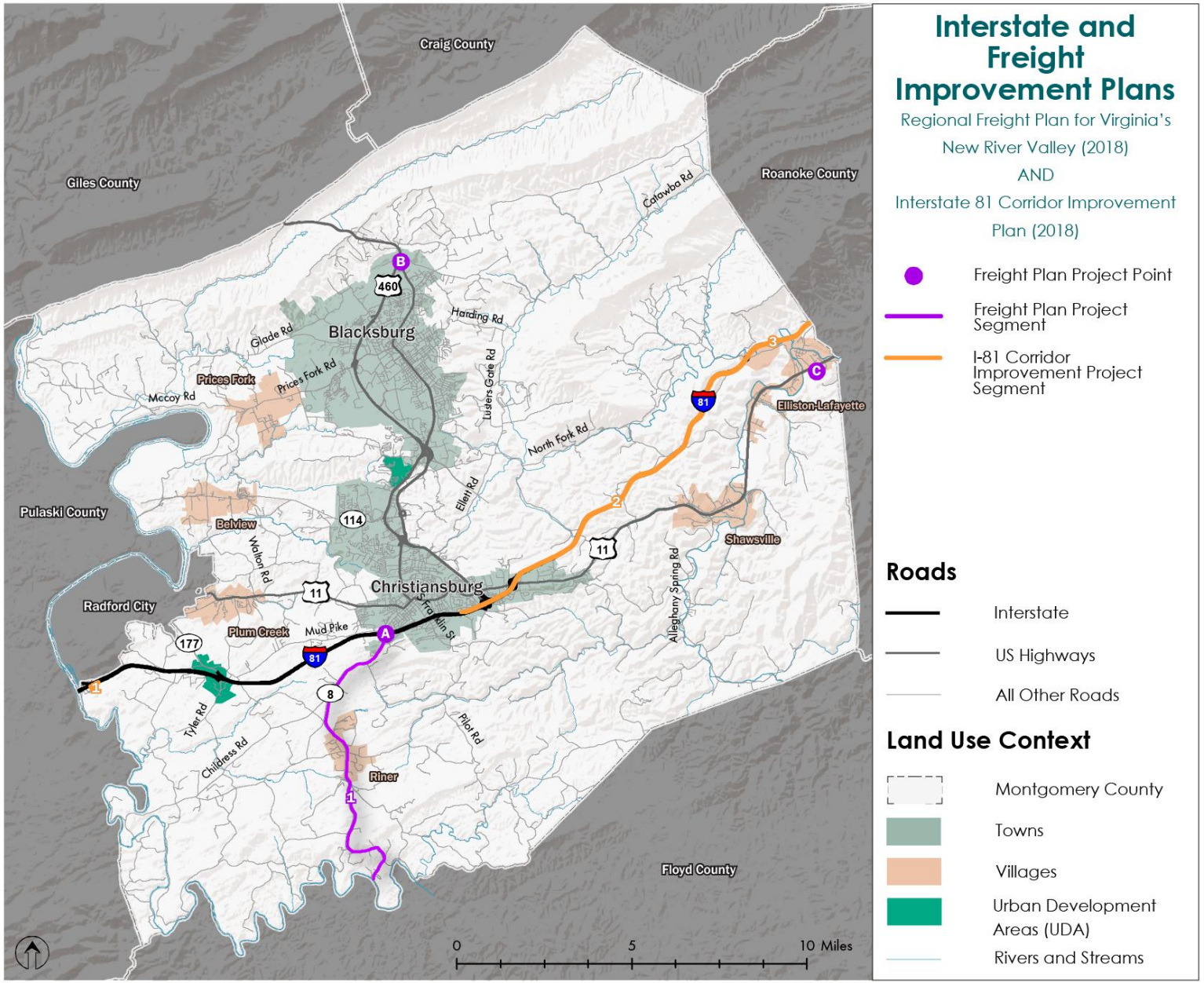
None of the project recommendations included in the Interstate 81 Corridor Improvement Plan have also been included on the list of priority projects for Montgomery County. However, the extension of the acceleration lane at Exit 105 (Interstate 81 Corridor Improvement Project Segment 1) and the widening of Interstate 81 to three lanes in both directions between mile marker 116 and Exit 128 (Interstate 81 Corridor Improvement Project Segment 2) are both included on the NRVMPO's Constrained Project List.

Interstate 81 remains a key transportation corridor for Montgomery County, but improvement efforts have received strong support from the regional and state level.

Regional Freight Plan for Virginia's New River Valley

The Regional Freight Plan for Virginia's New River Valley is a study that examined freight movement in and out of the New River Valley region and identified key projects and improvements that could be made to better support this activity. Its recommendations include several projects in Montgomery County, which are listed in Table 15 and also shown on Map 18. Considerations relevant to the county's priority projects include:

1) **Route 8 (Riner Road) Turn Lane Improvements south of Union Valley Road**
   This location is included in the corridor of recommended improvements for truck freight movement (Freight Plan Project Segment 1).
4) **Route 8 (Riner Road) Safety Improvements from the Town of Christiansburg to Floyd County**
   This segment is included in the corridor of recommended improvements for truck freight movement (Freight Plan Project Segment 1). Enhancement to the approaches and bridges for the Interstate 81/Route 8 interchange are also recommended by Freight Plan Project Point A.
11) **Route 8 (Riner Road) Access and Entrance Improvements for new Riner Park Facilities**
   This location is included in the corridor of recommended improvements for truck freight movement (Freight Plan Project Segment 1).



Map 18: Interstate and Freight Improvement Plans

Table 14: Interstate 81 Corridor Improvement Plan Project Recommendations

Map ID	Facility	From	To	Description
1	Interstate 81	Exit 105		Extend acceleration lane
2	Interstate 81	Mile Marker 116	Exit 128	Widen to three lanes
3	Interstate 81	Exit 128	Roanoke County Line	Widen to three lanes

Table 15: Regional Freight Plan for Virginia's New River Valley Improvement Recommendations

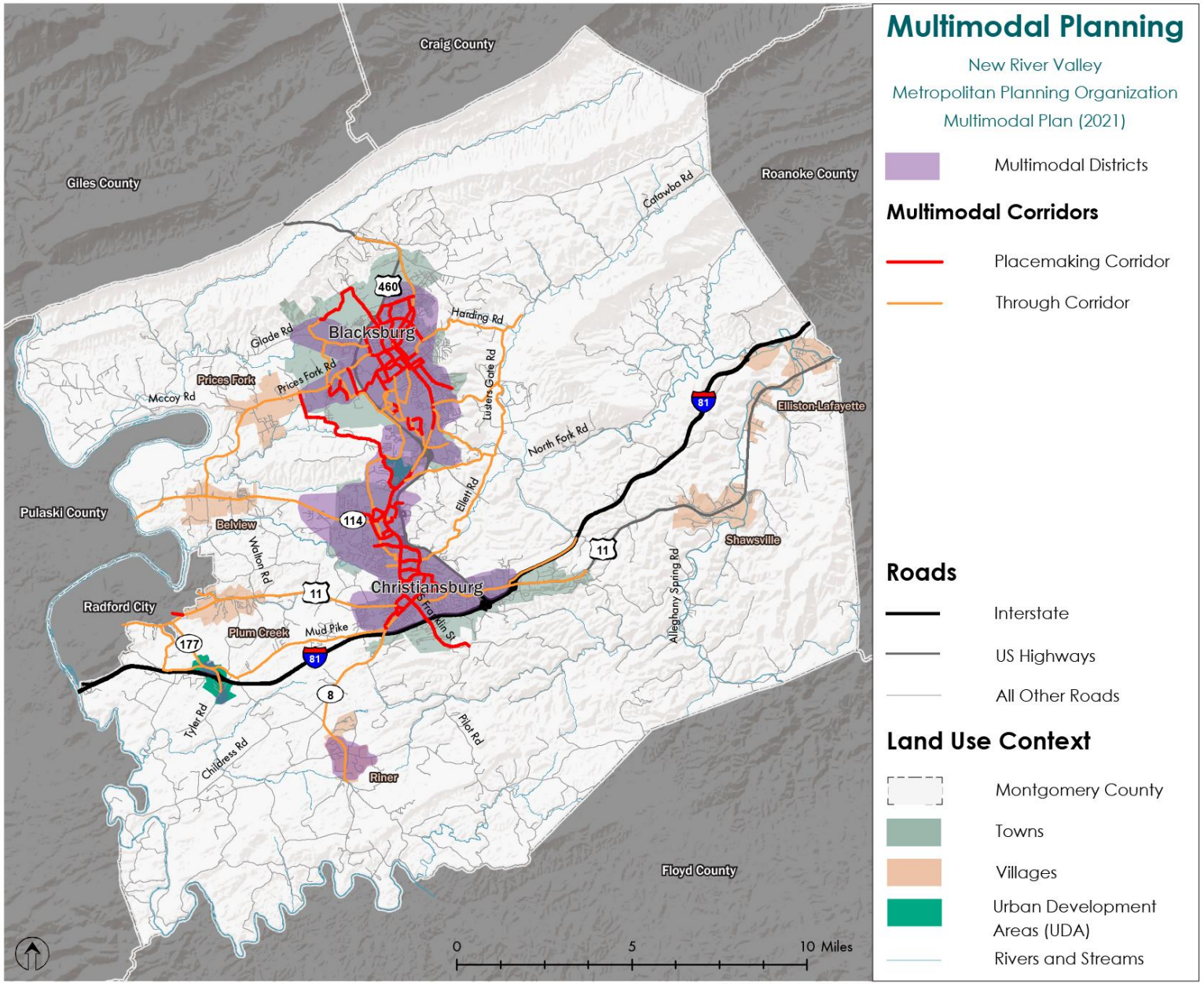
Map ID	Facility	Location	Description
A	Interstate 81	Route 8	Enhance approaches and bridges over Route 8
B	North Main Street (US 460 Business)	at US 460 Bypass	Intersection improvements
C	Norfolk Southern: Intermodal Facility	Elliston	Construct intermodal freight facility

New River Valley MPO Multimodal Plan

The New River Valley MPO Multimodal Plan provides a framework for the future of multimodal transportation in the region by identifying areas and corridors that are best suited for multimodal travel. The plan serves as a guiding document that can inform the designs and strategies of future roadway and land development projects. The major finding of this report is a regional network map that identifies specific corridors and areas that should prioritize multimodal accommodations (Map 19).

Many of the VDOT Salem District priority projects involve corridors that were identified in this plan. The general multimodal design recommendations for each are provided below:

1) **Route 8 (Riner Road) Turn Lane Improvements south of Union Valley Road**
   Designated as a multimodal through corridor in a multimodal center.
2) **Route 114 (Peppers Ferry Road) Intersection and Pedestrian Improvements at Prices Fork Road**
   Designated as a multimodal through corridor.
4) **Route 8 (Riner Road) Safety Improvements from the Town of Christiansburg to Floyd County**
   Designated as a multimodal through corridor with portions in a multimodal center.
5) **Route 685 (Prices Fork Road) Intersection Improvements at Merrimac Road**
   Designated as a multimodal through corridor.
6) **Route 657 (Merrimac Road) Safety Improvements from Prices Fork Road to North Franklin Street**
   Designated as a multimodal placemaking corridor with portions in multimodal districts and multimodal centers. The Huckleberry Trail crossing is also identified as a priority improvement location. (Multimodal Plan Project Recommendation B)
7) **US 460 Business (South Main Street) Multimodal Improvements from Hightop Road to Ferguson Drive**
   Designated as a multimodal through corridor and placemaking corridor in a multimodal center.
11) **Route 8 (Riner Road) Access and Entrance Improvements for new Riner Park Facilities**
    Designated as a multimodal through corridor.
12) **Route 114 (Peppers Ferry Road) 4 Lane Roadway Widening from the Town of Christiansburg to Constitution Road**
    Designated as a multimodal through corridor with a portion in a multimodal center.



Map 19: NRVMPO Multimodal Plan Recommendations

Part IV: Evaluating Proposed Solutions

Chapter 8

Strategies and Solutions

Transportation needs can be addressed both with policies and with projects that enhance infrastructure or services. After reviewing needs and potential projects in the preceding chapters of *Transportation Matters*, Chapter 8 provides a menu or toolkit of strategies and solutions that can be used to address various transportation issues. The Plan's final project recommendations will refer to this toolkit, but the chapter can also serve as a general reference for future planning efforts.

For the purposes of this chapter, strategies are defined as general planning and policy considerations that can shape future transportation outcomes. Solutions, by contrast, are defined as implementable projects or services that will be directly applied to the transportation network.

Strategies and solutions are organized into five primary topic areas, each of which includes multiple sub-topics:

- Roadways
- Multimodal Transportation
- Freight
- Interregional Connectivity
- Land Use Coordination

Roadways

Access Management

Strategies

Development Guidelines: Encourage the practice of access management both in Montgomery County and regionally, which will deter expensive road improvements, allow safer driving conditions while decreasing traffic congestion, and increase safety for pedestrians and cyclists.

Connectivity and Corridor Access: Provide for the safe, orderly, and efficient flow of traffic along roads classified as major and minor arterials by 1) incorporating access management strategies in the review of development proposals; and 2) asking the Metropolitan Planning Organization (MPO) to assist in evaluating ingress, egress, and connectivity requirements. This requirement would limit the burdening of any one road with only one ingress and egress and encourage connectivity. Presently, such a requirement exists only for the 177 Corridor Planning Area.

Solutions

Parallel Access Roads: Parallel Access Roads, also known as Frontage or Feeder Roads, provide separation of local and through traffic. These roads allow indirect access to highways while providing a reliable alternative for local travel. This reduces congestion on highways and allows for higher speeds and efficiency on the main road.

Consolidated Access Points: By consolidating the points where vehicles may enter and exit from the

mainline, the number of conflict points for drivers can be reduced. This may involve, for example, constructing one access lane for multiple driveways or closing off minor intersections that have alternative local street access.

Right In/Right Out Driveways: Right In/Right Out Driveways are used to improve safety by reducing conflict points caused by vehicles trying to make left cross-lane turns. Appropriate infrastructure is needed "downstream" to accommodate vehicles needing to make U-turns.

Corridors and Intersections

Strategies

Identification of Problem Intersections and Corridors: Identify congestion and accident-prone routes and intersections and adopt policies to alleviate congestion, increase safety, and decrease car trips.

Corridor Planning: Identify major transportation corridors within Urban Expansion Areas that possess unique potential for residential and non-residential development and initiate a corridor planning process to develop detailed land use policies and design guidelines to guide development in these key corridors.

Solutions

Dedicated Turn Lanes: By designating specific lanes for turning, traffic that is turning can be physically separated from through traffic. Adding dedicated turn lanes gives turning vehicles space to slow down without disrupting through traffic, provides storage for high turn volumes, and reduces conflict points on the road. Turn lanes generally improve vehicle safety, but safety and convenience for pedestrians and cyclists must also be considered.

Roundabouts: These unsignalized intersections have the capability to greatly reduce congestion, especially at intersections where left-turn volumes are high. These intersections promote slower, safer speeds while also reducing inefficiency caused by red-light delays. Roundabouts generally reduce conflict points and improve safety for both drivers and pedestrians.

Continuous Green-T Intersections: Green-Ts work best at rural intersections, where more space can be dedicated to the necessary merge lane. Through traffic in one direction of the major leg can continue uninterrupted, while signalization in the other direction allows for the off leg to reliably discharge its traffic.

Figure 22: Example of a Continuous Green-T Intersection

Signalization: At intersections where the major leg's traffic is much greater than the minor leg, signalization may be a viable solution. With sensors and cameras, the main through traffic can still be appropriately prioritized.

Innovative Intersections and Interchanges: Today, congestion and safety problems on roadways are more complex than ever, and conventional intersection and interchange designs can be insufficient for resolving transportation problems at busy junctions. Innovative intersection and interchange designs modify vehicle, pedestrian and bicycle movements at conventional intersections to provide transportation agencies and local communities with new options to reduce delay, increase efficiency and provide safer travel for all road users.

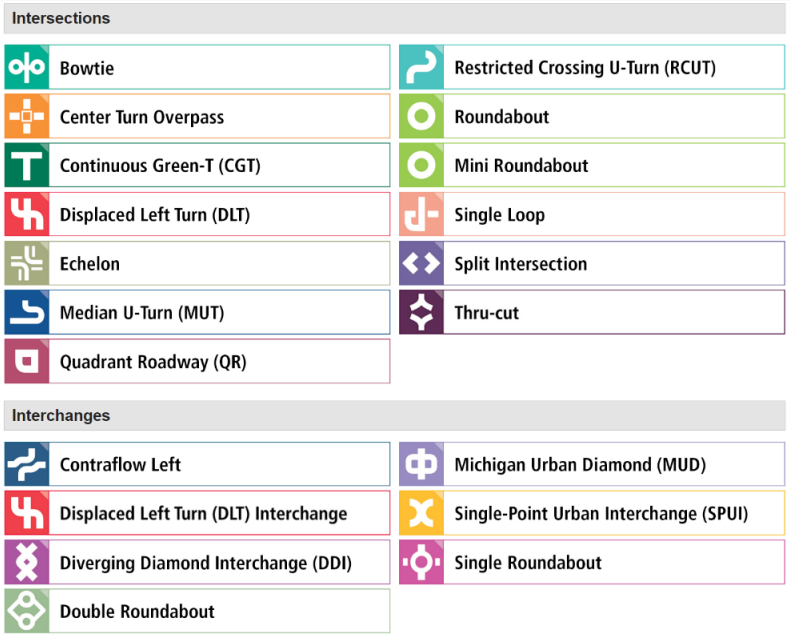


Figure 23: VDOT Innovative Intersections and Interchanges

This VDOT website page provides information on the different types of innovative intersections and interchanges, locations where innovative intersections and interchanges are constructed or planned for construction in Virginia and links to additional resources on innovative intersections and interchanges.
https://www.virginiadot.org/innovativeintersections/

Road Widening/Lane Additions: Adding travel lanes or expanding intersections at strategic locations where the number of vehicles exceeds the designed capacity of the roadway.

Street Network Design

Strategies

Street Connectivity: When working with developers, encourage intra- and inter-connectivity of roads, bikeways, and walkways in new commercial and residential developments to promote an increased sense of community and safety, while decreasing traffic concentration.

Subdivision Connectivity: Review the Subdivision Ordinance to identify opportunities to establish street continuation and connectivity, and right-of-way standards. Require that the arrangement of streets in new subdivisions: 1) make provisions for connectivity and for the continuation of existing streets into adjoining areas; 2) delineate future street extensions on subdivision plats to make lot purchasers aware that the streets in their subdivisions are likely to be extended to adjoining properties; and
3) consider connectivity as part of the review process for rezoning applications for new residential developments.

Village Access: Transportation access to Villages is usually via existing major collector or minor arterial highways, with a network of smaller streets serving the village center. New development in or adjacent to Villages must connect to and reinforce the traditional village road network.

Urban Expansion Areas: Design transportation improvements within the Urban Expansion Areas to tie into the existing street network serving the towns with strong connections between all sites and all uses, especially pedestrian access along the public street network.

Village Expansion Areas: Design roads serving new development in Village Expansion Areas to tie into and enhance the existing street network serving the adjacent village. New roads and road improvements should be designed to accommodate pedestrians as well as motor vehicles, rather than allowing motor vehicles to cause unsafe and unpleasant pedestrian environment.

Historic Character: Design streets to be compatible with the historic character of the local roads, in terms of pavement width, building setbacks, etc.

Cul-de-sac Regulations: Review the Subdivision Ordinance requirement limiting the number of lots permitted on a dead-end cul-de-sac rather than limiting the linear feet of the cul-de-sac.

Solutions

Circulation Network: The neighborhood's streets form a connected network, providing a variety of pedestrian and vehicular routes to any destination, which disperses traffic. (The streets are laid out generally in a "grid" pattern, forming blocks of about 1,200 feet in perimeter length each). Cul-de-sacs should be avoided; small "eyebrows" (short road loops with just a few houses) protruding from the main street should be used instead. A complete network includes streets, alleys, sidewalks, and paths.

Walkable Activity Centers: The organizing framework of a Traditional Neighborhood Development (TND) is to create a walkable community, centered around a core area encompassing one quarter mile. This is approximately the distance at which studies have shown that a significant percentage of people will leave their cars parked and walk between destinations.

TND should be consistent with transportation concepts in VTrans, which calls for development that includes:

- Pedestrian-friendly road design,
- Interconnection of new local streets with existing local streets and roads,
- Connectivity of road and pedestrian networks,
- Preservation of natural areas,
- Mixed-use neighborhoods, including mixed housing types, with affordable housing to meet the projected family income distributions of future residential growth,
- Reduction of front and side yard building setbacks, and reduction of subdivision street widths and turning radii at subdivision street intersections.

Connection Links: Identify and construct strategic connection corridors to link nearby roadways and developments.

Intelligent Transportation Systems

Strategies

Smart Road: Evaluate the future Smart Road interchange and incorporate it into the design and construction of any improvements.

Solutions

Traffic Signal Coordination: By grouping traffic signals, it is possible to reduce congestion and improve efficiency along the main throughfare. Lights must be timed so that vehicles traveling through the first light in the series will reach subsequent ones as they turn green.

Dynamic Messaging Signs: These signs can provide real-time traffic updates, which can allow drivers to make more informed decisions on routing. These can be used in areas that have unpredictable traffic conditions with viable alternate routes or modes of transportation.

Multimodal Transportation

Transit

Strategies

Service Maintenance: Provide funding and planning support necessary to maintain and enhance the existing Blacksburg Transit (BT) service to maximize safety and efficiency while minimizing environmental degradation.

Service Expansion: Request that the Metropolitan Planning Organization (MPO) evaluate mass transit extensions as part of the 2030 long-range transportation plan including the extension of the Two Town Trolley service between Blacksburg and Christiansburg to include Radford.

Evaluate existing commuter bus services, including the Smart Way Bus commuter bus service (connecting Blacksburg/Christiansburg to Roanoke), Blackburg Transit Explorer Routes and the Virginia Breeze Bus Lines service (connecting the region to east coast destinations) to assess their effectiveness and consider service expansion.

Encourage the provision of a mass transit service in commercial areas and between jurisdictions (Blacksburg, Christiansburg, and Radford) and between MSAs (Blacksburg and Roanoke) to alleviate congestion and decrease the number of personal car trips.

Village Transit Access: Evaluate the provision of public transportation between the six villages (Belview, Elliston-Lafayette, Plum Creek, Prices Fork, Riner, and Shawsville) and the urban centers (Blacksburg, Christiansburg, and Radford).

Bus Stop Safety and Accessibility: Support transit use by investing in "safe" bus stops and "safe" access to those bus stops, including: 1) well-planned service routes to decrease time spent waiting for the bus; 2) lit and well-marked bus stops; and 3) and sidewalks or walkways/ bikeways to access bus stops safely rather than walking on the shoulder of a busy road.

Solutions

Bus Rapid Transit: While induced demand can quickly surpass capacity for personal vehicle travel, transit options generally take more time to reach capacity. Increasing the frequency of service for bus transit within the County can promote greater use of public transportation and reduce congestion caused by unnecessary personal vehicle travel. Additionally, greater service capacity may encourage residents who otherwise do not have the ability to frequently travel to do so, promoting economic activity. The existing Blacksburg and Radford Transit networks could be expanded.

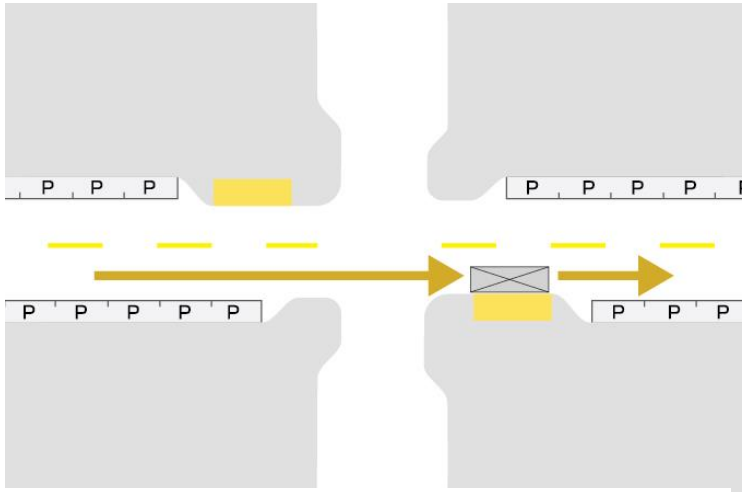


Figure 24: Example of Locating a Bus Stop After an Intersection

Micro-shuttles: Ask the Metropolitan Planning Organization (MPO) to evaluate micro-shuttle service to area businesses within the core activity centers. These studies would evaluate cost, demand, efficiency, and transit route tie-ins. A shuttle service would simply be a small-localized loop within the core activity center, whereas the transit relay would serve a larger area. Possible funding sources could be businesses that would have a shuttle stop in front of their store, the jurisdictions served by the commercial area, and the Chamber of Commerce. Ideally, the micro-shuttle would be operated by BT and would tie into existing bus routes.

On Demand Transit: On Demand Transit may be useful for connecting existing public transportation to areas not currently served by public transportation. However, this service should be niche and cannot replace traditional transit networks entirely.

Bus Stop Seating, Shelters, and Locations: When waiting times can't be reduced, improving the waiting conditions can promote greater ridership. Ensuring that those waiting for public transportation can do so safely and comfortably will encourage more people to use the service. Bus stop locations benefit from being placed after an intersection, on the "far-side." This ensures that the bus will not need to wait at the intersection longer than necessary after stopping for passengers. This can improve reliability and reduce travel time.

Bus Pull Off Lanes: The addition of bus pull off lanes may improve safety for passengers boarding and exiting, while also improving congestion caused by buses stopping on one lane roads. However, in highly congested areas, pull off lanes may also increase the time needed for a bus to re-enter a through lane.

Bicycle and Pedestrian

Strategies

Complete Streets: Design streets that provide a safe and comfortable environment for multiple modes of transportation. Complete streets are typically relatively narrow and shaded by rows of trees, often with on-street parking, which slows traffic, creating an environment suitable for pedestrians and bicycles.

Public Amenities: Target public investments in amenities such as street lighting, landscaping, street furniture, sidewalks and trails focused in Urban Development Areas to attract and augment private investment and to support community design in keeping with the traditional design principles outlined in the UDA legislation.

Local Ordinance Review: Review the County's land development codes and identify code changes that foster multimodal travel options.

- Bike Facilities: Evaluate requirements for bike facilities, including bike racks, and identify tactics to foster more bike trips.
- Pedestrian Facilities: Require the provision of pedestrian facilities (sidewalks, walkways, trails, etc.) in new developments in the Village, Village Expansion, Residential Transition, and Urban Expansion Areas.

Village Plans: Work with residents in each of the villages to address recreational needs in their Village Plans, including community, neighborhood, pocket, and tot parks and walkway/bikeway facilities.

Accessibility: Ensure full compliance with Americans with Disabilities Act (ADA) design requirements for the construction and alteration of facilities. This includes the location and logical termini of paths, adequate safety measures for individuals navigating sidewalks/bus stops/and other infrastructure to ensure full and safe access for those with limited or impaired mobility.

Bicycle and Pedestrian Coordination and Connections: Encourage coordination between the County, Blacksburg, Christiansburg, and regional jurisdictions to provide connectivity of all bikeways, walkways, and trails.

Actively seek and engage in partnerships with non-profit/volunteer organizations such as Friends of the Huckleberry Trail to facilitate collective efforts for improving and expanding multi-modal networks.

Trail Networks: Provide a high-quality trail network, based on a series of trails and activity or education nodes, throughout the County, which offers both increased individual and family recreational opportunities and alternative transportation routes between jurisdictions and outlying villages.

Business/Industrial Park Trails: Develop bikeway/walkway trails in existing and proposed business/industrial parks.

Bikeways, Walkways, and Trails Coordination: Create an advisory committee to study the connectivity of the bikeway, walkway, sidewalk, and Heritage Trail Network.

Interregional Trail Connections: Support New River Valley Regional Commission's efforts to develop a multi-jurisdictional plan for linking the Huckleberry Trail to the New River Trail via Christiansburg and Radford.

Actively engage and support the Valley to Valley Trail Initiative (led by VDOT in partnership with the NRVRC) which is working on developing a link between the New River Valley with the cities of Roanoke and Salem through a trail system.

Support the development of a trail system that will link to the City of Radford and the two universities to better meet the needs of the student population and City residents (e.g. Kentland Farms river access and Dedmon Center & Bissett Park).

Solutions

Trail Nodes: Develop recreation facilities in collaboration with the County and Towns master plans for trails (including bikeways and walkways).

Bicycle Lanes: Providing safe and accessible bike lanes will encourage more people to bike. However, these lanes must be connected to both places where people live and to places where they want to travel. It can be costly to install the infrastructure needed to truly protect bicycle lanes from car traffic, so better education for drivers on sharing the road could be a viable alternative. Placing bike lanes between through lanes and on-street parking can cause conflict points, so ideally bike lanes will be placed closest to the curb.

Sidewalks: If walking is to be a viable mode of transportation, adequate sidewalk infrastructure is needed. Paths should be wide enough that pedestrians can walk comfortably and safely.

Multi-Use Paths: Multi-use paths can further reduce conflict points between drivers and cyclists by giving them a shared space with pedestrians. Accidents are less likely to happen between cyclists and pedestrians than cyclists and cars, and accidents that do occur are less likely to be severe or fatal.

Paved Shoulders: Edge drop-offs on road shoulders can result in more severe accidents and injuries. Paving these shoulders will also make it safer for cyclists by allowing them to ride outside of automobile travel lanes.

Travel Demand Management

Strategies

Park and Ride Strategic Planning: Work with the MPO to develop a regional park-and-ride lot strategic plan which would: 1) provide facilities in outlying areas of Montgomery County and adjacent jurisdictions; 2) evaluate existing, underutilized parking lots for park and ride opportunities; and 3) establish a public awareness program to encourage increased usage of park-and-ride facilities.

Business Incentives: Reduce the number of cars entering urban areas by promoting park and ride lots to open on-street parking spaces for other uses, such as bike storage, restaurant outdoor seating, artwork, and community space.

Solutions

Park and Ride Lots: Park and Ride facilities allow long-distance commuters to travel without needing their vehicles. These locations should be convenient to use (near residential areas) and provide public transportation access to areas for business, work, and leisure.

Bike Storage Facilities: Further reliance on cars can be reduced if park and ride facilities, public transit facilities, and walkable areas provide adequate bike storage capacity and capability. Safe and reliable storage facilities will promote greater use of bicycles as a means of transport.

Bike Repair Stations: Walkable areas and public transit facilities should also provide a means for cyclists to repair their bikes without outside help. Installing fixed platform pumps can allow greater autonomy for cyclists without excessive investment.

Freight

Freight Corridors

Strategies

Moving Freight: Streamline travel of people and goods through the corridors by improving safety and efficiency.

Solutions

Rest Areas: Encourage the construction of adequate rest areas, which provide separate facilities for cars and trucks, along major freight corridors in the County.

Industrial Rail Spurs: Support increased rail service and spurs to the industrial areas and parks in the County to enhance rail access for businesses, industries, and people in Montgomery County.

Intermodal Connections

Strategies

Transit Prioritization: Promote various modes of public transit as viable alternatives to car travel where it is cost effective and time efficient.

Solutions

Intermodal Transfer Facilities: Various modes of transit are viable at differing distances. Providing more local connections to larger transit systems can increase connectivity and reduce gaps in the system. For example, the planned Amtrak expansion of the rail network to Christiansburg can be supplemented with a bus rapid transit stop in or near the facility. Rental bikes, bike storage, and/or a park and ride lot can be placed at the facility as well.

Interregional Connectivity

Interregional Corridors

Strategies

I-81 Corridor Rail Service: Support state efforts to promote rail alternatives for through truck traffic on Interstate 81. This will necessitate consideration of rail improvements in nearby states in conjunction with improvements to "bottlenecks" in Virginia to provide competitive, long haul rail service.

Interregional Services

Strategies

Low Cost Carriers: Support Virginia Tech's efforts to attract a low cost air carrier to the Roanoke Regional Airport.

Air Transportation: Support development of robust air transportation service to compete in a global economy. Maintain and enhance the complementary roles of the three airports serving Montgomery County: 1) Virginia Tech / Montgomery Executive Airport for corporate and general aviation needs; 2) New River Valley Airport for air freight needs; and 3) Roanoke Regional Airport for full-service air passenger needs.

Trans Dominion Expressway: Support state efforts to promote high speed passenger rail service for southwestern Virginia.

This initiative for expanding passenger rail has made significant progress in the past year. With the planned route including a station within the Town of Christiansburg, the County remains a major player in the development of this rail corridor. Representatives from the County, Town of Blacksburg and Town of Christiansburg serve as members of the Passenger Rail Authority, and the Regional Commission is the lead agent in this project.

Planning for connecting services, including multi-modal, at the proposed new station should be advanced to help ensure the success and viability of the new rail connection as an economic development opportunity.

Valley Metro Services: Establish clear benchmarks to measure the success or failure of Valley Metro's demonstration project for express bus service between Blacksburg and downtown Roanoke.

Interregional Coordination

Strategies

Corridor Planning and Access Management: Develop a regional approach to the corridor planning process in cooperation with the New River Valley Regional Commission which incorporates access management techniques.

Metropolitan Planning Organization: Provide ongoing, long-term support of and assistance to the Metropolitan Planning Organization.

Virginia Tech: Continue working closely with Virginia Tech as a major partner in addressing regional transportation needs. Virginia Tech works with the County on funding applications, including SMARTSCALE, for University projects, and serves as a partner for other major development projects. The Virginia Tech Transportation Institute, who manages the Smart Road project, is also a critical partner for planning efforts.

Cooperative Review: Develop a cooperative review policy/ agreement whereby Montgomery County would include the MPO, along with other local jurisdictions, and visa versa in addressing transportation issues for new, major developments.

Roanoke Valley Region Partnerships: Support regional connections and the potential for cooperative efforts with the Roanoke Valley Region. Higher education, transportation, tourism and

economic development, and environmental concerns have created significant ties between Montgomery County and the Roanoke Valley.

Land Use Coordination

Land Development Strategies

Strategies

Traditional Neighborhood Design: Use Traditional Neighborhood Design principles within designated growth areas to create compact development that accommodates pedestrian and vehicular traffic with a full complement of services and amenities. Provide for transit facilities or stops within development in UDAs. Serve and/or plan to serve UDAs with central sewer and water service and transportation infrastructure. Provide active, passive, and natural open space that is fully integrated into the County's rural areas through a network of connected trails and walkways.

Mixed Use Neighborhoods: Encourage the development of planned, mixed use, pedestrian and transit friendly neighborhoods, which combine office, commercial, residential, and recreational uses into a single development.

UDA Cooperation: Coordinate with the City of Radford, the Town of Blacksburg, the Town of Christiansburg, and the NRVRC to establish Urban Development Areas (UDAs) and identifying opportunities for regional cooperation on infrastructure improvements, transit, and transportation improvements to support development in UDAs as focal points for regional growth.

Public Space Design: Include design elements such as a generally interconnected street network, defined opens spaces that serve as "exterior rooms", multiple uses within a single building, multiple uses adjacent to one another, building fronts set close to the street, comfortable and safe pedestrian access between sites and along sidewalks, on-street parking, and parking lots and garages located behind buildings.

Equitable Investments: Prioritize service and infrastructure improvements in historically underfunded areas. Invest in these areas to reduce inequality and improve community support and independence.

Strip Developments: Discourage strip development, particularly of commercial properties, along important transportation corridors by designating areas that can be zoned to serve as compact centers for development, including village and urban centers and major road intersections.

Transportation Proffers: Evaluate the development of a Cash Proffer System, in partnership with Blacksburg and Christiansburg, to address the impact of new development on the transportation system and provide funding to alleviate future problems. Proffers for roads and road improvements are considered a separate item, not included within the guidelines due to the State's responsibility for public roads. Road proffers should be based upon the specific needs of the site and its surrounding road network.

Environmental Protection

Strategies

Resource Stewardship Areas: Limit transportation access and improvements in Resource Stewardship Areas to that necessary to serve very low-density development. New rural residential subdivisions should be served by internal streets that connect to existing rural roads to avoid strip development and to minimize individual driveway access along existing public roads. The use of private roads will generally be discouraged in Resource Stewardship Areas.

Limitation of Impervious Surfaces: Amend zoning ordinance to reduce the percent of coverage from buildings, parking, and other impervious surfaces.

Viewshed Protection: Develop and enact a plan of action for the protection and preservation of the scenic byways and transportation corridors, rivers, tributaries, and ridgelines.

Species Protection: Protect threatened and endangered plant and animal species in the County by preserving critical habitat areas. Wildlife habitat management is a critical component due to the increasing development in the County.

Air Quality Monitoring: Routinely monitor air quality in the County to determine if air quality is declining.

Wildlife Corridors: Establish green spaces, including corridors and greenways, that promote viable wildlife habitats.

Virginia Scenic Byways: Work to identify Virginia Byways with significant aesthetic and cultural values, leading to or lying within areas of historical, natural, or recreational significance. Working with VDOT and DCR the County will evaluate and designate roads that have important and unique scenic value and experiences, provide diverse landscape experiences, provide connections and access, provide leisurely motoring experiences, and are regionally significant.

Montgomery County currently has three designated Scenic Byways, which include:

- Route 785
- Route 693
- Route 8

Rural Preservation

Strategies

Agricultural and Forest District Regulations: Discourage expansion of rights-of-way beyond what was identified in VDOT's 1998 concept study in order to minimize the impact on Agricultural and Forestal Districts (AFDs) in Montgomery County.

Rural Road Development Limitations: Focus on the County's natural resources by limiting road improvements in rural areas, encouraging more bike and pedestrian travel, and adopting policies that reduce carbon emissions.

Rural Residential Access: Serve new rural residential subdivisions with internal streets that connect to existing rural roads to avoid strip development and minimize individual driveway access along existing collector highways.

Rural Property Access: Require adequate and safe road access with any necessary improvements provided by the applicant. Ensure that entrances

onto existing public roads are adequately spaced to provide safe access and maintain capacity of the roadway. Require right-of-way dedication for future widening of existing roadways.

Scenic Beauty Policies: Encourage green medians and discourage sound walls in order to maintain scenic beauty.

Public Outreach

Strategies

Public Information and Outreach: Actively promote public participation in the transportation planning and decision-making processes of transportation opportunities in Montgomery County by: 1) providing public input opportunities; 2) maintaining and publicly distributing transportation-related GIS data in order to track changes and potential opportunities related to land use and transportation; and 3) providing access to a broad range of transportation related information to increase public understanding and awareness and promote public use of the transportation modes offered in Montgomery County.

Transportation Related Public Involvement: Increase public involvement in transportation-related decisions, including: 1) work with the MPO and other local jurisdictions to develop a policy to encourage significant public input and involvement in transportation and corridor planning; and 2) work with local organizations to encourage significant public input and involvement in local corridor and village planning initiatives.

Public Transportation Information: Provide broad-based public access to print and electronic based transportation-related information, including a Montgomery County Transportation Map, annually updated; Montgomery County GIS data and online mapping service; Metropolitan Planning Organization (MPO) data, meeting minutes, and reports; roadway maintenance problems and directions for notifying the Virginia Department of Transportation (VDOT) when maintenance problems arise; Park and Ride facilities and information; and bikeway, walkway, and Heritage Trail information.

Online Mapping: Provide an annually updated Montgomery County Transportation Map which would include all road names, route numbers, walkway/ bikeway routes, public transit stops, park and ride lots, airports, and other transportation information generated by Montgomery County and the Metropolitan Planning Organization (MPO).

Traditional Neighborhood Design Benefit Information: Provide residents and developers information on "safe neighborhood," transit-oriented, and traditional neighborhood (TND) design and development.

CHAPTER 9

Project Evaluation

The final list of projects reviewed and prioritized by *Transportation Matters* included recommendations from the Virginia Department of Transportation Project Prioritization List for Montgomery County, as well as recommendations generated by public comments, other studies and plans, and land use considerations.

Every project included on the *Transportation Matters* project list was evaluated and scored in three categories:

- Land Use Coordination
- Transportation Need
- Ease of Implementation

A brief description of each evaluation category is provided below.

LAND USE COORDINATION

The land use coordination evaluation assessed the extent to which each project supports Montgomery County's rural character and village-based land use vision. The evaluation category was used to identify projects that helped create a transportation network that supports and encourages this development pattern. Ratings were assigned as follows:

- **High:** The project promotes compact and multimodal development patterns in villages or urban development areas that can utilize a multimodal transportation system; OR the project improves a major interregional corridor (Interstate-81, US 460 Bypass)
- **Medium:** The project enhances access to a village or growth area, but is unlikely to support compact and/or multimodal development patterns.
- **Low:** The project does not enhance access to a village or other designated growth area.

TRANSPORTATION NEED

The transportation need of each project location was evaluated using the Needs Assessment tool described in Chapter 6. This tool evaluated the impact of a project in relation to each of the County's major goal areas.

Each project was assigned a Transportation Need score that reflects the number and importance of the goal areas that the improvements are expected to address. The number of points assigned to each goal area was determined by public survey feedback reported in Chapter 6:

- **Safety:** 3 points
- **Congestion Relief:** 2.5 points
- **Multimodal Travel:** 1.5 points
- **Connectivity:** 1.5 points
- **Economic Competitiveness:** 1.5 points

A project was awarded points for a goal area if it satisfied at least one of the performance indicators for the goal. A project addressing every goal area received the maximum score of 10 points. A project's total score was used to determine its Transportation Rating as follows:

- **High:** 7.1-10 points
- **Medium:** 4-7 points
- **Low:** Less than 4 points

Ease of Implementation

The final evaluation category assessed each project according to the ease with which the project is likely to be implemented. The primary considerations in this evaluation included expected project costs and land acquisition needs. Ease of implementation was assumed to decrease as costs and right-of-way acquisition needs increase. Ratings were assigned as follows:

- **High:** The project can be completed within existing right-of-way and primarily involves low-cost improvements such as signage and pavement markings OR the project has already received funding.

- **Medium:** The project is likely to require some new right-of-way and involves a moderate expansion of the existing hard infrastructure. Examples include the addition of one lane of travel, sidewalks, or a shared use path.

- **Low:** The project is likely to require an extensive amount of new right-of-way and involves a major expansion of existing hard infrastructure. Examples include major road widenings or the construction of a new road corridor.

Prioritization Tiers

Projects were awarded points in each of the preceding evaluation categories based on their rating. A "high" score earned three points, a "medium" score earned two points, and a "low" score earned one point.

After being evaluated in all three categories, each project received a final total score, which was the sum of the point values earned in the three evaluation categories. This point value was used to assign each project to one of four prioritization tiers as follows:

- **Tier 1:** 8-9 points
- **Tier 2:** 7 points
- **Tier 3:** 5-6 points
- **Tier 4:** 3-4 points

These prioritization tiers were used to assemble a prioritized project list. Projects within each respective tier were not ranked relative to each other. A choice between two projects in the same tier may depend on variables such as funding availability, development needs, and local political support.

Finally, projects that were not included in the Tier 1 category should not be dismissed from consideration. Every project included in the evaluation has merit and would provide some benefit to the County. The purpose of this evaluation is to provide a standardized guide that can assist in future decision-making but is not intended to serve as the sole determining factor for all future transportation investments in Montgomery County.

PART V: RECOMMENDATIONS

CHAPTER 10

Project Recommendations

The results of the *Transportation Matters* project evaluation are presented in this Chapter in two forms. First, the location of the recommended projects is provided on Map 20. Additionally, Tables 16 and 17 include evaluation results and list the projects in their final prioritized order. Roadway Improvement Projects (Table 16) and Multimodal Improvement Projects (Table 17) have been divided into separate lists. This division is meant to acknowledge the different funding sources that are often available to these projects. Additional project information and individualized maps can be found in Appendix 1.

A third grouping of Other Improvement Recommendations (Table 18) includes priority transportation improvements that are not yet associated with specific locations. Their indeterminate location at present did not allow them to be evaluated using this plan's standard process, but they are included to encourage the County to pursue and support these ideas.

Finally, it should be noted that Table 19 specifically identifies several intersections of concern that fall within the "Route 8 Safety Improvements" project corridor. Safety data and public feedback is provided here for additional reference.

Projects in the Six Year Improvement Program

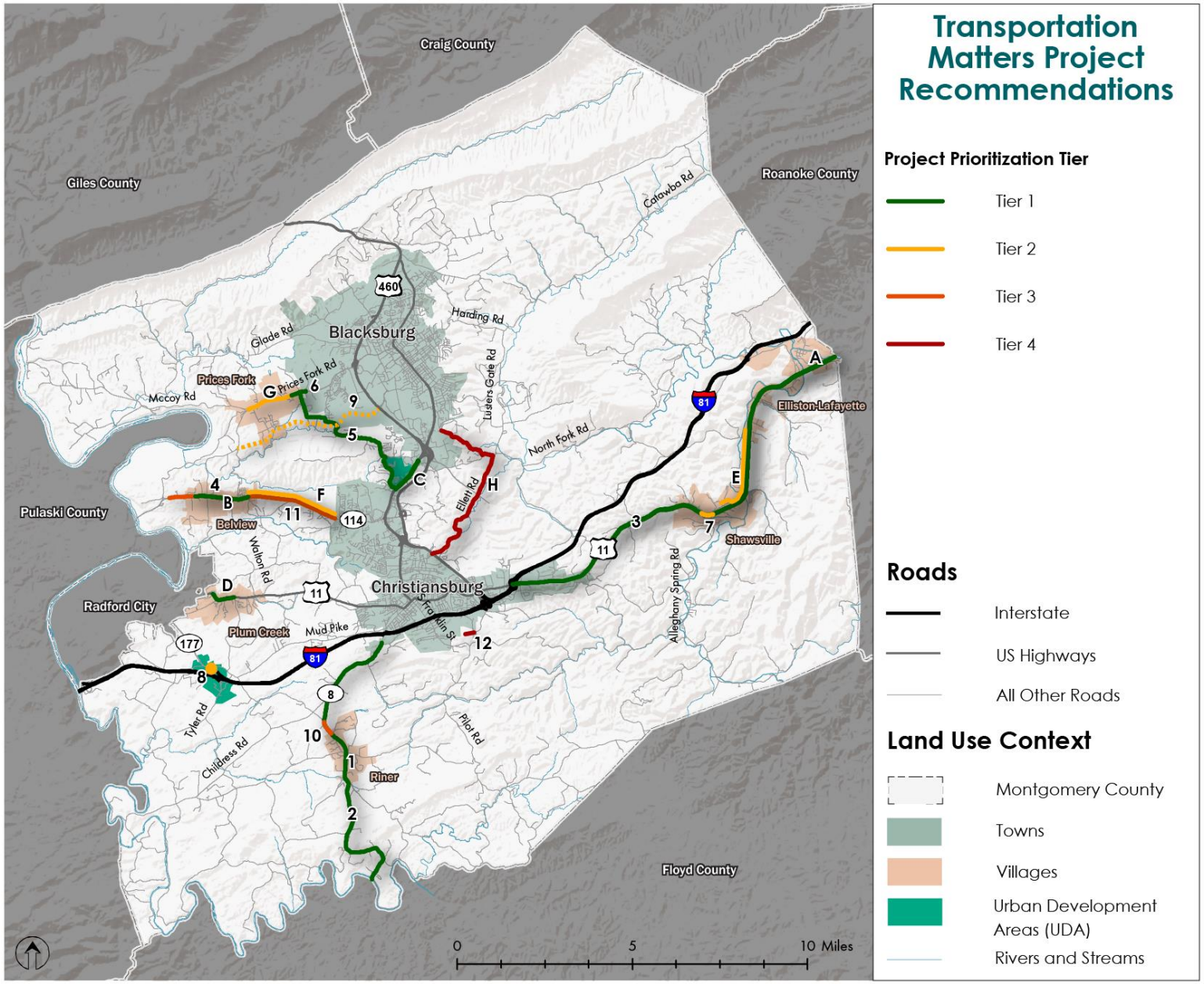
The Commonwealth Transportation Board (CTB) allocates public funds to transportation projects over six fiscal years, comprising the Six-Year Improvement Program (SYIP). Projects include improvements to the interstate, primary and secondary highways, public transit, and other programs.

Montgomery County currently has 22 separate line items in the FY24 SYIP. This list includes three interstate projects, six primary road line items, a dozen secondary road line items, and one line for an urban street.

Notable line items include:

- Interstate 81 improvements
  - Bridge replacement at Route 232
  - Acceleration lane extension at exit 105
  - Park and ride lot at exit 114
- Road widening improvements
- Pedestrian and curb improvements
- New turn lanes
- Resurfacing projects
- Funding for the rural additions program
- Bridge work

To view these projects, visit:
https://syip.virginiadot.org/Pages/allProjects.aspx



Map 20: Transportation Matters Project Recommendations

Table 16: Roadway Improvement Project Recommendations

Map ID	Corridor/ Facility	From	To	Project Description	Land Use Rating	Transportation Rating	Ease of Implementation	Prioritization Tier
1	Route 8 (Riner Road)	250 ft south of Union Valley Road	0.2 mi south of Union Valley Road	Turn Lane Improvements	High	High	Medium	**Tier 1**
2	Route 8 (Riner Road)	Town of Christiansburg Corporate Boundary	Floyd County Corporate Boundary	Route 8 Safety Improvements	High	High	Medium	**Tier 1**
3	US 11/460 (Roanoke Road)	Interstate 81	Roanoke County Corporate Boundary	Intersection Improvements and Intelligent Transportation Systems Solutions	High	High	Medium	**Tier 1**
4	Route 114 (Peppers Ferry Road)	Waterworks Road	Belview Drive	Prices Fork Road Intersection and Pedestrian Improvements	High	Medium	High	**Tier 1**
5	Route 657 (Merrimac Road)	Prices Fork Road	North Franklin Street	Merrimac Road Safety Improvements	High	High	Medium	**Tier 1**
6	Route 685 (Prices Fork Road)	at Merrimac Road Intersection		Merrimac Road Intersection Improvements	High	High	Medium	**Tier 1**
7	US 11/460 (Roanoke Road)	Trump Lane	Lewyn H Gardner Lane	Alleghany Springs Road Intersection Improvements	High	Medium	Medium	**Tier 2**

Map ID	Corridor/ Facility	From	To	Project Description	Land Use Rating	Transportation Rating	Ease of Implementation	Prioritization Tier
8	Route 177 (Tyler Road)	at Mud Pike Road Intersection		Intersection Improvements	High	Medium	Medium	Tier 2
9	460 Connector Road (New)	Southgate Drive	Prices Fork Road	New Road Construction	High	High	Low	Tier 2
10	Route 8 (Riner Road)	at Riner Park Entrance		Access and entrance for new park facilities	Medium	Medium	Medium	Tier 3
11	Route 114 (Peppers Ferry Road)	Town of Christiansburg Corporate Boundary	Constitution Road	Widen to four lanes	Medium	High	Low	Tier 3
12	Falling Branch Industrial Park Road	Falling Branch Corporate Park		Access road for new industrial park properties	Medium	Low	Medium	Tier 4

Table 17: Multimodal Improvement Project Recommendations

Map ID	Corridor/ Facility	From	To	Project Description	Lane Use Rating	Transportation Rating	Ease of Implementation	Prioritization Tier
A	US 11/460 (Roanoke Road)	Stones Keep Lane	North Fork Road	Add Lafayette off-road shared use path	High	High	Medium	**Tier 1**
B	Route 114 (Peppers Ferry Road)	Bradford Lane	Mass Circle	Add Belview bicycle and pedestrian facilities	High	High	Medium	**Tier 1**
C	US 460 Business (South Main Street)	Hightop Road	Ferguson Drive	Business 460 Multimodal Improvements	High	High	Medium	**Tier 1**
D	US 11 (Lee Highway)	Truman Avenue	Fire Tower Road	Add Plum Creek bicycle and pedestrian facilities	High	Medium	Medium	**Tier 2**
E	Old Town Road / US 11/460 (Roanoke Road)	Shawsville Middle School	Seneca Hollow Road	Add off-road shared use path	High	High	Low	**Tier 2**
F	Route 114 (Peppers Ferry Road)	Mass Circle	Town of Christiansburg Corporate Boundary	Add off-road shared use path	High	High	Low	**Tier 2**
G	Route 685 (Prices Fork Road)	Tucker Road	Town of Blacksburg Corporate Boundary	Add Prices Fork bicycle and pedestrian facilities	High	Medium	Medium	**Tier 2**
H	Route 723 (Ellett Road) / Route 603 (Cedar Run Road)	Town of Christiansburg Corporate Boundary	Town of Blacksburg Corporate Boundary	Add on-road bicycle facilities	Medium	Medium	Low	**Tier 4**

Table 18: Other Improvement Recommendations

Project Name	Project Description
Interstate 81 Truck Rest Area	Create a rest stop or truck parking area near the Interstate 81 Exit 118 interchange to provide a safe alternative to parking on the interstate shoulder.
Valley to Valley Trail	Support efforts to acquire right of way and construct facilities to complete the proposed Valley to Valley trail network.
Village Bicycle and Pedestrian Facilities	Encourage the addition or inclusion of bicycle and pedestrian facilities along all streets and roads in designated village and UDA growth areas.
Village Transit Connections	Support efforts to extend transit service to designated village growth areas to enhance accessibility and to further support their development as compact and walkable communities.

Table 19: Route 8 Intersections of Concern

Intersection	Potential Safety Improvement (PSI) Location	Recorded Fatal or Serious Injury Accidents (2014-2021)	Public Comments
Life Drive	Yes	No	Lack of turn lanes noted as a safety concern.
Smith Creek Road	Yes	Yes	Lack of turn lanes noted as a safety concern
Sinkland Farms	Yes	No	Long delays and frequent accidents were reported in connection with events at Sinkland Farms due to a lack of turn lanes and inadequate traffic control.
Childress Road	Yes	Yes	Limited sight lines were noted as a safety concern for vehicles turning onto Route 8 from Childress Road.
Dairy Road	Yes	Yes	A lack of turn lanes, limited sight lines, and confusing intersection design are noted as safety concerns at this intersection.
Auburn Baptist Church	No	No	A very large number of comments noted significant traffic delays and safety concerns for vehicles turning into the church property to pick up and drop off students from school. The lack of turning lanes in either direction on Route 8 was cited as the primary point of concern.

CHAPTER 11

Next Steps and Implementation

The prioritized project recommendations found in Chapter 10 are intended to guide local and regional leaders in their selection of transportation improvement projects for Montgomery County. Once local leaders have chosen to pursue one of these projects, however, they will need to secure funding to implement the improvements. This Chapter provides a broad overview of several of the most common funding sources that the County may be able to utilize to acquire these funds.

SMART SCALE

Purpose: SMART SCALE is the statewide program that distributes funding based on a standard and objective evaluation of each projects' ability to help the state achieve its transportation goals.

Funding: There are two main pathways to funding within the SMART SCALE process—the construction District Grant Program (DGP) and the High Priority Projects Program (HPPP). A project applying for funds from the DGP is prioritized with projects from the same construction district. A project applying for funds from the HPPP is prioritized with projects statewide. The CTB then makes a final decision on which projects to fund.

Eligible Projects: Projects must address improvements to a Corridor of Statewide Significance, Regional Network, or Urban Development Area (UDA). Project types can include highway improvements such as widening, operational improvements, access management, and intelligent transportation systems, transit and rail capacity expansion, and/or transportation demand management including park and ride facilities.

Note that Montgomery County is within the New River Valley Regional Network.

Eligible Applicants: Projects may be submitted by regional entities including MPOs and PDCs, along with public transit agencies, counties, cities, and towns that maintain their own infrastructure. Projects pertaining to UDAs can only be submitted by localities.

Evaluation Criteria: There are five factors evaluated for all projects: safety, congestion mitigation, accessibility, environmental quality, and economic development. MPOs with a population greater than 200,000 are also evaluated by land use policy consistency.

HIGHWAY SAFETY IMPROVEMENTS PROGRAM (HSIP)

Purpose: Established by the federal transportation legislation MAP-21, this program is structured and funded to make significant progress in reducing highway fatalities and injuries on all public roads.

Funding: The Federal share for highway safety improvements is 90%, with certain types of projects eligible to be funded at 100%.

Eligible projects: Projects involve the identification of high-crash spots or corridor segments, an analysis of crash trends and existing conditions, and the prioritization and scheduling of improvement projects. Eligible applicants include local governments, VDOT District and Regional Staff. Projects are evaluated on a statewide basis rather than on a local or district basis.

Evaluation criteria:

- Ability of the project to produce a measurable and significant reduction in the number and/or consequences of severe crashes based on location-specific data
- Cost effectiveness measured with a benefit/cost ratio
- Severity of crashes - priority is given to projects with a greater number of deadly and serious injury crashes

Transportation Alternatives Program (TAP)

Purpose: This program is intended to help local sponsors fund community-based projects that expand non-motorized travel choices and enhance the transportation experience by improving the cultural, historical, and environmental aspects of transportation infrastructure. It focuses on providing pedestrian and bicycle facilities and other community improvements.

Funding: TAP is not a traditional grant program; funds are only available for reimbursement. It is, therefore, essential to have the necessary funding available to pay for services and materials until appropriate documentation can be submitted and processed for reimbursement. The program will allow a maximum federal reimbursement of 80% of the eligible project costs and requires a 20% local match.

Eligible projects:

- Pedestrian and bicycle facilities such as sidewalks, bike lanes, and shared use paths.
- Pedestrian and bicycle safety and educational activities such as classroom projects, safety handouts and directional signage for trails (Safe Routes to School).
- Preservation of abandoned railway corridors such as the development of a rails-to-trails facility.

Eligible applicants: Any local governments, regional transportation authorities, transit agencies, natural resource or public land agencies, school districts, local educational agencies, or school, tribal government, and any other local or regional government entity with responsibility for overseeing transportation or recreation trails.

Evaluation criteria:

- Number of federal enhancement categories
- Inclusion in a state, regional, or local plan
- Public/private venture-cooperation (multi-jurisdictional)
- Total cost and matching funds in excess of minimum
- Demonstratable need, community improvement
- Community support and public accessibility
- Compatibility with adjacent land use
- Environmental and ecological benefits
- Historic criteria met, significant aesthetic value to be achieved, and visibility from a public right-of-way
- Economic impact and effect on tourism

VDOT Revenue Sharing Program

Purpose: This program provides additional funding for use by a county, city, or town to construct, reconstruct, improve, or maintain the highway systems within such county, city, or town and for eligible rural additions in certain counties of the Commonwealth. Locality funds are matched, dollar for dollar, with state funds, with statutory limitations on the amount of state funds authorized per locality.

Funding: Application for program funding must be made by resolution of the governing body of the jurisdiction requesting funds. Project funding is allocated by resolution of the CTB. Project costs are divided equally between the Revenue Share Fund and locality funding.

Eligible projects:

- Supplemental funding for projects listed in the adopted Six-Year Improvement Plan
- Construction, reconstruction, or improvement projects not included in the adopted Six-Year Improvement Plan
- Improvements necessary for the specific subdivision streets otherwise eligible for acceptance into the secondary system for maintenance (rural additions)
- Maintenance projects consistent with the department's operating policies
- New hardsurfacing (paving)
- New roadways
- Deficits on completed construction, reconstruction, or improvement projects

Eligible applicants: Any county, city, or town in the Commonwealth of Virginia

Evaluation criteria:

- Priority 1: Construction projects that have previously received Revenue Sharing funding.
- Priority 2: Construction projects that meet a transportation need identified in the Statewide Transportation Plan or projects that will be accelerated in a locality's capital plan.
- Priority 3: Projects that address deficient pavement resurfacing and bridge rehabilitation.
- Priority 4: All other projects.

VDOT Road Maintenance

The VDOT Road Maintenance category of funding covers a wide variety of maintenance and operations activities. Road maintenance funds comprise the majority of VDOT's scheduled funding (versus new construction). Road maintenance funding addresses needs having to do with pavement management, traffic signals, pavement markings, signs, guardrails, and ITS (Intelligent Transportation Systems) assets that are considered to be of critical safety and operational importance. Maintenance funding also addresses operation services comprising ordinary and preventative maintenance work such as cleaning ditches, washing bridge decks, patching pot-holes, debris removal, snow and ice removal, emergency response, incident management, mowing, and equipment management.

Six Year Improvement Program (SYIP)

These funding programs go before the Commonwealth Transportation Board (CTB), which allocates public funds to transportation projects over six fiscal years, comprising the Six-Year Improvement Program (SYIP). Projects include improvements to the interstate, primary and secondary highways, public transit, ports, airports, and other programs.

The CTB updates the SYIP each fiscal year. As revenue estimates are revised, state transportation officials identify new priorities and existing projects advance. The fiscal year starts July 1 and ends June 30. The CTB holds public meetings across the state every fall on project priorities and the SYIP. Public input helps to shape the next SYIP update, which goes before the CTB each spring when they hold additional meetings and adopt the final program in June.

Development Proffers

Purpose: Developer contributions, known as proffers, are typically cash amounts, dedicated land, and/or in-kind services that are voluntarily granted to the locality to partially offset future capital facility costs associated with specific land developments. Recent legislation has limited the ability of local governments to receive proffers, but through the re-zoning process developers may still consider providing infrastructure improvements.

Funding: The cost of the program can be financed with developer contributions.

Eligible projects:

- Re-zoning requests that permit residential and/or commercial uses in accordance with this policy
- Those that offset impacts that are directly attributable to new development
- Those for which the locality has completed an exhaustive study to document the real project costs

Eligible applicants:
Any land developers seeking a re-zoning.

APPENDICES

Appendix 1: Project Profile Sheets

Appendix 2: Transportation Needs Evaluation

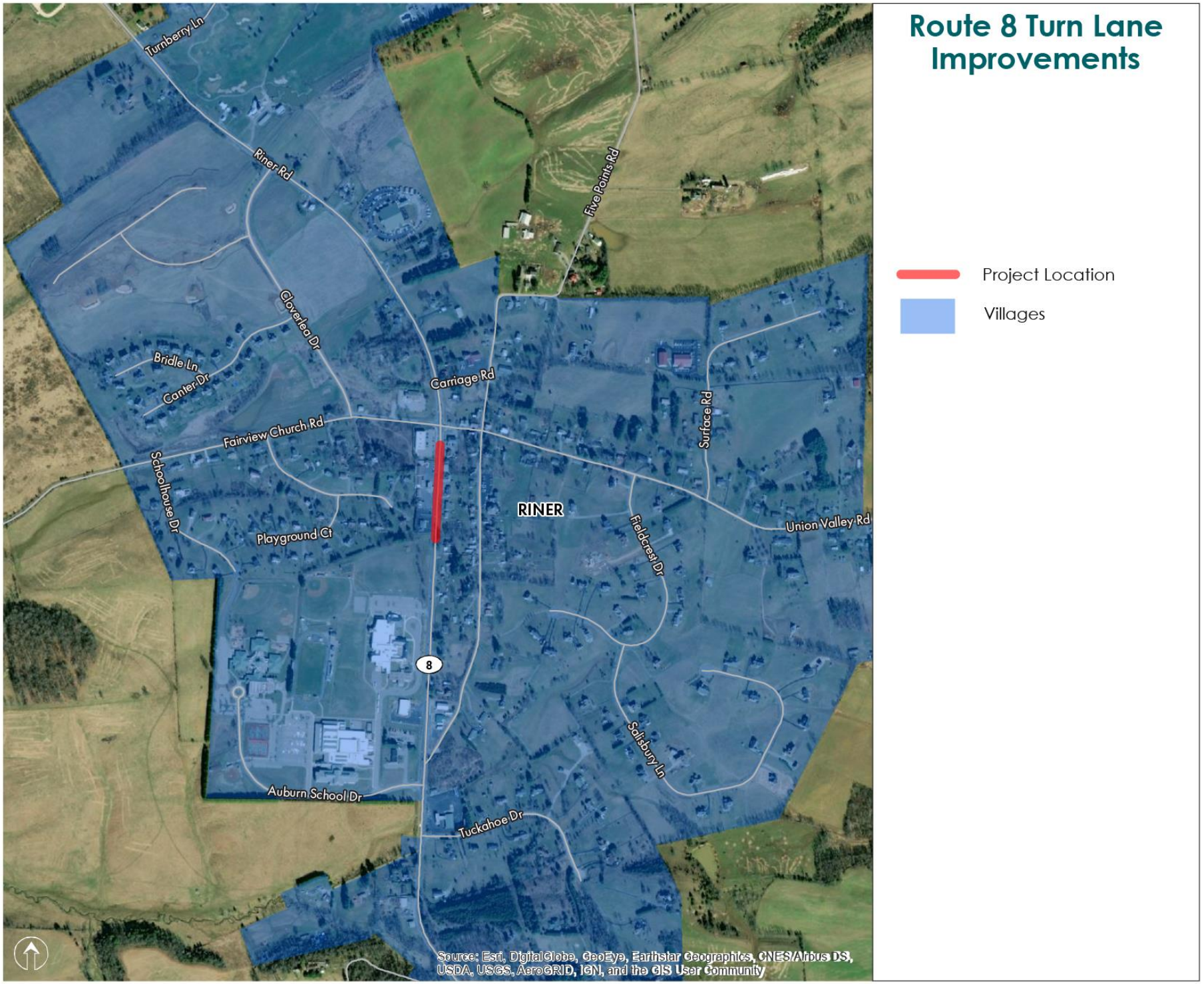
Appendix 3: Public Survey Results

Appendix 4: *Resolution of Approval (Future)*

Appendix 1: Project Profile Sheets

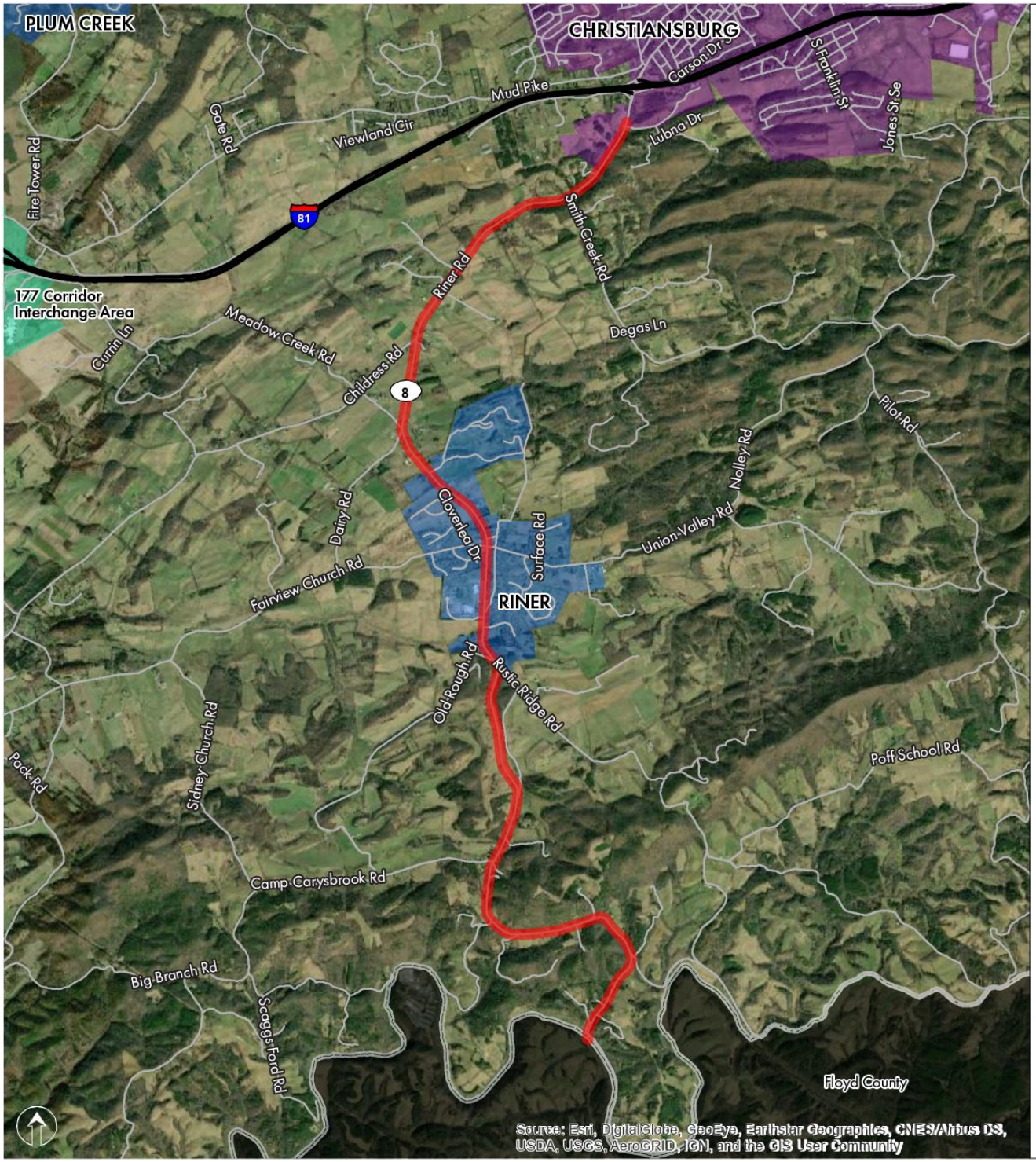
Corridor/ Facility	From	To	Project Description	Prioritization Tier
Route 8 (Riner Road)	250 ft south of Union Valley Road	0.2 mi south of Union Valley Road	Turn Lane Improvements	Tier 1
Route 8 (Riner Road)	Town of Christiansburg Corporate Boundary	Floyd County Corporate Boundary	Route 8 Safety Improvements	Tier 1
US 11/460 (Roanoke Road)	Interstate 81	Roanoke County Corporate Boundary	Intersection Improvements and Intelligent Transportation Systems Solutions	Tier 1
Route 114 (Peppers Ferry Road)	Waterworks Road	Belview Drive	Prices Fork Road Intersection and Pedestrian Improvements	Tier 1
Route 657 (Merrimac Road)	Prices Fork Road	North Franklin Street	Merrimac Road Safety Improvements	Tier 1
Route 685 (Prices Fork Road)	at Merrimac Road Intersection		Merrimac Road Intersection Improvements	Tier 1
US 11/460 (Roanoke Road)	Trump Lane	Lewyn H Gardner Lane	Alleghany Springs Road Intersection Improvements	Tier 2
Route 177 (Tyler Road)	at Mud Pike Road Intersection		Intersection Improvements	Tier 2
460 Connector Road (New)	Southgate Dr	Prices Fork Rd	New Road Construction	Tier 2
Route 8 (Riner Road)	at Riner Park Entrance		Access and entrance for new park facilities	Tier 3
Route 114 (Peppers Ferry Road)	Town of Christiansburg Corporate Boundary	Constitution Road	Widen to four lanes	Tier 3
Falling Branch Industrial Park Road	Falling Branch Corporate Park		Access road for new industrial park properties	Tier 4

Project	Route 8 Turn Lane Improvements		
Facility	Route 8 (Riner Road)	**Land Use Rating**	High
From	250 ft south of Union Valley Road	**Transportation Rating**	High
To	0.2 mi south of Union Valley Road	**Ease of Implementation**	Medium
Description	Turn Lane Improvements	**Prioritization Tier**	Tier 1
Land Use Implications	Enhances traffic safety along the key commercial corridor in a desginated village area. Does not specifically include multimodal facilities, but also does not increase roadway capacity in a manner that will promote auto-centric land development patterns.		
Transportation Needs	Project area corresponds with a designated Potential Safety Improvement (PSI) location. Improves traffic operations in a designated Village area and multimodal district along a corridor with a high volume of truck travel.		
Implementation Considerations	May require a minor expansion of pavement area to accommodate turn lanes.		
Other Plans	•Pedestrian and curb improvements have been approved for this location in the Constrained List of the NRVMPO LRTP. The project location is also included within a recommendation for road widening and intersection improvements along Route 8 between Union Valley Road and the NRVMPO boundary in the Vision List of the NRVMPO LRTP. •The NRVMPO Multimodal Plan identifies this section of the corridor as a multimodal through corridor in a multimodal center. •The Regional Freight Plan recommends that this section of Route 8 be evaluated for potential improvements to address increased truck traffic.		
Public Comments	Comments note delays caused by school traffic, as well as a lack of pedestrian crosswalks across Route 8 in the Village of Riner.		


Route 8 Turn Lane Improvements
Project Location
Villages
Turnberry Ln
Riner Rd
Five Points Rd
Cloverlea Dr
Bridle Ln
Canter Dr
Carriage Rd
Surface Rd
Fairview Church Rd
Schoolhouse Dr
Playground Ct
RINER
Fieldcrest Dr
Union Valley Rd
8
Salisbury Ln
Auburn School Dr
Tuckahoe Dr
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
0
0.25
0.5 Miles

Project	Route 8 Safety Improvements		
Facility	Route 8 (Riner Road)	**Land Use Rating**	High
From	Town of Christiansburg Corporate Boundary	**Transportation Rating**	High
To	Floyd County Corporate Boundary	**Ease of Implementation**	Medium
Description	Route 8 Safety Improvements	**Prioritization Tier**	Tier 1

Land Use Implications	Improves safety and traffic operations on the primary access corridor for the Village of Riner. Multimodal accomodations may or may not be included, but improvements are not intended to significantly increase the auto capacity of Route 8 or the auto-dependency of the Village of Riner.
Transportation Needs	Project addresses a corridor that includes Potential Safety Improvement (PSI) locations and recorded fatal or serious injury crashes. Roadway has been identified as a multimodal corridor and serves a multimodal district and designated village growth area. Provides transportation improvements on a corridor with a high volume of truck traffic and that serves an Equity Emphasis Area.
Implementation Considerations	Improvements are likely to involve the reconstruction or modification of hard infrastructure. Roadway and intersection improvements may require minor expansion of pavement area and associate right of way.
Other Plans	•The NRVMPO LRTP's Vision List recommends road widening and intersection improvements for Route 8 between Interstate 81 and the MPO boundary, just south of the Village of Riner. •The NRVMPO Multimodal Plan identifies Route 8 as a Multimodal Through Corridor at this location. •The Regional Freight Plan recommends that this section of Route 8 be evaluated for potential improvements to address increased truck traffic. •The Regional Freight Plan recommends the enhancement of the approaches and bridges at the Route 8 and Interstate 81 interchange.
Public Comments	Comments note several locations of safety concern along the corridor, particularly at intersections with poor visibility and no turn lanes. Significant delays are reported during peak travel hours.

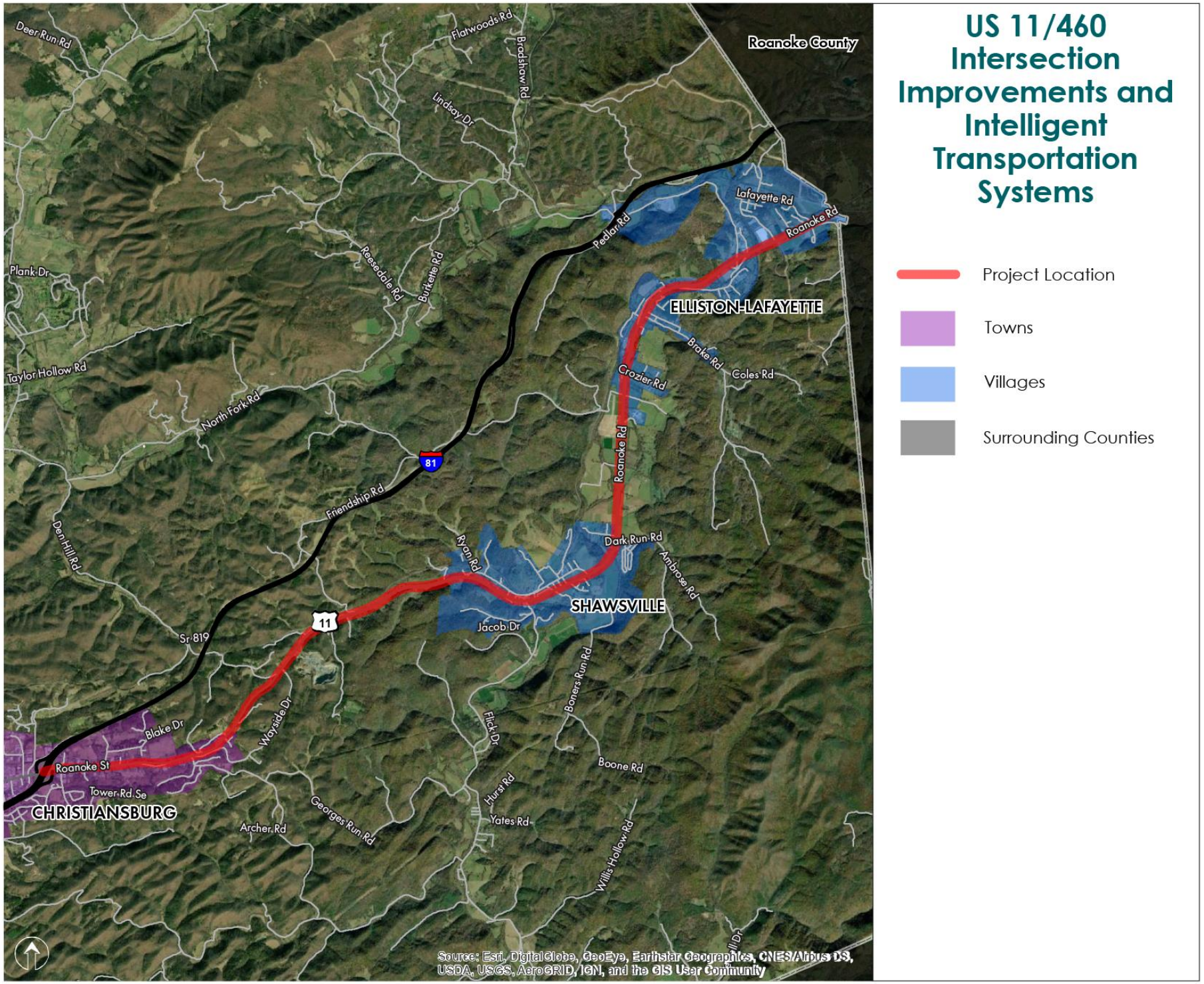


Route 8 Safety Improvements

- Project Location
- Towns
- Villages
- UDAs
- Surrounding Counties

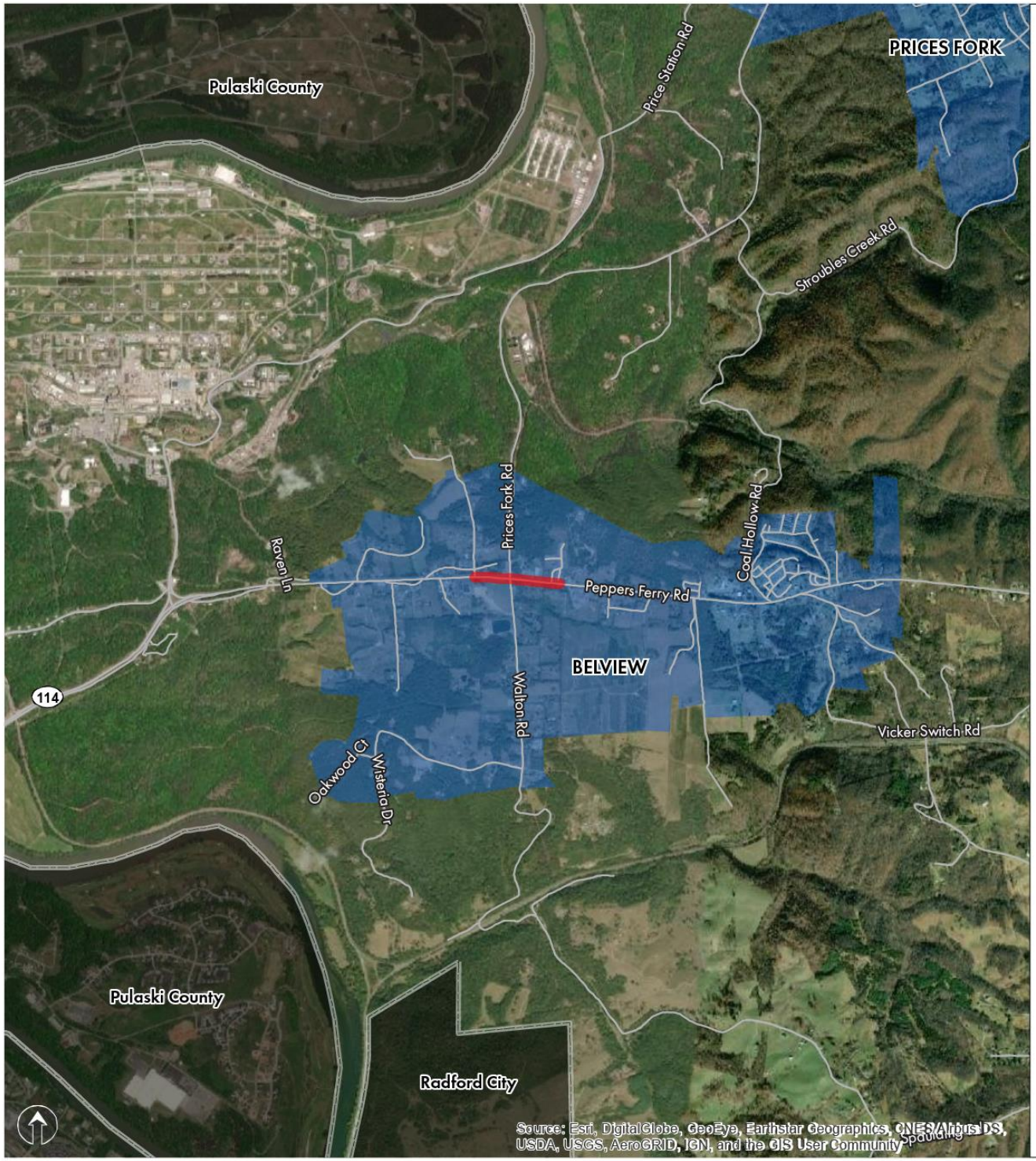
0 1.5 3 Miles

Project	US 11/460 Traffic Management		
Facility	US 11/460 (Roanoke Road)	**Land Use Rating**	High
From	Interstate 81	**Transportation Rating**	High
To	Roanoke County Corporate Limit	**Ease of Implementation**	Medium
Description	Intersection Improvements and Intelligent Transporation Systems	**Prioritization Tier**	Tier 1
Land Use Implications	Improves traffic safety and operations on a corridor that directly serves two designated village growth areas.		
Transportation Needs	Project corridor is a designated corridor of statewide significance serving two designated village growth areas. Addresses safety concerns along a corridor with recorded fatal or serious injury accidents. Provides transportation improvements in an Equity Emphasis Area.		
Implementation Considerations	May require a minor expansion of pavement area to accommodate intersection enhancements.		
Public Comments	Comments noted safety concerns for vehicles turning on and off of US 11/460. Safety, congestion, and reliability were particularly noted as problematic when incidents or construction on Interstate 81 lead to interstate traffic diverting to US 11/460 as an alternative parallel route.		


US 11/460 Intersection Improvements and Intelligent Transportation Systems
Project Location
Towns
Villages
Surrounding Counties
Roanoke County
ELLISTON-LAFAYETTE
SHAWSVILLE
CHRISTIANSBURG
Deer Run Rd
Flatwoods Rd
Bradshaw Rd
Lindsay Dr
Lafayette Rd
Roanoke Rd
Pedlar Rd
Reesedale Rd
Burkette Rd
Plank Dr
Taylor Hollow Rd
North Fork Rd
Brake Rd
Coles Rd
Crozier Rd
81
Friendship Rd
Den Hill Rd
Ryan Rd
Dark Run Rd
Ambrose Rd
11
Jacob Dr
Sr 819
Boners Run Rd
Blake Dr
Wayside Dr
Flick Dr
Roanoke St
Boone Rd
Tower Rd Se
Hurst Rd
Yates Rd
Archer Rd
Georges Run Rd
Willis Hollow Rd
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
0
2
4 Miles

Project	Peppers Ferry Road & Prices Fork Road Intersection Improvements		
Facility	Route 114 (Peppers Ferry Road)	**Land Use Rating**	High
From	Waterworks Road	**Transportation Rating**	Medium
To	Belview Drive	**Ease of Implementation**	High
Description	Prices Fork Road Intersection and Pedestrian Improvements	**Prioritization Tier**	Tier 1

Land Use Implications	Enhances vehicle safety and operations at the primary intersection of a designated village area. Enhances pedestrian safety and access to key destinations in the village area.
Transportation Needs	Project corresponds with a designated Potential Safety Improvement (PSI) location with recorded fatal or serious injury accidents. Improves traffic operations on a designated multimodal corridor in a village growth area. Pedestrian infrastructure expands access and connectivity in the village area.
Implementation Considerations	Intersection enhancements and pedestrian infrastructure will require minor expansion of physical infrastructure.
Other Plans	•The NRVMPO LRTP Constrained List designates funding for turn lane and pedestrian improvements at this intersection. •The NRVMPO Multimodal Plan identifies Route 114 as a Multimodal Through Corridor.
Public Comments	Comments noted delays and safety concerns at this location, as well as the need for dedicated turn lanes on Prices Fork Road and pedestrian crossing infrastructure.



Peppers Ferry Road - Prices Fork Road Intersection and Pedestrian Improvements

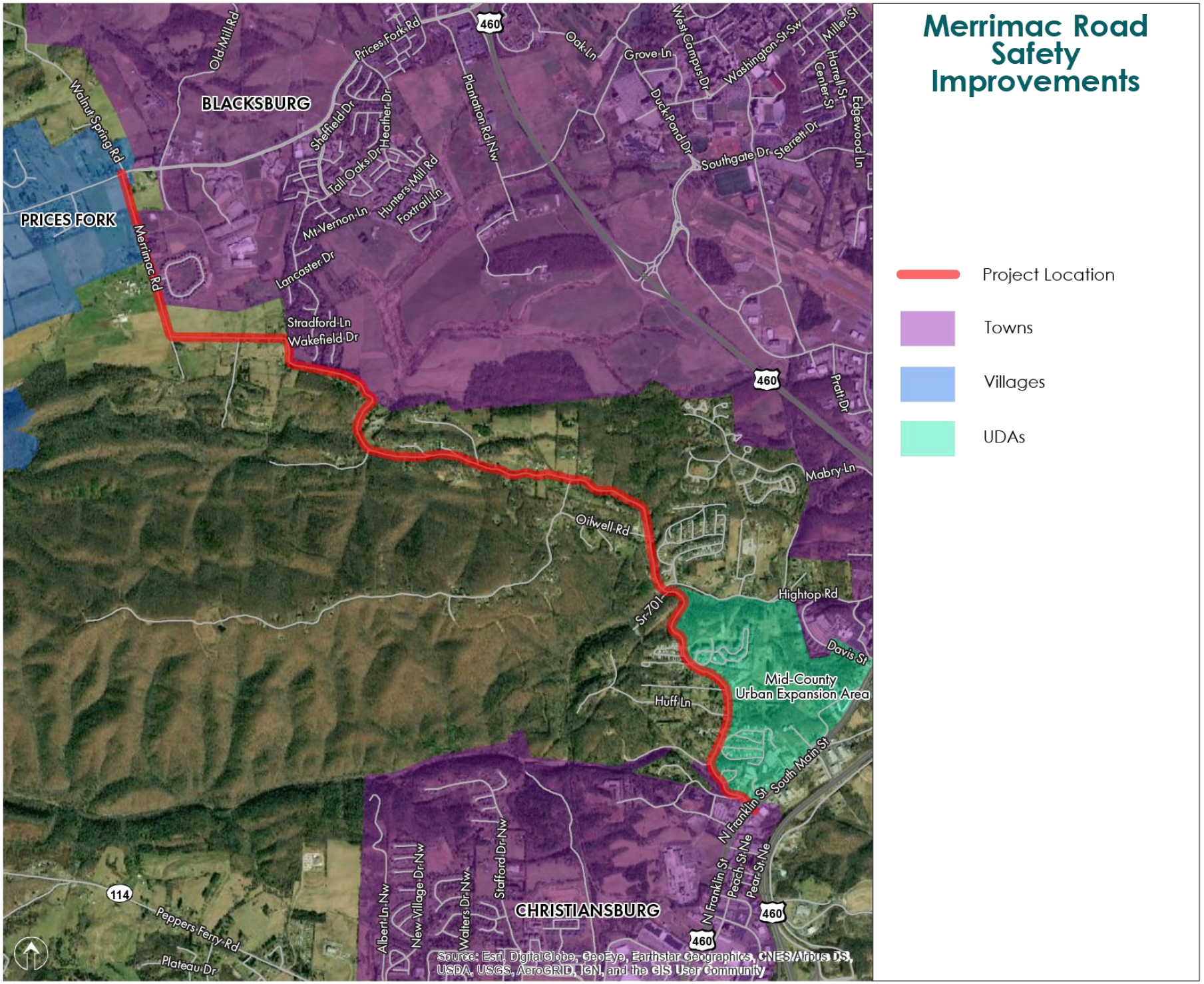
Project Location

Villages

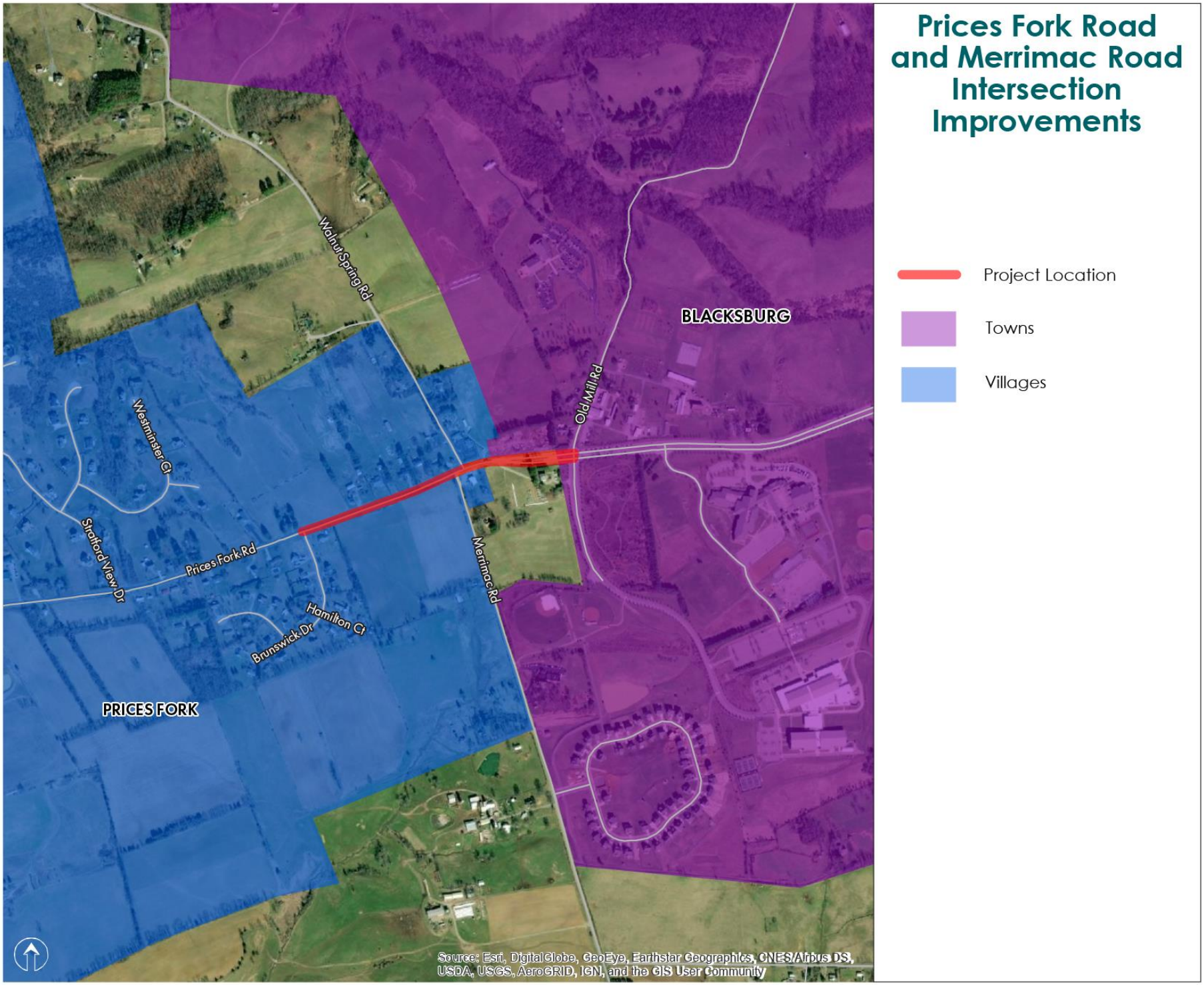
Surrounding Counties

0 0.75 1.5 Miles

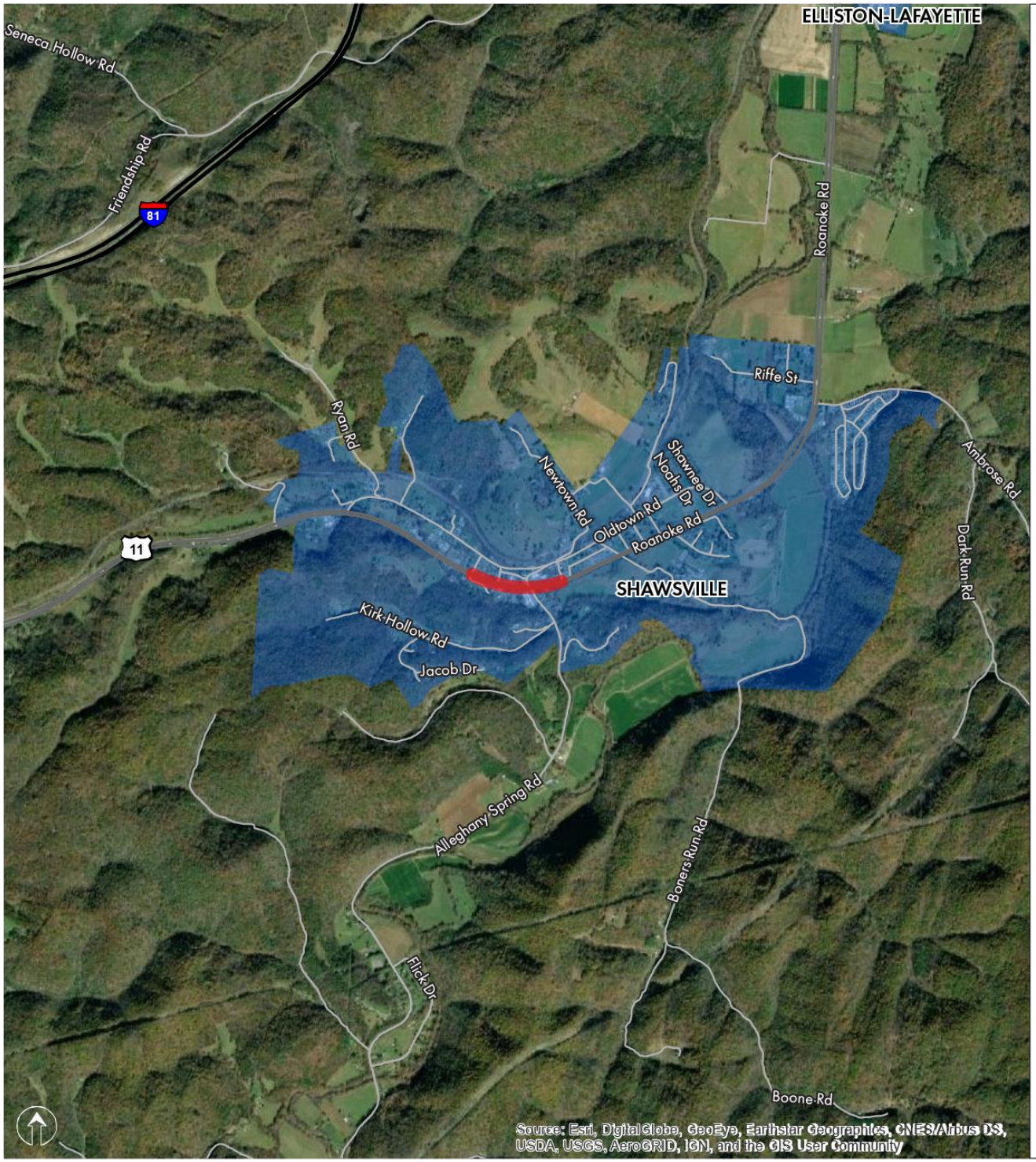
Project	Merrimac Road Safety Improvements		
Facility	Route 657 (Merrimac Road)	**Land Use Rating**	High
From	Prices Fork Road	**Transportation Rating**	High
To	North Franklin Street	**Ease of Implementation**	Medium
Description	Merrimac Road Safety Improvements	**Prioritization Tier**	Tier 1
Land Use Implications	Improves safety and traffic operations on a corridor providing access to the Village of Prices Fork and the Mid-County Urban Expansion Area. Multimodal accomodations may or may not be included, but improvements are not intended to significantly increase the auto capacity of Merrimac Road or the auto-dependency of either growth area.		
Transportation Needs	Corridor includes Potential Safety Improvement (PSI) locations and has recorded fatal or serious injury accidents. Improves a multimodal corridor that links a designated Urban Development Area with a village growth area. Provides transportation improvements in an Equity Emphasis Area.		
Implementation Considerations	Improvements are likely to involve the reconstruction or modification of hard infrastructure. Roadway and intersection improvements may require minor expansion of pavement area and associate right of way.		
Other Plans	•The NRVMPO LRTP Constrained List designates funding for intersection improvements at Merrimac Rd & Hightop Road. •The NRVMPO LRTP Vision List recommends that The corridor be reconstructed to meet current roadway design standards. •The NRVMPO Multimodal Plan identifies Route 657 as a Multimodal Placemaking Corridor. As the road approaches North Franklin Street, it passes through areas designated both as Multimodal Centers and Multimodal Districts. •The NRVMPO Multimodal Plan identifies the Huckleberry Trail crossing of Merrimac Road as a priority improvement location.		
Public Comments	Numerous comments noted a desire for bicycle and pedestrian facilities along Merrimac Road, as well as vehicle safety concerns due to road geometry.		


Merrimac Road Safety Improvements
Project Location
Towns
Villages
UDAs
BLACKSBURG
PRICES FORK
CHRISTIANSBURG
Old Mill Rd
Prices Fork Rd
460
Oak Ln
Grove Ln
West Campus Dr
Washington Sr Sw
Miller St
Harrell St
Center St
Edgewood Ln
Duck Pond Dr
Southgate Dr
Sterrett Dr
Plantation Rd Nw
Walnut Spring Rd
Sheffield Dr
Heather Dr
Tall Oaks Dr
Hunters Mill Rd
Foxtrail Ln
Mt Vernon Ln
Lancaster Dr
Merrimac Rd
Stradford Ln
Wakefield Dr
Pratt Dr
Mabry Ln
Oilwell Rd
Sr-701
Hightop Rd
Davis St
Mid-County
Urban Expansion Area
Huff Ln
South Main St
N Franklin St
Peach St Ne
Pear St Ne
Albert Ln Nw
New Village Dr Nw
Walters Dr Nw
Stafford Dr Nw
114
Peppers Ferry Rd
Plateau Dr
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
0
0.75
1.5 Miles

Project	Prices Fork Road and Merrimac Road Intersection Improvements		
Facility	Route 685 (Prices Fork Road)	**Land Use Rating**	High
From	Merrimac Road	**Transportation Rating**	High
To		**Ease of Implementation**	Medium
Description	Merrimac Road Intersection Improvements	**Prioritization Tier**	Tier 1
Land Use Implications	Enhances vehicle safety and operations at a major intersection in a designated village area. Improvements could potentially include multimodal accomodations.		
Transportation Needs	Projects corresponds with a Potential Safety Improvement (PSI) location. Improves a designated multimodal corridor in a multimodal district, both of which serve a designated village growth area. Provides transportation enhancements in an Equity Emphasis Area.		
Implementation Considerations	Intersection improvements may require minor expansion of pavement area and associate right of way.		
Other Plans	•The NRVMPO LRTP Vision List also recommends intersection improvements for this location. •The NRVMPO Multimodal Plan identifies Route 685 as a Multimodal Through Corridor.		
Public Comments	Comments noted delays experienced at this intersection, as well as safety concerns for vehicles turning onto Prices Fork Road from Merrimac Road.		


Prices Fork Road and Merrimac Road Intersection Improvements
Project Location
Towns
Villages
BLACKSBURG
PRICES FORK
Walnut Spring Rd
Old Mill Rd
Westminster Ct
Stratford View Dr
Prices Fork Rd
Merrimac Rd
Hamilton Ct
Brunswick Dr
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
0
0.25
0.5 Miles

Project	US 11/460 and Alleghany Springs Road Intersection Improvements		
Facility	US 11/460 (Roanoke Road)	**Land Use Rating**	High
From	Trump Lane	**Transportation Rating**	Medium
To	Lewyn H Gardner Lane	**Ease of Implementation**	Medium
Description	Alleghany Springs Road Intersection Improvements	**Prioritization Tier**	Tier 2
Land Use Implications	Enhances vehicle safety and operations at the primary intersection of a designated village area. Improvements could potentially include multimodal accomodations.		
Transportation Needs	Severe injury or fatal accidents have been recorded at the project location. Improves traffic operations in a Village growth area and along a Corridor of Statewide Significance that serves a high volume of truck travel.		
Implementation Considerations	May require a minor expansion of pavement area to accommodate intersection enhancements.		
Other Plans	•The NRVMPO LRTP Vision List recommends paved shoulders for bicyclists on Alleghany Springs Road and US 11/460 between Shawsville and Elliston-Lafayette. Any improvements at this intersection should consider including bicycle accommodations to complement these recommendations.		



Alleghany Springs Road Intersection Improvements

Project Location

Villages

0 0.75 1.5 Miles

Project	Tyler Road and Mud Pike Intersection Improvements		
Facility	Route 177 (Tyler Road)	**Land Use Rating**	High
From	Mud Pike Road	**Transportation Rating**	Medium
To		**Ease of Implementation**	Medium
Description	Intersection Improvements	**Prioritization Tier**	Tier 2
Land Use Implications	Enhances traffic safety along the primary corridor of the Route 177 Urban Development Area. May not specifically include multimodal facilities, but also does not increase roadway capacity in a manner that will further promote auto-centric land development patterns.		
Transportation Needs	Location corrisponds with a Potential Safety Improvement (PSI) location with recorded fatal or serious injury accidents. Improves a multimodal corridor in a designated Urban Development Area that is also a multimodal district.		
Implementation Considerations	Project may require a minor reconstruction or expansion of existing roadway.		
Other Plans	The NRVMPO Multimodal Plan identifies Route 177 as a Multimodal Through Corridor in a Multimodal Center.		
Public Comments	Comments noted this as a dangerous intersection due to heavy truck traffic and a lack of turn lanes into the Travel Center.		

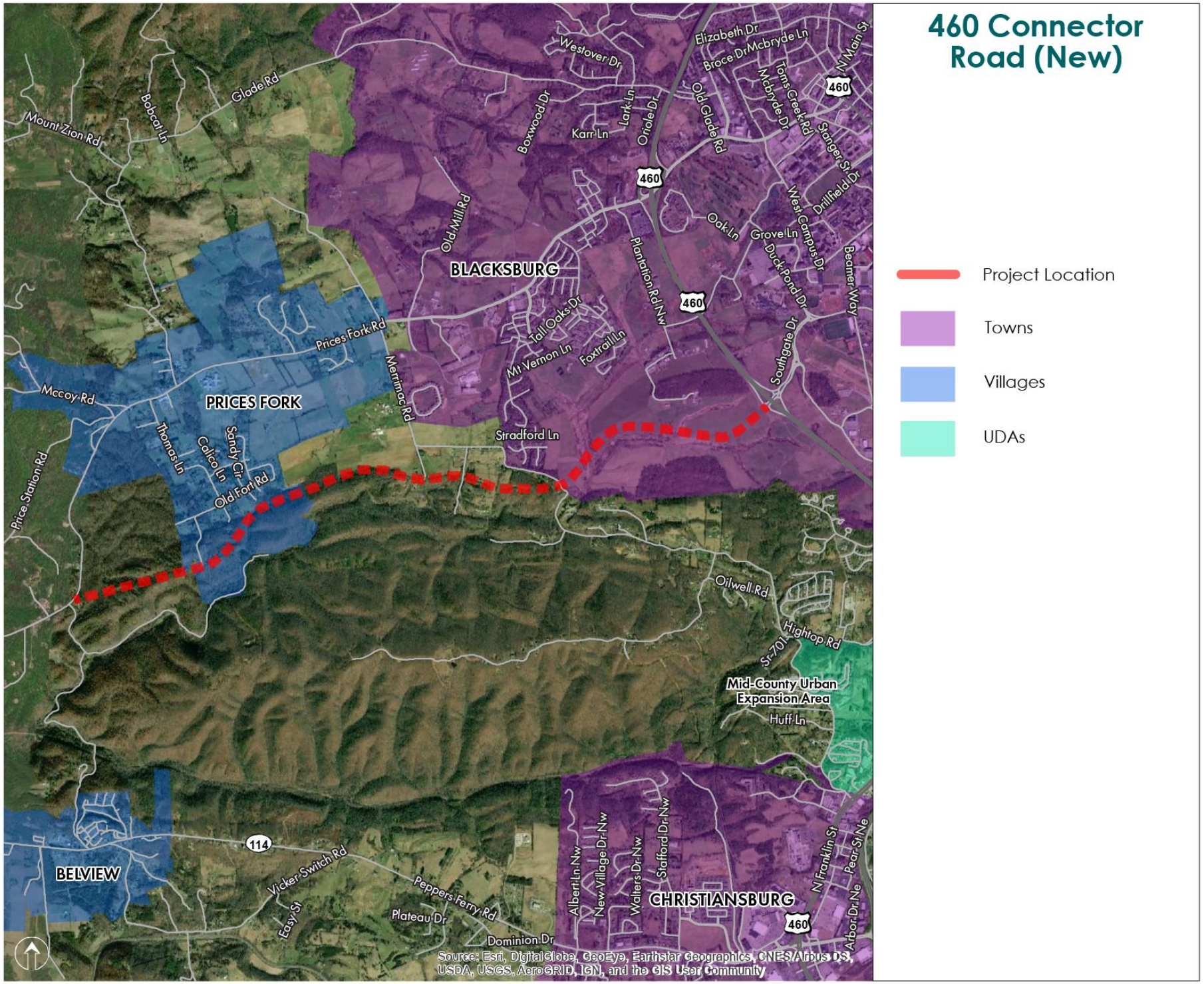
Mud Pike Road Intersection Improvements

Project Location

UDAs

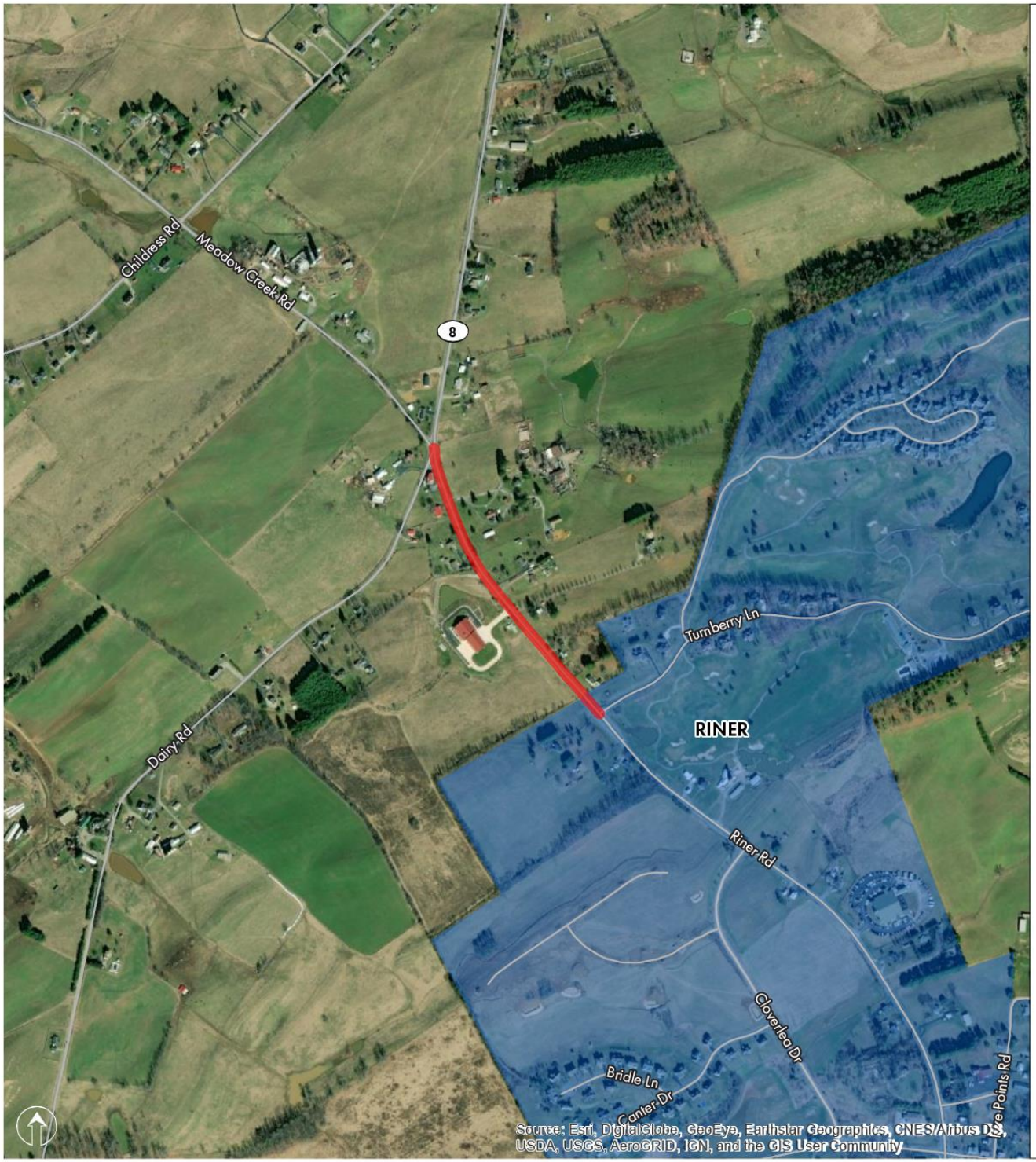
0 0.25 0.5 Miles

Project	Construct Route 460 Connector Road		
Facility	460 Connector Road (New)	**Land Use Rating**	High
From	Southgate Dr	**Transportation Rating**	High
To	Prices Fork Rd	**Ease of Implementation**	Low
Description	Route 460 Connector Road	**Prioritization Tier**	Tier 2
Land Use Implications	Enhances access to the Village of Prices Fork through the construction of a new roadway connection to the US 460 Bypass. Corridor design is expected to include full multimodal accommodations, which will enhance bicycle and pedestrian travel between Blacksburg and Prices Fork.		
Transportation Needs	Project would serve a designated village growth area and multimodal district. Would provide a parallel alternative route to Prices Fork Road, which includes Potential Safety Improvement (PSI) locations. Provides transportation improvements in an Equity Emphasis Area.		
Implementation Considerations	The construction the new roadway would involve major construction and require significant right of way acquisition.		
Public Comments	Comments note a desire for bicycle and pedestrian accommodations on the new connector road if or when it is constructed.		


460 Connector Road (New)
Project Location
Towns
Villages
UDAs
BLACKSBURG
PRICES FORK
BELVIEW
CHRISTIANSBURG
Mid-County Urban Expansion Area
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
0
1
2 Miles

Project	Riner Park Access Improvements		
Facility	Route 8 (Riner Road)	**Land Use Rating**	Medium
From	Riner Park	**Transportation Rating**	Medium
To		**Ease of Implementation**	Medium
Description	Access and entrance for new park facilities	**Prioritization Tier**	Tier 2

Land Use Implications	Enhances roadway safety and operations on the primary road corridor serving the Village of Riner. Project is not located within the village boundaries.
Transportation Needs	Project establishes a new connection point along a designated multimodal corridor with a high volume of truck traffic.
Implementation Considerations	Project will likely require a minor reconstruction or expansion of existing roadway.
Other Plans	•The project location is included within a recommendation for road widening and intersection improvements along Route 8 between Interstate 81 and Union Valley Road in the Vision List of the NRVMPO LRTP. •The NRVMPO Multimodal Plan identifies Route 8 as a Multimodal Through Corridor at this location. •The Regional Freight Plan recommends that this section of Route 8 be evaluated for potential improvements to address increased truck traffic.



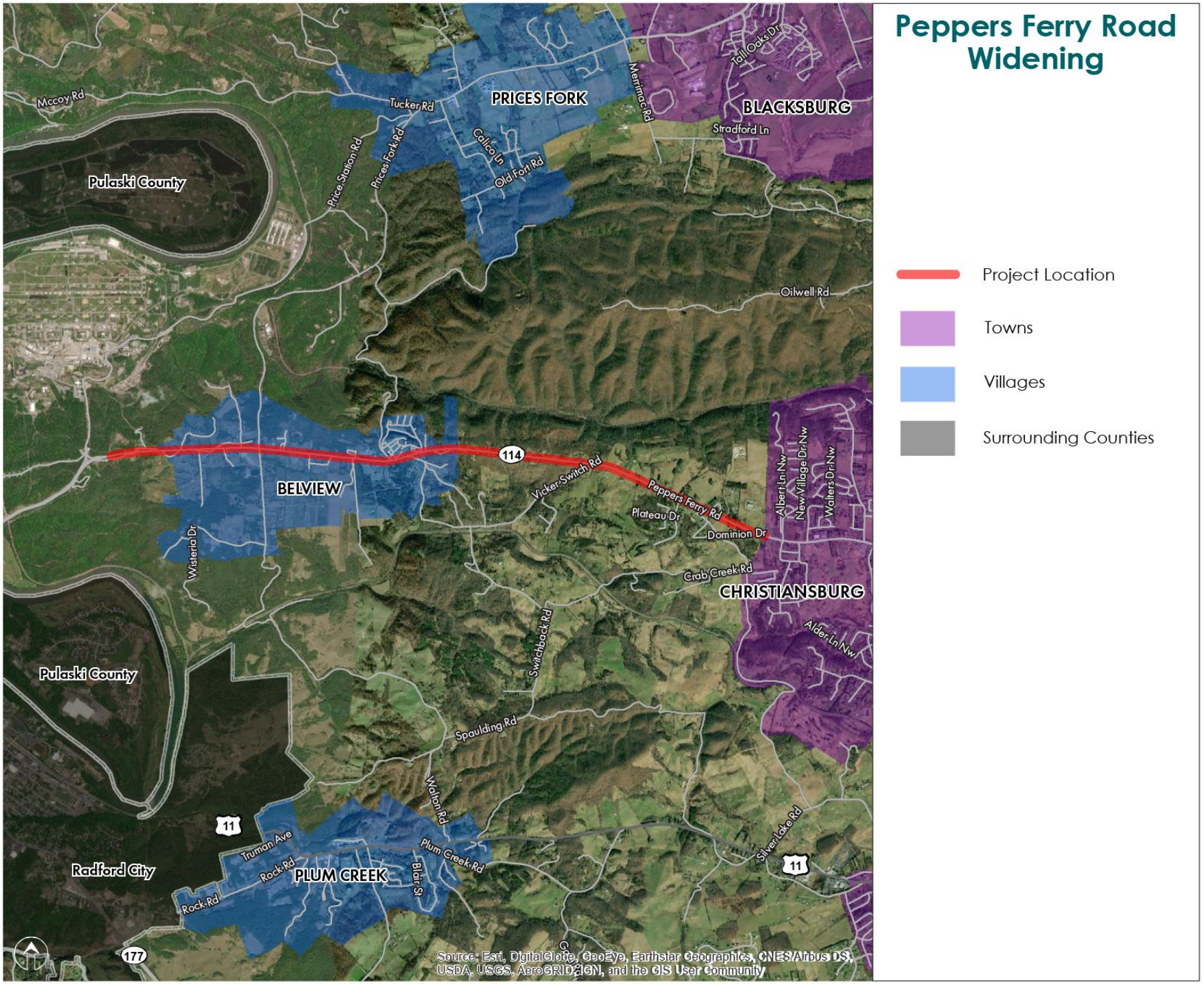
Riner Park Access Improvements

Project Location

Villages

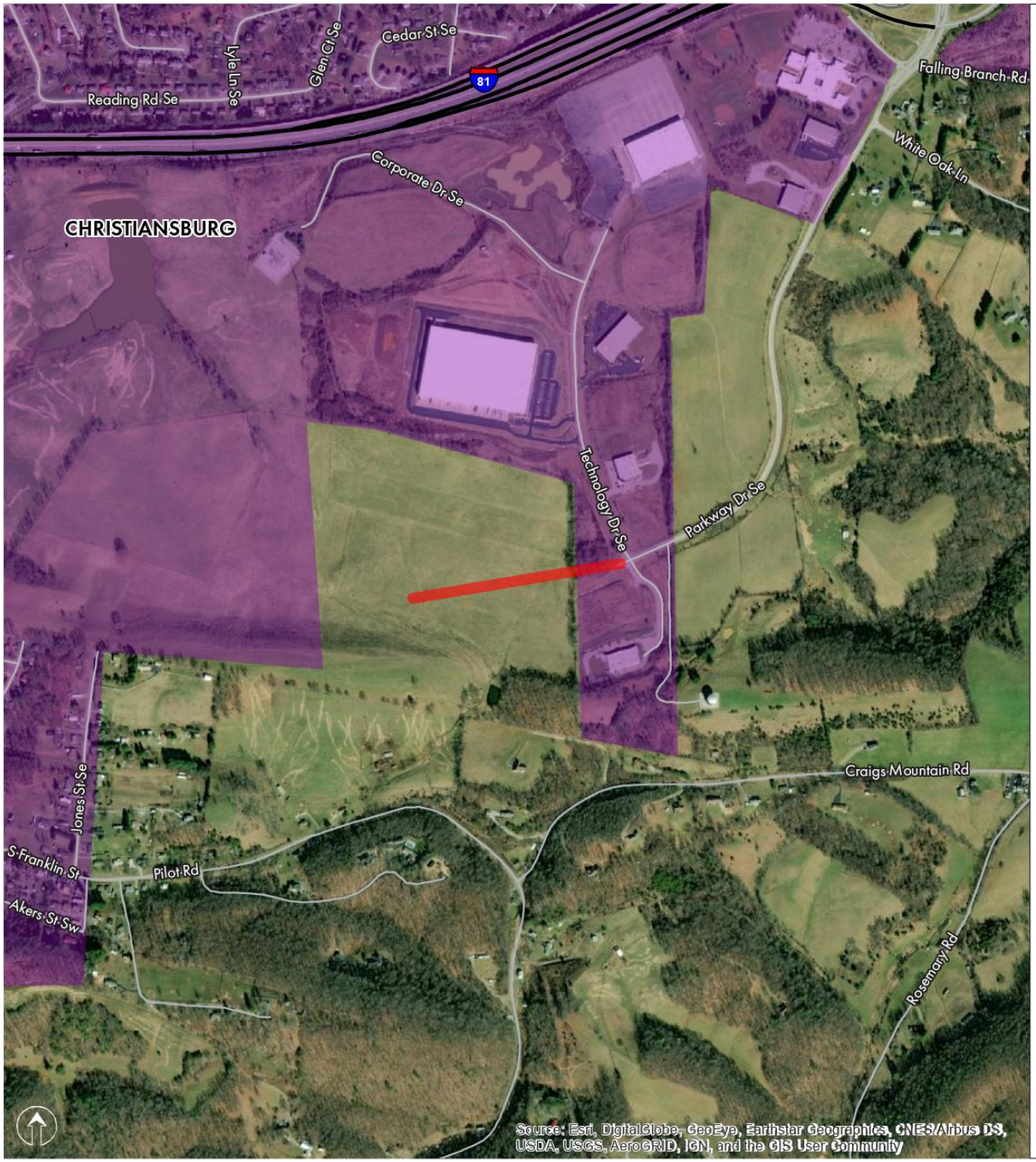
0 0.25 0.5 Miles

Project	Peppers Ferry Road Widening		
Facility	Route 114 (Peppers Ferry Road)	**Land Use Rating**	Medium
From	Town of Christiansburg Corporate Boundary	**Transportation Rating**	High
To	Constitution Road	**Ease of Implementation**	Low
Description	Widen to four lanes	**Prioritization Tier**	Tier 3
Land Use Implications	Enhances access to the Village of Belview by increasing the capacity of its primary access corridor. The addition of vehicle travel lanes may support auto-centric development patterns, and the widening of roadway in Belview would further diminish the possibility of a human-scaled village center.		
Transportation Needs	Project area includes Potential Safety Improvement (PSI) locations and recorded fatal or serious injury crashes. Roadway has been designated as a multimodal corridor and provides access to a multimodal district. Provides transportation improvements to a corridor serving an Equity Emphasis Area.		
Implementation Considerations	The roadway widening would involve a major construction project and would likely require a significant expansion of right of way.		
Other Plans	•The NRVMPO LRTP Vision List recommends that Peppers Ferry Road be widened to four lanes from the Town of Christiansburg to Constitution Dr. •The NRVMPO Vision List also includes a recommendation for the addition of a multi-use path and paved shoulders for bicycles between the Village of Belview to the Town of Christiansburg. •The NRVMPO Multimodal Plan identifies Route 114 as a Multimodal Through Corridor.		
Public Comments	Comments note concerns about safety and traffic delays at peak hours. Most safety comments are related to the lack of turn lanes onto intersecting streets.		


Peppers Ferry Road Widening
Project Location
Towns
Villages
Surrounding Counties
PRICES FORK
BLACKSBURG
BELVIEW
CHRISTIANSBURG
PLUM CREEK
Radford City
Pulaski County
Pulaski County
Mccoy Rd
Tucker Rd
Price Station Rd
Prices Fork Rd
Calico Ln
Old Fort Rd
Merrimac Rd
Tall Oaks Dr
Stradford Ln
Oilwell Rd
114
Vicker Switch Rd
Peppers Ferry Rd
Plateau Dr
Dominion Dr
Albert Ln Nw
New Village Dr Nw
Walters Dr Nw
Wisteria Dr
Crab Creek Rd
Alder Ln Nw
Switchback Rd
Spaulding Rd
Walton Rd
Plum Creek Rd
Silver Lake Rd
Truman Ave
Rock Rd
Rock Rd
Blair St
11
11
177
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
0
1
2 Miles

Project	Falling Branch Corporate Park Access Road		
Facility	Falling Branch Industrial Park Road	**Land Use Rating**	Medium
From	Falling Branch Corporate Park	**Transportation Rating**	Low
To		**Ease of Implementation**	Medium
Description	Access road for new industrial park properties	**Prioritization Tier**	Tier 4
Land Use Implications	The Falling Branch Corporate Park is not located in a designated growth area, but is directly adjacent to the Town of Christiansburg.		
Transportation Needs	Establishes new transportation connections and provides transportation enhancements in an Equity Emphasis Area.		
Implementation Considerations	The new access road would require a significant construction project, but cooperation with the corporate park should provide the land needed for the road.		

Falling Branch Industrial Park Access Road



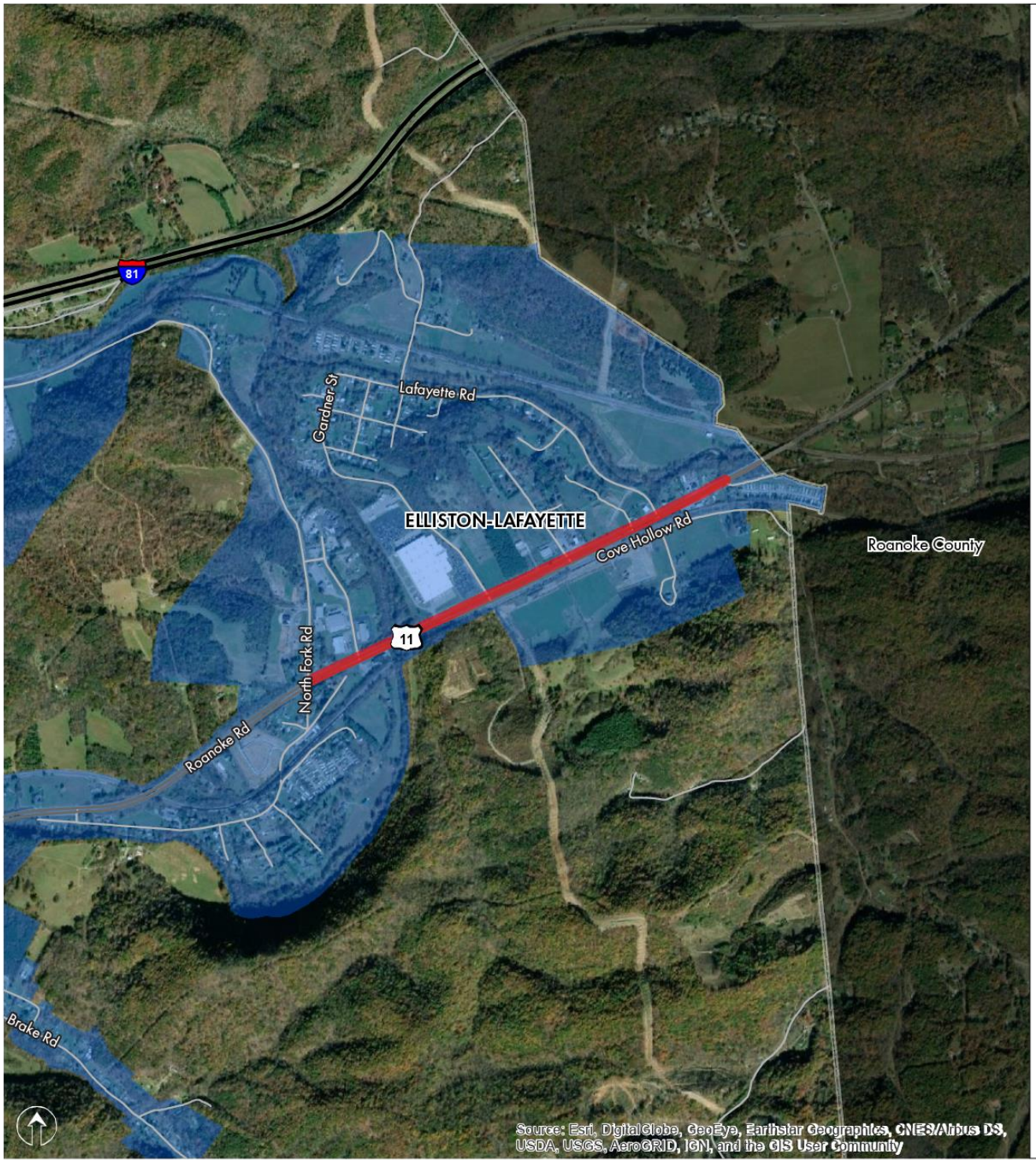
Project Location

Towns

0 0.25 0.5 Miles

Corridor/ Facility	From	To	Project Description	Prioritization Tier
US 11/460 (Roanoke Road)	Stones Keep Lane	North Fork Road	Add Lafayette off-road shared use path	Tier 1
Route 114 (Peppers Ferry Road)	Bradford Lane	Mass Circle	Add Belview bicycle and pedestrian facilities	Tier 1
US 460 Business (South Main Street)	Hightop Road	Ferguson Drive	Business 460 Multimodal Improvements	Tier 1
US 11 (Lee Highway)	Truman Avenue	Fire Tower Road	Add Plum Creek bicycle and pedestrian facilities	Tier 2
Old Town Road / US 11/460 (Roanoke Road)	Shawsville Middle School	Seneca Hollow Road	Add off-road shared use path	Tier 2
Route 114 (Peppers Ferry Road)	Mass Circle	Christiansburg Town Limits	Add off-road shared use path	Tier 2
Route 685 (Prices Fork Road)	Tucker Road	Blacksburg Town Limits	Add Prices Fork bicycle and pedestrian facilities	Tier 2
Route 723 (Ellett Road) / Route 603 (Cedar Run Road)	Town of Christiansburg Corporate Boundary	Town of Blacksburg Corporate Boundary	Add on-road bicycle facilities	Tier 4

Project	Lafayette Village Shared Use Path		
Facility	US 11/460 (Roanoke Road)	**Land Use Rating**	High
From	Stones Keep Lane	**Transportation Rating**	High
To	North Fork Road	**Ease of Implementation**	Medium
Description	Add off-road shared use path	**Prioritization Tier**	Tier 1
Land Use Implications	Provides accommodations to support the safe and effective use of multimodal transportation along the major corridor serving the Village of Elliston-Lafayette. Enhances the viability of denser and more walkable land development patterns in the village.		
Transportation Needs	Project corridor is a designated corridor of statewide significance with recorded crashes involving bicyclists or pedestrians. Establishes new transportation connections within a designated village growth area. Provides transportation improvements in an Equity Emphasis Area.		
Implementation Considerations	Improvements would include the addition of hard infrastructure elements such as sidewalks or shared use paths. Minor expansion of right of way may be required.		



Lafayette Shared Use Path

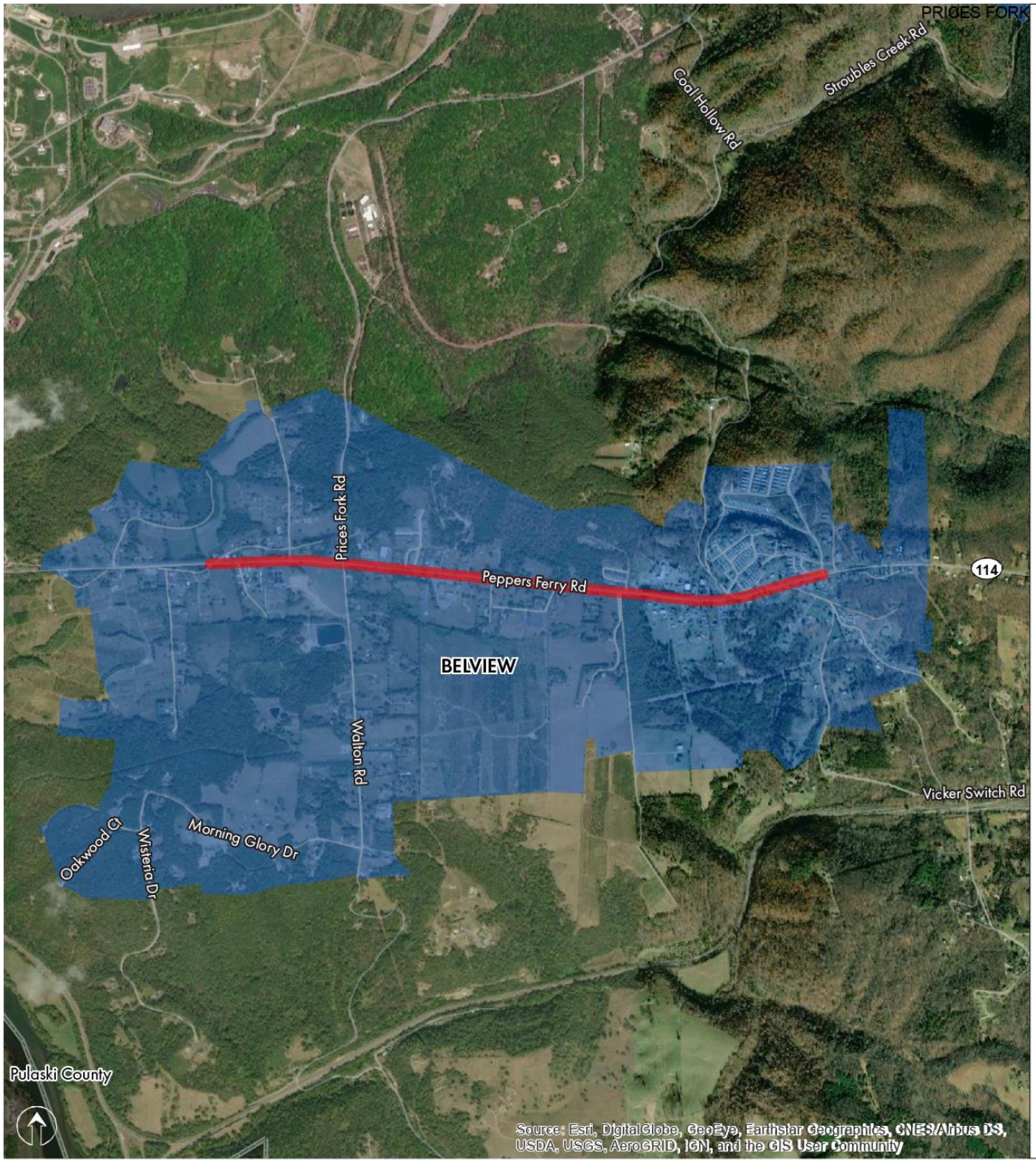
Project Location

Villages

Surrounding Counties

0 0.5 1 Miles

Project	Belview Village Multimodal Improvements		
Facility	Route 114 (Peppers Ferry Road)	**Land Use Rating**	High
From	Bradford Lane	**Transportation Rating**	High
To	Mass Circle	**Ease of Implementation**	Medium
Description	Add bicycle and pedestrian facilities	**Prioritization Tier**	Tier 1
Land Use Implications	Provides accommodations to support the safe and effective use of multimodal transportation along the major corridor serving the Village of Belview. Enhances the viability of denser and more walkable land development patterns in the village.		
Transportation Needs	Project corridor is a designated multimodal corridor with recorded crashes involving bicyclists or pedestrians. Establishes new transportation connections within a designated village growth area. Provides transportation improvements in an Equity Emphasis Area.		
Implementation Considerations	Improvements will likely include the addition of hard infrastructure elements such as sidewalks or shared use paths. Minor expansion of right of way may be required.		
Other Plans	The NRVMPO Multimodal Plan identifies Route 114 as a Multimodal Through Corridor.		
Public Comments	Comments note a need for sidewalks and pedestrian infrastructure along Peppers Ferry Road, especially near Belview Elementary School.		



Village of Belview Bicycle and Pedestrian Improvements

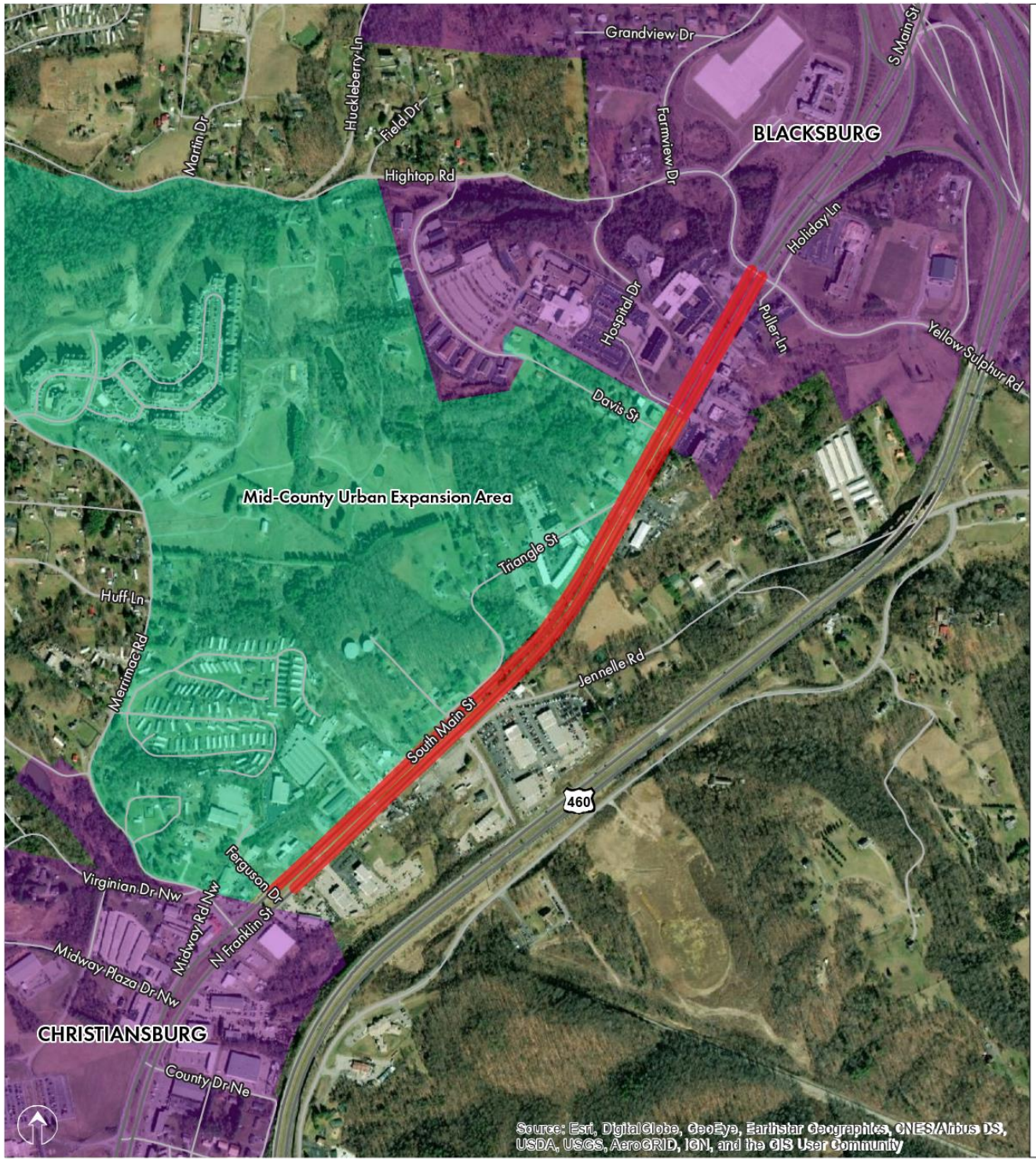
Project Location

Villages

Surrounding Counties

0 0.5 1 Miles

Project	Business 460 Multimodal Improvements		
Facility	US 460 Business (South Main Street)	**Land Use Rating**	High
From	Hightop Road	**Transportation Rating**	High
To	Ferguson Drive	**Ease of Implementation**	Medium
Description	Business 460 Multimodal Improvements	**Prioritization Tier**	Tier 1
Land Use Implications	Provides accommodations to support the safe and effective use of multimodal transportation along the major corridor serving the Mid County Urban Expansion Area. Enhances the viability of denser and more walkable land development patterns in the UDA.		
Transportation Needs	Project corresponds with a Potential Safety Improvement (PSI) location and has been the site of fatal or serious injury crashes. Establishes new connections along a multimodal corridor within a growth area that has been identified as a multimodal district. Provides transportation enhancements in an Equity Emphasis Area.		
Implementation Considerations	Improvements will likely include the addition of hard infrastructure elements such as sidewalks or shared use paths. Minor expansion of right of way may be required.		
Other Plans	The NRVMPO Multimodal Plan identifies this segment of US 460 Business as a Multimodal Placemaking Corridor in a Multimodal Center.		
Public Comments	Comments noted safety concerns due to the lack of pedestrian infrastructure along the US 460 Business corridor.		



Business US 460 Multimodal Improvements

Project Location

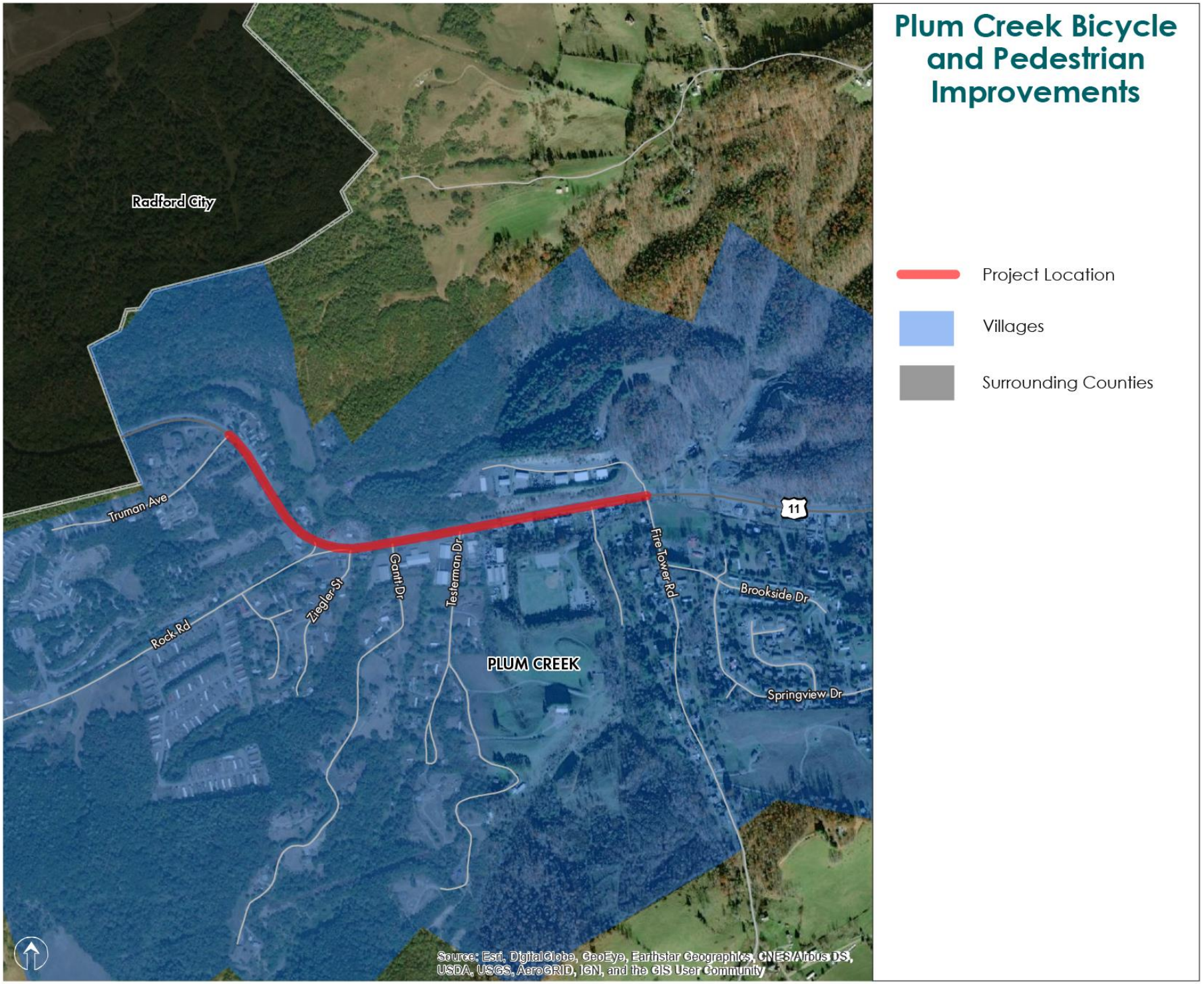
Towns

UDAs

0 0.25 0.5 Miles

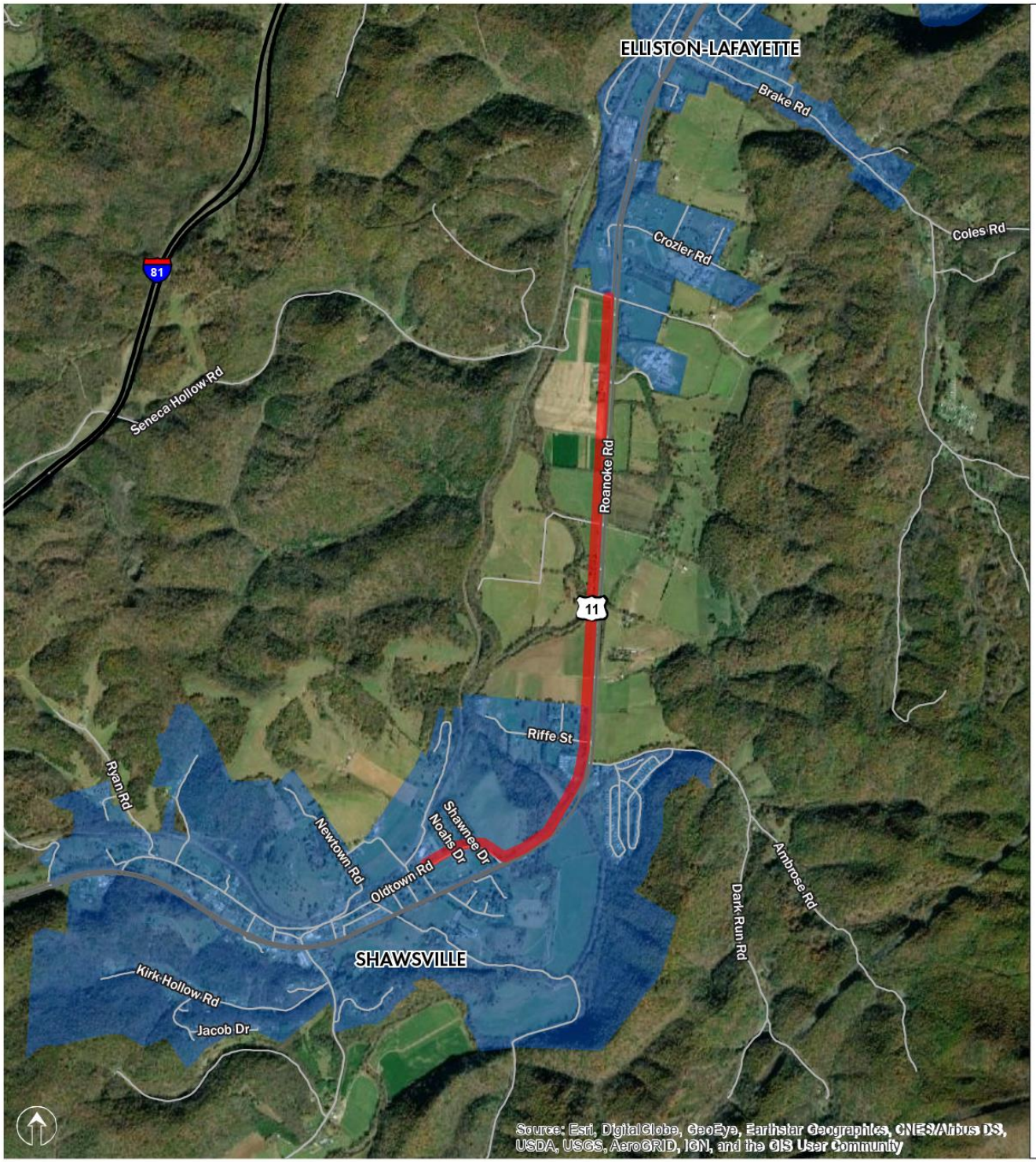
Project	Plum Creek Village Multimodal Improvements		
Facility	US 11 (Lee Highway)	**Land Use Rating**	High
From	Truman Avenue	**Transportation Rating**	Medium
To	Fire Tower Road	**Ease of Implementation**	Medium
Description	Add bicycle and pedestrian facilities	**Prioritization Tier**	Tier 2

Land Use Implications	Provides accommodations to support the safe and effective use of multimodal transportation along the major corridor serving the Village of Plum Creek. Enhances the viability of denser and more walkable land development patterns in the village.
Transportation Needs	Project corridor is a designated multimodal corridor with recorded crashes involving bicyclists or pedestrians. Establishes new transportation connections within a designated village growth area along a corridor of statewide significance.
Implementation Considerations	Improvements will likely include the addition of hard infrastructure elements such as sidewalks or shared use paths. Minor expansion of right of way may be required.
Other Plans	•The NRVMPO Vision List recommends paved shoulders for bicyclists along US 11 from the City of Radford to the Town of Christiansburg. •The NRVMPO Multimodal Plan identifies US 11 as a Multimodal Through Corridor.


Plum Creek Bicycle and Pedestrian Improvements
Project Location
Villages
Surrounding Counties
Radford City
Truman Ave
Rock Rd
Ziegler St
Gantt Dr
Testerman Dr
Fire Tower Rd
Brookside Dr
Springview Dr
11
PLUM CREEK
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
0
0.25
0.5 Miles

Project	Shawsville-Elliston Shared Use Path		
Facility	Old Town Road / US 11/460 (Roanoke Road)	**Land Use Rating**	High
From	Shawsville Middle School	**Transportation Rating**	High
To	Seneca Hollow Road	**Ease of Implementation**	Low
Description	Add off-road shared use path	**Prioritization Tier**	Tier 2

Land Use Implications	Provides accommodations to support the safe and effective use of multimodal transportation between the Villages of Shawsville and Elliston-Lafayette. Enhances the viability of non-automotive travel between the villages, which in turn can support denser and more walkable land development patterns in the villages themselves.
Transportation Needs	Project corridor is a designated corridor of statewide significance with recorded crashes involving bicyclists or pedestrians. Establishes new transportation connections within a designated village growth area. Provides transportation improvements in an Equity Emphasis Area.
Implementation Considerations	Improvements would include the consturction of a shared use path. Minor expansion of right of way will likely be required.
Other Plans	The NRVMPO Vision List recommends this project.
Public Comments	Comments noted the need for pedestrian facilities such as sidewalks, crosswalks, or shared use paths along this segment of US 11/460.



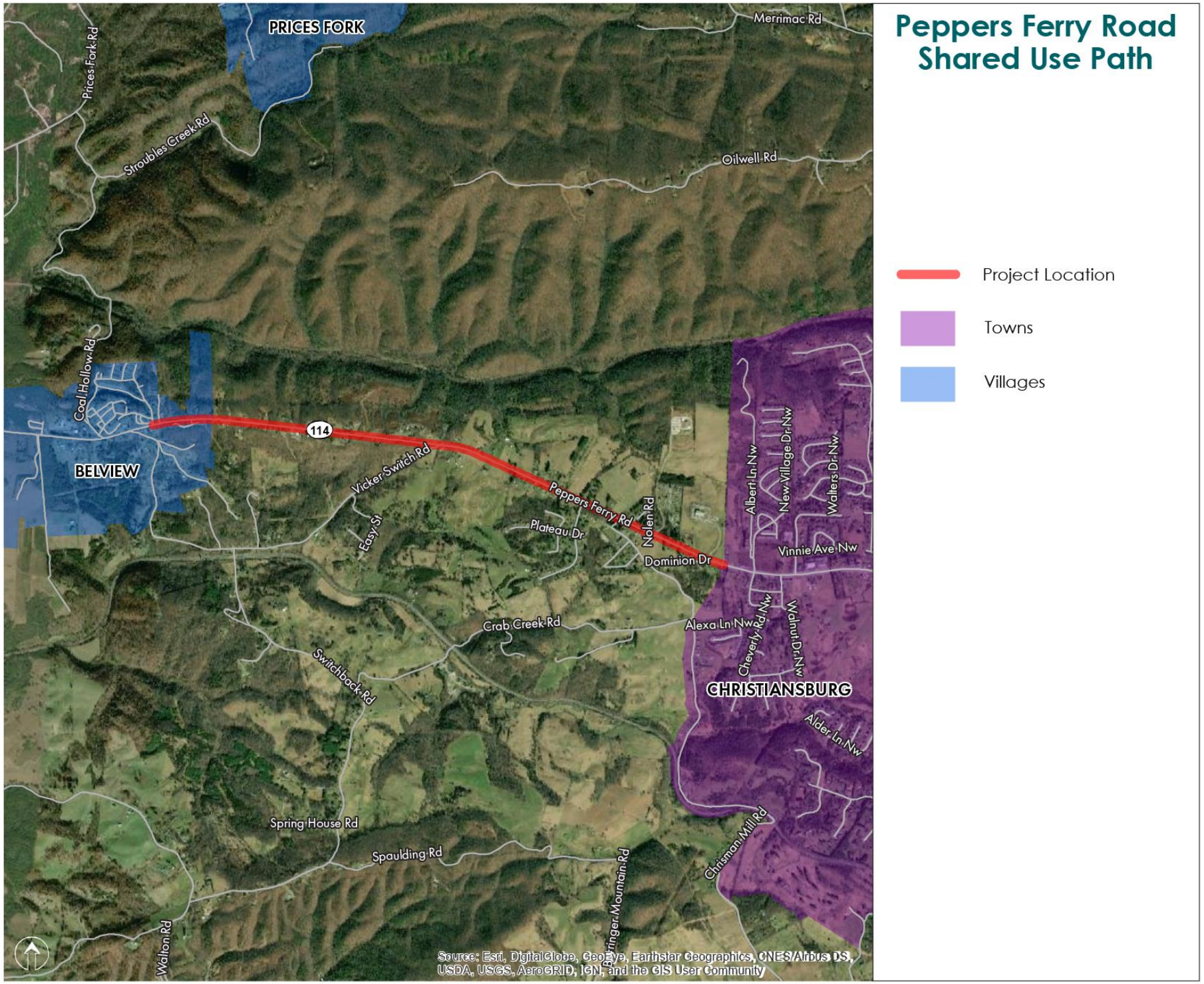
Shawsville-Elliston Shared Use Path

Project Location

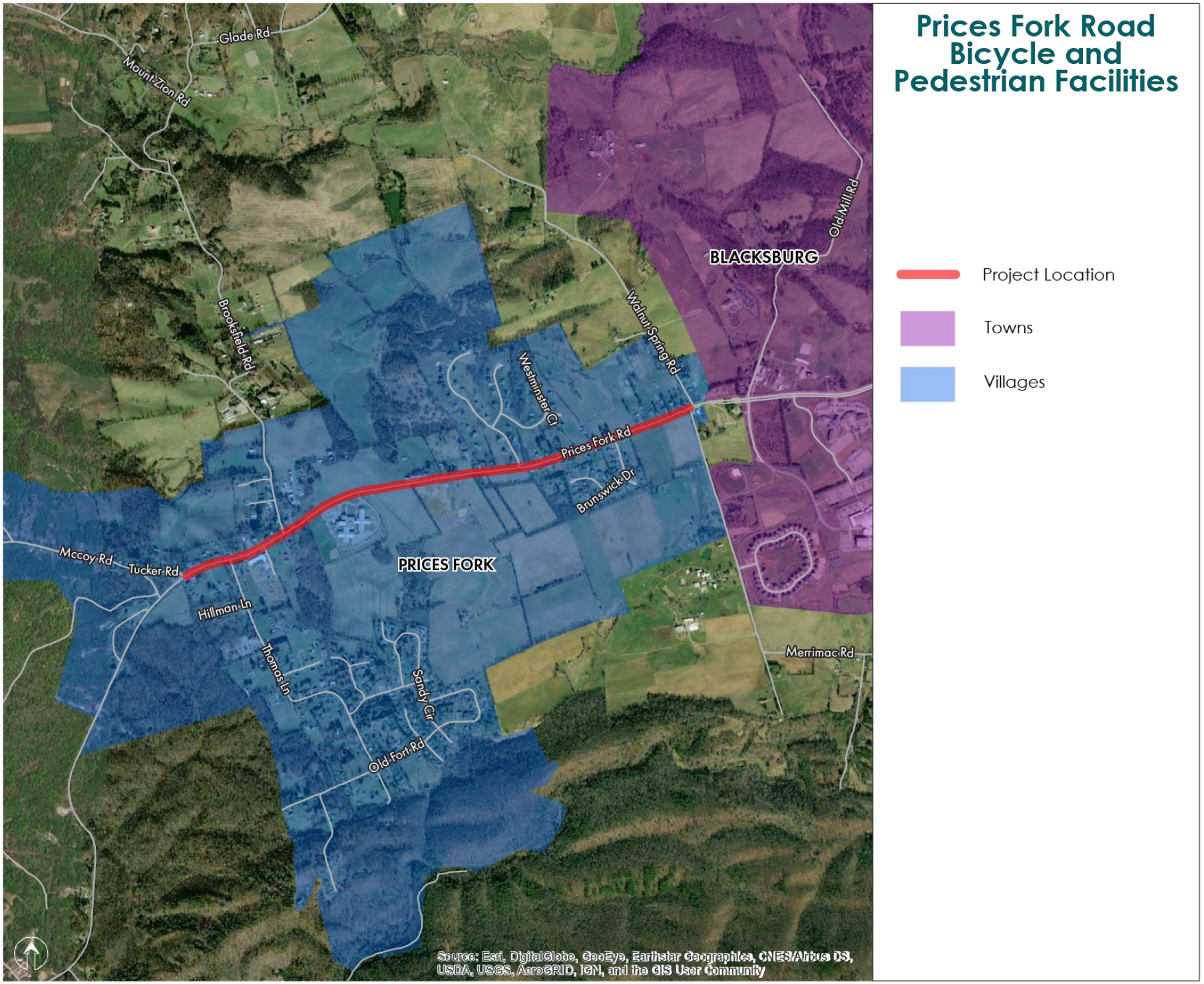
Villages

0 0.75 1.5 Miles

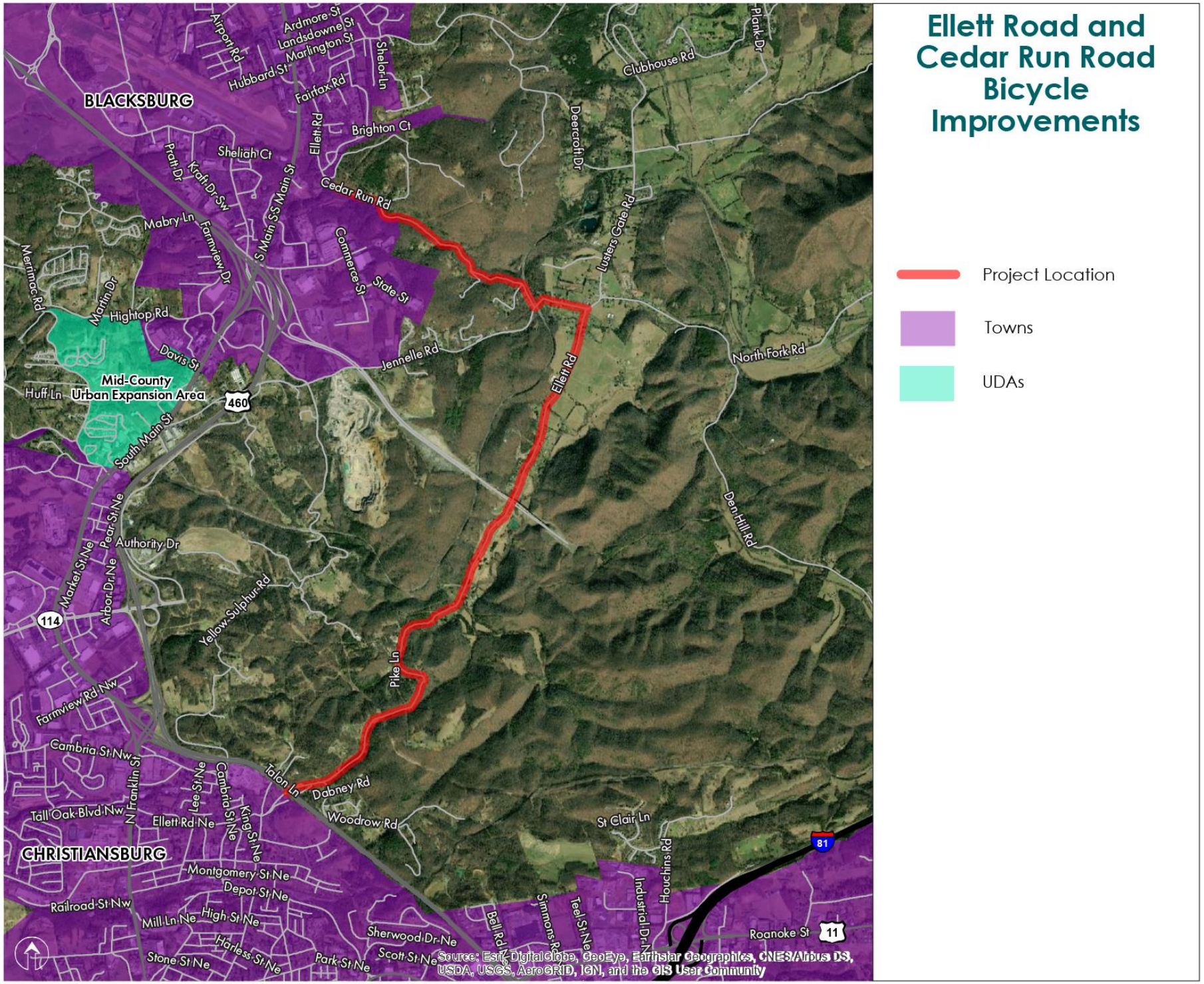
Project	Peppers Ferry Road Shared Use Path		
Facility	Route 114 (Peppers Ferry Road)	**Land Use Rating**	High
From	Mass Circle	**Transportation Rating**	High
To	Town of Christiansburg Corporate Boundary	**Ease of Implementation**	Low
Description	Add off-road shared use path	**Prioritization Tier**	Tier 2
Land Use Implications	Provides accommodations to support the safe and effective use of multimodal transportation between the Town of Christiansburg and the Village of Belview. Enhances the viability of non-automotive travel to and from the village, which in turn can support denser and more walkable land development patterns in the village itself.		
Transportation Needs	Project corridor is a designated multimodal corridor with recorded crashes involving bicyclists or pedestrians. Establishes new transportation connections to a designated village growth area. Provides transportation improvements in an Equity Emphasis Area.		
Implementation Considerations	Improvements would include the consturction of a shared use path. Minor expansion of right of way will likely be required.		
Other Plans	The NRVMPO Multimodal Plan identifies Route 114 as a Multimodal Through Corridor.		
Public Comments	Comments express the desire for pedestrian infrastucture along Peppers Ferry Road, especially in the Village of Belview and near the Town of Christiansburg.		


Peppers Ferry Road
Shared Use Path
Project Location
Towns
Villages
PRICES FORK
BELVIEW
CHRISTIANSBURG
Merrimac Rd
Prices Fork Rd
Stroubles Creek Rd
Oilwell Rd
Coal Hollow Rd
114
Vicker Switch Rd
Peppers Ferry Rd
Easy St
Plateau Dr
Nolen Rd
Dominion Dr
Albert Ln Nw
New Village Dr Nw
Walters Dr Nw
Vinnie Ave Nw
Alexa Ln Nw
Cheverly Rd Nw
Walnut Dr Nw
Crab Creek Rd
Switchback Rd
Alder Ln Nw
Spring House Rd
Spaulding Rd
Chrisman Mill Rd
Stringer Mountain Rd
Walton Rd
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
0
0.75
1.5 Miles

Project	Prices Fork Village Multimodal Improvements		
Facility	Route 685 (Prices Fork Road)	**Land Use Rating**	High
From	Tucker Road	**Transportation Rating**	Medium
To	Blacksburg Town Limits	**Ease of Implementation**	Medium
Description	Add bicycle and pedestrian facilities	**Prioritization Tier**	Tier 2
Land Use Implications	Provides accommodations to support the safe and effective use of multimodal transportation in the Village of Prices Fork, as well as between Prices Fork and the Town of Blacksburg. Enhances the viability of non-automotive travel within, to, and from the village, which in turn can support denser and more walkable land development patterns in the village itself.		
Transportation Needs	Project corridor is a designated multimodal corridor with recorded crashes involving bicyclists or pedestrians. Establishes new transportation connections within a designated village growth area and multimodal district.		
Implementation Considerations	Improvements will likely include the addition of hard infrastructure elements such as sidewalks or shared use paths. Minor expansion of right of way may be required.		
Other Plans	The NRVMPO Multimodal Plan identifies Route 685 as a Multimodal Through Corridor.		


Prices Fork Road
Bicycle and
Pedestrian Facilities
Project Location
Towns
Villages
BLACKSBURG
PRICES FORK
Glade Rd
Mount Zion Rd
Brooksfield Rd
Old Mill Rd
Walnut Spring Rd
Westminster Ct
Prices Fork Rd
Brunswick Dr
Mccoy Rd
Tucker Rd
Hillman Ln
Thomas Ln
Sandy Cir
Old Fort Rd
Merrimac Rd
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
0
0.5
1 Miles

Project	Ellett Road and Prices Fork Road Bicycle Improvements		
Facility	Route 723 (Ellett Road) and Route 603 (Cedar Run Rd)	**Land Use Rating**	Medium
From	Town of Christiansburg Corporate Boundary	**Transportation Rating**	Medium
To	Town of Blacksburg Corporate Boundary	**Ease of Implementation**	Low
Description	Add on-road bicycle accommodations	**Prioritization Tier**	Tier 4
Land Use Implications	Enhances bicycle safety and connectivity between the Towns of Blacksburg and Christiansburg. Route is most likely to be used by recreational cyclists, however, and is unlikely to be used as a practical daily multimodal transportation route.		
Transportation Needs	Corridor includes segments with reported poor pavement conditions and has been the site of fatal or serious injury accidents. Was identified as a multimodal through corridor and provides transportation improvements in an Equity Emphasis Area.		
Implementation Considerations	Narrow road and hilly terrain are likely to increase costs needed to widen road for bicycle accommodations. Addition of narrow shoulder for bicyclists could potentially be included in future repaving projects.		
Other Plans	Corridor was identified as a Multimodal Through Corridor in the New River Valley MPO Multimodal Plan.		
Public Comments	Numerous public comments noted that the narrow width, lack of road shoulders, and curvy alignment of this corridor pose a safety risk for the bicyclists who frequently use this route.		


Ellett Road and Cedar Run Road Bicycle Improvements
Project Location
Towns
UDAs
BLACKSBURG
CHRISTIANSBURG
Mid-County Urban Expansion Area
Cedar Run Rd
Ellett Rd
Brighton Ct
Sheliah Ct
Pratt Dr
Kraft Dr SW
S Main St
Mabry Ln
Farmview Dr
Commerce St
State St
Merrimac Rd
Martin Dr
Hightop Rd
Davis St
Huff Ln
South Main St
Jennelle Rd
Clubhouse Rd
Deercroft Dr
Lusters Gate Rd
Plank Dr
North Fork Rd
Den Hill Rd
Pear St NE
Market St NE
Authority Dr
Arbor Dr NE
Yellow Sulphur Rd
Pike Ln
Farmview Rd NW
Cambria St NW
N Franklin St
Talon Ln
Dabney Rd
Woodrow Rd
St Clair Ln
Houchins Rd
Tall Oak Blvd NW
Ellett Rd NE
Lee St NE
Cambria St NE
King St NE
Montgomery St NE
Depot St NE
Railroad St NW
Mill Ln NE
High St NE
Harless St NE
Stone St NE
Park St NE
Scott St NE
Sherwood Dr NE
Bell Rd NE
Simmons Rd
Teel St NE
Industrial Dr NE
Roanoke St
460
114
81
11
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
0
1
2 Miles

Appendix 2: Transportation Needs Evaluation

Corridor/ Facility	From	To	Project Description	Transportation Rating
Route 8 (Riner Road)	250 ft south of Union Valley Road	0.2 mi south of Union Valley Road	Turn Lane Improvements	High
Route 8 (Riner Road)	Town of Christiansburg Corporate Boundary	Floyd County Corporate Boundary	Route 8 Safety Improvements	High
US 11/460 (Roanoke Road)	Interstate 81	Roanoke County Corporate Boundary	Intersection Improvements and Intelligent Transportation Systems Solutions	High
Route 657 (Merrimac Road)	Prices Fork Road	North Franklin Street	Merrimac Road Safety Improvements	High
Route 685 (Prices Fork Road)	Merrimac Road		Merrimac Road Intersection Improvements	High
Route 8 (Riner Road)	Riner Park		Access and entrance for new park facilities	High
Route 114 (Peppers Ferry Road)	Town of Christiansburg Corporate Boundary	Constitution Road	Widen to four lanes	High
460 Connector Road (New)	Southgate Dr	Prices Fork Rd	New Road Construction	High
Route 114 (Peppers Ferry Road)	Waterworks Road	Belview Drive	Prices Fork Road Intersection and Pedestrian Improvements	Medium
US 11/460 (Roanoke Road)	Trump Lane	Lewyn H Gardner Lane	Alleghany Springs Road Intersection Improvements	Medium
Route 177 (Tyler Road)	Mud Pike Road		Intersection Improvements	Medium
Falling Branch Industrial Park Road	Falling Branch Corporate Park		Access road for new industrial park properties	Low

Facility	Route 8 (Riner Road)
From	250 ft south of Union Valley Road
To	0.2 mi south of Union Valley Road
Description	Turn Lane Improvements
Transportation Need Score	7.5
Transportation Need Rating	High

Safety: Performance Indicators	Need
Poor Pavement/Structure Condition	No
Recorded Fatal/Serious Injury Crashes	Yes
Identified as PSI Location	Yes

Relieving Congestion: Performance Indicators	Need
Deficient Level of Travel Time Reliability	No
Deficient Travel Time Index	No
Deficient Planning Time Index	No

Multimodal Travel Options: Performance Indicators	Need
Located in Multimodal District	Yes
Identified as Multimodal Corridor	Yes
Recorded Bicycle or Pedestrian Crashes	Yes

Connectivity: Performance Indicators	Need
Provides New Transportation Connections	Yes
Located in Designated Growth Area	Yes
Improves a Corridor of Statewide Significance	No

Economic Competitiveness and Prosperity: Performance Indicators	Need
Located in an Equity Emphasis Area	No
Truck Volume Greater than 2%	Yes
Deficient Truck Travel Time Reliability	No

General Comments
Moderate traffic throughout most of day, especially along Union Valley/Fairview Church. Several serious accidents at and within vicinity of the intersection. Intersection is along a Multimodal transit corridor. Unsignalized intersection. Proposed improvements aim to reduce existing congestion in Riner and improve safety for turning vehicles by widening intersection. Widening road may reduce pedestrian and cycling safety.

Facility	Route 8 (Riner Road)
From	Town of Christiansburg Corporate Boundary
To	Floyd County Corporate Boundary
Description	Route 8 Safety Improvements
Transportation Need Score	7.5
Transportation Need Rating	High

Safety: Performance Indicators	**Need**
Poor Pavement/Structure Condition	No
Recorded Fatal/Serious Injury Crashes	Yes
Identified as PSI Location	Yes

Relieving Congestion: Performance Indicators	**Need**
Deficient Level of Travel Time Reliability	No
Deficient Travel Time Index	No
Deficient Planning Time Index	No

Multimodal Travel Options: Performance Indicators	**Need**
Located in Multimodal District	Yes
Identified as Multimodal Corridor	Yes
Recorded Bicycle or Pedestrian Crashes	Yes

Connectivity: Performance Indicators	**Need**
Provides New Transportation Connections	No
Located in Designated Growth Area	Yes
Improves a Corridor of Statewide Significance	No

Economic Competitiveness and Prosperity: Performance Indicators	**Need**
Located in an Equity Emphasis Area	Yes
Truck Volume Greater than 2%	Yes
Deficient Truck Travel Time Reliability	No

General Comments
Project runs for roughly 9.3 miles from the Christiansburg town boundary to Floyd County. Several dozen serious accidents are listed within the corridor, as well as multiple PSI locations. As a multimodal corridor and commonly used truck route, prioritizing safety improvements in this corridor could promote greater economic development.

Facility	US 11/460 (Roanoke Road)
From	Interstate 81
To	Roanoke County Corporate Boundary
Description	Intersection Improvements and Intelligent Transportation Systems Solutions
Transportation Need Score	7.5
Transportation Need Rating	High

Safety: Performance Indicators	Need
Poor Pavement/Structure Condition	Yes
Recorded Fatal/Serious Injury Crashes	Yes
Identified as PSI Location	No

Relieving Congestion: Performance Indicators	Need
Deficient Level of Travel Time Reliability	No
Deficient Travel Time Index	No
Deficient Planning Time Index	No

Multimodal Travel Options: Performance Indicators	Need
Located in Multimodal District	No
Identified as Multimodal Corridor	Yes
Recorded Bicycle or Pedestrian Crashes	Yes

Connectivity: Performance Indicators	Need
Provides New Transportation Connections	No
Located in Designated Growth Area	Yes
Improves a Corridor of Statewide Significance	Yes

Economic Competitiveness and Prosperity: Performance Indicators	Need
Located in an Equity Emphasis Area	Yes
Truck Volume Greater than 2%	Yes
Deficient Truck Travel Time Reliability	No

General Comments
Project is primarily intended to enhance this corridor's ability to safely and effectively accommodate traffic that has been detoured from I-81 in the event of construction or accidents.

Facility	Route 657 (Merrimac Road)
From	Prices Fork Road
To	North Franklin Street
Description	Merrimac Road Safety Improvements
Transportation Need Score	7.5
Transportation Need Rating	High

Safety: Performance Indicators	**Need**
Poor Pavement/Structure Condition	No
Recorded Fatal/Serious Injury Crashes	Yes
Identified as PSI Location	Yes

Relieving Congestion: Performance Indicators	**Need**
Deficient Level of Travel Time Reliability	No
Deficient Travel Time Index	No
Deficient Planning Time Index	No

Multimodal Travel Options: Performance Indicators	**Need**
Located in Multimodal District	Yes
Identified as Multimodal Corridor	Yes
Recorded Bicycle or Pedestrian Crashes	Yes

Connectivity: Performance Indicators	**Need**
Provides New Transportation Connections	No
Located in Designated Growth Area	Yes
Improves a Corridor of Statewide Significance	No

Economic Competitiveness and Prosperity: Performance Indicators	**Need**
Located in an Equity Emphasis Area	Yes
Truck Volume Greater than 2%	No
Deficient Truck Travel Time Reliability	No

General Comments
Runs from Prices Fork by Blacksburg Highschool to the divide between S Main Street and N Franklin Street. GIS layers only show 2 bike crashes and 1 serious car accident. Car accident caused due to wet conditions in rain. Northern part of the route is mostly farmland, southern part intersects several neighborhoods and streets. Several segments of the southern part of the corridor are PSI locations.

Facility	Route 685 (Prices Fork Road)
From	Merrimac Road
To	
Description	Merrimac Road Intersection Improvements
Transportation Need Score	7.5
Transportation Need Rating	High

Safety: Performance Indicators	**Need**
Poor Pavement/Structure Condition	No
Recorded Fatal/Serious Injury Crashes	No
Identified as PSI Location	Yes

Relieving Congestion: Performance Indicators	**Need**
Deficient Level of Travel Time Reliability	No
Deficient Travel Time Index	No
Deficient Planning Time Index	No

Multimodal Travel Options: Performance Indicators	**Need**
Located in Multimodal District	Yes
Identified as Multimodal Corridor	Yes
Recorded Bicycle or Pedestrian Crashes	Yes

Connectivity: Performance Indicators	**Need**
Provides New Transportation Connections	No
Located in Designated Growth Area	Yes
Improves a Corridor of Statewide Significance	No

Economic Competitiveness and Prosperity: Performance Indicators	**Need**
Located in an Equity Emphasis Area	Yes
Truck Volume Greater than 2%	No
Deficient Truck Travel Time Reliability	No

General Comments
Currently unsignalized intersection(s). Merrimac runs from Prices Fork west of Blacksburg to N Franklin Street in Christiansburg, servicing multiple neighborhoods. Acts as main access point for several more remote areas. GIS layers show only 1 bike accident at the intersection. Google maps traffic layer shows light to moderate traffic in the mornings (~7-8 am) and evenings (~5-6 pm). Better transit or signalizing intersection could improve access from Merrimac.

Facility	Route 114 (Peppers Ferry Road)
From	Town of Christiansburg Corporate Boundary
To	Constitution Road
Description	Widen to four lanes
Transportation Need Score	7.5
Transportation Need Rating	High

Safety: Performance Indicators	**Need**
Poor Pavement/Structure Condition	Yes
Recorded Fatal/Serious Injury Crashes	Yes
Identified as PSI Location	Yes

Relieving Congestion: Performance Indicators	**Need**
Deficient Level of Travel Time Reliability	No
Deficient Travel Time Index	No
Deficient Planning Time Index	No

Multimodal Travel Options: Performance Indicators	**Need**
Located in Multimodal District	No
Identified as Multimodal Corridor	Yes
Recorded Bicycle or Pedestrian Crashes	No

Connectivity: Performance Indicators	**Need**
Provides New Transportation Connections	No
Located in Designated Growth Area	Yes
Improves a Corridor of Statewide Significance	No

Economic Competitiveness and Prosperity: Performance Indicators	**Need**
Located in an Equity Emphasis Area	Yes
Truck Volume Greater than 2%	No
Deficient Truck Travel Time Reliability	No

General Comments
Proposed widening of the route between Christiansburg and the Radford Army Ammunition Plant. Several parts of the corridor are part of PSI locations. Several serious car accidents listed along the corridor. Intersections at the entrance to the ammunition plant and the at Prices Fork & Peppers Ferry become moderately congested at various points throughout the day. Almost all of the corridor was listed in the GIS layers as having poor pavement conditions.

Facility	460 Connector Road (New)
From	Southgate Dr
To	Prices Fork Rd
Description	New Road Construction
Transportation Need Score	7.5
Transportation Need Rating	High

Safety: Performance Indicators	Need
Poor Pavement/Structure Condition	No
Recorded Fatal/Serious Injury Crashes	Yes
Identified as PSI Location	Yes

Relieving Congestion: Performance Indicators	Need
Deficient Level of Travel Time Reliability	No
Deficient Travel Time Index	No
Deficient Planning Time Index	No

Multimodal Travel Options: Performance Indicators	Need
Located in Multimodal District	Yes
Identified as Multimodal Corridor	Yes
Recorded Bicycle or Pedestrian Crashes	Yes

Connectivity: Performance Indicators	Need
Provides New Transportation Connections	Yes
Located in Designated Growth Area	Yes
Improves a Corridor of Statewide Significance	No

Economic Competitiveness and Prosperity: Performance Indicators	Need
Located in an Equity Emphasis Area	Yes
Truck Volume Greater than 2%	No
Deficient Truck Travel Time Reliability	No

General Comments
Need assessment was based on conditions of Prices Fork Rd, which runs parallel to the proposed connector road. Most of the traffic that would use the new connector corridor is likely to use Prices Fork Rd at the present time.

Facility	Route 8 (Riner Road)
From	Riner Park
To	
Description	Access and entrance for new park facilities
Transportation Need Score	4.5
Transportation Need Rating	Medium

Safety: Performance Indicators	Need
Poor Pavement/Structure Condition	No
Recorded Fatal/Serious Injury Crashes	No
Identified as PSI Location	No

Relieving Congestion: Performance Indicators	Need
Deficient Level of Travel Time Reliability	No
Deficient Travel Time Index	No
Deficient Planning Time Index	No

Multimodal Travel Options: Performance Indicators	Need
Located in Multimodal District	No
Identified as Multimodal Corridor	Yes
Recorded Bicycle or Pedestrian Crashes	No

Connectivity: Performance Indicators	Need
Provides New Transportation Connections	No
Located in Designated Growth Area	Yes
Improves a Corridor of Statewide Significance	No

Economic Competitiveness and Prosperity: Performance Indicators	Need
Located in an Equity Emphasis Area	No
Truck Volume Greater than 2%	Yes
Deficient Truck Travel Time Reliability	No

General Comments

Facility	Route 114 (Peppers Ferry Road)
From	Waterworks Road
To	Belview Drive
Description	Prices Fork Road Intersection and Pedestrian Improvements
Transportation Need Score	6
Transportation Need Rating	Medium

Safety: Performance Indicators	Need
Poor Pavement/Structure Condition	Yes
Recorded Fatal/Serious Injury Crashes	Yes
Identified as PSI Location	Yes

Relieving Congestion: Performance Indicators	Need
Deficient Level of Travel Time Reliability	No
Deficient Travel Time Index	No
Deficient Planning Time Index	No

Multimodal Travel Options: Performance Indicators	Need
Located in Multimodal District	No
Identified as Multimodal Corridor	Yes
Recorded Bicycle or Pedestrian Crashes	No

Connectivity: Performance Indicators	Need
Provides New Transportation Connections	Yes
Located in Designated Growth Area	Yes
Improves a Corridor of Statewide Significance	No

Economic Competitiveness and Prosperity: Performance Indicators	Need
Located in an Equity Emphasis Area	No
Truck Volume Greater than 2%	No
Deficient Truck Travel Time Reliability	No

General Comments
Intersection is part of a multimodal corridor and GIS layers show poor pavement quality. Traffic is light until midday, where it ramps up until heavy traffic at rush hour in the evening. A few accidents listed near the intersection, PSI lists roughly 30 crashes over the last 4 years of data collection.Current SS application calls for widening road.

Facility	US 11/460 (Roanoke Road)
From	Trump Lane
To	Lewyn H Gardner Lane
Description	Alleghany Springs Road Intersection Improvements
Transportation Need Score	6
Transportation Need Rating	Medium

Safety: Performance Indicators	**Need**
Poor Pavement/Structure Condition	No
Recorded Fatal/Serious Injury Crashes	Yes
Identified as PSI Location	No

Relieving Congestion: Performance Indicators	**Need**
Deficient Level of Travel Time Reliability	No
Deficient Travel Time Index	No
Deficient Planning Time Index	No

Multimodal Travel Options: Performance Indicators	**Need**
Located in Multimodal District	No
Identified as Multimodal Corridor	No
Recorded Bicycle or Pedestrian Crashes	No

Connectivity: Performance Indicators	**Need**
Provides New Transportation Connections	No
Located in Designated Growth Area	Yes
Improves a Corridor of Statewide Significance	Yes

Economic Competitiveness and Prosperity: Performance Indicators	**Need**
Located in an Equity Emphasis Area	No
Truck Volume Greater than 2%	Yes
Deficient Truck Travel Time Reliability	No

General Comments
Intersection shows moderate to heavy traffic during rush hours. Only one major accident was listed within the GIS layers, involving a large truck. Intersection was not listed as a PSI location. Intersection is unsignalized. Current SS application calls for widening road to add turn lanes or extend existing ones.

Facility	Route 177 (Tyler Road)
From	Mud Pike Road
To	
Description	Intersection Improvements
Transportation Need Score	6
Transportation Need Rating	Medium

Safety: Performance Indicators	Need
Poor Pavement/Structure Condition	Yes
Recorded Fatal/Serious Injury Crashes	Yes
Identified as PSI Location	Yes

Relieving Congestion: Performance Indicators	Need
Deficient Level of Travel Time Reliability	No
Deficient Travel Time Index	No
Deficient Planning Time Index	No

Multimodal Travel Options: Performance Indicators	Need
Located in Multimodal District	Yes
Identified as Multimodal Corridor	Yes
Recorded Bicycle or Pedestrian Crashes	No

Connectivity: Performance Indicators	Need
Provides New Transportation Connections	No
Located in Designated Growth Area	Yes
Improves a Corridor of Statewide Significance	No

Economic Competitiveness and Prosperity: Performance Indicators	Need
Located in an Equity Emphasis Area	No
Truck Volume Greater than 2%	No
Deficient Truck Travel Time Reliability	No

General Comments
Busy highway interchange exit. Unsignalized intersection with stop control on Mud Pike. Abnormally high number of crashes in 2016 (11 vs less than 4 for every successive year).

Facility	Falling Branch Industrial Park Road
From	Falling Branch Corporate Park
To	
Description	Access road for new industrial park properties
Transportation Need Score	1.5
Transportation Need Rating	Low

Safety: Performance Indicators	Need
Poor Pavement/Structure Condition	No
Recorded Fatal/Serious Injury Crashes	No
Identified as PSI Location	No

Relieving Congestion: Performance Indicators	Need
Deficient Level of Travel Time Reliability	No
Deficient Travel Time Index	No
Deficient Planning Time Index	No

Multimodal Travel Options: Performance Indicators	Need
Located in Multimodal District	No
Identified as Multimodal Corridor	No
Recorded Bicycle or Pedestrian Crashes	No

Connectivity: Performance Indicators	Need
Provides New Transportation Connections	No
Located in Designated Growth Area	No
Improves a Corridor of Statewide Significance	No

Economic Competitiveness and Prosperity: Performance Indicators	Need
Located in an Equity Emphasis Area	Yes
Truck Volume Greater than 2%	Yes
Deficient Truck Travel Time Reliability	No

General Comments
*Proposed extension to allow access to new industrial park properties. Current needs based on Parkway Drive, which the expansion would be built off of. Met "Need for Improved Access to Industrial and Economic Development Area" criteria.

Corridor/ Facility	From	To	Project Description	Transportation Rating
US 11/460 (Roanoke Road)	Stones Keep Lane	North Fork Road	Add Lafayette off-road shared use path	High
Old Town Road / US 11/460 (Roanoke Road)	Shawsville Middle School	Seneca Hollow Road	Add off-road shared use path	High
Route 114 (Peppers Ferry Road)	Bradford Lane	Mass Circle	Add Belview bicycle and pedestrian facilities	High
Route 114 (Peppers Ferry Road)	Mass Circle	Town of Christiansburg Corporate Boundary	Add off-road shared use path	High
US 460 Business (South Main Street)	Hightop Road	Ferguson Drive	Business 460 Multimodal Improvements	High
US 11 (Lee Highway)	Truman Avenue	Fire Tower Road	Add Plum Creek bicycle and pedestrian facilities	Medium
Route 685 (Prices Fork Road)	Tucker Road	Town of Blacksburg Corporate Boundary	Add Prices Fork bicycle and pedestrian facilities	Medium
Route 723 (Ellett Road) / Route 603 (Cedar Run Road)	Town of Christiansburg Corporate Boundary	Town of Blacksburg Corporate Boundary	Add on-road bicycle facilities	Medium

Facility	US 11/460 (Roanoke Road)
From	Stones Keep Lane
To	North Fork Road
Description	Add Lafayette off-road shared use path
Transportation Need Score	7.5
Transportation Need Rating	High

Safety: Performance Indicators	Need
Poor Pavement/Structure Condition	Yes
Recorded Fatal/Serious Injury Crashes	Yes
Identified as PSI Location	No

Relieving Congestion: Performance Indicators	Need
Deficient Level of Travel Time Reliability	No
Deficient Travel Time Index	No
Deficient Planning Time Index	No

Multimodal Travel Options: Performance Indicators	Need
Located in Multimodal District	No
Identified as Multimodal Corridor	No
Recorded Bicycle or Pedestrian Crashes	Yes

Connectivity: Performance Indicators	Need
Provides New Transportation Connections	Yes
Located in Designated Growth Area	Yes
Improves a Corridor of Statewide Significance	Yes

Economic Competitiveness and Prosperity: Performance Indicators	Need
Located in an Equity Emphasis Area	Yes
Truck Volume Greater than 2%	Yes
Deficient Truck Travel Time Reliability	No

General Comments
Part of Heartland Corridor. Runs north of Shawsville.

Facility	Old Town Road / US 11/460 (Roanoke Road)
From	Shawsville Middle School
To	Seneca Hollow Road
Description	Add off-road shared use path
Transportation Need Score	7.5
Transportation Need Rating	High

Safety: Performance Indicators	Need
Poor Pavement/Structure Condition	Yes
Recorded Fatal/Serious Injury Crashes	Yes
Identified as PSI Location	No

Relieving Congestion: Performance Indicators	Need
Deficient Level of Travel Time Reliability	No
Deficient Travel Time Index	No
Deficient Planning Time Index	No

Multimodal Travel Options: Performance Indicators	Need
Located in Multimodal District	No
Identified as Multimodal Corridor	No
Recorded Bicycle or Pedestrian Crashes	Yes

Connectivity: Performance Indicators	Need
Provides New Transportation Connections	Yes
Located in Designated Growth Area	Yes
Improves a Corridor of Statewide Significance	Yes

Economic Competitiveness and Prosperity: Performance Indicators	Need
Located in an Equity Emphasis Area	Yes
Truck Volume Greater than 2%	Yes
Deficient Truck Travel Time Reliability	Yes

General Comments
Part of Heartland Corridor. Runs through Shawsville.

Facility	Route 114 (Peppers Ferry Road)
From	Bradford Lane
To	Mass Circle
Description	Add Belview bicycle and pedestrian facilities
Transportation Need Score	7.5
Transportation Need Rating	High

Safety: Performance Indicators	Need
Poor Pavement/Structure Condition	Yes
Recorded Fatal/Serious Injury Crashes	Yes
Identified as PSI Location	Yes

Relieving Congestion: Performance Indicators	Need
Deficient Level of Travel Time Reliability	No
Deficient Travel Time Index	No
Deficient Planning Time Index	No

Multimodal Travel Options: Performance Indicators	Need
Located in Multimodal District	No
Identified as Multimodal Corridor	Yes
Recorded Bicycle or Pedestrian Crashes	Yes

Connectivity: Performance Indicators	Need
Provides New Transportation Connections	Yes
Located in Designated Growth Area	Yes
Improves a Corridor of Statewide Significance	No

Economic Competitiveness and Prosperity: Performance Indicators	Need
Located in an Equity Emphasis Area	Yes
Truck Volume Greater than 2%	No
Deficient Truck Travel Time Reliability	No

General Comments
Western half of US 114 improvement corridor. Relatively high number of vehicle, pedestrian, and bike crashes.

Facility	Route 114 (Peppers Ferry Road)
From	Mass Circle
To	Town of Christiansburg Corporate Boundary
Description	Add off-road shared use path
Transportation Need Score	7.5
Transportation Need Rating	High

Safety: Performance Indicators	Need
Poor Pavement/Structure Condition	Yes
Recorded Fatal/Serious Injury Crashes	Yes
Identified as PSI Location	Yes

Relieving Congestion: Performance Indicators	Need
Deficient Level of Travel Time Reliability	No
Deficient Travel Time Index	No
Deficient Planning Time Index	No

Multimodal Travel Options: Performance Indicators	Need
Located in Multimodal District	Yes
Identified as Multimodal Corridor	Yes
Recorded Bicycle or Pedestrian Crashes	Yes

Connectivity: Performance Indicators	Need
Provides New Transportation Connections	Yes
Located in Designated Growth Area	Yes
Improves a Corridor of Statewide Significance	No

Economic Competitiveness and Prosperity: Performance Indicators	Need
Located in an Equity Emphasis Area	Yes
Truck Volume Greater than 2%	No
Deficient Truck Travel Time Reliability	No

General Comments
Eastern half of US 114 segment. High frequency of crashes in recent years.

Facility	US 460 Business (South Main Street)
From	Hightop Road
To	Ferguson Drive
Description	Business 460 Multimodal Improvements
Transportation Need Score	7.5
Transportation Need Rating	High

Safety: Performance Indicators	**Need**
Poor Pavement/Structure Condition	Yes
Recorded Fatal/Serious Injury Crashes	Yes
Identified as PSI Location	Yes

Relieving Congestion: Performance Indicators	**Need**
Deficient Level of Travel Time Reliability	No
Deficient Travel Time Index	No
Deficient Planning Time Index	No

Multimodal Travel Options: Performance Indicators	**Need**
Located in Multimodal District	Yes
Identified as Multimodal Corridor	Yes
Recorded Bicycle or Pedestrian Crashes	No

Connectivity: Performance Indicators	**Need**
Provides New Transportation Connections	Yes
Located in Designated Growth Area	Yes
Improves a Corridor of Statewide Significance	Yes

Economic Competitiveness and Prosperity: Performance Indicators	**Need**
Located in an Equity Emphasis Area	Yes
Truck Volume Greater than 2%	No
Deficient Truck Travel Time Reliability	No

General Comments
Main non-interstate route between Blacksburg and Christiansburg. Moderate traffic throughout the day, especially near the hospital. Currently has limited bus transit, pedestrian, and bicycle infrastructure. Improvements to this infrastructure could promote economic growth throughout the corridor.

Facility	US 11 (Lee Highway)
From	Truman Avenue
To	Fire Tower Road
Description	Add Plum Creek bicycle and pedestrian facilities
Transportation Need Score	6
Transportation Need Rating	Medium

Safety: Performance Indicators	Need
Poor Pavement/Structure Condition	Yes
Recorded Fatal/Serious Injury Crashes	Yes
Identified as PSI Location	No

Relieving Congestion: Performance Indicators	Need
Deficient Level of Travel Time Reliability	No
Deficient Travel Time Index	No
Deficient Planning Time Index	No

Multimodal Travel Options: Performance Indicators	Need
Located in Multimodal District	No
Identified as Multimodal Corridor	Yes
Recorded Bicycle or Pedestrian Crashes	Yes

Connectivity: Performance Indicators	Need
Provides New Transportation Connections	Yes
Located in Designated Growth Area	Yes
Improves a Corridor of Statewide Significance	Yes

Economic Competitiveness and Prosperity: Performance Indicators	Need
Located in an Equity Emphasis Area	No
Truck Volume Greater than 2%	No
Deficient Truck Travel Time Reliability	No

General Comments
Segment is part of the Crescent Corridor, a major roadway between Radford and Christiansburg. The segment is the location of a small village area known as Plum Creek.

Facility	Route 685 (Prices Fork Road)
From	Tucker Road
To	Town of Blacksburg Corporate Boundary
Description	Add Prices Fork bicycle and pedestrian facilities
Transportation Need Score	6
Transportation Need Rating	Medium

Safety: Performance Indicators	**Need**
Poor Pavement/Structure Condition	Yes
Recorded Fatal/Serious Injury Crashes	Yes
Identified as PSI Location	Yes

Relieving Congestion: Performance Indicators	**Need**
Deficient Level of Travel Time Reliability	No
Deficient Travel Time Index	No
Deficient Planning Time Index	No

Multimodal Travel Options: Performance Indicators	**Need**
Located in Multimodal District	No
Identified as Multimodal Corridor	Yes
Recorded Bicycle or Pedestrian Crashes	Yes

Connectivity: Performance Indicators	**Need**
Provides New Transportation Connections	No
Located in Designated Growth Area	Yes
Improves a Corridor of Statewide Significance	No

Economic Competitiveness and Prosperity: Performance Indicators	**Need**
Located in an Equity Emphasis Area	No
Truck Volume Greater than 2%	No
Deficient Truck Travel Time Reliability	No

General Comments
East end of the segment is another priority project for Merrimac and Prices Fork intersection.

Facility	Route 723 (Ellett Road) / Route 603 (Cedar Run Road)
From	Town of Christiansburg Corporate Boundary
To	Town of Blacksburg Corporate Boundary
Description	Add on-road bicycle facilities
Transportation Need Score	6
Transportation Need Rating	Medium

Safety: Performance Indicators	**Need**
Poor Pavement/Structure Condition	Yes
Recorded Fatal/Serious Injury Crashes	Yes
Identified as PSI Location	No

Relieving Congestion: Performance Indicators	**Need**
Deficient Level of Travel Time Reliability	No
Deficient Travel Time Index	No
Deficient Planning Time Index	No

Multimodal Travel Options: Performance Indicators	**Need**
Located in Multimodal District	No
Identified as Multimodal Corridor	Yes
Recorded Bicycle or Pedestrian Crashes	No

Connectivity: Performance Indicators	**Need**
Provides New Transportation Connections	No
Located in Designated Growth Area	No
Improves a Corridor of Statewide Significance	No

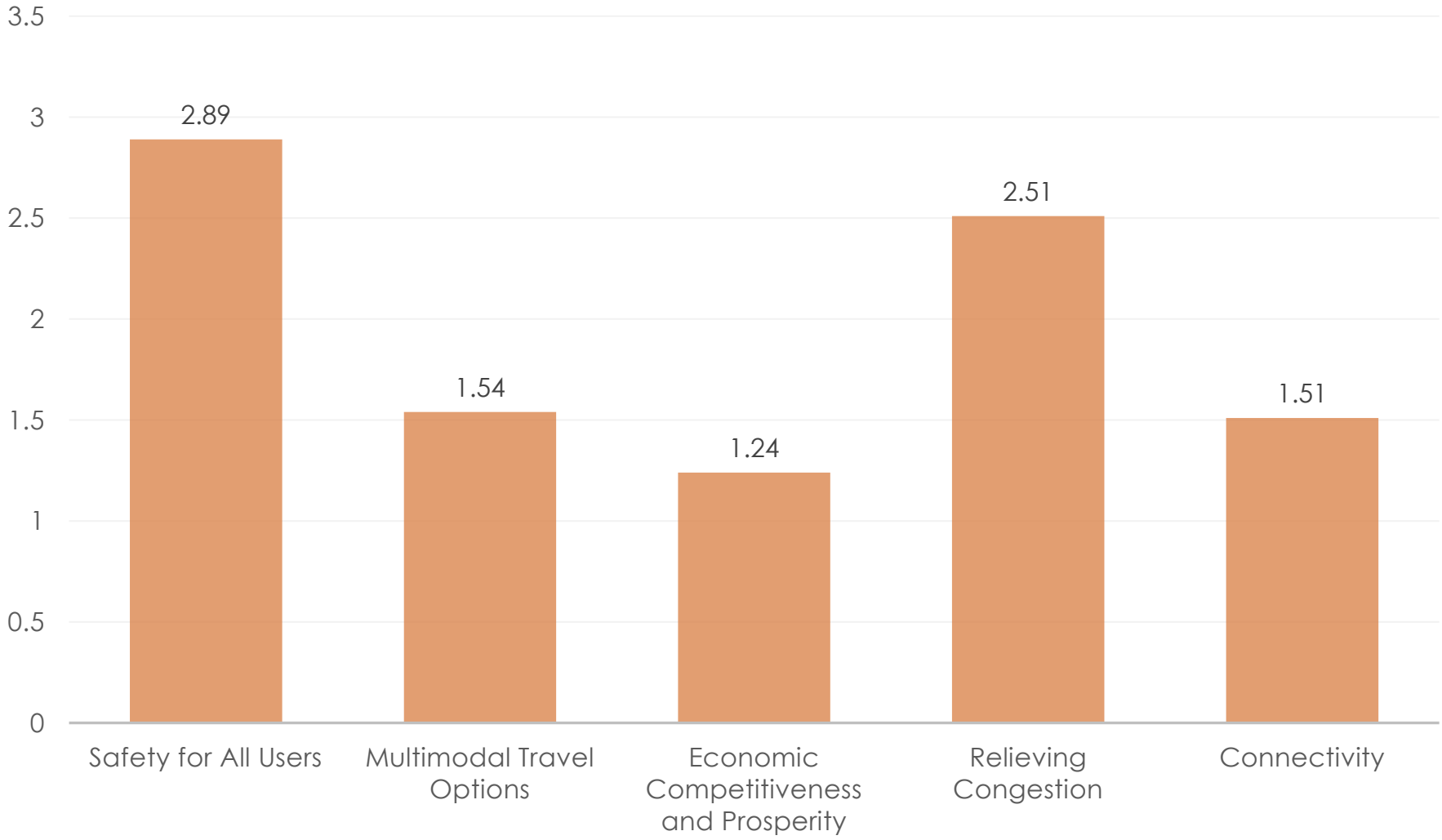
Economic Competitiveness and Prosperity: Performance Indicators	**Need**
Located in an Equity Emphasis Area	Yes
Truck Volume Greater than 2%	No
Deficient Truck Travel Time Reliability	No

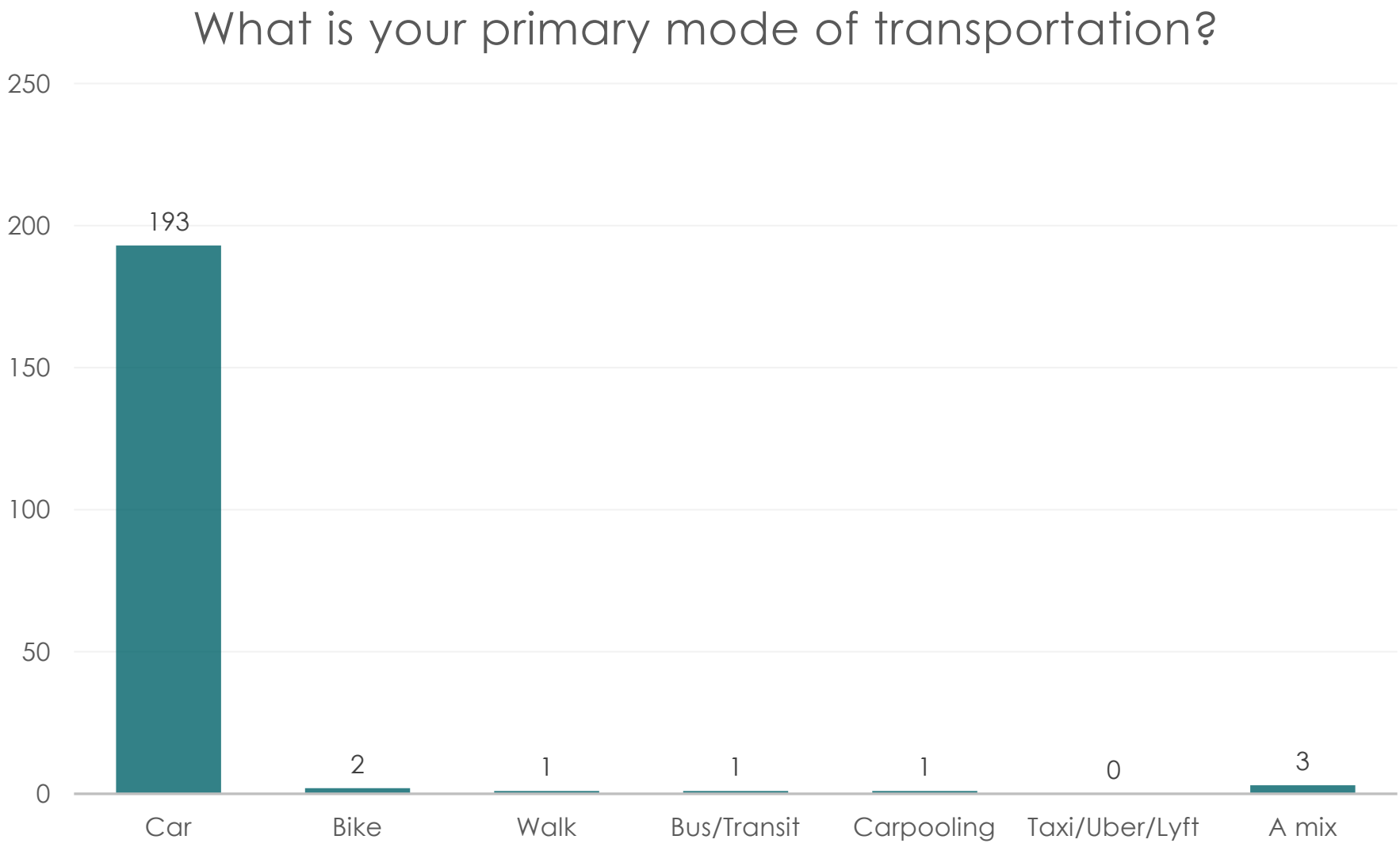
General Comments
Would provide more formal bicycle accommodations on a corridor frequently used by bicyclists to travel between Blacksburg and Christiansburg. Minor road widening and restriping could potentially be included as part of a large scale repaving project on the corridor.

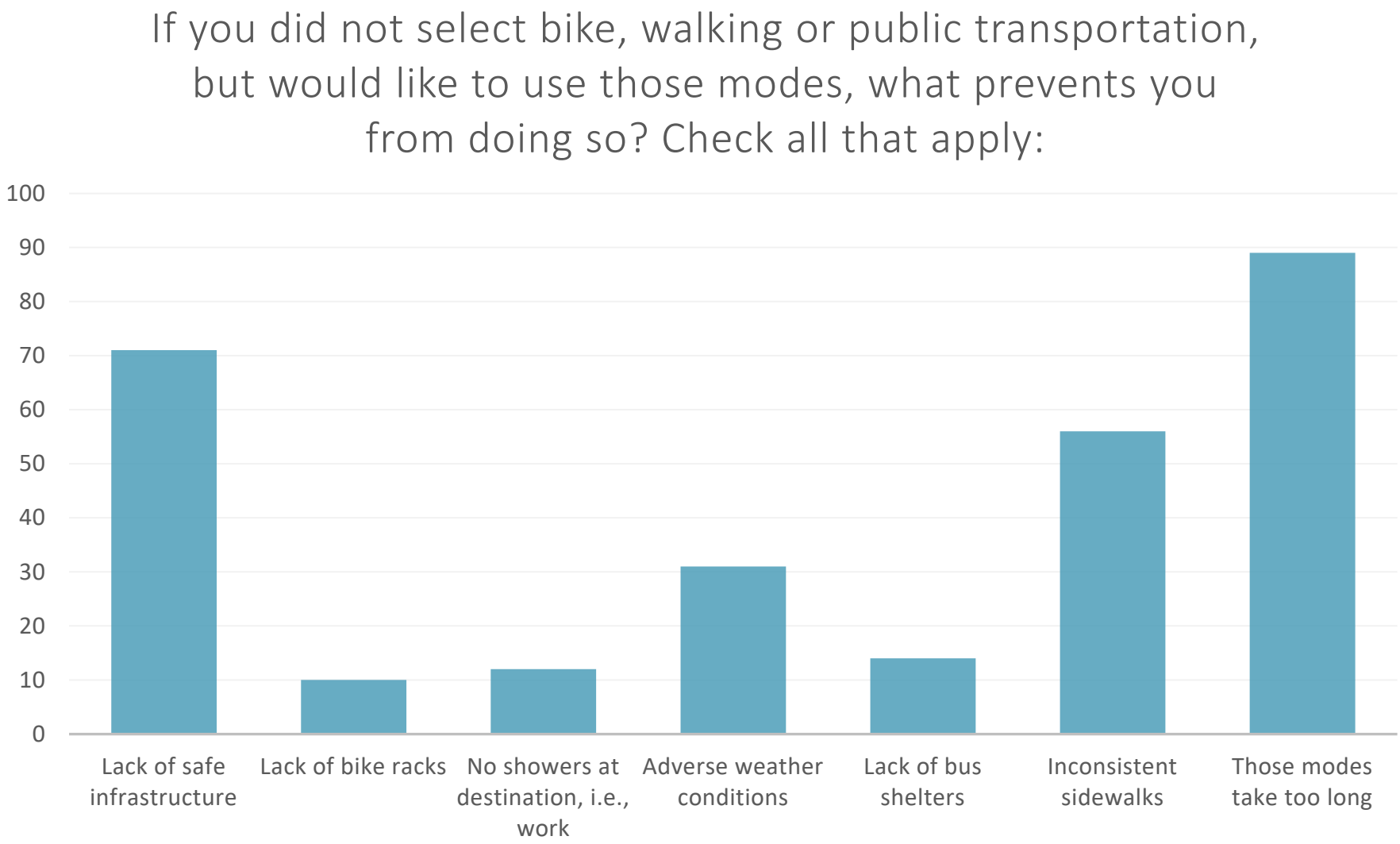
Appendix 3: Survey Results

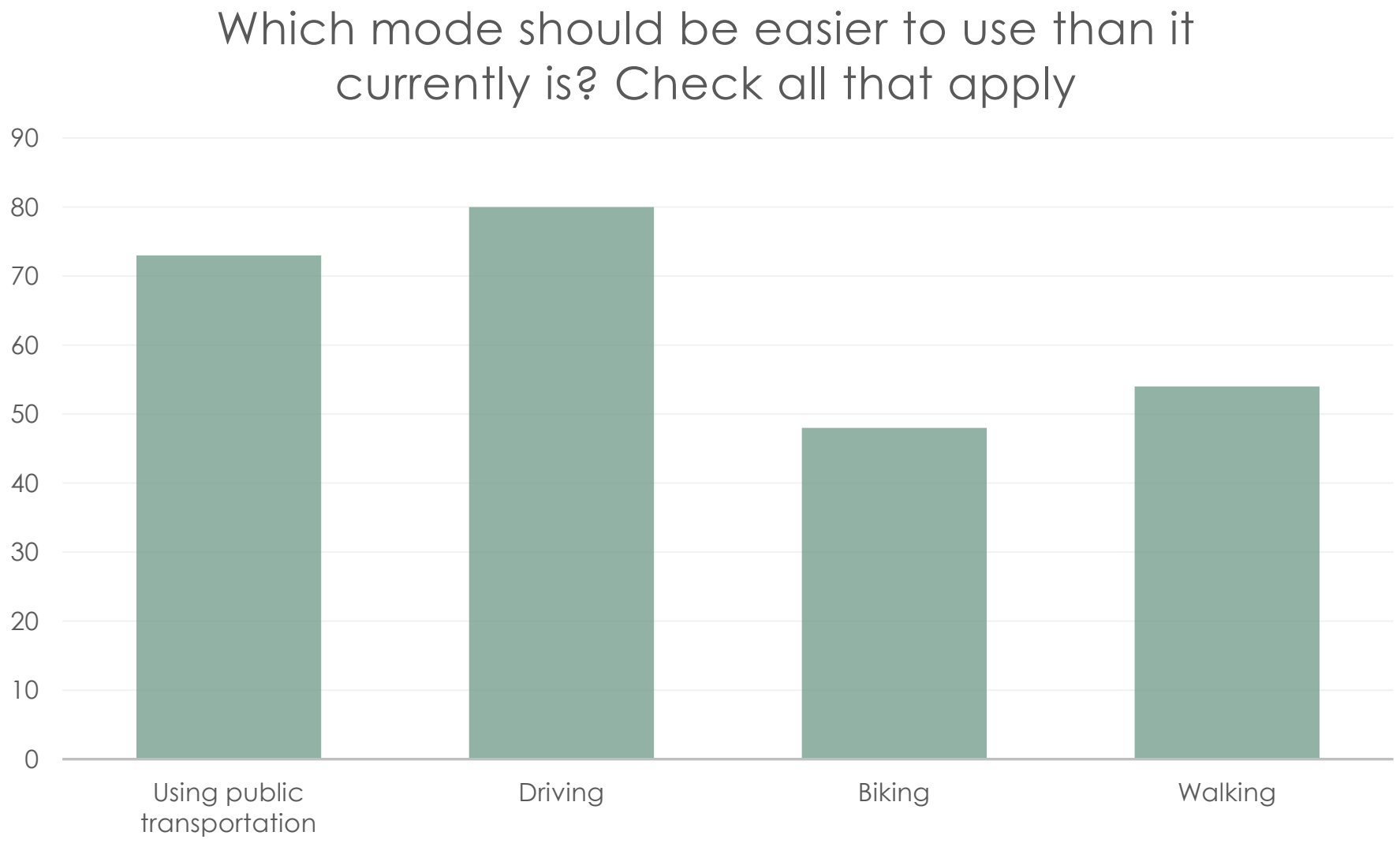
Part I: Transportation Preferences

Average Goal Weight
(Higher Weight Indicates Greater Importance)

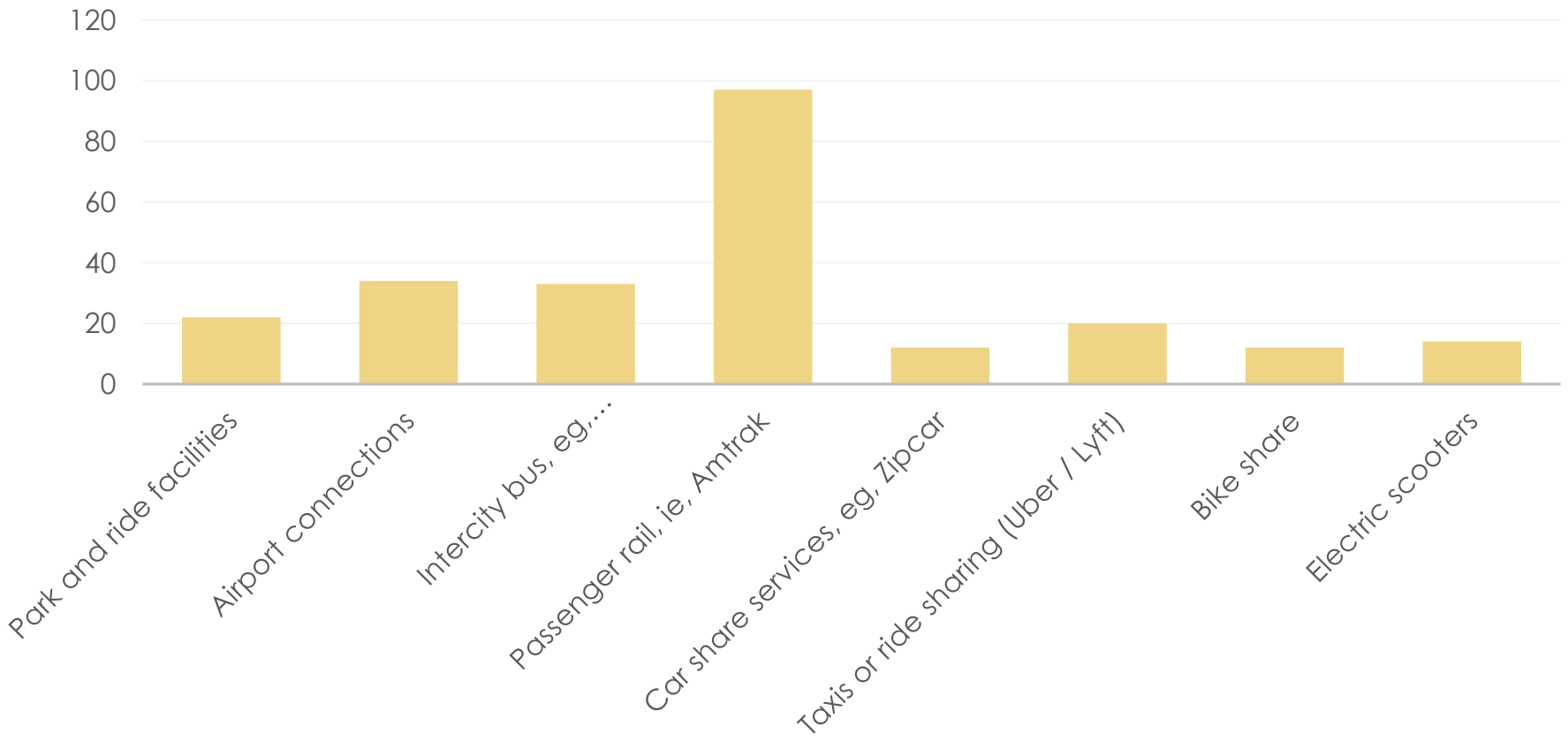



What is your primary mode of transportation?
250
200
150
100
50
0
193
2
1
1
1
0
3
Car
Bike
Walk
Bus/Transit
Carpooling
Taxi/Uber/Lyft
A mix

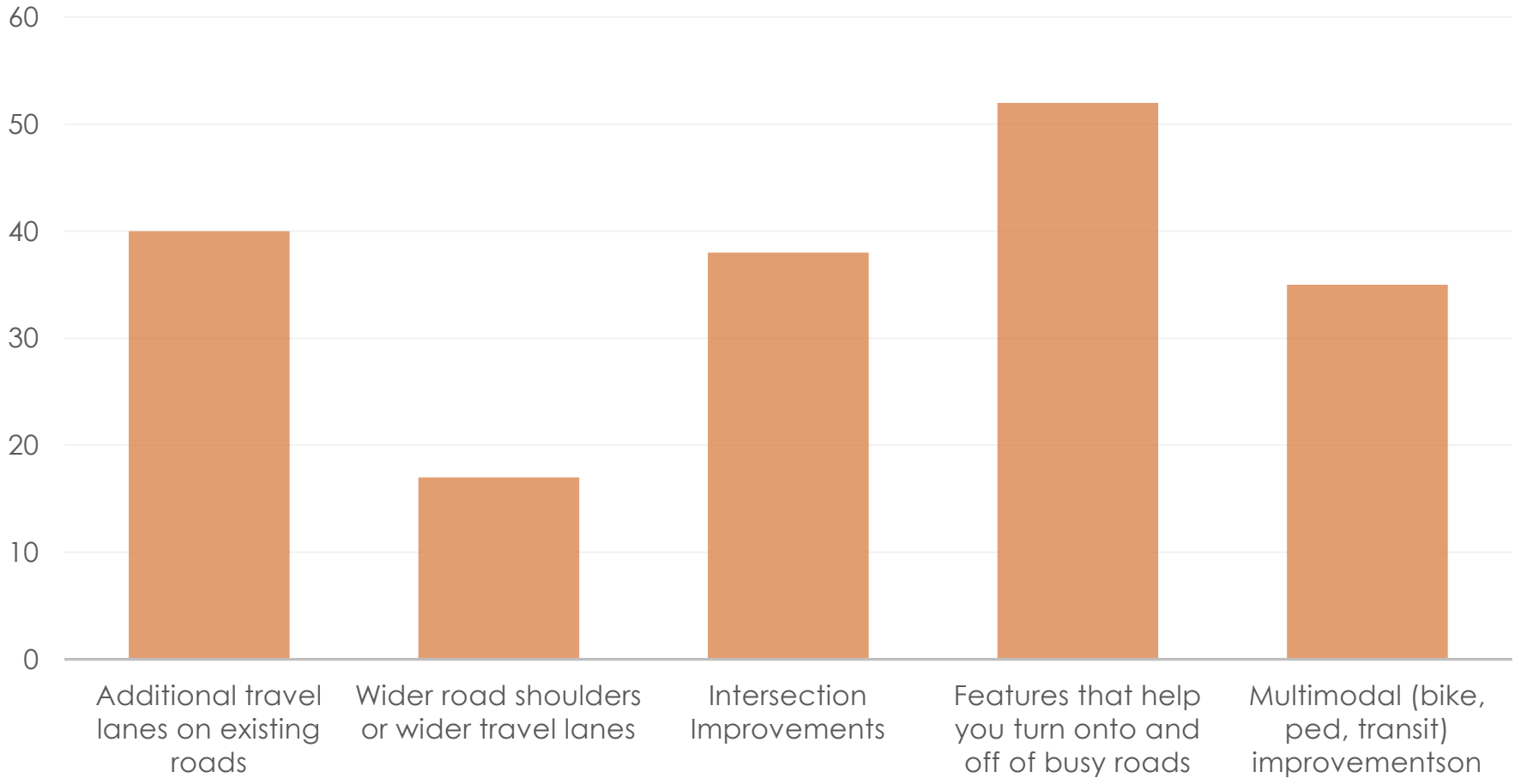

If you did not select bike, walking or public transportation, but would like to use those modes, what prevents you from doing so? Check all that apply:
100
90
80
70
60
50
40
30
20
10
0
Lack of safe infrastructure
Lack of bike racks
No showers at destination, i.e., work
Adverse weather conditions
Lack of bus shelters
Inconsistent sidewalks
Those modes take too long


Which mode should be easier to use than it currently is? Check all that apply
90
80
70
60
50
40
30
20
10
0
Using public transportation
Driving
Biking
Walking

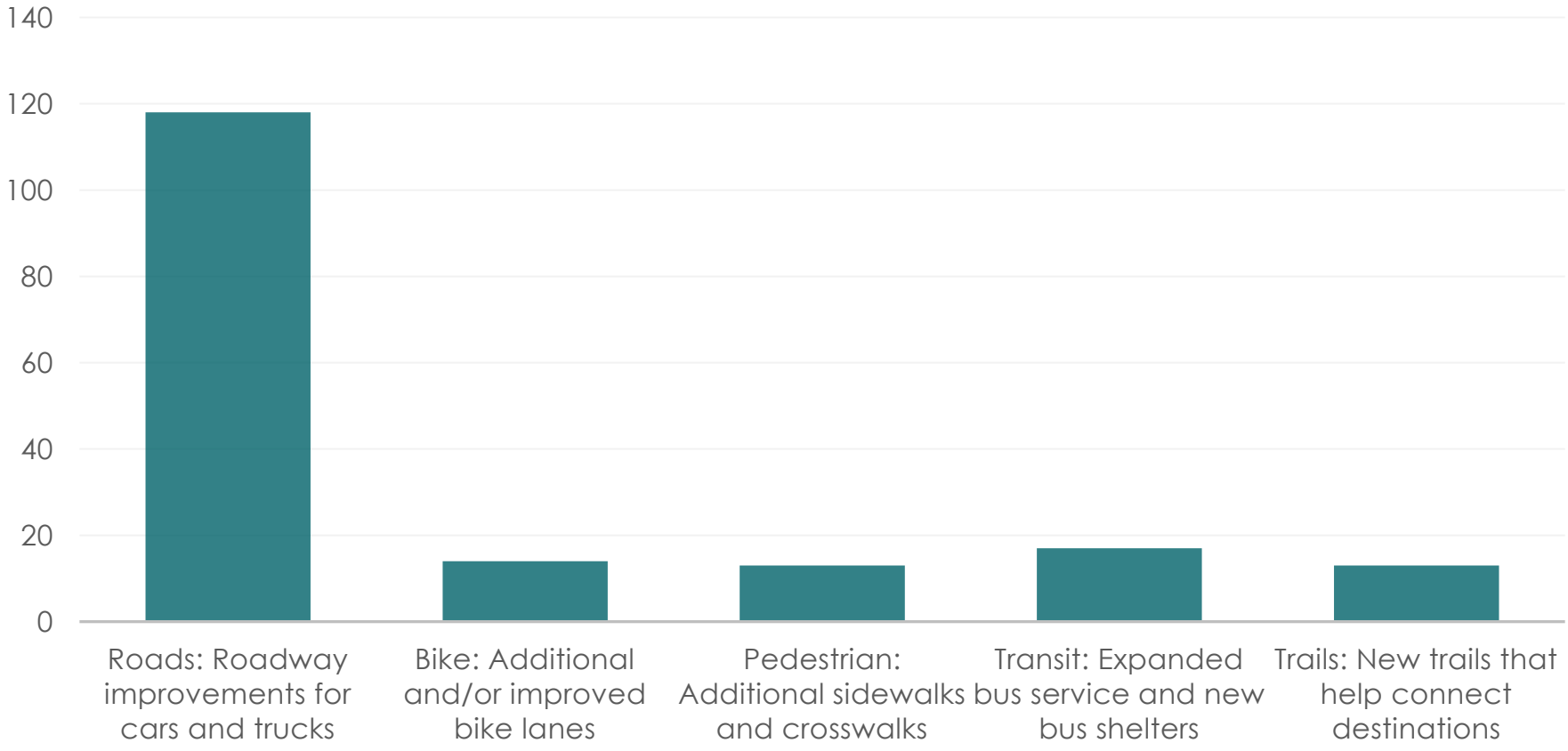
Do you feel that any of the following are not adequately provided in the County? Check all that apply.



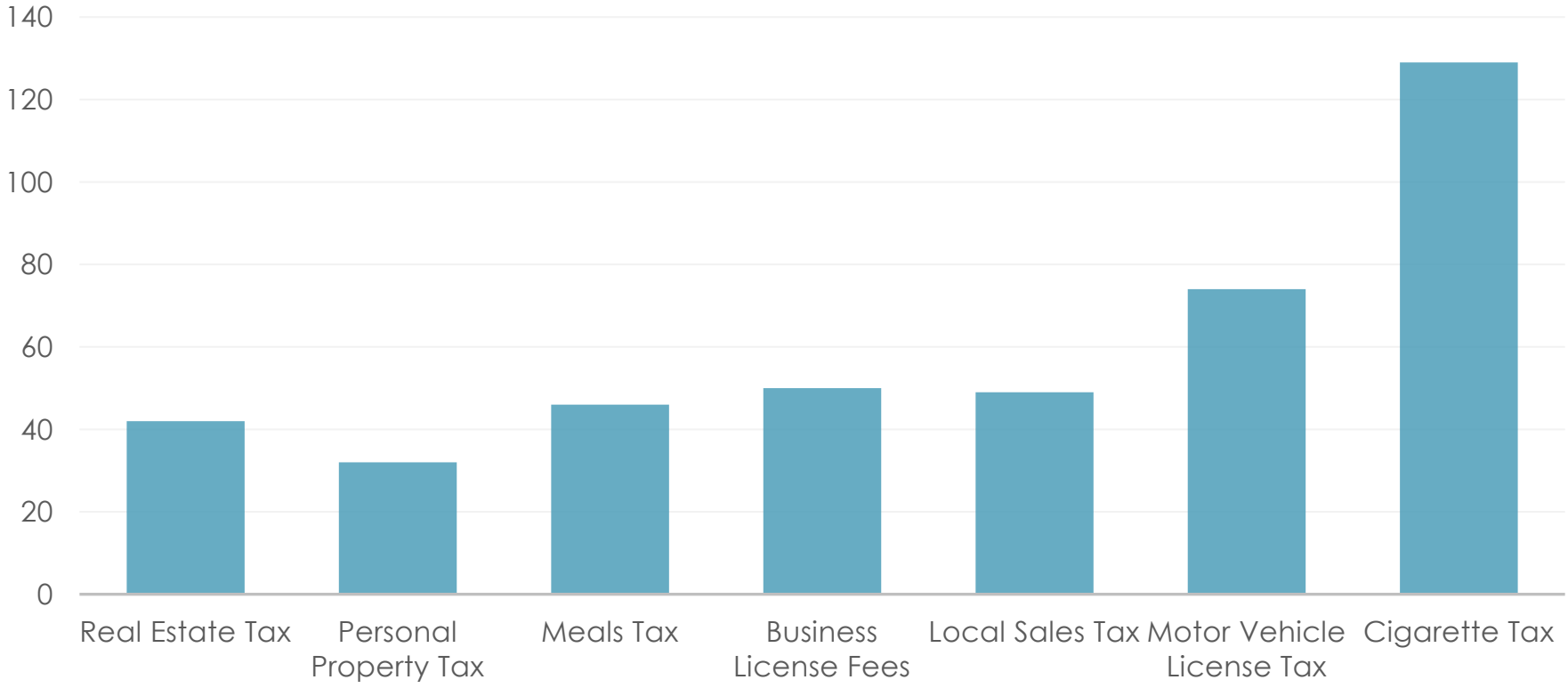
In general, what type of roadway improvement is most needed in the County? (pick one)



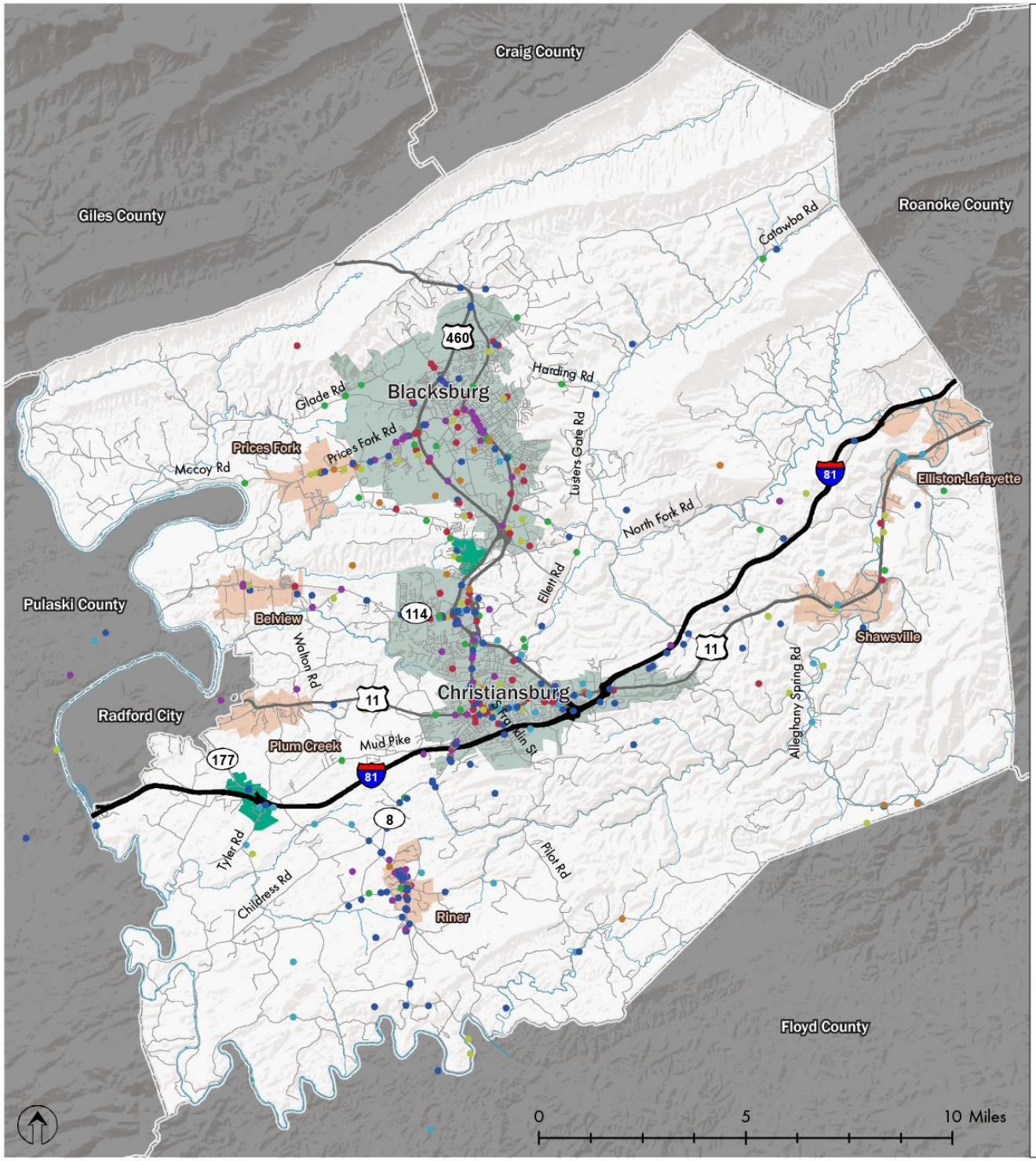
Which of the following improvements would most increase your ease in getting to where you want to go in the County or region?



Of the local revenue sources listed below, which would you support increasing to fund transportation improvements in the County? Check all that apply



Part II: Mapping Exercise



Public Comments

Transportation Matters Survey
Fall 2021

Comment Marker Type

- Bike
- Delay
- General
- Maintenance
- Pedestrian
- Public Transit
- Safety

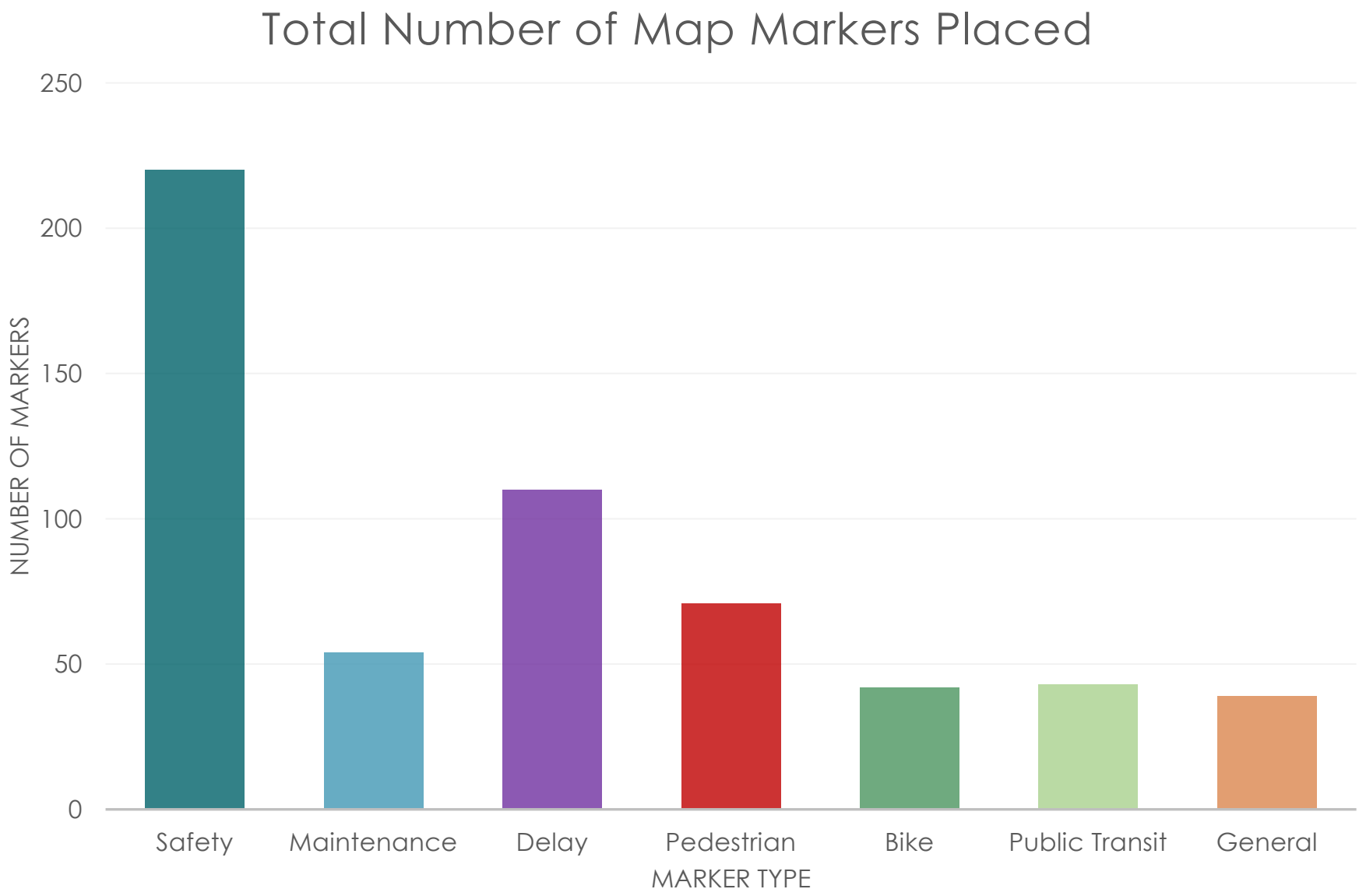
Roads

- Interstate
- US Highways
- All Other Roads

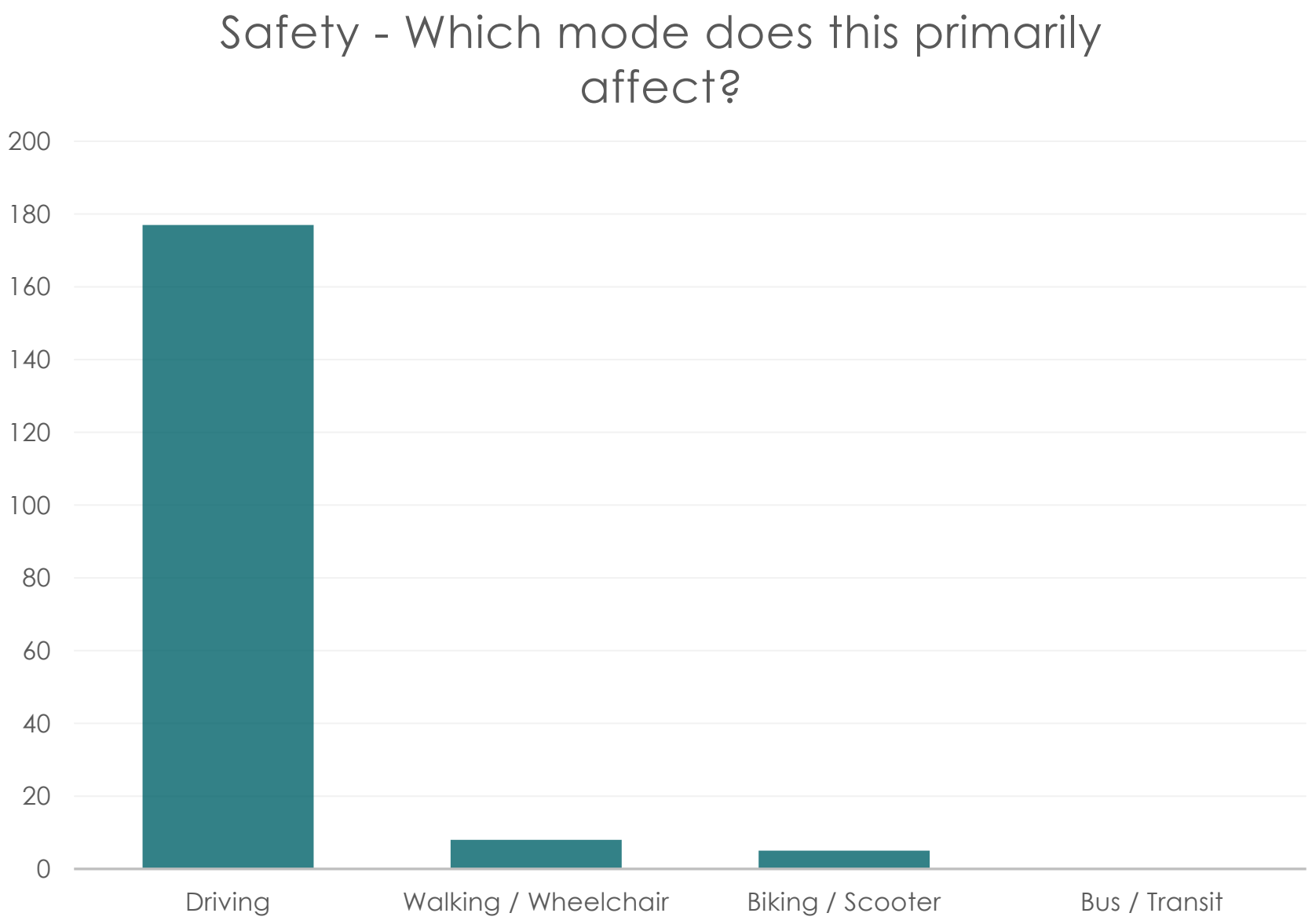
Land Use Context

- Montgomery County
- Towns
- Villages
- Urban Development Areas (UDA)
- Rivers and Streams

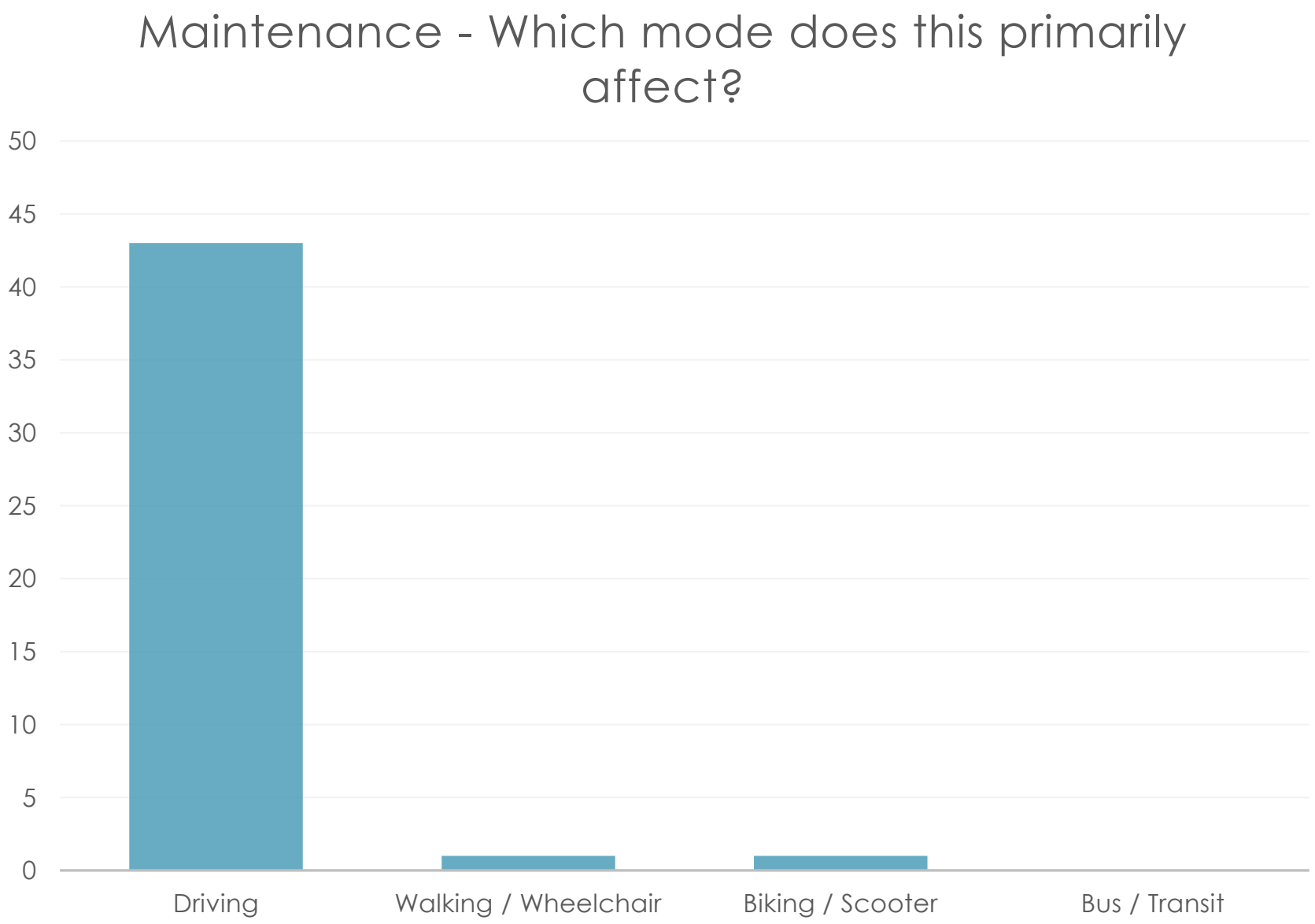
Sources: Esri, USGS, NOAA


Total Number of Map Markers Placed
250
200
150
100
50
0
NUMBER OF MARKERS
Safety
Maintenance
Delay
Pedestrian
Bike
Public Transit
General
MARKER TYPE

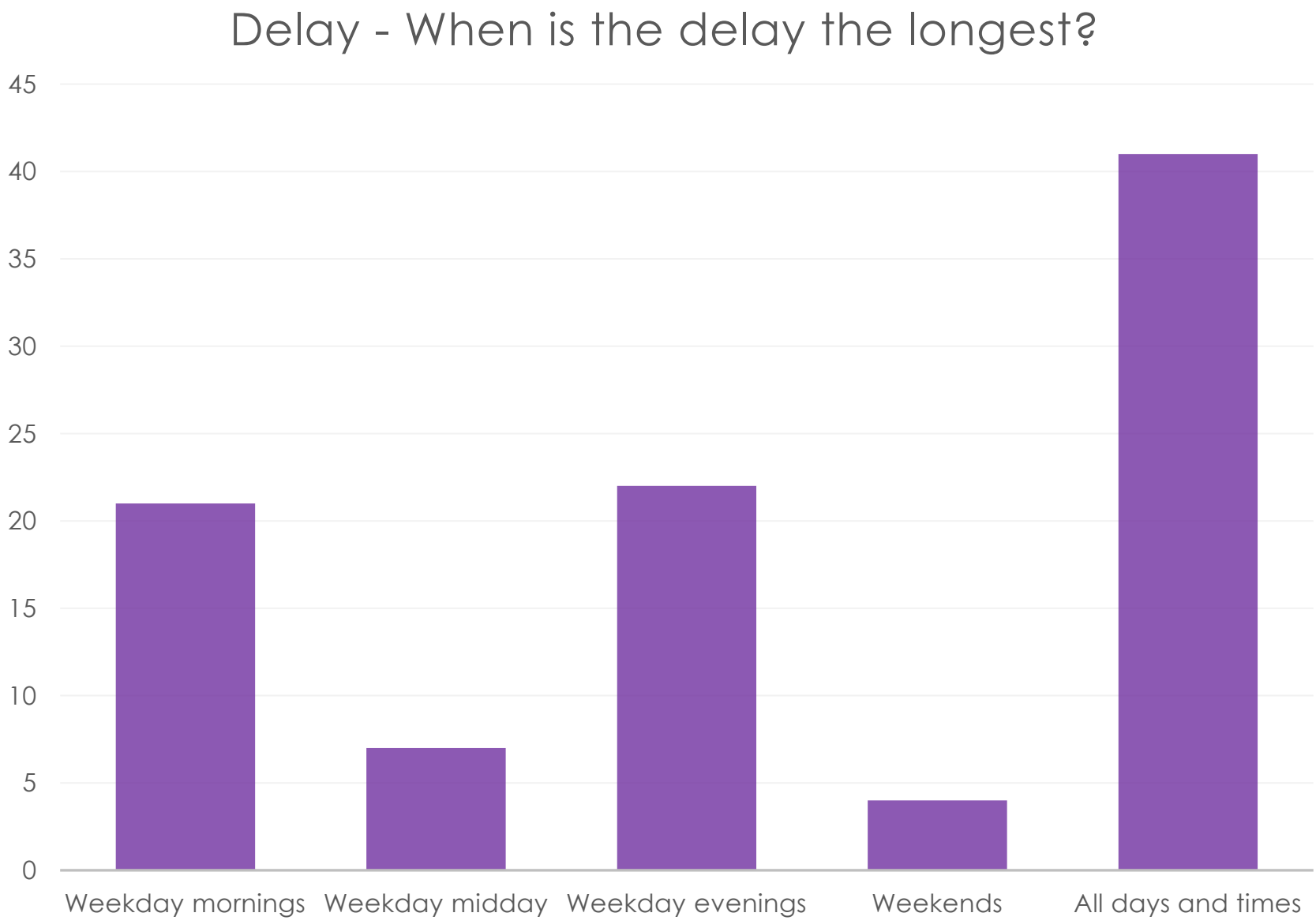
Map Markers: Safety



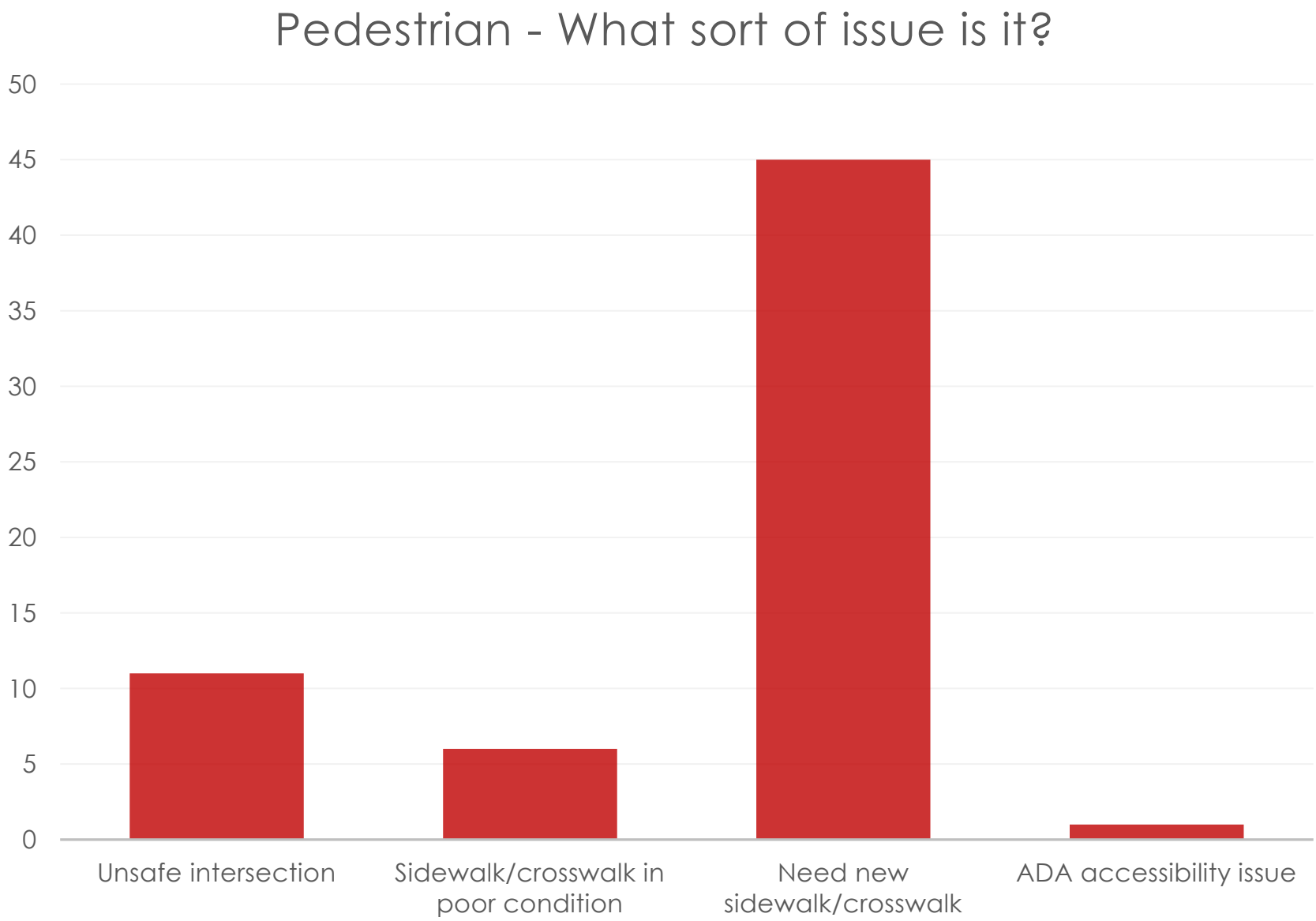
Map Markers: Maintenance



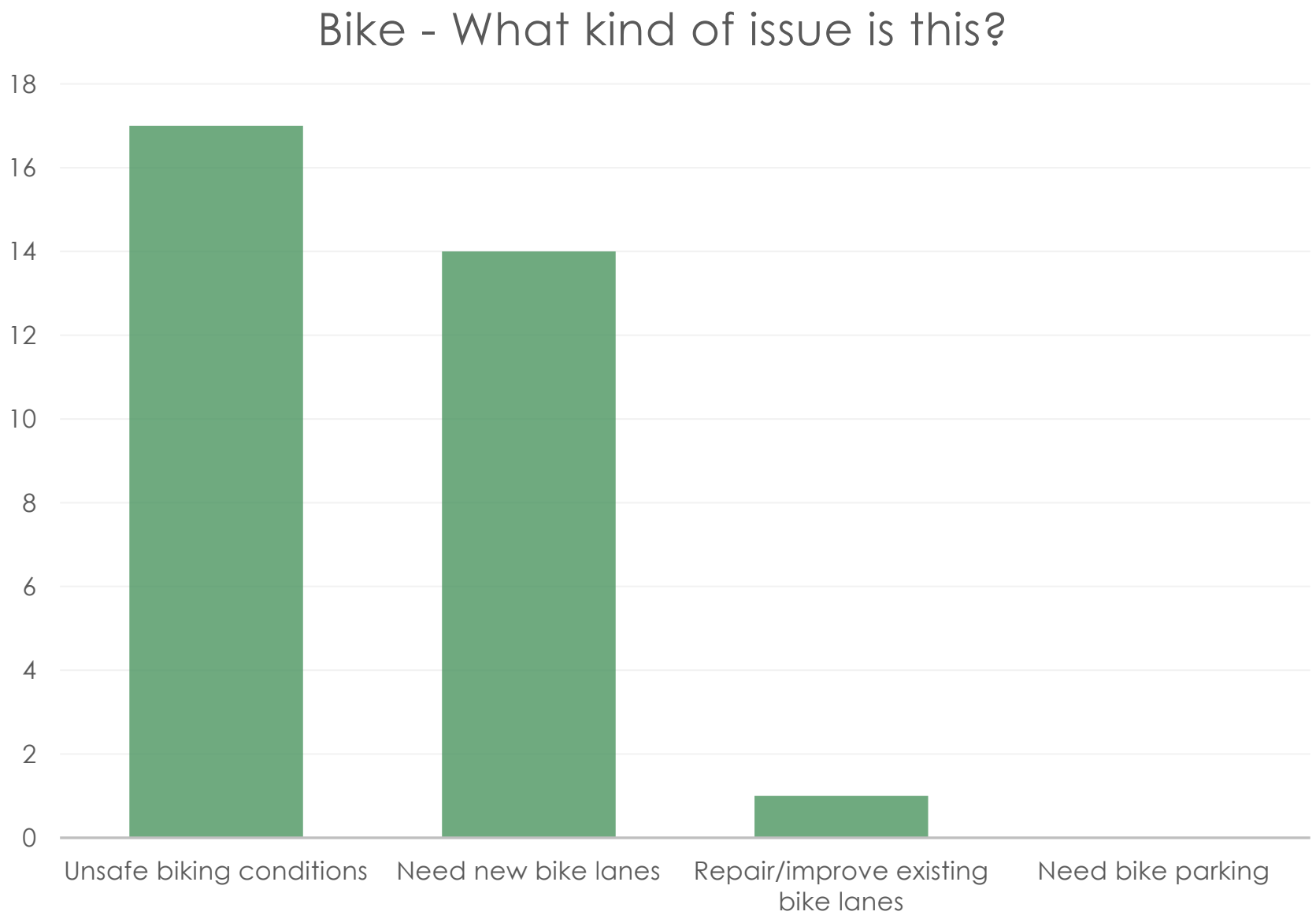
Map Markers: Delay



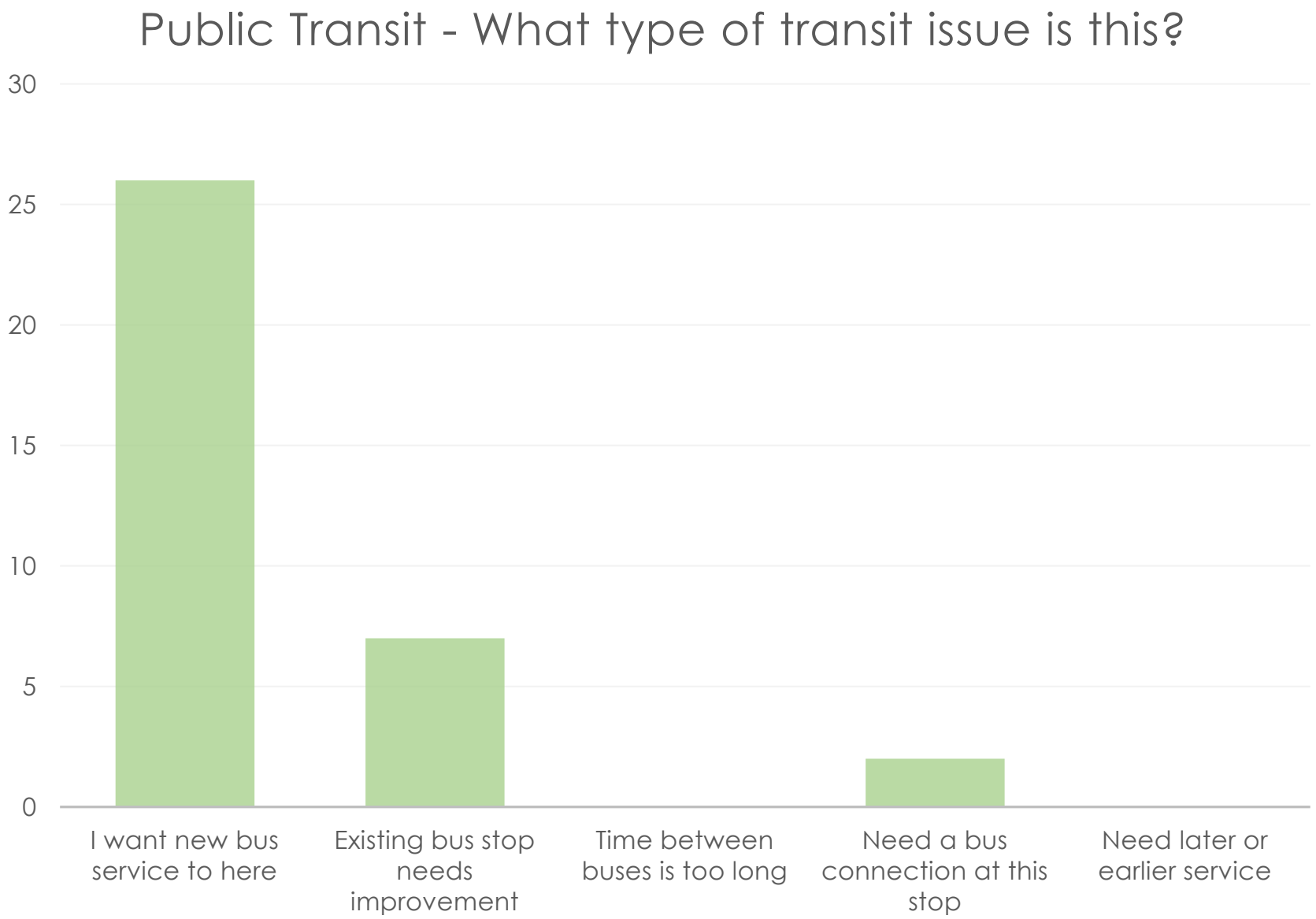
Map Markers: Pedestrian



Map Markers: Bike



Map Markers: Public Transit



Part III: Map Comments

Item	Comment
Bike	The "trail" along Prices Fork is decades old and improvements have been talked and talked about; it needs a $500k solution, as does Plantation Road so better, safer, more pleasurable bike/ped options exist to/from VT campus and downtown Blacksburg.
Bike	Plantation Road needs a separate, multi-use trail for peds and bikes. The road should also be improved and be useable by transit.
Bike	The planned multi-use trail along Meadowbrook Drive is needed ASAP. The Town, County, New River Land Trust, and other partners need to collaborate now to make this happen in 2022.
Bike	N. Main Street needs a road diet to make it 1 lane in each direction with a center turning lane, and full, buffered bike lanes. This is needed fromProgress Street all the way to Maple Ridge, and if possible, beyond.
Bike	Need bike lanes
Bike	need room for bikes road too narrow
Bike	need room for bikes, road too narrow
Bike	Need room for bikes, road to narrow and this isa national bike route
Bike	A bike lane on Franklin street to help help withsafety and traffic. Also, may help with overall health and activity in community.
Bike	Lots of bike traffic at different times which causes travel delays
Bike	The entire mall area is abysmal for bicycling. The Huckleberry is good if you need to go past the mall, or get to the edge of the mall, but once there it does not feel safe biking anywhere around the area. For the drop down menu, I would like to select both "unsafe biking conditions" and "need new bike lanes". With changes, this areacould be as accessible and useful for alternative transportation as Blacksburg is.
Bike	The Huckleberry Trail allows easy access from the Christiansburg Rec side of the street to the Cambria side. When returning from the Cambria side tothe Rec Center side, getting through the intersection does not feel very safe. The easiest way is to go straight through, however there is no shoulder to ride on before reconnecting with the Huckleberry, which holds up traffic as the cars do not have room to pass. The left hand turn through the intersection on a bicycle does not feel very safe.
Bike	No Bike Lane
Bike	No Bike Lane
Bike	No Bike Lane
Bike	too much,no lanes
Bike	There is a bike issue on McCoy Road in Blacksburg. There is not enough room and to many curves and so forth for it to be safe for bicyclers and drivers. Cant see the bikers until you are up on them and no where to get around them safely.

Item	Comment
Bike	There is a bike issue on McCoy Road in Blacksburg. There is not enough room and to many curves and so forth for it to be safe for bicyclers and drivers. Cant see the bikers until you are up on them and no where to get around them safely.
Bike	No shoulders along roadway
Bike	More bike lane connections and rightaways through town
Bike	No separated bike path. A dedicated 2-way bike path from Town Hall to Gateway Plaza would be fantastic.
Bike	Road and sidewalk too narrow. Unsafe for bikes,pedestrians and vehicles
Bike	A much wider path/sidewalk is needed here, between Quinn W Stewart and the Huckleberry Trail. It is frequently traveled by children and elderly on foot alongside the very busy Pepper's Ferry Road. Making this section of sidewalk the same width as the path coming down Quinn W Stewart and the HT would be ideal.
Bike	While I appreciate the new bike turning lanes onPrices Fork, it still seems too risky to me to bike down that road. There's not enough shoulder orsidewalks (at least not the entire way) between Hethwood and University City Blvd.
Bike	Glade Road is a popular biking location but is not a safe route.
Bike	Huckleberry needs safer road crossings here, Hightop, and Mabry
Bike	Cambria St from the train tracks near Charlotte's Web II to the rec ctr on Franklin is an important bicycle route connecting Cburg to the Huckleberry Trail, Ellett Valley/Bburg via Luster's Gate, and Yellow Sulphur Rd. Bike lanes on this stretch would greatly increase rider safety. In particular, the turnoff lane on the right side of Cambria where it intersects Franklin can be dangerous for riders proceeding straight to the light to cross Franklin. Cars turning right often cut in front of bikes.
Bike	A bike lane on Radford Rd between Depot St and Silver Lake would increase rider safety and allow more riders to use Silver Lake to connect to 114 and the Huckleberry.
Bike	Once a westbound rider on Cambria crosses Franklin, it is dangerous to turn left to the rec ctr to access the Huck Tr. Bike lanes (on both sides) onCambria b/w Franklin/Cambria intersection and the flashing Huck crossing past Providence Blvd. (which is a fantastic safety resource - thank you) would be a major safety improvement. It would not beredundant to run bike lanes parallel to the Huck here; removing faster road bikes from this part ofthe Huck will make it safer for all trail users.
Bike	Student drivers sometimes do not give right of way to bikers on Draper St
Bike	bicyclists are constant on this road which at certain times are extremely hard to see due to the position of the sun. Please put in a bike lane!
Bike	Bicycles are constantly on this road creating unsafe conditions for drivers since there is no shoulder on this road
Bike	Bikes along Mt. Tabor (and others) still createrisks for everyone. Widen roads to include bike lanes.
Bike	Not safe to cross 460 between the former NRV Mall and Marketplace. A bike/pedestrian bridge would help. Also bike parking at Marketplace.
Bike	Connect New River Valley to Roanoke Valley withmulti-use trail
Bike	Bike lanes from Heritage Park to new Brush Mountain Trails

Item	Comment
Bike	Connect C'burg to Shawsville to Elliston to Lafayette to Glenvar
Delay	Incidents/crashes
Delay	I avoid downtown Blacksburg when the students are in because of the traffic (pedestrian and vehicle). Main street is a major corridor, but it's still basically a 2 lane road through downtown. Need a diverter road on the east side of town for through traffic.
Delay	Left turn from Franklin N to Peppers Ferry W isLONG. Everyone I know cuts Walmart parking lot to avoid it. Also just lots of backed up traffic at lights in this area.
Delay	Too many traffic lights that are poorly timed
Delay	Too much traffic between Riner and Cburg
Delay	Congestion among commuters for work
Delay	Congestion
Delay	Congestion
Delay	Traffic gets very backed up here
Delay	Whenever there is a wreck on interstate, trafficbacks up on Route 603 and creates traffic delarys on 460.
Delay	Traffic at this intersection gets tricky, especially 7-9am and 4-6pm
Delay	Weekday Mornings and Evenings on Route 8
Delay	Anytime there is an incident on I81, a significant delay occurs. Traffic then self detours on county roads causing additional safety hazards and delays.
Delay	Evening work traffic along 114 near the Prices Fork and Peppers Ferry Intersection. Backup can be past Massies Trailer Court
Delay	Back ups in left turn lane onto 460 bypass causes delay and backup/traffic hazards.
Delay	Traffic delays in this area after 5pm.
Delay	Late afternoon
Delay	Obviously, when the train is going by, we get stopped and there is a delay. But once it passes and traffic starts moving again, the intersection ofCambria and Depot gets really backed up an congested. This is especially true for AM or PM work commute.
Delay	School needs to grow and can't without a turninglane
Delay	Traffic backup when the lights coincide and folks block lanes.
Delay	This is the WORST configuration yet to deal withthe traffic intersecting between Sheetz and the Rec Center
Delay	There is an excess of traffic signs/stop signs on Sleepy Hollow for through-traffic. Have stop signs for Cameo, Tarrytown, Wooden Shoe (?) turningonto Sleepy Hollow...or better yet, just a "yield" sign to yield to traffic and remove the stop signs for through traffic on Sleepy Hollow.
Delay	Headed East on Roanoke Street. Need to expand left turn ramp onto 460
Delay	Backed up trafic from only one lande in two directions. Need two lanes in MC.

Item	Comment
Delay	The main thoroughfare through town gets congested easily
Delay	There is a lengthy back up hear every weekday at5:00. It has caused numerous rear end collisions as folks crest the hill to stopped traffic.
Delay	delays in various parts of the day - 2 lane roadis the issue with the amount of traffic
Delay	backups to get on 460 west from Roanoke St afterwork
Delay	backups getting off of US 460 - due to the lightat 460 and the volume of traffic in the afternoon.
Delay	The traffic from Christiansburg to Radford on route 114 is bumper to bumper in the evenings around 5pm
Delay	Signal timing is very poor
Delay	When lights are out of sync or in football daystraffic is bad
Delay	Too much congestion because of the school. There should be a turning lane.
Delay	No turn lane for school
Delay	Worst light ever
Delay	You cant hardly make a left hand turn on to rt 11 due to intense traffic going both directions, especially if traffic has been rerouted due to a wreck on the interstate. A light needs to be put in to slow down the speeders and give others a chanceto get where they need to be.
Delay	Back up along route 8 by not having a left turnlane for turning into Auburn Baptist Church, when coming from Christiansburg.
Delay	Could use a dedicated right or left turn lane atthis intersection coming from the Prices Fork area.
Delay	intersections causing traffic delays and safetyissues
Delay	To many cars turning in both directions
Delay	A light here would help everyone turning onto Route 8. When cars turn left onto route 8 you can sit there for some time on weekday mornings!
Delay	Intersecting raffic at key interrsections causedelays
Delay	Need a turning lane
Delay	Turning lane needed.
Delay	Left turns out of aquatic center
Delay	Congestion
Delay	School congestion
Delay	The lights don’t seem well timed
Delay	Many busses leave at the same time
Delay	Traffic turning into Auburn Baptist Christian Academy is making through-traffic delay.
Delay	This is a private education site and it is dangerous for vehicles turning into and out of this area due to the on coming traffic. It causes major delays and several accidents over the years! The residents that use this facility should have their tax dollars going to make this a safe for all that travel this area.

Item	Comment
Delay	Rt. 8 congestion around Auburn Baptist Church/Academy
Delay	Auburn Christian School needs a turning lane
Delay	In the afternoons tuning south onto main from prices fork is usually backed up
Delay	i am hoping the signals are temporary, was muchfaster exiting I-81 NB onto Rt 8 before signals were added.
Delay	need to add a right turn lane onto Radford St from Depot St coming from the Fire House.
Delay	Heavy accident
Delay	Traffic lights create long delay for traffic onMarlington. It seems that the algortithm could be fine tuned.
Delay	HIGH TRAFFIC TURNING FOR CHURCH.
Delay	lights dont seem to be synced for best traffic flow.
Delay	Too much traffic on Prices Fork, especially at school start/end
Delay	There needs to be a middle turning lane for school. In the morning and when school lets out, there is congestion due to the volume of cars and sinceit is on the same road as the public schools.
Delay	four way stop is always busy
Delay	Ill-timed traffic light holds traffic on HeatherDr. Prices Fork is clogged with traffic in the mornings and afternoons due to three schools at theedge of town with parents driving children.
Delay	Stopped traffic causes issues
Delay	Traffic light cycles are HORRIBLE thoughout N Franklin through the whole area
Delay	Again, light cycles here need to be timed better. They need to work together to prevent congestion and they currently fight each other with 3 lightsin a short distance from each other
Delay	congestion
Delay	The turning lane going on to 460 bypass gets backed up and blocks traffic
Delay	South Main Street, Prices Fork Road next to VT
Delay	Traffic light /lanes poorly planned on the Farmers Market side of the W Roanoke / S Main intersection. A protected left turn from W Rke St. onto Main St. (heading north) would help SO much. There are often long delays trying to turn onto Main St. Make the left lane turn-only, and the right lane straight-or-right-turn.
Delay	Congestion
Delay	Congestion
Delay	Traffic is backed up due to people trying to turn into the school and others on their way out of the Floyd/Riner area going to work
Delay	Need a turning lane to get into school. Causes unsafe conditions and back ups during morning commute
Delay	Bogging down traffic flow in an area of speed limit change
Delay	Rt 8 blocked completely because of improper design of entry and exit to events, causing long backups for all traffic
Delay	Private School should be on the same priority ofsafety as public school, turn lanes, lowered speed limits

Item	Comment
Delay	Too many cars! I wish there were another street(not Business 460) which would allow us to avoid Main St. Other streets like Palmer and Draper are neighborhood streets with driveways and children present.
Delay	Due to this being a school
Delay	Bottleneck along much of Main Street (north andsouth of College Ave.)
Delay	Traffic back up during school pick up and drop off times
Delay	The right-turn signal from South Main St to Industrial Park Dr (fr Blacksburg) was removed years ago and never replaced. This causes significant delay's because that light also does not allow right-on-red. Drivers cannot make a right even at timeswhen there is no interference from other traffic (e.g. when both sides of Industrial Park Drive havea left-turn green)
Delay	I do not understand the fascination with "reverse diamond" intersections. They do not reduce the number of lights. A circle-style interchange, onthe other hand would have zero signals and allow continuous movement at all points in the circle.
Delay	The lights at Turner, the Mall and College St should be adjusted in the morning because traffic backs up all the way to Price Fork Rd at certain times.
Delay	Busy of the amount of traffic on route 8 it causes delay's and a traffic light would improve the wait time.
Delay	Traffic is always backed up especially in the afternoons.
Delay	The long light causes horrible delays with all the traffic it allows to build up.
Delay	Congestion during school hours and school functions
Delay	Gets very backed up traffic!
Delay	Traffic
Delay	Rt 8 - 2 Lane Congestion. School Traffic
Delay	When school lets out and traffic is in road because there is not a turning lane
Delay	There is a school, Auburn Baptist Christian Academy, here and during the morning drop off and evening pickup there is a lot of traffic. Sometimes there are 40-50 cars waiting to get through because there is no turn lane. A turn lane would solve this problem.
Delay	Makes picking up students take longer. Long waits to pull out onto main road due to no turning lane.
Delay	The light at this intersection backs up trafficsignificantly. It does not turn green long enough to relieve the left lane traffic. The flashing yellow is often too dangerous because of the heavy on coming traffic at 5:00.
General	The future "460 Connector" is a huge unknown,especially for how/if it will also accommodate transit, bikes, and pedestrians. More and more peoplewant these connections near and to Merrimac, Hethwood, and Prices Fork.
General	Stadium Woods needs to have a permanent conservation agreement put into place. Pedestrian trails need to go around it, not through it.
General	This a mess.
General	We really need some water fountains and maybe arestroom somewhere along the Huckleberry Trail.

Item	Comment
General	Turning lane to relieve congestion and wrecks!!!!!
General	FYI the county is not outline in red on the mapas it should be
General	This is the stupidest intersection in MontgomeryCounty
General	Continuation of the stupidest intersection in Montgomery County. No flow. Long delays. A traffic diamond or something like what was done on South Gate would have been a much better plan.
General	Other route used for cycling with limited shoulders.
General	Congestion, crossing roadways
General	Expand route 8 to 4 lanes
General	bad congestion 2 months out of the year
General	Thought I'd always about vehicle traffic. Walking and biking is the afterthought.
General	Blacksburg is becoming overwhelmed with vehiclesat certain times, especially the Main Street Corridor.
General	Heavy traffic all of route 8. Needs rebuilt
General	Would love to have Depot Park extended into thisarea if the town can acquire it.
General	People use Landsdowne St as a through-street anddo not follow the speed limit for the residential street that it is. Cars drive at extremely high speeds down this street, even when children are out playing in front yards. Speed humps are desperately needed.
General	Needs stop light
General	The school is busting at the seams because theydon't have a turning lane which is preventing growth of the school. Think about our private Christian schools that parents want to send their kids too instead of public figures walking out of school board meeting because they got their feelings hurt.
General	Going south on Main Street to turn right onto 460 west is currently a no turn on red. What's the point if people are constantly violating the sign?
General	Prices fork west bound at this location is 45 mph. East bound is 35 mph (according to signage). The eastbound sign resetting speed was removed whenroad improvements were done for the church and traffic circle
General	The roundabout for the new subdivision is poorlydesigned and not well lit at night.
General	Development in this area seems to just be focused on suburban sprawl. This is not a long-term sustainable strategy. The bill will come due.
General	Heavy traffic on South Main St.
General	Route 8 in general needs to be widened and passing lanes introduced. The traffic from Christiansburg to Floyd has continued to grow and it has gotten to a point where it has become slow and dangerous. The roads need to move with the times and this road has been sorely neglected in it's size.
General	Bridge and road repair and upgrade needed for safety of a fairly high use road
General	Rocks from road side falling onto the road and shoulders not maintained safely
General	The "R Cut" is still a stupid solution. We should have waited for money for an overpass.

Item	Comment
General	This is a school and needs safe turning lanes
General	Extend Southgate to Merrimac Road
General	The light at this intersection to turn left fortraffic coming off of I-81 south is red for far longer then it needs to be. You will sit there for almost two minutes straight even with no cars coming before it turns green. Need some kind of sensor.
General	The light at the off-ramp from rt. 460 South stays red for far too long.
General	Riner- Auburn Baptist Christian Academy is working toward a turning lane. The county needs to work with them
Maintenance	There are often pot holes in the bike lanes in both directions.
Maintenance	Bridges
Maintenance	Roads need to be improved in Riner/Route 8
Maintenance	County roads are in need of maintenance everywhere. The money to maintain the infrastructure doesn't equal the needs.
Maintenance	entire street on Roanoke Rd needs repaved
Maintenance	There are a lot of pot holes on Peppers Ferry Rdfrom Cinnabar all the way to the light at Texas Roadhouse
Maintenance	snow removal resulted in driveway being blockedand had to be shoveled out by hand
Maintenance	Roanoke Street (between Hardee's and the stoplight at the Stock Pen) is horrible due to all the raised/sunken manholes that are not at grade and allof the patches to the water/sewer lines by the Town. It is like driving through war-torn Iraq on the way to work each morning. Just replace the pipes already so we can have decent roads.
Maintenance	Need to repave Roanoke Street
Maintenance	Repave North Franklin
Maintenance	Widen 177 to 4 lanes
Maintenance	This road desperately need repaved.
Maintenance	Pot holes form regularly and railroad tracks need to be smoothed out; especially with additional traffic coming from the new park.
Maintenance	Poor road conditions
Maintenance	Pavement maintenance needed
Maintenance	Traffic light or turn lane
Maintenance	Poor construction of pavement and overpasses along the bypass.
Maintenance	1 lane bridges and curved roads
Maintenance	Auburn Baptist Christian Academy needs a right turn lane. This is a school and safety is a primary concern.
Maintenance	Meadow Creek has numerous potholes that continueto develop and deepen.
Maintenance	Potholes overhanging trees shoulders
Maintenance	Poor road conditions, narrow lanes, heavy usage
Maintenance	This area is in need of a turn lane for safety and congestion

Item	Comment
Maintenance	There are potholes and chunkholes all over PigPath. I've had a bent rim I had to replace in October.
Maintenance	This is a private education site and it is dangerous for vehicles turning into and out of this area due to the on coming traffic. It causes major delays and several accidents over the years! The residents that use this facility should have their tax dollars going to make this a safe for all that travel this area.
Maintenance	Cars scrape going into the parking lot due to the high hill. It would be nice to have an easier entrance.
Maintenance	There are many pot holes along Roanoke Street, it would be nice for a smoother ride.
Maintenance	Drainage is a big issue when we have substantialrains. There is always a large puddle across basically the whole road. Nobody ever goes the speed limit so it can get very dangerous very quickly.
Maintenance	There are big pot holes on this exit
Maintenance	Road extremely rough and uneven causing safety issues
Maintenance	672 is full of massive potholes and in many places is just mud making travel on the road very difficult
Maintenance	Very large pot hole. Also, this stretch of road,both east end west bound lanes, that goes all the way to city hall in downtown Christiansburg is inserious need of maintenance. Lots of jarring pot holes.
Maintenance	This road it not paved and is in horrible shapedue to the flooding from the Roanoke River. Needs to be raised or something.
Maintenance	This road is really narrow for two vehicles. Needs to be widened.
Maintenance	Large divot from man hole cover here.
Maintenance	Multiple pot holes on this road.
Maintenance	The transition from road to bridge heading easthere is very bad. It makes vehicles bounce very hard. At the speed limit it's jarring.
Maintenance	The transition from road to bridge heading eastand west here is rough. It makes vehicles bounce quite hard.
Maintenance	A turning lane would be beneficial
Maintenance	Huge potholes along the rd
Maintenance	Pot holes
Maintenance	For years this same spot has been patched over and over again. Some serious maintenance needs to be done in order for this road to be better. To avoid hitting the major pot hole in the road people drive on the opposite side of the road. This is a big hazard for many people who live on this road.
Maintenance	Again, another area of road where the pothole desperately needs to be fixed. Same issue with the other there are people driving on the opposite sideof the road to avoid it.
Pedestrian	Connections out into County to existing trail
Pedestrian	Same issue that exists for bikes, exists for pedestrians crossing over 460 and getting to campus on Plantation Road. Both need significant improvements.
Pedestrian	Plantation Road needs a separate, multi-use trail for peds and bikes. The road should also be improved and be useable by transit.

Item	Comment
Pedestrian	The trail along Smithfield Road connecting Virginia Tech, Hethwood and other areas need significant improvements. Holes, where water and ice collect, are unsafe. The path needs major refurbishment, reinforcement, and widening.
Pedestrian	A multiuse trail already exists in this area. Aconnection/expansion would be a boon for bike/peds getting to Main Street and to Mt Tabor, instead of trying to go on or along Mt Tabor road, and walk/bike along this part of N. Main St to Givens Laneand beyond. A connecting path is needed to the path along Mountain Breeze Dr and N. Main St via collaboration between Maple Ridge, the Town, Tabor Village, and William Price.
Pedestrian	A multiuse trail is needed to connect the dog park to the existing trail near Redbud Rd and Toms Creek.
Pedestrian	The Forest Service with the County, PCTC, and NRLT needs to develop a bike/ped trail connecting service roads that can be used by both bikes and peds.
Pedestrian	Harding desperately needs sidewalk and/or bike lanes, officially.
Pedestrian	A ped connection to Warm Hearth should be installed, parallel to a new road to allow bikes/peds to connect to Warm Hearth. Plenty of residents in Warm Hearth still bicycle and walk or run and additional connections from the Huckleberry Trail to itare needed.
Pedestrian	A new trail is needed here along Warm Hearth Drive from Warm Hearth to the Huckleberry Trail.
Pedestrian	While new sidewalks have recently been added, asidewalk and bike amenities is needed from downtown Christiansburg to the Exit 118 Park and Ride andbeyond, all along Roanoke St.
Pedestrian	A pedestrian green (not paved, necessarily) trail connecting Ellet Road/Hubbard St to Commerce Street would be a great amenity to allow people to stay off S. Main Street to walk or bike.
Pedestrian	The "Commerce Street" trail going south to theTown owned park should be revisited and completed. What a gem it would be!
Pedestrian	The planned "Christiansburg Project SA04" pipeline improvements to transit stops and sidewalk is a good step in the right direction. It should also connect/improve the ped connection to to the 460 pedestrian bridge to the disc park and mid countypark.
Pedestrian	This bridge should be showcased and improved with additional bike/ped connections to it.
Pedestrian	Need separate ped/bike path from Industrial ParkDrive to VTTI, along Transportation Research Plaza.
Pedestrian	Sidewalks and pedestrian infrastructure for thenearby school is very much needed.
Pedestrian	walkability is rather bad along much of this stretch of roanoke st
Pedestrian	No sidewalks. Pedestrians walk in the bike lane,which forces bikers into the road. The road is already narrow with side street parking on one side.Elimination of side street parking or implementation of sidewalks could help.
Pedestrian	Sidewalk ends here abruptly. I often see cyclists and pedestrians using the sidewalk, then forced into the road, which is unpredictable to cars andcan cause accidents.
Pedestrian	Sidewalks are great! No safe way to cross Depot.
Pedestrian	No access to cross without transportation. A much better walk way or bridge would be great to access from the huckleberry trail.

Item	Comment
Pedestrian	No safe way to cross over Route 8 in all of Riner
Pedestrian	A sidewalk down all the way down Depo street tohelp re-vitalize the older side of town.
Pedestrian	Individuals crossing between hotels/cracker barrel/gas station at intersection unsafely.
Pedestrian	Heavy pedestrian traffic, especially Thursday -Saturday nights. I'm always worried someone will step out. Also many crosswalks hard to see at night. Would love to see better crosswalks/lighting and something to prevent people from stepping outinto the street.
Pedestrian	The entire mall area is abysmal for pedestrians.If you are in one shopping area and want to go to another shopping area, the only real option you have is to drive there, even if it is a small walking distance away. The mall area is compact andhas a lot of potential to be friendly to pedestrians, but with the current infrastructure it is insane to walk anywhere. With Christiansburg putting in the new park it would be a shame for thosepeople to not be able to walk or bike to the stores.
Pedestrian	With the park and dog park just a small walk from this point, it would be extremely helpful to have a sidewalk or path connecting the existing pathto the park. Currently the walk down Tom's Creek the rest of the way does not have much of a shoulder to walk on safely.
Pedestrian	It would be nice to have some kind of crosswalksystem here or near here.
Pedestrian	This area is not walkable
Pedestrian	There are quite a few homes in this area. However, there is no reasonable or safe way for kids to walk or bike to either the middle or high school.On First street there are no crosswalks to funnel foot traffic from the neighborhood into town - nothing near the intersection of Phelgar and First. Sidewalks along W Main are on the opposite sideof Hickory/Highview and there's no way to cross W Main to get to them.
Pedestrian	whole rd is unsafe, curvy, no bike lanes, blindhills, curves, etc
Pedestrian	Upkeep and improvements on Huckleberry trail
Pedestrian	sidewalks
Pedestrian	I'd like flashing lights when pedestrians cross the roundabout. Easy to miss as we drive to exit
Pedestrian	Crosswalk without a pedestrian signal
Pedestrian	Crosswalk without a pedestrian signal
Pedestrian	A lot of pedestrians crossing withouth any infrastructure.
Pedestrian	The sidewalk ends and many people walk through this parking lot to get from Roanoke Street to Depot/Park where the sidewalk continues.
Pedestrian	Improve pedestrian/transit access to library
Pedestrian	Terrible crosswalks on Prices Fork Rd and Main St.

Item	Comment
Pedestrian	Should make Mainstreet completely car free everyweekend. Turn it into a significant community event with outdoor dining, music, green space, etc. The arterial roads can handle traffic and having a car free place with shops, food, and people is desperately needed.
Pedestrian	Road and sidewalk too narrow for current traffic, pedestrian, bicycle, and vehicle
Pedestrian	Some kids cross this high traffic area to get toand from school
Pedestrian	Some kids cross this high traffic area to get toand from school
Pedestrian	Unsafe sidewalk for pedestrians across this whole interchange with 460
Pedestrian	Lack of sidewalks on Roanoke st
Pedestrian	lack of sidewalk/path connecting Glade to the existing sidewalk on Shadow Lake Rd. I realize there is some old history there and talk of a propertydevelopment plan in place prior to the requirement for sidewalk, but this is one of the most dangerous stretches in the Town. If ever a rationale for a "taking" (taking private property for public use with just compensation) this is one - it only involves 9 parcels and about 1200 ft of missing sidewalk.
Pedestrian	crosswalks are needed along all of Raonoke St.
Pedestrian	No space on side of road for pedestrians, whichfrequently walk this road.
Pedestrian	Apartment residents (appear to be mostly students) cross all along this road. The fence in the median helped, but needs to be extended.
Pedestrian	This stretch of road is really dark at night andit is difficult to see pedestrians crossing, especially if it's raining. More lights would go a long way toward increasing pedestrian safety.
Pedestrian	Pedestrians cannot cross easily. Drivers eitherdo not notice pedestrians wanting to cross or ignore them. This is true from around here and northward to Patrick Henry.
Pedestrian	No sidewalks
Pedestrian	It is not safe for pedestrians and bikes to cross 460 between the former NRV Mall and Marketplace. A pedestrian/bike bridge would help.
Pedestrian	Connect Huckleberry Trail to downtown C'burg
Pedestrian	Connect Huckleberry Trail to Mid-County Park using existing 460 pedestrian overpass
Public Transit	Plantation Road should be improved and be useable by transit.
Public Transit	This half attempt at providing a bus turnaround,was a compromise, potentially for use by public transit buses. Since it was built smaller than required, BT will never be able to reliably use it. If the County and the BOS is serious about supporting a place for public transit to turn-around, this needs to be turned into a full-sized traffic circle or something adequate for buses to use regularly. Next the County needs to participate financially/politically to fund transit expansion to this area.

Item	Comment
Public Transit	The Multi Modal Transit Facility (MMTF) is underconstruction, starting May 2021 with a 2 year construction cycle. To open Fall 2023, this will be ahuge paradigm shift for transit operations and routing as well as for bikes and peds to from campus. Buses will still circle the Drillfield but the number should be reduced significantly (e.g., from30 buses per hour at Burruss Hall to 10 or so).
Public Transit	All the transit stops along Harding need to be ADA accessible with standing pads, instead of just poles in the dirt.
Public Transit	A proper bus stop with shelter, cement standingpad and connecting sidewalk is needed on the north side of Laurel street where the Smart Way bus stops. This could be a shared stop in the future.
Public Transit	Walmart has talked about a bus accessible, largecovered bus shelter for over 10 years, with no action. The Town has a shelter in storage and a cement bus pad and no parking area is needed to make this safe and accessible. The current stop is inadequate.
Public Transit	This was to be the future rail station. Now itslocation is still being determined. Whereever it ends it, bike/ped/and transit will need to connectto it. Uber/Lyft connections and nearby meeting center/hotel/housing/food venues will also be needed.
Public Transit	After DRPT cut its Senior Transportation Program, BT stopped providing its service to/from Warm Hearth village. Service within the Village and to Christiansburg and Blacksburg is needed. A joint County-Blacksburg-Christiansburg financial agreementwould be needed to reintroduce public transit to Warm Hearth, with over 30% of its residents low-income.
Public Transit	If VTTI ever wants transit and eventually self-driving transit vehicles to service this area, Torc, VTTI, and nearby companies will need to providea side of the road with no parking, and install sidewalks/path ways, and bus stops in this area.
Public Transit	It boggles my mind that the premier transportation research institute has a substandard bus stop at the entrance to their facilities. With a littleeffort and financial contribution, a cement standing area and bus shelter could be installed here, along with a buffered, multi-use trail along Transportation Research Plaza to connect Industrial ParkRd to the VTTI buildings.
Public Transit	Again, it amazes me that the bus stop at BT is not a "model stop" with curb cuts, connecting sidewalk, and bus shelter. It should be a showcased,model stop to demonstrate what other bus stops could be upgraded to.
Public Transit	Could use more bus routes for this part of Christiansburg
Public Transit	There is no public transportation
Public Transit	No Public Transportation
Public Transit	would like some public transport route options to get out this way
Public Transit	connecting this end of cburg to other parts of town + bburg with a fixed route would be nice
Public Transit	the prices fork village can use public transportation options as it continues to grow
Public Transit	Bus service should be extended to the high school for students who do not drive and are in after school programs.
Public Transit	A new bus transit downtown Christiansburg like the one in Blacksburg is needed.

Item	Comment
Public Transit	Again, A bus system like the one in Blacksburg is needed in the town of Christiansburg.
Public Transit	A Bus transit to downtown Christiansburg at thislocation is needed.
Public Transit	I'd like to be able to get from Hethwood to South Main without it taking 45 mins each way (when it would take 10 mins by car)
Public Transit	Is there a transit bus from the Roanoke county line to the center of Christiansburg?
Public Transit	There are not enough options for bus routes andstops around Christiansburg and to other destinations.
Public Transit	Public transportation between Christiansburg andBlacksburg is onerous to use and takes way too long.
Public Transit	No BT Service beyond Maple Ridge
Public Transit	Is there any public transportation?
Public Transit	no public transit
Public Transit	no public transit
Public Transit	nop public transit
Safety	Crashes
Safety	Crashes
Safety	Warm Hearth Village has long talked about addinga 2nd road to connect to its property. If Warm Hearth Drive was ever closed or blocked, no one could get in or out of the property.
Safety	This road really needs to be 4 lanes. Too many cars try to make very dangerous passes on the short sections where it opens up to 2 lanes. Very manyclose calls from people rushing to pass.
Safety	Really need wider shoulders on this section of 460. Often times, a disabled car has barely any room to pull off, causing backups.
Safety	There are many accidents at this turn. Additional signs or flashing lights may help prompt people to slow down and take corner at a safer speed.
Safety	Sidewalks are needed
Safety	Turning from Lusters Gate there are no sight lines and oncoming traffic does not stop
Safety	cars coming from Ellett Valley have to stop on the RR tracks to look to make a left (which is actually straight) on to 642. ROW should be out of Ellett Valley not coming down 603
Safety	Cyclists coming off the contraflow lane are notvisible because of bushes on the corner. Cars also cut across bike lane when turning left off airport road onto the one way section of Draper. A bollard could help.
Safety	Cars continually roll through this intersection.Something like a road mural could help.
Safety	I81 is ALWAYS a safety issue...
Safety	Daily wrecks
Safety	Sight distance, maintenance of guard rail
Safety	Sight distance
Safety	This is a horrible choice for a mational bike route (76)!

Item	Comment
Safety	Not enough light for pedestrian activity
Safety	When there is a wreck on interstate, drivers onI81 use use Route 603 to go around the wreck. This causes congestion on 460.
Safety	Biking congestion causing traffic safety issuesdue to narrow/curvy roadways.
Safety	Riner's traffice has become a huge issue with the increase traffic and speed/2 lanes
Safety	Need a stoplight here
Safety	Also wildlife is endangered with the acceleratedtraffic and speed when route 603 is used. Spped limit needs to be lowered back to 35. Currently nospeed limit sign is posted so folks drive 55+. Deer don't make it across the road. Sometimes driversdon't make the curve either. Our mail box has been demolished before, driver lived though.
Safety	very long left turn lane. can a light be installed?
Safety	I81 is a constant source of crashes and most fatalities occur on I81 between Christiansburg and Roanoke.
Safety	Left turn signals have been shortened in all ofChristiansburg which cause many people to run red lights to avoid waiting through multiple light cycles
Safety	Traffic gets bottlenecked between I-81 Exit 114and Exit 118.
Safety	This whole loop is awkward the way it is setup.Cars dart in and out of lanes, it gets really congested during AM and PM work commute, buses and others stop to look down the train tracks, and it just seems to be a major accident waiting to happen.
Safety	A lot of vehicles do not yield at this intersection like they should. Its hard for cars who are continuing straight on Peppers Ferry Rd to see because of cars stopped at the light on North Franklin and also due to the dip in the road while crossing.
Safety	congestion from wrecks on intersate
Safety	Auburn Christian Academy needs a turning lane
Safety	Folks turning Left into Sinkland for events cause huge backups on Route 8. Can cause accidents and long delays.
Safety	Chickfila backup blocks traffic going into the shopping area.
Safety	The school needs a turn lane.
Safety	Horrible intersection.
Safety	Horrible traffic during events. Road gets backedup for miles.
Safety	This intersection needs a light.
Safety	The new roundabout on Price's Fork Road. Not only is it a delay for users of Price's Fork, but it will not handle the volume of the community development in the area.
Safety	There is too much traffic bringing Meadow Creekout at Riner Animal Hospital when factoring in the traffic coming from Rt. 8 (and a blind spot). Not only are you looking for traffic coming left and right (blind spot) from Rt. 8, but you're also looking and trying to anticipate traffic merging from Meadow Creek.

Item	Comment
Safety	The traffic light at this exit has helped tremendously but I believe that light is only temporary. If it is removed, then people travelling north on 81 and using the 114 exit to try to get into C'Burg will struggle to do so safely. There is a lotof traffic coming out of Riner at 7-8 am and a lot of people headed that way at 5pm.
Safety	There are many people who walk on Merrimac and horrible drivers who pass on double yellow lines.
Safety	The lanes go from three to two. How many times will I fear I'll lose my bumper?
Safety	It's so hard to get to the aquatic center when on the opposite side of the road.
Safety	Lots of congestion and left hand turns in this area since new restaurants and stores opened in the area.
Safety	114 has a clear safety issue. There are numerous and daily accidents along this stretch of road between Christiansburg and the Arsenal.
Safety	Arrows need to be painted on the merging lane; left lane is to merge into right; however, motorists stay in left lane and nearly have an accident all the time. If you judge by the way the pavement is laid, it appears it is the opposite. Paint arrows, add lights to the merge sign; somehow make it more obvious.
Safety	Congestion on I81
Safety	There seems to be a lot of accidents or near accidents at the area where you can turn onto 81 and 460 off of Roanoke Street
Safety	Traffic accidents
Safety	Pedestrians from the high school going to DairyQueen or the Aquatic Center don't have a way to safely cross the road.
Safety	dangerous intersection
Safety	Need turning lane into auburn baptist as there are often an overwhelming amount of backups and potential safety issues.
Safety	Dangerous intersection at school
Safety	People drive very fast down this neighborhood road where many people walk and have kids.
Safety	Many people walk here but there is no sidewalk.
Safety	There is too much congestion here because of theschool. There should be a turning lane.
Safety	Turning lane for Auburn Baptist Christian Acadamy.
Safety	Needs turn lane or traffic light for the Christian school
Safety	School traffic, no turn lane or stop light
Safety	There is a safety issue pulling into Auburn Baptist Church. There needs to be a turn lane for this location. There has been at least one wreck and possibly more.
Safety	Traffic backed up regularly at entance to AuburnBaptist Christian Academy. I have seen many accidents and have almost been hit myself waiting to turn. This is a major safety issue that has been ignored and pushed under the rug for years. A turn lane needs to be placed to save lives and invest in the community.
Safety	Need turning lane into school

Item	Comment
Safety	Desperately need a left turn lane for those coming from Christiansburg into Riner to safely turn left in Auburn Baptist Church. This is not only asafety issue with incidents of being rear ended, but also causes back up along route 8 that could beavoided with a turn lane.
Safety	needs turning lane, my son was involved in a accident there pkus several others
Safety	turning, multiple accidents
Safety	A turn lane is needed at Auburn Baptist Church/Academy to relieve morning and afternoon traffic in this area.
Safety	School entrance safety
Safety	Many cars turning at this location
Safety	This location needs a turning lane to alleviatetraffic congestion for safety reasons. It is the location of a large and rapidly growing private school and well established church.
Safety	Need turning lanes for school/church and fire department
Safety	The safety issue is the entire Route 81 throughMontCo. Rte 81 is an essential transportation artery but highly hazardous.
Safety	Turn lane needed
Safety	Route 8 is a difficult road to drive on, not adequate to the traffic it carries
Safety	The section of road from the Riner post office to Simpkins Farm need more turning lanes and lower speeds. This is a high traffic area during eventsand start of school/work and end of school/work day. Turning lane for Auburn Baptist, Meadow Creekand other businesses there would be very helpful. Lower speed would also help with safety to all travelers.
Safety	Signs and parking make it very difficult to seewhen crossing or turning on to main street from a side road.
Safety	Cars get backed up on Route 8 at Auburn Baptistin the morning and afternoon. It becomes difficult to cross traffic if vehicles are turning in andout of the church lot.
Safety	Vehicle traffic off of Betty Drive onto Depot Street is challenging when people are trying to turn left onto Depot, especially at school dismissal time with the Primary and Elementary schools.
Safety	heavy traffic at specific times during the day
Safety	Turn at the bottom of the mountain especially for drivers wanting to turn left as they come down the mountain.
Safety	Entering traffic onto 460 from Cracker Barrel and from the opposite side of 460.
Safety	Exit 118B on I-81 North has too short of an exitramp. Cars are merging onto I-81 as cars are trying to exit. This can cause accidents as there isnot enough space.
Safety	114 needs to be widened to 2 lanes each way fromthe mall to the arsenal.
Safety	Turn lane needed
Safety	Auburn Baptist Church -back up at pick up times.Needs turn lane.
Safety	School auburn baptist

Item	Comment
Safety	Traffic coming and going from Auburn Christian Academy. Traffic is really busy on route 8 and we need a turning lane. PLEASW
Safety	Turning lane.
Safety	Narrow, high usage, poor condition
Safety	Accidents accruing from turning cars. Congestionbacking up onto the main road. Cars apeeding
Safety	The pedestrian crosswalk
Safety	Large numbers of cars on and off Rt.8 to ABCA during high traffic parts of day
Safety	There needs to be a turning lane for traffic going both ways at the intersection at Citgo.
Safety	There needs to be a turning lane at Auburn Christian Acadamy. Too many cars turning and making the through traffic delay.
Safety	Congestion during school drop off and pickup
Safety	No turning lane for ABCA
Safety	High traffic intersection for passenger vehiclesand heavy trucks. Lack of turn lanes and markers creates driver confusion and impatience.
Safety	This is a private education site and it is dangerous for vehicles turning into and out of this area due to the on coming traffic. It causes major delays and several accidents over the years! The residents that use this facility should have their tax dollars going to make this a safe for all that travel this area.
Safety	High traffic, low visibility, and lack of lane space on 81 between Christiansburg and Salem
Safety	High traffic area for commuters. Multiple roadintersection.
Safety	Very difficult to turn in and out of the schoolRoad, and there are many young drivers. It should have been a roundabout
Safety	4 way stop has helped, but more markers may be needed to alert drivers to upcoming intersection on both Childress Road and Meadow Creek
Safety	There needs to be a turn lane for Smith Creek Road
Safety	Dangerous when events at Sinkland Farms cause traffic to back up.
Safety	Speed limit is too high! There are several blind curves in this area and multiple fatal accidents. This is a trucking route and these trucks are traveling at 55 miles an hour with no ability to stop or slow down quickly.
Safety	School zone in high traffic area
Safety	School zone in high traffic area
Safety	Congested area.
Safety	Turning lane for the school
Safety	need turn lane into the Travel Center. Trucks often stop in the roadway coming from the interstate blocking the left travel lane to turn into the service road next to the Radford Travel Center.
Safety	Off ramp notice

Item	Comment
Safety	traffic hazard
Safety	Rt 8 At Auburn Baptist Church. There is a schoolthere and we are always having accidents take place. It is also very congested at drop off and pickup times. It would be very beneficial to have a turn lane system put in.
Safety	Only two lanes with lots of traffic during school drop off and school pickup. Traffic backs up from the parking lot into Route 8, sometimes on theshoulder of Route 8, causing blind spots for traffic trying to pull out. Logging trucks, 18 wheelers, and other commercial vehicles use route 8 routinely.
Safety	Narrow road with lots of traffic and pedestrians.
Safety	Many blind corners for the speed of travel. Busstop around corner with heavy foliage.
Safety	Plants block view of traffic from both directions when leaving shopping center.
Safety	Bikers use this road and there is too much traffic for how the road is created.
Safety	Traffic eastbound on 685 is traveling at high speed, and cars turning onto the road from 657 sometimes misjudge traffic and speed, causing accidents
Safety	Merge ramp from 460 onto prices fork is too short
Safety	lights are not synced to provide good traffic flow.
Safety	There are no turning lanes on Tyler Rd for Mud Pike and the gas station, yet many trucks (and cars) come off of 81 turning onto Mud Pike or the gasstation. This results in inconsistent traffic patterns making turning left onto Tyler from Mud Pikedifficult and sometimes dangerous during certain times of the day.
Safety	auburn baptist needs turn lanes!!!!
Safety	Need a turn lane
Safety	There needs to be a left turn lane light so carsare not speeding to get past oncoming traffic.
Safety	Dangerous intersection
Safety	The left lane is now only a turn lane. The greenlight should be pointing left and there should be a sign next to the light.
Safety	Oncoming traffic is trying to merge with traffictrying to exit the bypass. I am not sure how to fix this but I have seen many people, myself included almost wreck.
Safety	There is congestion in the right hand lane for traffic trying to get up the big hill and other traffic trying to exit the highway. It would be niceto have the exit ramp longer. I have noticed traffic will speed past slower traffic and sometimes this almost causes an accident.
Safety	There are far too many accidents on I81
Safety	There are not enough turn lanes along Route 8.
Safety	There could be more turn lanes off of Route 114for safety sake.
Safety	During high times of traffic getting out of thisexit is very difficult. especially when trying to go the opposite way.
Safety	Heading towards town traffic is always turning left. It would be nice to have a turn lane so traffic would not stop in the left lane.

Item	Comment
Safety	Lots of car wrecks
Safety	Needs a turning lane
Safety	Combination of: 1) Cars on 460W making a Uturn to go east with oncoming traffic coming downhill at speed, + 2) a hairpin turn right onto Brush Mtn Rd. that requires slowing significantly in the right lane of 460E, + 3) traffic from Coal Bank Hollowcrossing the highway to turn left onto 460E. I have almost gotten rear-ended SO MANY TIMES. Combo of 60mph traffic, a slow car in the right lane turning onto Brush Mtn, and a slow car in the left lane coming from Coal Bank, is super dangerous.
Safety	No turn lanes. A private school is operated here and there is heavy traffic in mornings and evenings.
Safety	No turn lanes. Frequent accidents.
Safety	Rt 114 needs to be widened and a center turn lane or something similar. Frequent accidents.
Safety	There needs to be a turning lane into Auburn Baptist church for the school there to avoid rear end collisions when turning into the school.
Safety	No turn lane
Safety	The school needs a turn lane. I have almost beenrear ended more times that I can count while waiting to be able to turn in.
Safety	Not safe no turn lanes
Safety	Need a turning lane for the church/school
Safety	Bicycles are constantly on this road creating unsafe conditions
Safety	No Turning lane for the school.
Safety	Bicyclists are dangerous on this Fairview ChurchRoad.
Safety	Bicyclists are dangerous on this Union Valley Road.
Safety	Turning lanes needed in area around Riner on rt8
Safety	Turning lanes needed at congested areas
Safety	Road extremely rough and uneven causing safety issues
Safety	Route 8 from Riner to FLoyd is a huge safety hazard. There are constant accidents from commuters due to the windiness of the road and lack of shoulders.
Safety	Is it not considered a safety issue to have higher speed limits and no dedicated turn lanes into a school?
Safety	Shortening the lights has been great! But peopleare still blocking the intersection and still running red lights.
Safety	Dangerous for pedestrians crossing from Recreation Center.
Safety	This is a school and really needs a turning lanefor both north and south routes.
Safety	Too much traffic, too many accidents along the entire corridor
Safety	Congestion, turning lane needed.
Safety	Turning lane needed, back ups due to heavy traffic from Christiansburg

Item	Comment
Safety	The R-cut additions at the intersection of NorthMain and 460 has been a total waste of public funds, it should be removed and replaced with a realinterchange ASAP
Safety	Heavy traffic and awkward intersection makes turning left from 670 onto 8 very difficult
Safety	Speed limit on Route 8 is 55 and turning onto 673 from northbound 8 is extremely dangerous due to the corner before hand with no turning lane. Additionally, the grade of 673 reduces visibility and makes turning onto 8 and getting to 55 mph very difficult.
Safety	People coming off Main Street don't know how tomerge safely. Some stop completely in spite of the acceleration lane. Others move across the solid white line into oncoming traffic before they have attained enough speed. In spite of the recent workthere, the intersection is still a nightmare.
Safety	This curve is quite severe, and at least once ayear, a car slides off the road and down the embankment. There needs to be a guard rail installed. On top of that, water tends to pour off one of the properties on the right just before the curve (asyou head towards 460) creating a severe hydroplaning hazard. If the rain is significant enough, it also drags gravel into the road, which can cause cars and bicycles to slide.
Safety	Student housing along Mount Tabor has been constructed with no sidewalks leading to Main Street where the BT bus stops. Students are forced to either walk on the road, which is completely unsafe, or to walk in the grass, which is almost as bad. I have seen students stumble and nearly fall into the road. This housing is completely inaccessible forpeople in wheelchairs.
Safety	Need a turning lane to help with congestion during pickup and drop off times for school.
Safety	the intersections always full
Safety	A turn lane is needed and a school zone with reduced speed during busy times for drop off and pick up!!
Safety	A traffic light is needed for this very busy intersection!
Safety	Lots of traffic backups here every day around 8am and 3pm on weekdays and many other times throughout the days of the week. Needs a turn lane badly.
Safety	The roads angle of approach to this tunnel underthe train tracks makes it a blind corner. Straightening it any would be helpful.
Safety	This area of road and all along it east and westget a large amount of water collection when it rains. This causes bad hydroplaning even at speeds below the speed limit.
Safety	Road maintenance specifically fixing potholes and rough streets
Safety	Turning lane needed
Safety	Turning lane needed
Safety	Need to be fixed due to accidents
Safety	Congestion during school hours
Safety	Need a turn lane badly. Our son has been in school there for 5 years and has gotten progressively worse turning in and out.

Item	Comment
Safety	Very dangerous!! My mom had a wreak there peoplerunning stop signs
Safety	Severe congestion daily around arrival and dismissal times.
Safety	Severe congestion during school arrival and dismissal times.
Safety	Severe congestion during school arrival and dismissal times.
Safety	Rt 8 Riner - 2 Lane
Safety	So many accidents and people getting rear ended,turning lane needs to be placed for the Academy
Safety	With the school here traffic needs to slow downto all the cars turning since there is no turn lane.
Safety	No turning lane into school. Lots of congestionon main road.
Safety	Traffic backups and congestion due to use. Needpermanent light.
Safety	Seems to always be accidents on the hill. Speeda factor but also turning lane to get onto Roanoke street.
Safety	No turning lanes for school zone. Causes congestion and backups.I’ve almost been hit several times trying to turn into school/church area.
Safety	Congestion and backups at intersection.. Even with turn lanes it is very difficult to get across safely or even merge into lane.
Safety	A lot of people use this as crossover to get toradford or into riner. Lots of congestion and traffic
Safety	It is difficult to see the oncoming traffic fromthe left when coming off this exit. Many people pull out in front of the traffic causing many nearaccidents.