

A scenic photograph of a rural landscape. In the foreground, a paved road with a yellow center line curves through a grassy field. A white wooden fence runs across the middle ground. The background features rolling hills covered in trees with vibrant autumn foliage in shades of orange, yellow, and red. The sky is a clear, pale blue.

2040

RURAL LONG RANGE TRANSPORTATION PLAN

2018



Thomas Jefferson

Planning District Commission

Acknowledgements

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Guide to Chapters	<u>CHAPTER 1</u>
1. Gives an introduction to the plan and a discussion of plan-related goals and objectives. The chapter also provides an overview of the transportation system.	Introduction and Purpose 1-8 Description and Function of the Thomas Jefferson Planning District Commission Summary of the Transportation Network Goals and Objectives
2. Provides an overview of the region’s demographic and land use trends. These conditions set the stage for transportation planning and meeting future needs of the region.	<u>CHAPTER 2</u> Demographic and Land Use Trends 9-18 Demographic Trends Population Trends Community Profiles Housing and Transportation Affordability Employment Locations Commute Patterns Growth Areas and Land Cover Transportation Implications
3. Explores the state of the region’s transportation system. This chapter looks at roadway conditions including roadway functional class, average annual daily traffic, level of service, pavement conditions, bridges and safety. Further, the chapter provides an overview of the freight system, goods movement, and transit systems.	<u>CHAPTER 3</u> Regional Transportation System 19-42 Road Functional Classifications Average Annual Daily Traffic (AADT) Level of Service Volume to Capacity Ratio Heavy Vehicles Traffic Pavement Conditions Bridge Sufficiency Concentration of Crashes Potential for Safety Improvement Locations Freight and Inter-Regional Transportation Goods Movement Public Transportation Traffic Demand Management Bicycle and Pedestrian Facilities

Guide to Chapters	<u>CHAPTER 4</u>
4. Provides a list of project recommendations that address various deficiencies in the regional transportation network. Recommendations are prioritized on the county level.	Transportation System 43-82 Deficiency Evaluation Performance and Recommendations
5. Lists the counties and the date of adoption of the 2040 Rural Long Range Transportation Plan.	<u>CHAPTER 5</u> Plan Adoption 83-84
6. Provides a collection of supplemental materials to the information provided in previous chapters.	<u>CHAPTER 6</u> Appendices and References 85-96



INTRODUCTION AND PURPOSE

In 2010 the Thomas Jefferson Planning District Commission adopted its first Rural Specific Long Range Transportation Plan. The 2010 Plan was developed in conjunction with the States’ development of the VTRANS 2035 statewide multimodal long-range plan. Prior to the 2010 plan, the TJPDC had developed a set of comprehensive transportation plans known as the United Jefferson Area Mobility Plans (UnJAM). The first of these plans was adopted by the PDC and MPO in 2004 (UnJAM 2025) and subsequently updated in 2009 (UnJAM 2035).

The 2040 Rural Long Range Transportation Plan serves as an update to the 2035 Rural Long Range Transportation Plan and incorporates new data and relies on the most recent trends in transportation, including adopting a performance-based approach that mirrors the approach used by the State for prioritizing funding of transportation projects known as Smart Scale. The Plan is designed to serve as a tool to help rural localities prioritize transportation projects and prepare for Smart Scale.

The transportation system within each rural county was evaluated, and a range of transportation improvements - roadway, rail, transit, air, bicycle, and pedestrian - were then developed into recommendations that would help address expected existing and future needs. Some of the PDCs contain urbanized areas whose transportation needs are coordinated by a metropolitan planning organization. In the case of the Thomas Jefferson Planning District Commission’s region, only the rural portion of the region was analyzed and is addressed in this report. The Charlottesville-Albemarle Metropolitan Planning Organization (MPO) conducts the transportation planning for the urban portion of Albemarle County and the City of Charlottesville.

STUDY APPROACH

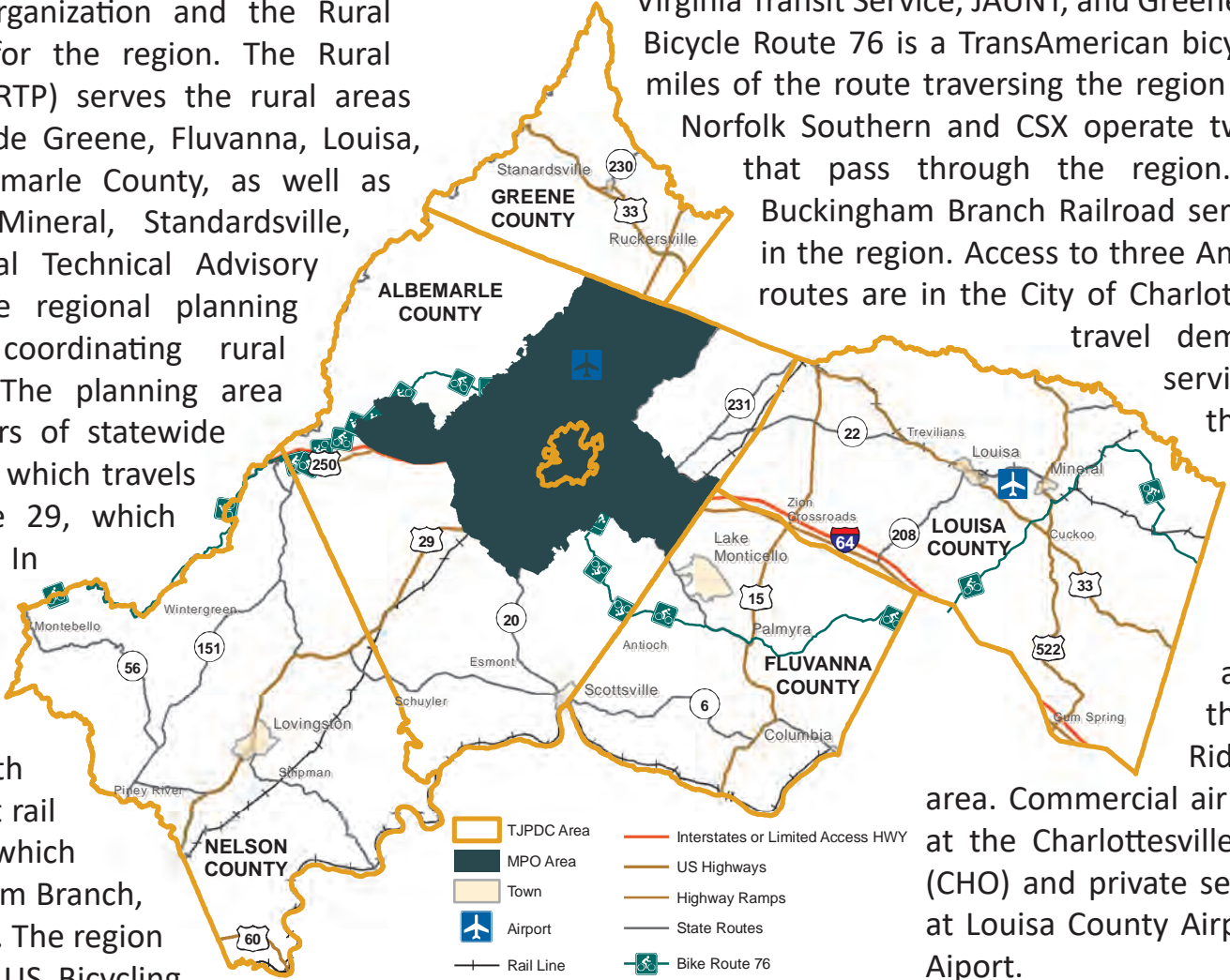
- Development of regional transportation goals and objectives
- Public involvement
- Data compilation and collection
- Data analysis
- Identification of transportation deficiencies and recommendations
- Environmental overview

SMART SCALE PLANNING FACTORS

- Safety
- Congestion Mitigation
- Accessibility
- Environmental Quality
- Economic Development
- Land Use

DESCRIPTION AND FUNCTION OF THE THOMAS JEFFERSON PLANNING DISTRICT COMMISSION

The Thomas Jefferson Planning District Commission serves the counties of Albemarle, Fluvanna, Greene, Louisa, Nelson, and the City of Charlottesville. The TJPDC staffs both the Metropolitan Planning Organization and the Rural Transportation Program for the region. The Rural Transportation Program (RTP) serves the rural areas of the TJPDC which include Greene, Fluvanna, Louisa, Nelson, portions of Albemarle County, as well as the Towns of Louisa, Mineral, Standardsville, and Scottsville. The Rural Technical Advisory Committee (RTAC) is the regional planning body responsible for coordinating rural transportation planning. The planning area is served by two corridors of statewide significance; Interstate 64, which travels east/west; and US Route 29, which travels north/south. In addition, the rural areas are served by other US Routes, including 250, 15, 522, and 33. The region is also served by both north/south and east/west rail lines and four railroads which include Amtrak, Buckingham Branch, CSX, and Norfolk Southern. The region is also home to a major US Bicycling Route, Bike Route 76.



SUMMARY OF THE TRANSPORTATION NETWORK

Interstate 64 is the primary east-west corridor of the region along with US 250 and US 33. The primary north-south corridors are US 29 and US 15. Public transportation services are provided by Charlottesville Area Transit, University of Virginia Transit Service, JAUNT, and Greene County Transit. US Bicycle Route 76 is a TransAmerican bicycle route with 136 miles of the route traversing the region from east to west. Norfolk Southern and CSX operate two class I railroads that pass through the region. Additionally, the Buckingham Branch Railroad serves local industries in the region. Access to three Amtrak passenger rail routes are in the City of Charlottesville. A range of travel demand management services are available through RideShare, housed within the TJPDC. There are presently 31 official and unofficial Park and Ride lots throughout the RideShare service area. Commercial air service is available at the Charlottesville-Albemarle Airport (CHO) and private services are available at Louisa County Airport and Lake Anna Aiport.

GOALS AND OBJECTIVES

The TJPDC has developed a set of uniform goals and objectives across its family of plans. The Goals and Objectives will be used across the RLRP, the LRTP, and the Jefferson Area Bike and Pedestrian Plan. These Goals and Objectives were developed with input from the Rural Technical Advisory Committee, MPO Policy Board and committees, and guidance from FHWA. These goals and objectives are in line with MAP21 performance measure guidance.



Photo Credit: Nelson County

1 ACCESSIBILITY

Improve inter- and intra-regional access and mobility for all users (people, goods, and service) by integrating various modes of transportation in an effort to improve connectivity and in the region.

Objectives:

- Improve access to transit for all users. Ensure the diverse needs of a changing population are met (elderly, disabled, and LEP, persons lacking access to private vehicles)
- Ensure the appropriate types, connections, and levels of freight service are provided to the entire region
- Continue to support efforts to enhance access to intra-regional transit services, to include bus, rail, and air services
- Increase awareness and continue to support RideShare and Travel Demand Management (TDM) services

- Enhance connectivity among and between various modes of transportation through identifying and filling gaps in networks
- Provide a forum for policy discussion among transportation stakeholders

Planning Factors Addressed:

- Increase the accessibility and mobility of people and freight
- Enhance the integration and connectivity of the transportation system across and between modes for people and freight
- Protect and enhance the environment, promote energy conservation, improve the quality of life and promote consistency between transportation improvements and state and local planned growth and economic development patterns

2 ECONOMIC DEVELOPMENT AND LAND USE

Support the region’s economic competitiveness by ensuring the integration of transportation and land use decisions in the planning process to enhance efficiency across all modes of transportation.

Objectives:

- Improve the effectiveness of the existing transportation network, recognizing internal and external future travel demands from tourism, freight, and commuters
- Assure designated growth areas are designed to accommodate a range of transportation modes
- Target transportation improvements to support local land use and development priorities

Planning Factors Addressed:

- Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency
- Enhance the integration and connectivity of the transportation system across and between modes for people and freight;
- Enhance travel and tourism

- Protect and enhance the environment, promote energy conservation, improve the quality of life and promote consistency between transportation improvements and state and local planned growth and economic development patterns

GOALS AND OBJECTIVES

3 OPERATIONS AND MANAGEMENT

Encourage and promote cost-effective operations and maintenance of the regional transportation network that delivers optimum performance for all users.

Objectives:

- Identify and prioritize addressing of physical deficiencies, to include pavement, bridges and other multi-modal deficiencies, on the existing transportation network
- Improving communication among stakeholders regarding transportation data, maintenance coordination, best practices, and emerging technologies
- Develop efficiencies for prioritizing rural roadway pave in place, rural rustic, and rural additions
- Improve secondary roadway network by prioritizing improvements that enhance access for the most users. Such as shoulder maintenance widening for all users

Planning Factors Addressed:

- Enhance the integration and connectivity of the transportation system across and between modes for people and freight
- Promote efficient system management and operation
- Emphasize the preservation of the existing transportation system
- Improve resiliency and reliability of the transportation system and reduce or mitigate storm water impacts of surface transportation



Photo Credit: The Ridgefield Press

4 SAFETY

Improve the geometric conditions and physical characteristics of the transportation network to reduce fatalities and serious injuries.

Objectives:

- Reduce the number and severity of crashes
- Identify key safety deficiencies in roadway networks at intersections and along roadway segments (spot improvements, intersections, shoulders, railroad crossings)
- Identify, evaluate, recommend, and prioritize other safety deficiencies
- Incorporate the safety needs of all users

Planning Factors Addressed:

- Increase the safety of the transportation system for motorized and non-motorized users
- Increase the security of the transportation system for motorized and non-motorized users



Photo Credit: Wikimedia Commons

GOALS AND OBJECTIVES

5 CONGESTION

Where appropriate, improve roadway design to reduce congestion for vehicles, freight and transit.

- Objectives:
- Improve the efficiency of the existing transportation system and services whenever possible

- Planning Factors Addressed:
- Increase the safety of the transportation system for motorized and non-motorized users
 - Increase the security of the transportation system for motorized and non-motorized users
 - Enhance travel and tourism



Photo Credit: The Daily Progress

6 ENVIRONMENT AND COMMUNITY

Promote sustainable transportation improvements that mitigate impacts on the environment and ensure nondiscriminatory planning within the region.

- Objectives:
- Incorporate environmentally- and/or contextually-sensitive design into roadway, bicycle/pedestrian facilities, and transit improvements to improve or maintain the aesthetic values of the surrounding environment and to minimize environmental impacts and avoid encroachment on historic and culturally-significant assets
 - Promote the inclusion of minority and disadvantaged populations in the planning process

- Planning Factors Addressed:
- Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and state and local planned growth and economic development patterns
 - Enhance the integration and connectivity of the transportation system across and between modes for people and freight



Photo Credit: State College Pennsylvania



DEMOGRAPHIC AND LAND USE TRENDS

DEMOGRAPHIC TRENDS

Rural counties throughout the Commonwealth and the Thomas Jefferson region are working either to seek new economic growth and diversification or to balance growth while striving to preserve the rural character of the landscape. Most of the land in these counties is in agricultural or forested use, with more intensive land use in the towns and village centers. There is a broad spectrum of the amount of growth and land use changes occurring through the Commonwealth and the Thomas Jefferson region, based particularly on proximity to urban areas. Many of the rural counties are trying to direct any new growth towards existing towns, village centers, or service districts in order to provide services and to continue to address the needs of residents as well as maintain a general agricultural setting. As the population fluctuates, either through in- or out-migration or shifting within the region, the needs of the communities- including education, health care, social services, employment, and transportation- shift and fluctuate as well. Land use and development changes that particularly affect transportation in rural areas include, but are not limited to, school consolidation, loss or gain of a major employer, movement of younger sectors of the population to more urban areas, retirement community development, and growth of bedroom-community developments.

There is a broad spectrum of the amount of growth and land use changes occurring throughout the Commonwealth and the Thomas Jefferson region, based particularly on proximity to urban areas.

Disadvantaged population groups were studied in order to determine if there are any gaps or deficiencies in the transportation network that could affect these groups. Disadvantaged groups studied include low-income, minority, elderly, and people with disabilities, as defined by the US Census. In 2016, only the City of Charlottesville had a minority population nearing that of the state (31%). In 2016, Greene, Louisa, and Nelson Counties and the City of Charlottesville had low-income populations equal to or above the state percentage of 11%. The portion of the population with disabilities in Fluvanna, Greene, Louisa, and Nelson Counties are above the state average of 11%. All of the jurisdictions, except for Charlottesville and Greene County, have elderly populations higher than the state percentage of 14%.



Photo Credit: Michigan Care Management Resource Center

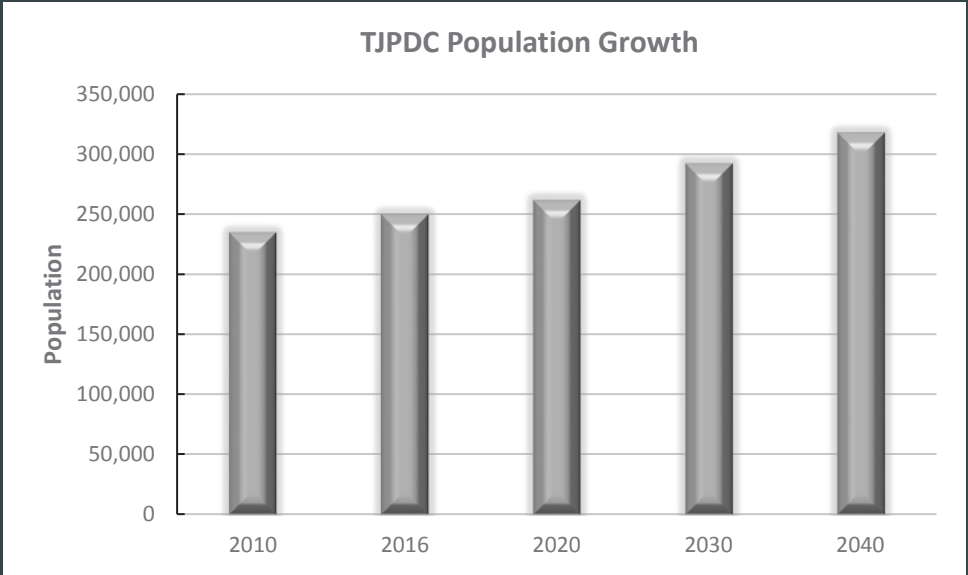
POPULATION TRENDS

Regional population increased by 6.5% between 2010 and 2016. The rate of growth was not distributed evenly throughout the region. Nelson County was the only jurisdiction to have a declining population at a rate of -1.2%. Fluvanna and Louisa Counties had the lowest positive growth rates of 1.7% and 3.5% respectively. The Counties of Albemarle, 6.8%; and Greene, 7.5%; and the City of Charlottesville, 13.0%; had the highest growth rates. The TJPDC had a growth rate of 6.5%. However, by absolute numbers, Albemarle and Greene Counties increased the most, 6,705 and 1,382 persons each. Population projections through 2040 for the region exhibit these trends as well, including a rebounding population in Nelson County. The populations in Nelson County and the City of Charlottesville are projected to grow the least; populations in Albemarle, Greene, and Louisa Counties are expected to increase by more than 30%, and Fluvanna County will grow at nearly the same rate.

Improvements to the transportation network are needed because mobility and safety are affected by increases in population. In the case of the Thomas Jefferson region, increasing pressure on the network has already resulted in changes to the transportation network, such as additional capacity demands on the roadways and additional demand for public transportation and travel demand management services. The region has experienced growth in through-traffic along US 29 and I-64. Development pressures from urban growth have also reduced mobility. Finally, access from more rural areas of the region into Charlottesville for commercial and economic purposes has become affected by increased population and development.

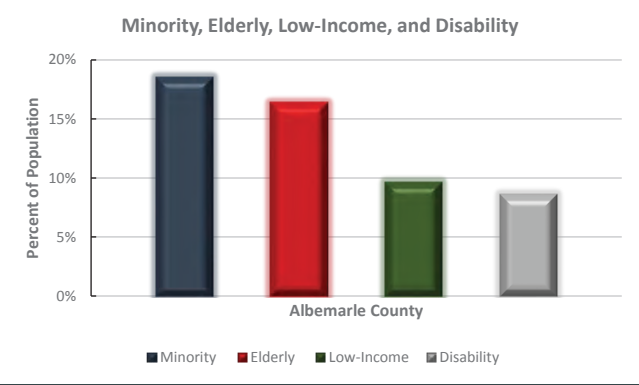
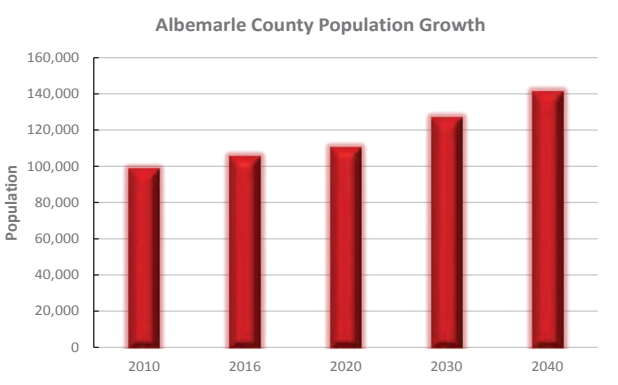


Photo Credit: American Evolution



Source: Weldon Cooper 2016 Population Estimates

ALBEMARLE COUNTY



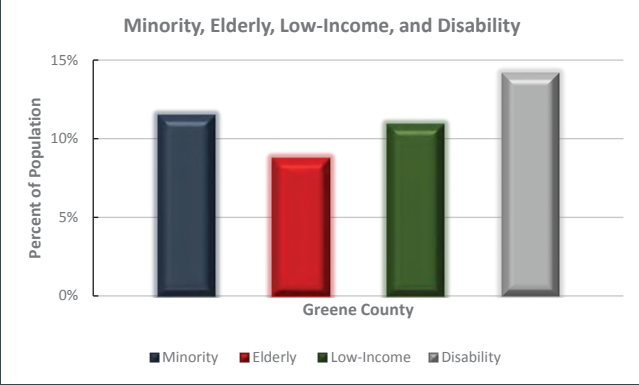
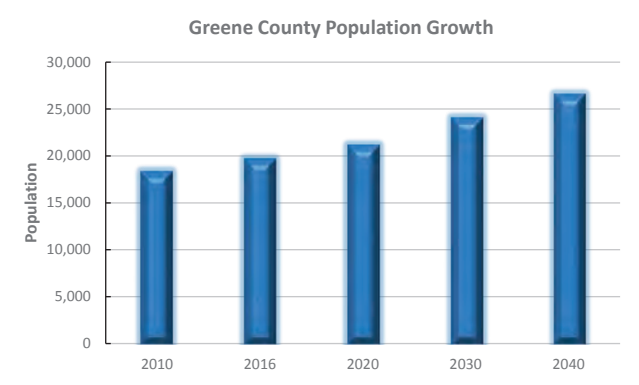
Median Age: 39
Total Population: 105,715
Median Income: \$70,342

Educational Attainment (Population 25 years and over):
Associate's Degree: 6%
Bachelor's Degree: 26%
Graduate or Professional Degree: 26%

Vehicle Ownership:
No Vehicle Available: 2%
1 Vehicle Available: 19%
2+ Vehicles Available: 80%

Mean Commute Time:
22 Minutes

GREENE COUNTY



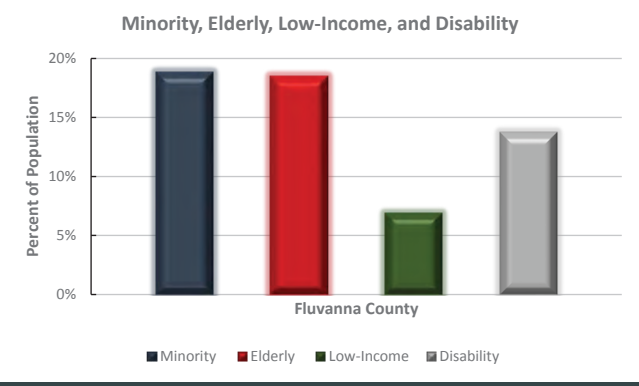
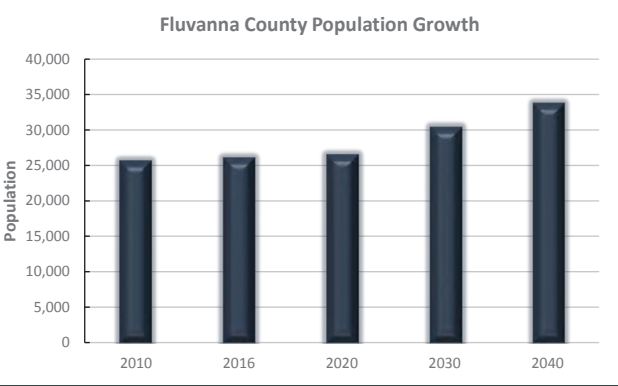
Median Age: 40
Total Population: 19,785
Median Income: \$61,615

Educational Attainment (Population 25 years and over):
Associate's Degree: 7%
Bachelor's Degree: 15%
Graduate or Professional Degree: 9%

Vehicle Ownership:
No Vehicle Available: 2%
1 Vehicle Available: 14%
2+ Vehicles Available: 84%

Mean Commute Time:
30 Minutes

FLUVANNA COUNTY



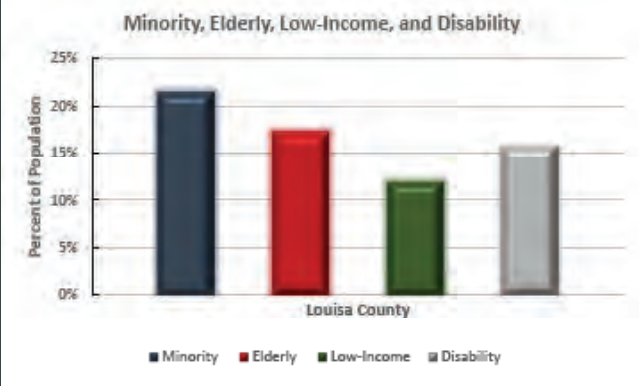
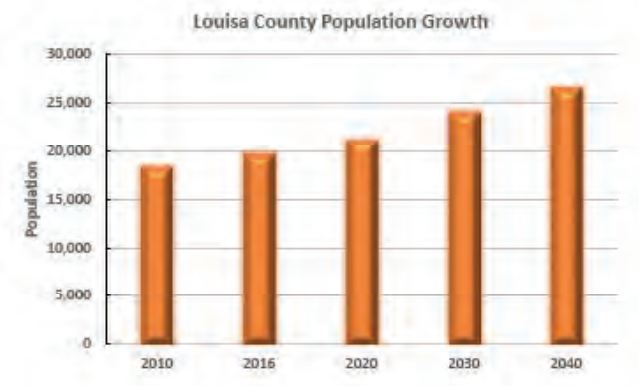
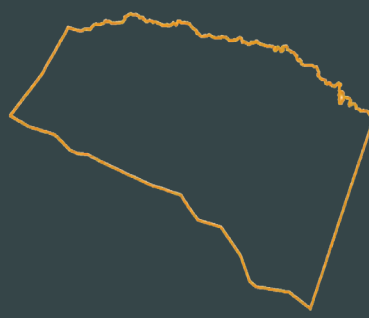
Median Age: 43
Total Population: 26,133
Median Income: \$66,425

Educational Attainment (Population 25 years and over):
Associate's Degree: 9%
Bachelor's Degree: 18%
Graduate or Professional Degree: 14%

Vehicle Ownership:
No Vehicle Available: 1%
1 Vehicle Available: 9%
2+ Vehicles Available: 91%

Mean Commute Time:
33 Minutes

LOUISA COUNTY



Median Age: 44
Total Population: 34,316
Median Income: \$54,662

Educational Attainment (Population 25 years and over):
Associate's Degree: 7%
Bachelor's Degree: 14%
Graduate or Professional Degree: 8%

Vehicle Ownership:
No Vehicle Available: 2%
1 Vehicle Available: 11%
2+ Vehicles Available: 88%

Mean Commute Time:
36 Minutes

Sources: Weldon Cooper Center 2016 Population Estimates; 2012-2016 ACS 5-Year Estimates.
Note: Elderly populations are 65 years of age and over. Low-income and disability populations are those for whom the poverty level and disability status is determined.

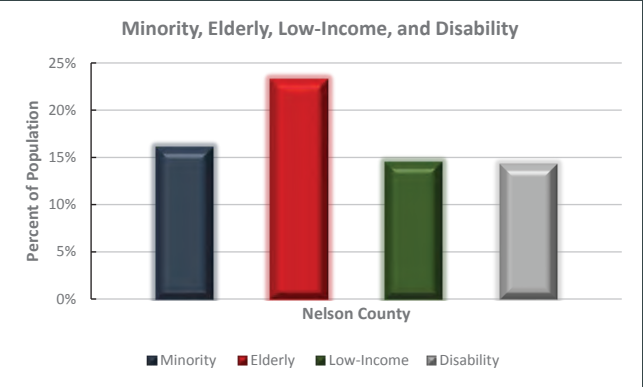
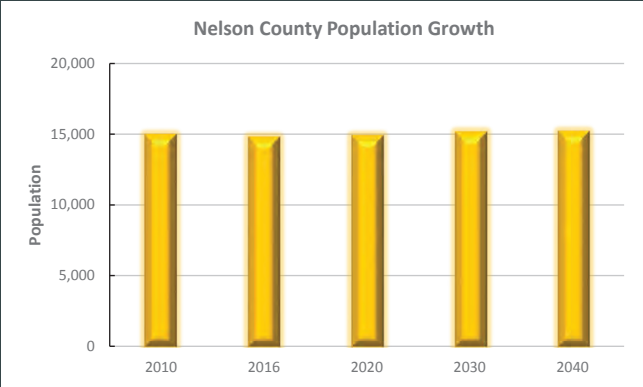
Sources: Weldon Cooper Center 2016 Population Estimates; 2012-2016 ACS 5-Year Estimates.
Note: Elderly populations are 65 years of age and over. Low-income and disability populations are those for whom the poverty level and disability status is determined.

NELSON COUNTY



Median Age: 49
Total Population: 14,835
Median Income: \$50,994

Educational Attainment (Population 25 years and over):
Associate’s Degree: 7%
Bachelor’s Degree: 15%
Graduate or Professional Degree: 15%



Vehicle Ownership:
No Vehicle Available: 2%
1 Vehicle Available: 17%
2+ Vehicles Available: 81%

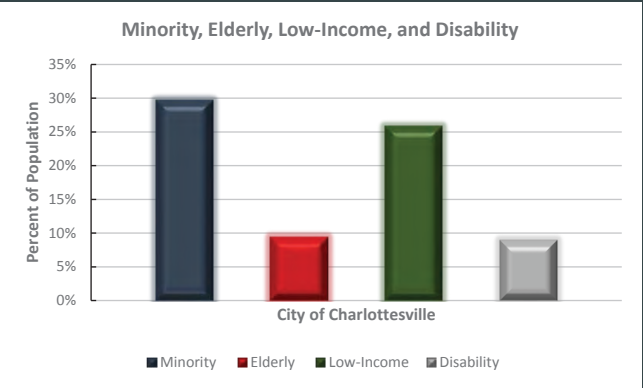
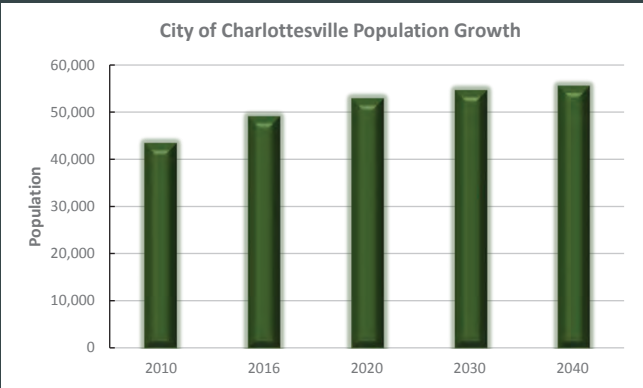
Mean Commute Time:
30 Minutes

CITY OF CHARLOTTESVILLE



Median Age: 30
Total Population: 49,071
Median Income: \$50,727

Educational Attainment (Population 25 years and over):
Associate’s Degree: 4%
Bachelor’s Degree: 24%
Graduate or Professional Degree: 26%

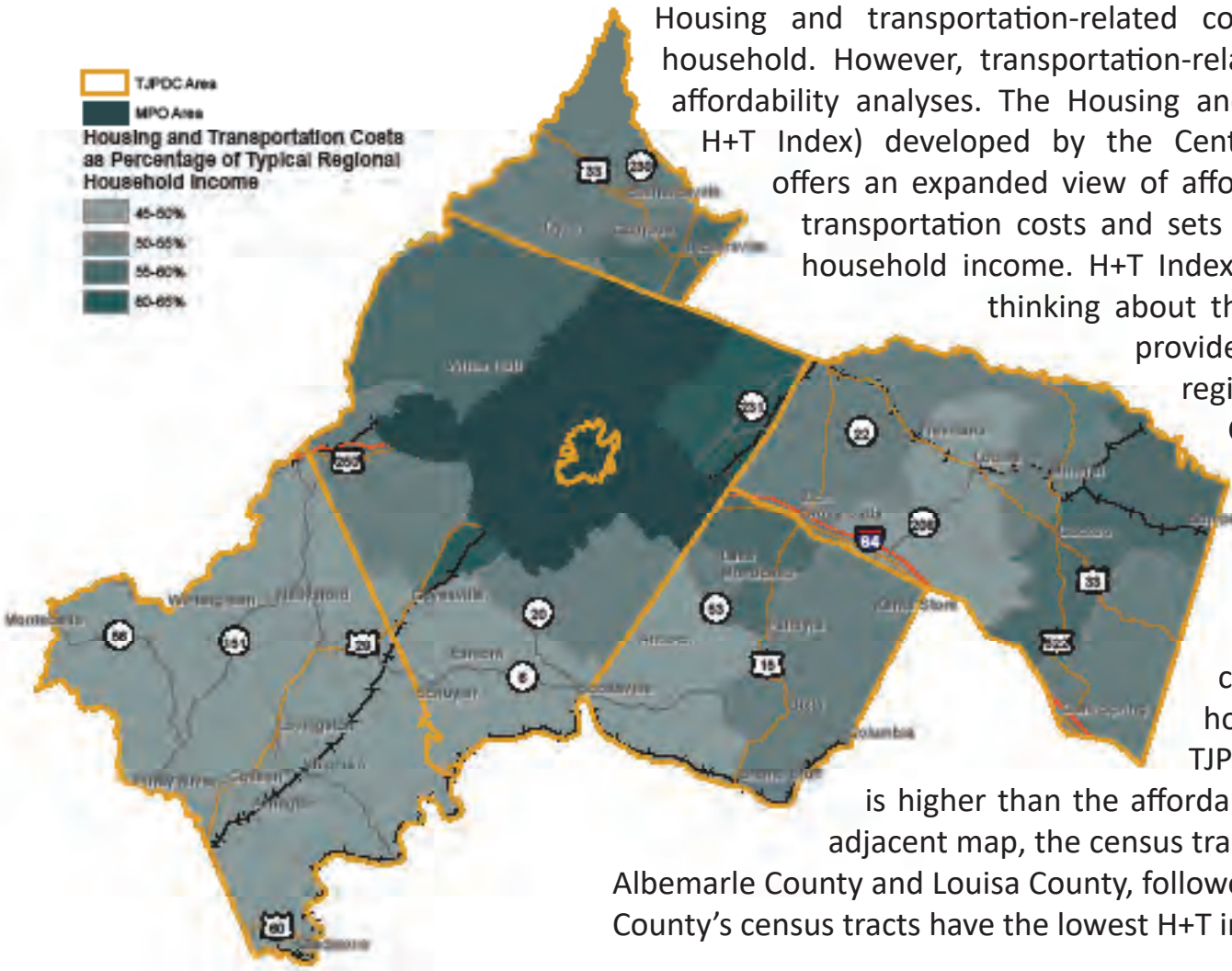


Vehicle Ownership:
No Vehicle Available: 7%
1 Vehicle Available: 31%
2+ Vehicles Available: 63%

Mean Commute Time:
18 Minutes

HOUSING AND TRANSPORTATION AFFORDABILITY

Housing and transportation-related costs are the major expenditures for a household. However, transportation-related costs are usually not considered in affordability analyses. The Housing and Transportation Affordability Index (The H+T Index) developed by the Center for Neighborhood Technology (CNT) offers an expanded view of affordability, one that combines housing and transportation costs and sets the benchmark at no more than 45% of household income. H+T Index provides a more comprehensive way of thinking about the true affordability of place. The data is provided on various geographic scales from the regional down to the neighborhood level. Considering the extent of the TJPDC area, Census Tract data is selected as the most appropriate scale for analysis.



According to the data, as of 2015, the housing and transportation expenditures combined accounts for 45-65% of the households’ typical monthly income in the TJPDC region (without MPO area), which is higher than the affordability benchmark of 45%. As shown in the adjacent map, the census tracts with the highest H+T index are found in Albemarle County and Louisa County, followed by Greene and Fluvanna County. Nelson County’s census tracts have the lowest H+T index in the region.

Sources: Weldon Cooper Center 2016 Population Estimates; 2012-2016 ACS 5-Year Estimates.
Note: Elderly populations are 65 years of age and over. Low-income and disability populations are those for whom the poverty level and disability status is determined.

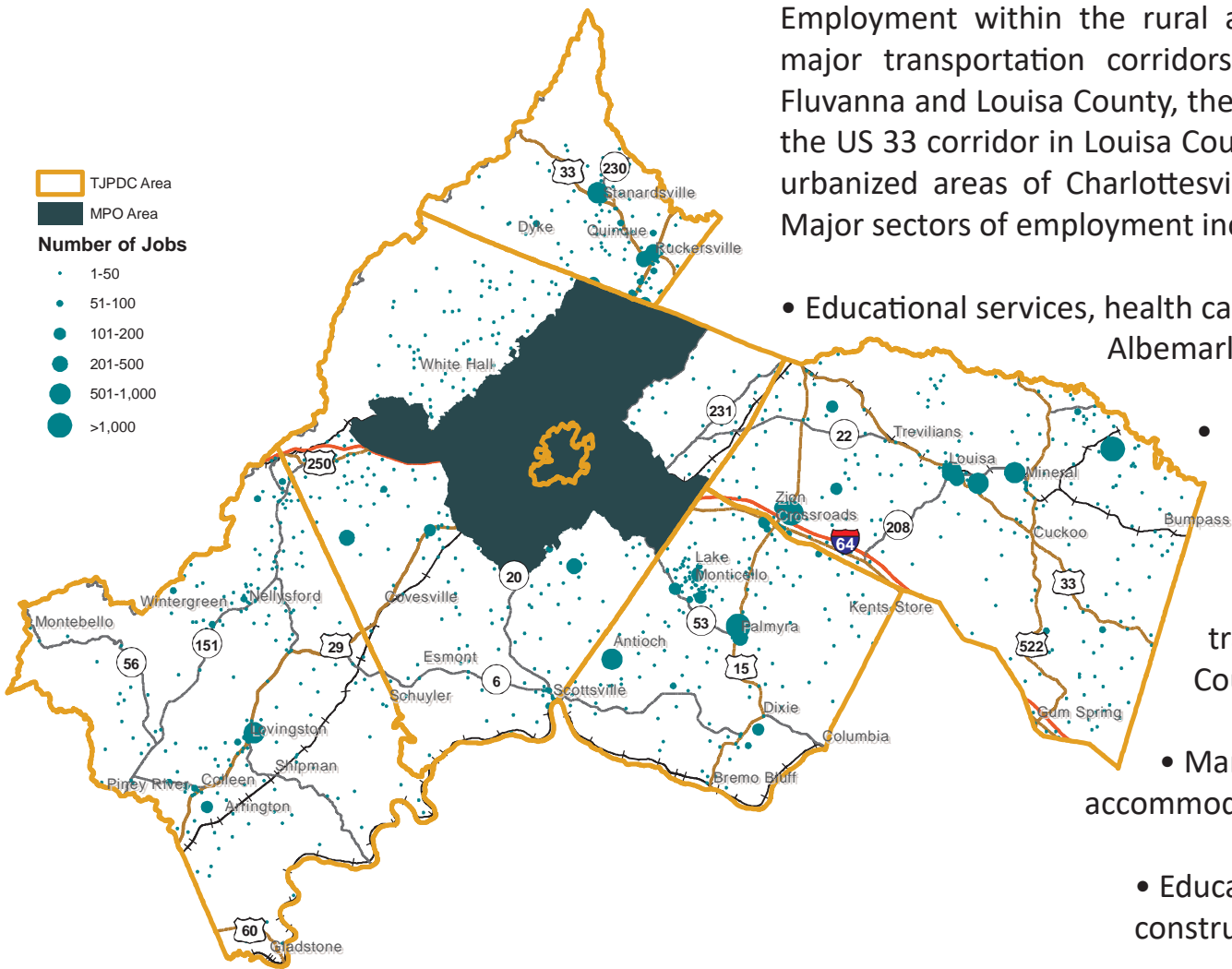
EMPLOYMENT LOCATIONS

Employment within the rural areas is concentrated along the region’s major transportation corridors which include the US 15 corridor in Fluvanna and Louisa County, the US 33 and 29 corridors in Greene County, the US 33 corridor in Louisa County, the US 29 corridor in Nelson, and the urbanized areas of Charlottesville and Albemarle (located in the MPO). Major sectors of employment include the following industries:

- Educational services, health care and social assistance, and retail trade in Albemarle County;
- Retail trade, educational services, accommodation and food services in Greene County;
- Manufacturing, retail trade, transportation and warehousing in Louisa County;
- Manufacturing, educational services, and accommodation and food services in Nelson County;
- Educational services, public administration, and construction in Fluvanna County.

Top employers in the area include:

- The University of Virginia / Blue Ridge Hospital, County of Albemarle, and Sentara Healthcare in Albemarle County;
- Greene County School Board, County of Greene, and Wal Mart in Greene County;
- Walmart, Louisa County School Board, and Dominion Virginia Power in Louisa County;
- Nelson County School Board, County of Nelson, and Wintergreen Resort in Nelson County;
- Fluvanna County School Board, County of Fluvanna, and Fluvanna Correctional Center in Fluvanna County.



COMMUTE PATTERNS

Like many regional jobs centers, the urbanized area of Charlottesville and Albemarle draws a workforce from a large area. This includes people commuting from rural portions of the planning district and people commuting from places outside the region. Data on where people are working versus living was sourced from the 2015 ACS 5-Year Estimates and is highlighted in the table below.

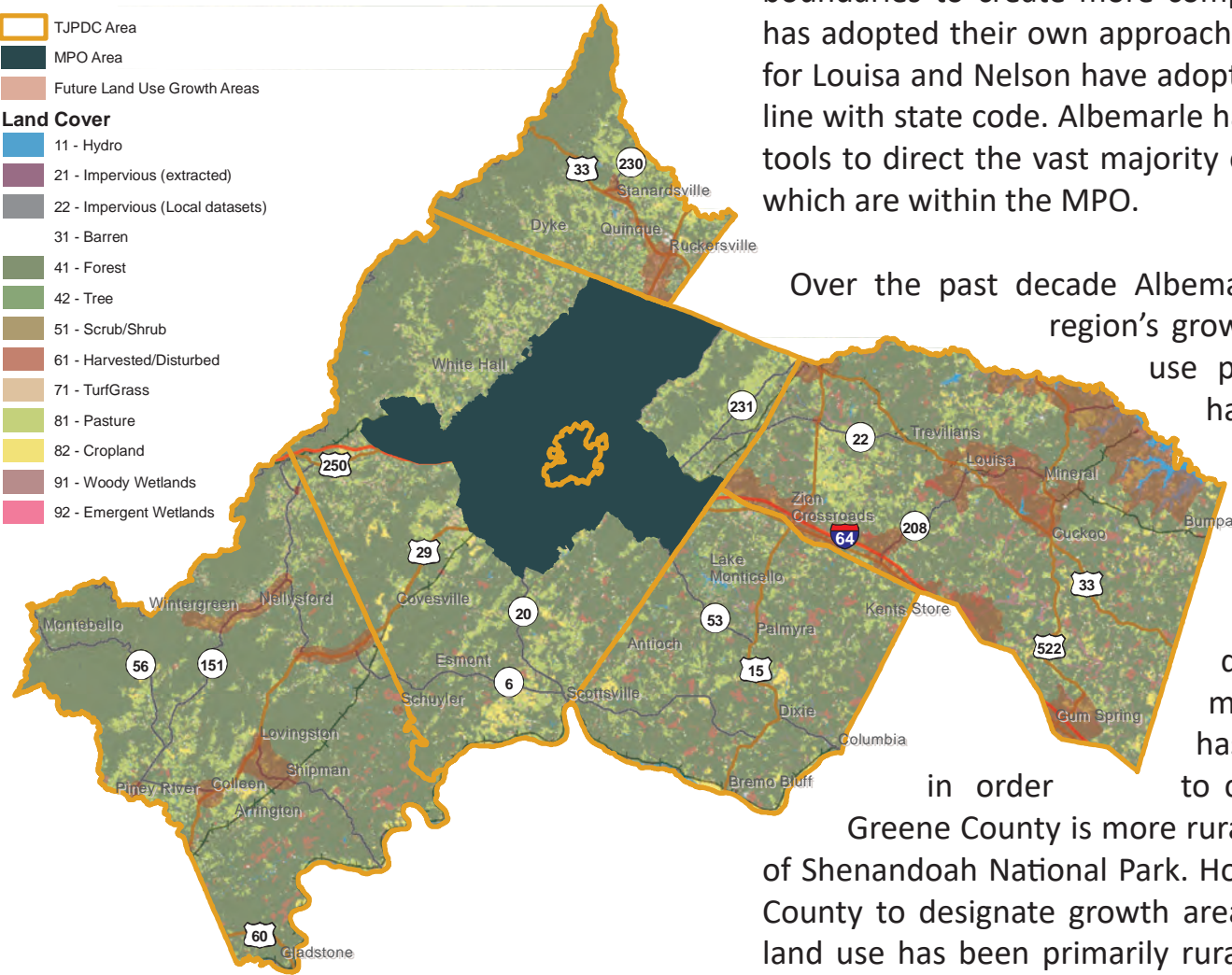
Commute to \ Commute from	Albemarle	Charlottesville	Fluvanna	Greene	Louisa	Nelson	Other
Albemarle	16,047	12,305	453	371	330	192	11,352
Charlottesville	6,038	6,766	115	87	105	67	4,565
Fluvanna	2,840	2,303	1,755	44	350	21	2,882
Greene	2,275	1,325	77	1,207	78	13	2,499
Louisa	1,513	1,084	253	69	2,673	24	5,995
Nelson	1,009	722	63	10	37	1,492	2,552
Other	16,463	11,126	1,698	1,121	4,407	1,156	

The City of Charlottesville and Albemarle County combined offer a total of approximately 81,000 jobs. Almost half of these job positions are occupied by workers residing outside of these jurisdictions. A total of over 40,000 workers commute to the Charlottesville-Albemarle area for work. Other jurisdictions in the TJPDC area (Fluvanna, Greene, Louisa, and Nelson County) combine to account

for 32% of those workers employed who commute to the Charlottesville Albemarle area. The matrix shows the specific number of commuters between various jurisdictions in the TJPDC area. The data shows that for all the jurisdictions in the TJPDC area, the Charlottesville-Albemarle area is the top commute destination for work purposes. For the Charlottesville-Albemarle area, these jurisdictions are not ranked among the top out-commute destinations.



Compact development increases mobility options, preserves rural lands, and saves localities money by reducing the need to expand utilities and basic services.



GROWTH AREAS AND LAND COVER

While growth and development continue to spread along the major corridors and in rural areas, localities in the region have taken steps via their comprehensive plans and by the delineation of growth area boundaries to create more compact development patterns. Each county has adopted their own approaches to limiting growth. All counties except for Louisa and Nelson have adopted Urban Development Areas that are in line with state code. Albemarle has successfully used growth management tools to direct the vast majority of new development to its growth areas, which are within the MPO.

Over the past decade Albemarle County has absorbed much of the region’s growth, which has altered the county’s land use patterns. Albemarle’s land use patterns have become more urban along the 29 Corridor and around the Village of Crozet (MPO area). In the rural areas, the land use pattern continues to be large lot single family homes, agriculture, silviculture, and rural development. Fluvanna County is also mostly rural or forested, but the county has designated Community Planning areas to concentrate growth in specific locations.

in order Greene County is more rural and highly forested due to the location of Shenandoah National Park. However, additional growth has moved the County to designate growth areas around existing towns. Louisa County land use has been primarily rural and rural residential in the past but is rapidly changing due to its location between Richmond and Charlottesville. Finally, Nelson County is primarily rural with large tracts of forested land within the George Washington National Forest and Wintergreen Resort.

TRANSPORTATION IMPLICATIONS

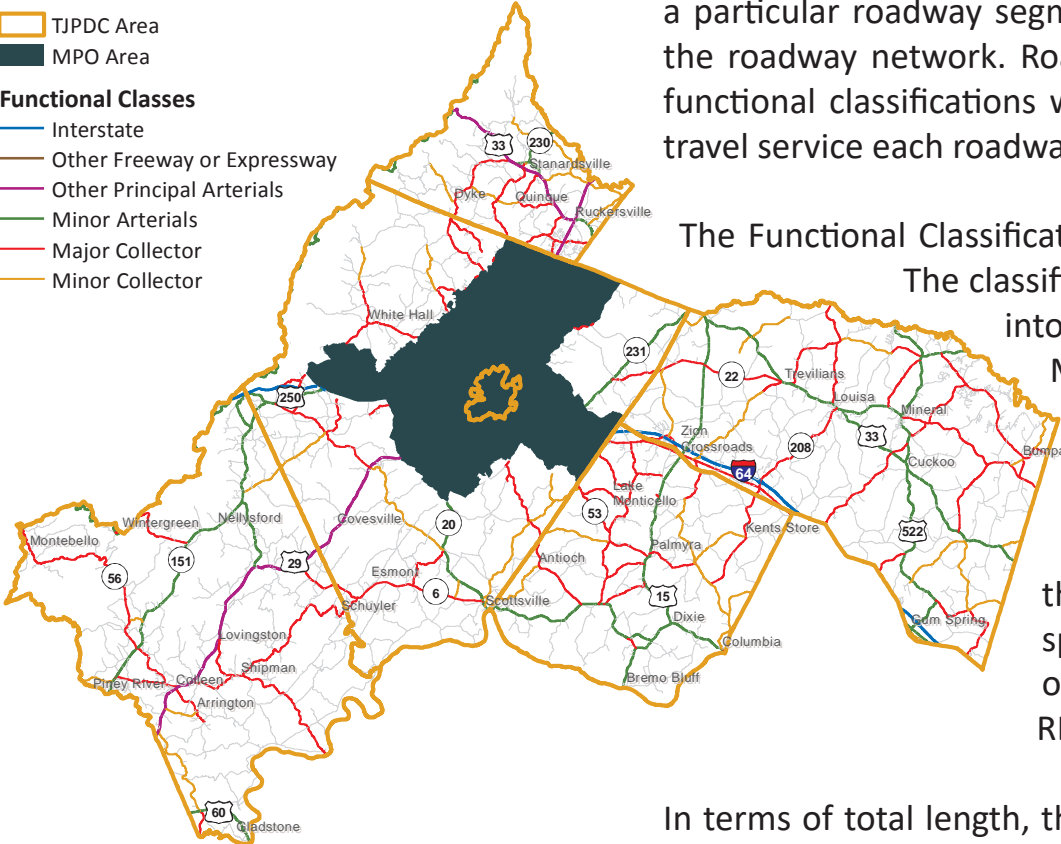
US Census data from 2010 decennial census and 2015 American Community Survey were reviewed at the block group level in order to provide enough detail to assess possible areas of service expansion for fixed-route and demand-responsive transit. Any segment of the population without a vehicle available, which can include elderly, people with disabilities, and low-income groups, are more dependent on responsive transit in a rural area than in urban areas. This is due to the smaller network of transit routes in rural areas when compared to urban areas. Through various regional planning documents such as the RLRP 2035 plan and the UnJAM 2035 plan, regional planners have sought to create a regionally cohesive transportation system that provides residents and businesses transportation choices and a safe efficient and well-maintained transportation system. These guiding principles are reflected in the recommendations included in this plan. Specific projects identified in the plan will have broad positive impacts on all segments of the region’s population. Connecting neighborhoods will also improve access to services. Bicycle and pedestrian projects will also expand mobility options and provide opportunities for healthy lifestyles.

Striving to achieve a balanced, multimodal transportation network that meets the travel needs of all populations in the planning district.





REGIONAL TRANSPORTATION SYSTEM



ROAD FUNCTIONAL CLASSIFICATIONS

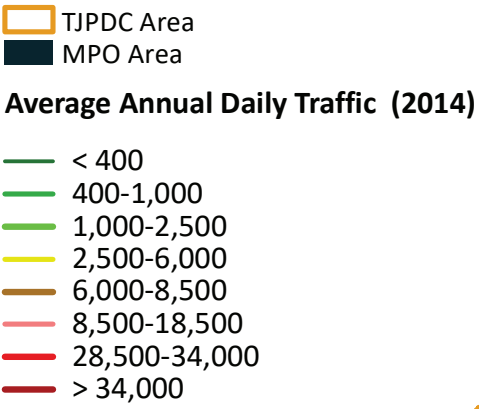
Functional Classification is the process by which streets and highways are grouped into classes, or systems, according to the character of service they are intended to provide. The functional classification defines the role that a particular roadway segment plays in serving the flow of traffic through the roadway network. Roadways are assigned to one of several possible functional classifications within a hierarchy according to the character of travel service each roadway provides.

The Functional Classification process does not include private roadways. The classified roadway segments in the region are grouped into four major categories: Principal Arterial, Minor Arterial, Collector, and Local. Principal Arterial's include interstate, other freeways and expressways, and other principal arterial roadways. Collectors include major and minor collector roads. The Local roadways that are usually composed of two-lane, low-speed rural roadway segments are not part of the Functional Classification analysis of the RLRP.

In terms of total length, the majority of roadways in the region are either private or local. In addition to Interstate 64, there are other principal arterials such as US 29 and US 33, minor arterials Route 20 and Route

Roadway Class	Total Length (Miles)	Percentage of All Roadways
Interstate	59.91	1.7%
Other Principal Arterials	99.37	2.8%
Minor Arterials	243.71	6.8%
Major Collector	371.97	10.5%
Minor Collector	171.67	4.8%
Local	1,497.96	42.1%
Not Classified	1,114.76	31.3%

151, major collector US 250, and minor collectors form the main skeleton of the roadway system in the region (see table on page 19 for “Total Length and Percentages of All Roadways” statistics).

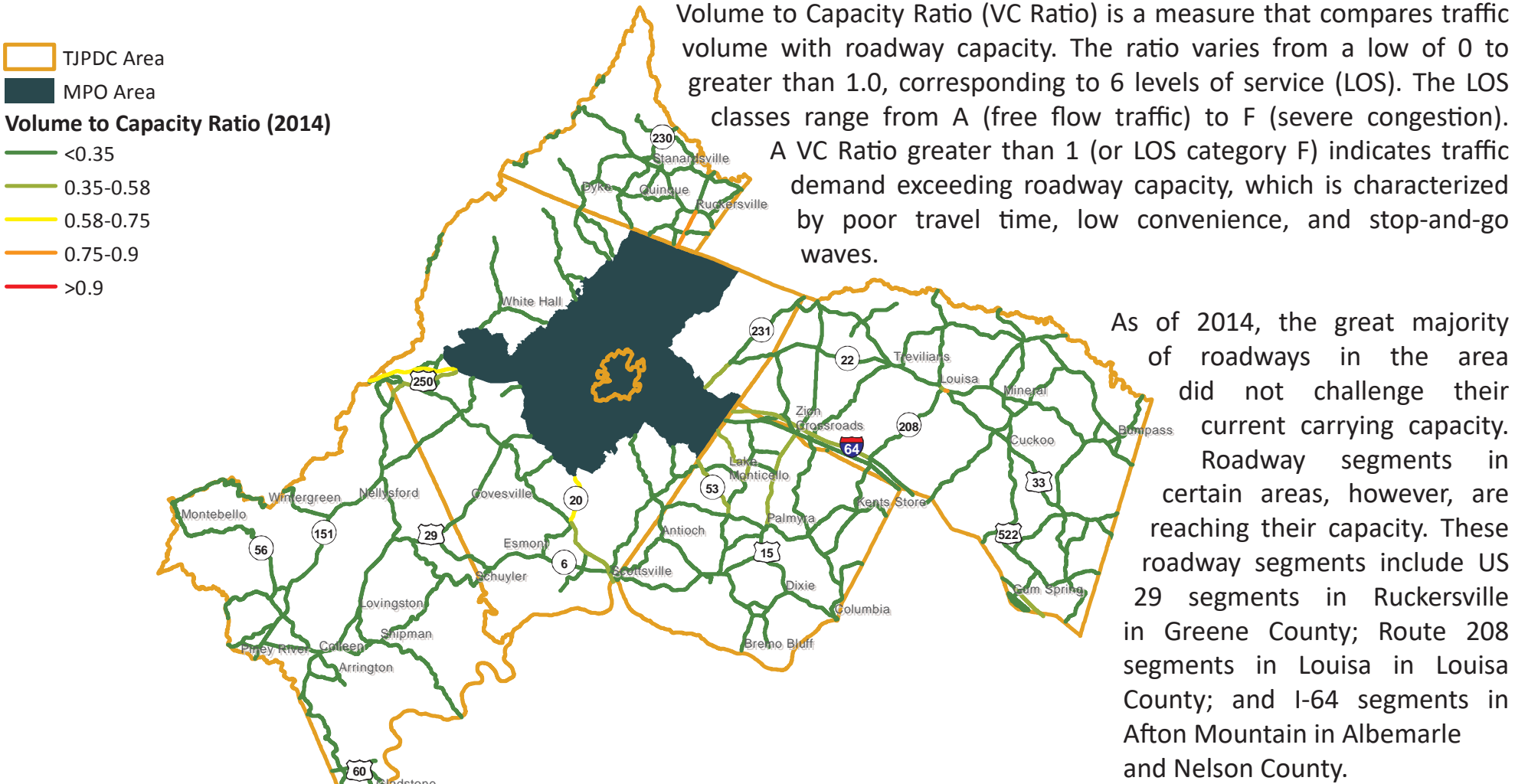
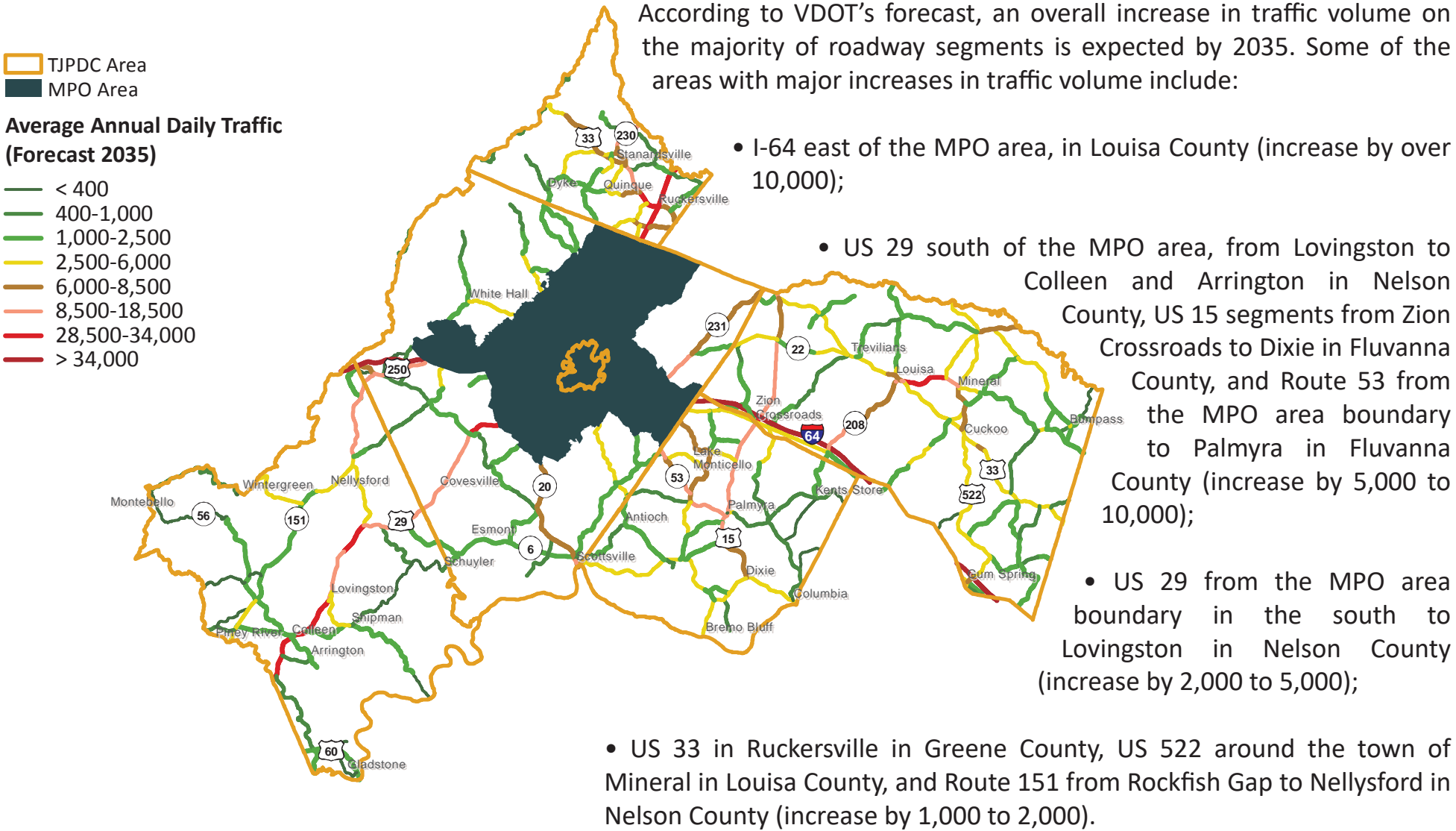


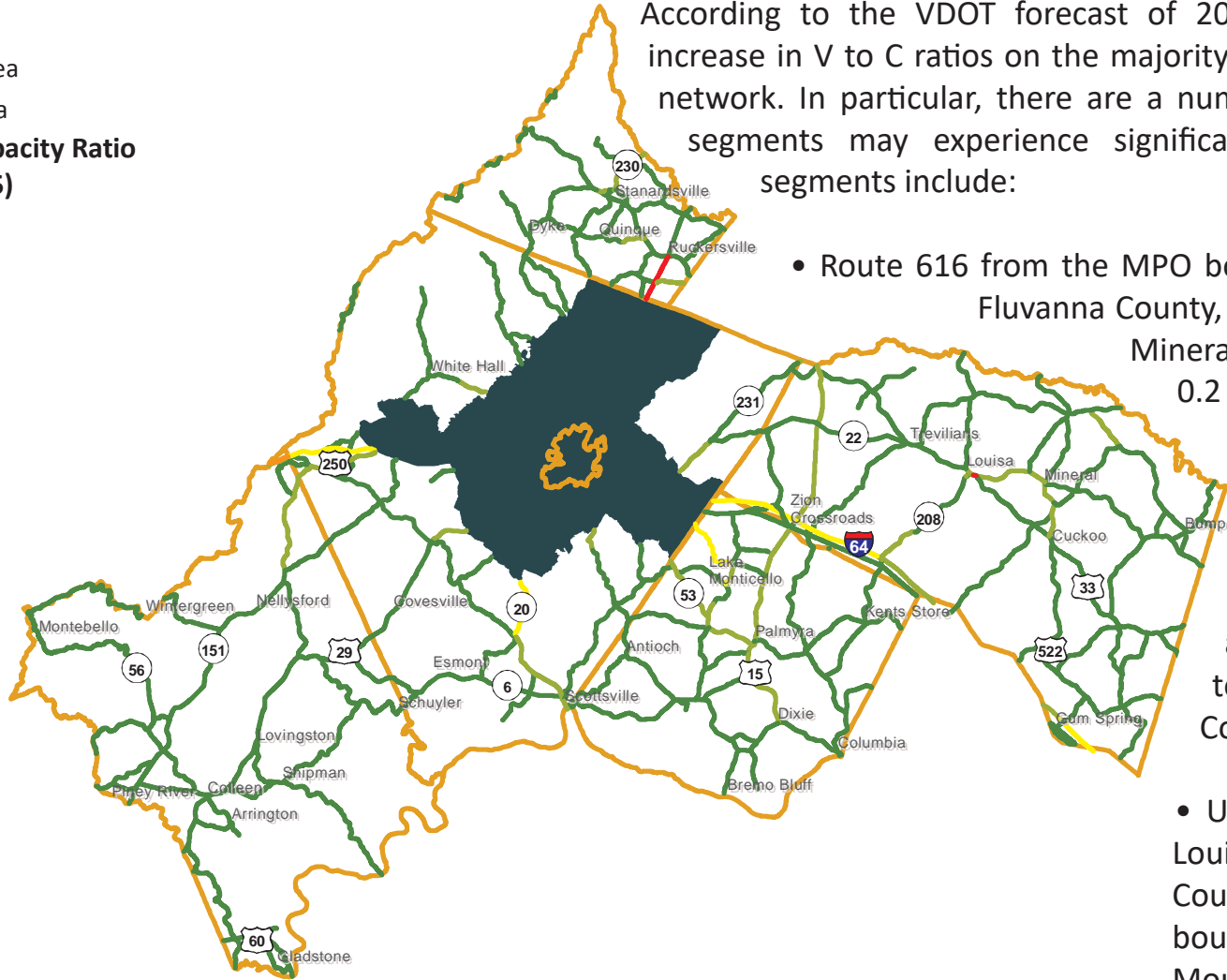
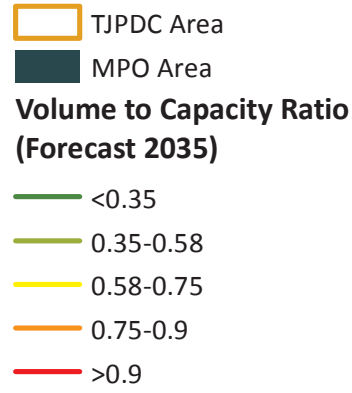
AVERAGE ANNUAL DAILY TRAFFIC

Annual Average Daily Traffic (AADT) is an estimate of the average daily traffic along a defined segment of a roadway. As shown on the adjacent map, there are several areas with high volumes of traffic concentration in the non-MPO portion of the TJPDC region. These areas include (in decreasing order of traffic volume carried):

- Segments of Interstate 64 and US 250 from Crozet to Afton Mountain, and I-64 segments from the MPO limits to Zion Crossroads in Louisa County;
- Segments along the US 29 corridor in Ruckersville in Greene County;
- Segments of US 29 from the MPO limits to Coveseville and Lovingston in Nelson County;
- Segments of Route 208 from Louisa to Mineral in Louisa County;
- Segments of Route 151 from Afton Mountain to Nellysford in Nelson County.

VOLUME TO CAPACITY RATIO



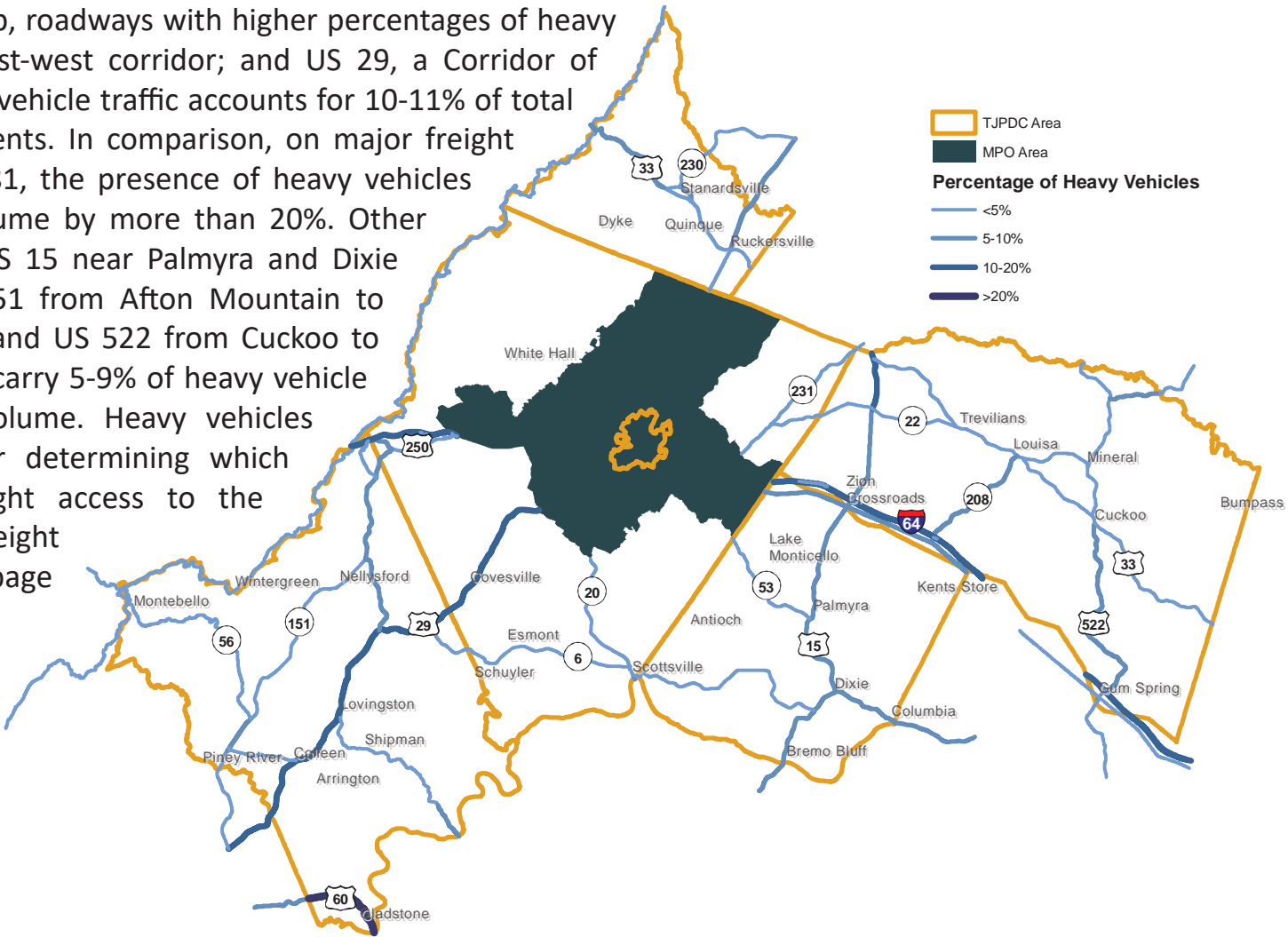
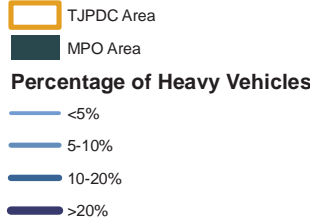


According to the VDOT forecast of 2035, there will be an overall increase in V to C ratios on the majority of the roadways in the area’s network. In particular, there are a number of areas where roadway segments may experience significant increases. Such roadway segments include:

- Route 616 from the MPO boundary to Lake Monticello in Fluvanna County, and Route 208 from Louisa to Mineral in Louisa County (increase by 0.2 to 0.3);
- I-64 east of the MPO area in Louisa County, Route 53 from Cunningham to Palmyra in Fluvanna County, and Route 633 from Quinque to Ruckersville in Greene County (increase by 0.15 to 0.2)
- US 15 from Zion Crossroads in Louisa County to Dixie in Fluvanna County, I-64 from the western boundary of the MPO to Afton Mountain in Albemarle County (increase by 0.1 to 0.15)

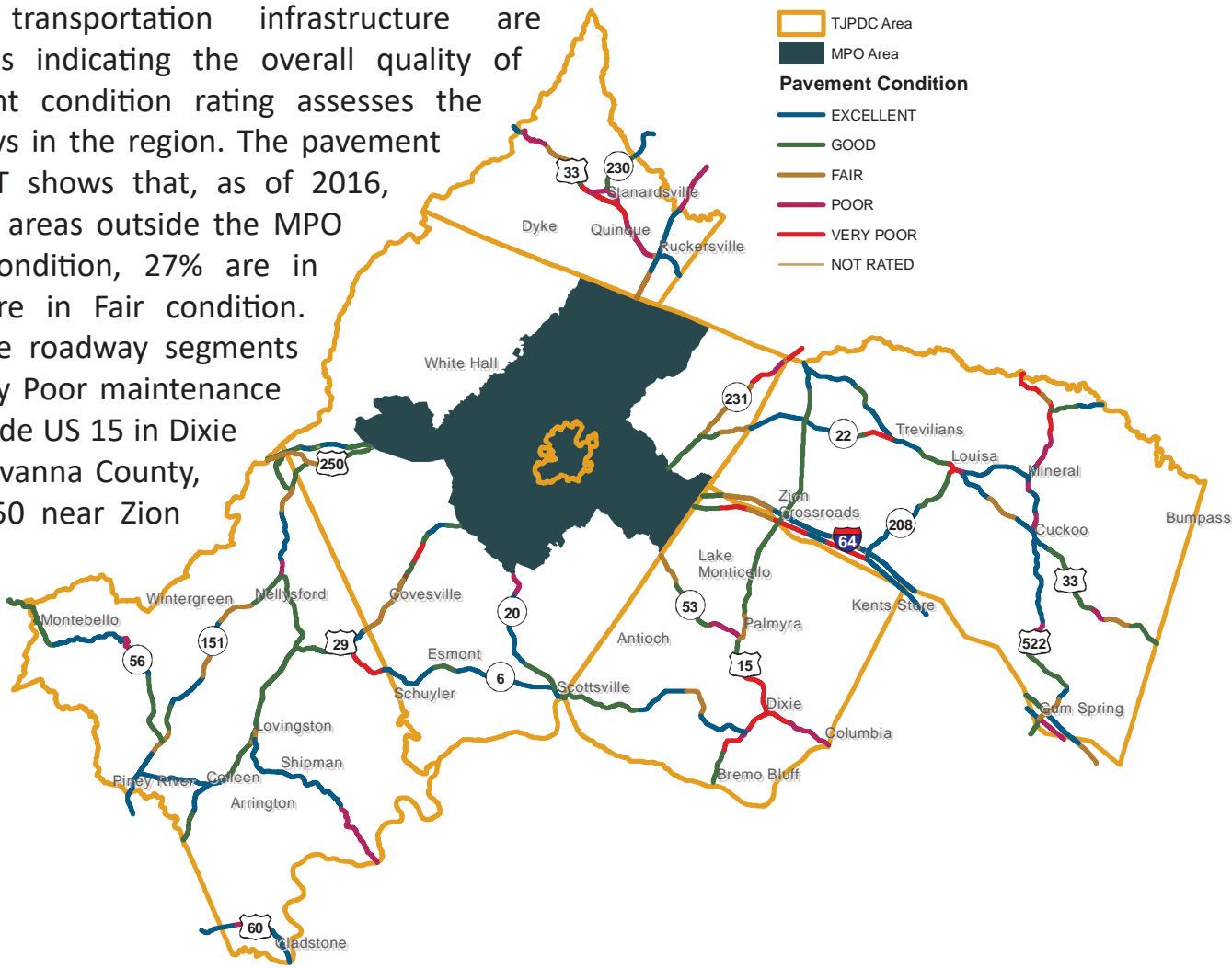
HEAVY VEHICLES TRAFFIC

As shown on the adjacent map, roadways with higher percentages of heavy vehicles are I-64, a major east-west corridor; and US 29, a Corridor of Statewide Significance. Heavy vehicle traffic accounts for 10-11% of total traffic volume of these segments. In comparison, on major freight corridors, such as Interstate 81, the presence of heavy vehicles increases the total traffic volume by more than 20%. Other roadway segments such as US 15 near Palmyra and Dixie in Fluvanna County, Route 151 from Afton Mountain to Nellysford in Nelson County, and US 522 from Cuckoo to Gum Spring in Louisa County carry 5-9% of heavy vehicle traffic in their daily total volume. Heavy vehicles can be used as a proxy for determining which corridors are providing freight access to the regions industries. Regional freight movement is discussed on page 29.



PAVEMENT CONDITIONS

Maintenance conditions of transportation infrastructure are important performance measures indicating the overall quality of the infrastructure. The pavement condition rating assesses the current state of repair of roadways in the region. The pavement condition rating data from VDOT shows that, as of 2016, 39% of the roadway segments in areas outside the MPO are in excellent maintenance condition, 27% are in Good maintenance, and 11% are in Fair condition. Approximately 8% and 9% of the roadway segments in the region are in Poor and Very Poor maintenance respectively. These segments include US 15 in Dixie and Route 53 near Palmyra in Fluvanna County, Route 22 near Louisa and US 250 near Zion Crossroads in Louisa County, US 29 near Ruckersville and US 33 in Standardsville in Greene County, and Route 6 in Nelson County.

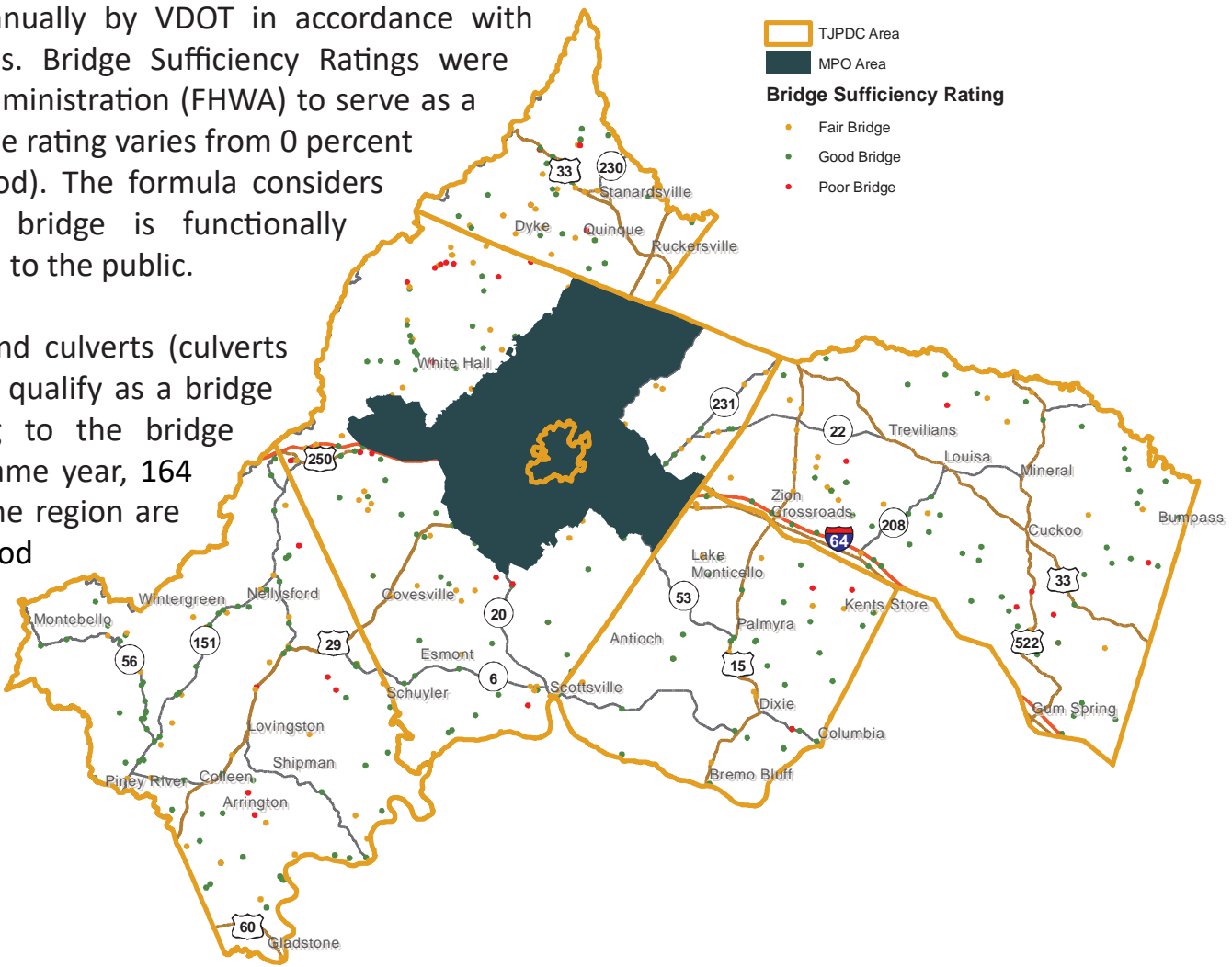


Jurisdiction \ Pavement Condition	Distance in Miles				
	Excellent	Good	Fair	Poor	Very Poor
Albemarle (Non-MPO area)	26	30	19	2	4
Fluvanna	10	32	12	8	13
Greene	12	9	11	16	21
Louisa	111	53	19	13	19
Nelson	69	75	15	13	4

BRIDGE SUFFICIENCY

Bridges in Virginia are inspected annually by VDOT in accordance with National Bridge Inspection Standards. Bridge Sufficiency Ratings were developed by the Federal Highway Administration (FHWA) to serve as a prioritization tool to allocate funds. The rating varies from 0 percent (very poor) to 100 percent (very good). The formula considers structural adequacy, whether the bridge is functionally obsolete, and level of service provided to the public.

As of 2015, there are 455 bridges and culverts (culverts must be a minium of 20’ in width to qualify as a bridge structure) in the region. According to the bridge sufficiency rating conducted in the same year, 164 (36%) of all bridges and culverts in the region are in Fair condition, 264 (58%) are in Good condition, and 37 (8%) are in Poor condition. The summary of bridges and culverts rating by location is presented in the table below.



Jurisdiction \ Bridge Sufficiency	Number of Bridges and Culverts of 20'+		
	Fair	Good	Poor
Albemarle	59	65	16
Fluvanna	18	35	4
Greene	24	22	4
Louisa	30	60	7
Nelson	33	82	6

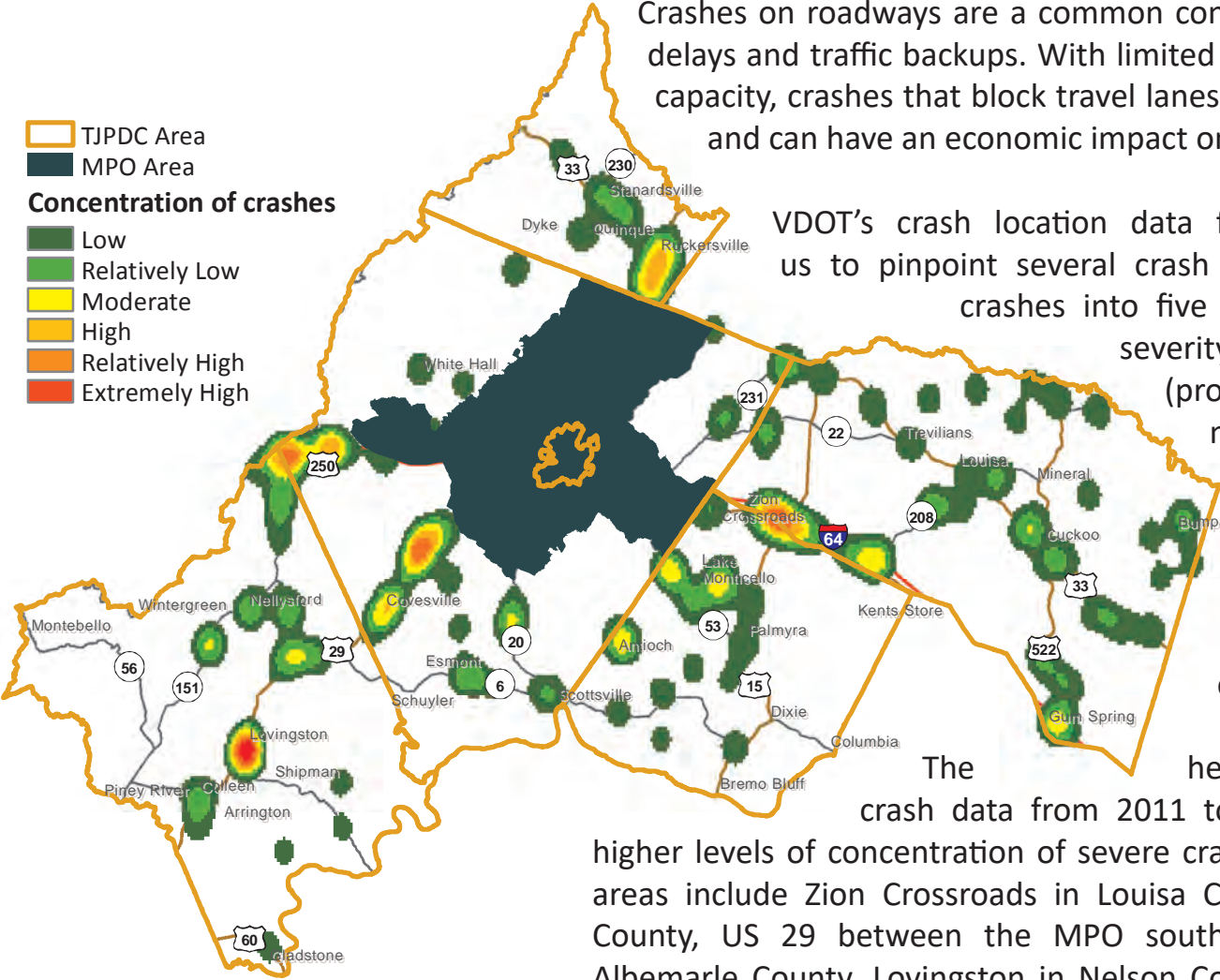
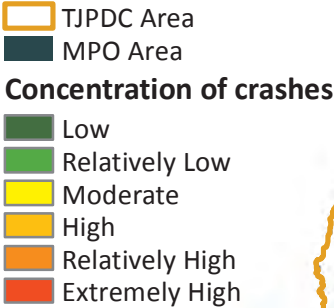
Bridge Sufficiency Ratings consider structural adequacy, whether the bridge is functionally obsolete, and level of service provided to the public.

CONCENTRATION OF CRASHES

Crashes on roadways are a common contributing factor that results in delays and traffic backups. With limited alternative routes with similar capacity, crashes that block travel lanes can cause significant backups, and can have an economic impact on people and communities.

VDOT’s crash location data from 2011 to 2016 enables us to pinpoint several crash hotspots. The data classifies crashes into five categories according to their severity that range from least severe (property damage only) to the most severe (fatal injury). The crash locations are mapped by attributing each crash type a different weight according to its severity, referring to the ‘KABCO’ scale established by VDOT.

The heat map, created using VDOT crash data from 2011 to 2016, illustrates areas with higher levels of concentration of severe crashes – crash hot spots. These areas include Zion Crossroads in Louisa County, Ruckersville in Greene County, US 29 between the MPO southern limits and Covesville in Albemarle County, Lovington in Nelson County, and I-64 and US 250 in Rockfish Gap.



Crash Type	Value	Weight	Number
Fatal (K)	\$5,400,000	540	812
Serious (A)	\$300,000	30	2,052
Moderate Injury (B)	\$100,000	10	477
Minor Injury (C)	\$50,000	5	122
Property Damage Only (O)	\$10,000	1	6,730

POTENTIAL FOR SAFETY IMPROVEMENT LOCATIONS

VDOT provides statewide data analysis to develop the Potential for Safety Improvements (PSI) locations for all state routes and uses the most recent three years of crash data to calculate the PSI. As a result, VDOT identifies and ranks top candidate locations, roadway segments and intersections. The locations with higher rankings have higher potential for safety improvements and are prioritized for funding.

In the TJPDC region, Nelson County is a part of the VDOT Lynchburg District, and the rest of the counties are apart of the VDOT Culpeper District. The locations with high PSI rankings are as follows:

Nelson County

- US 29 segment near Lovington (PSI 72)
- Two intersections on Route 6 near Nellysford (PSI 60 and 72)

Albemarle County

- Route 6 segment in near Scottsville (PSI 139)
- Route 810 segment near Crozet (PSI 125)
- Route 729 segment near Saddlewood Farms (PSI 136)

Louisa County

- US 33 segments between Louisa and Cuckoo (PSI 152)
- US 33 segments in the east of Louisa (PSI 141)
- Route 623 segments in the north of Mineral (PSI 138)



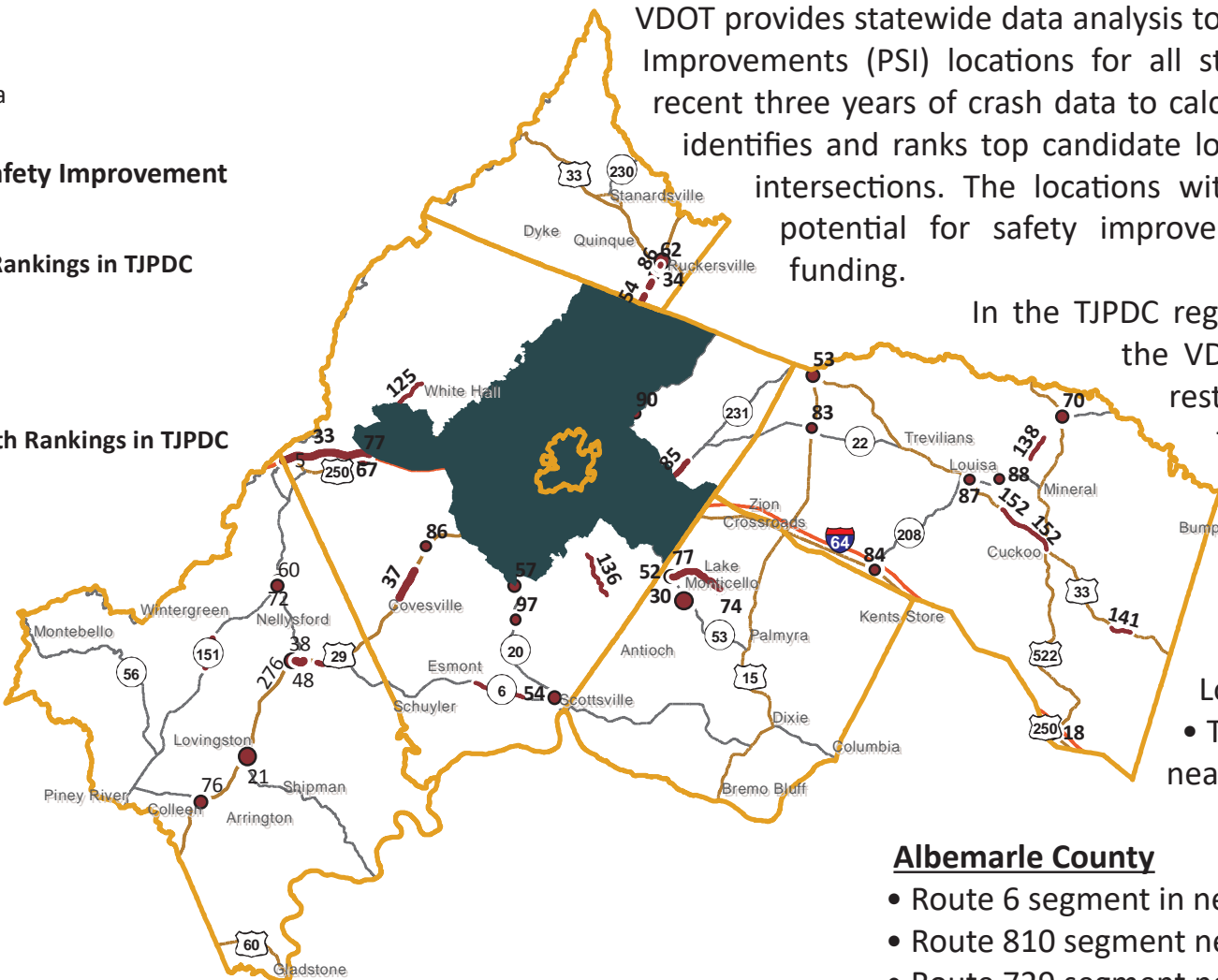
Potential for Safety Improvement (PSI) Locations

Segments with Rankings in TJPDC

- <50
- 50-80
- 80-100
- >100

Intersections with Rankings in TJPDC

- <30
- 30-50
- 50-80
- >80



Greene County

- US 29 segments south of Ruckersville (PSI 100 and 115)
- Intersection on US 29 south of Ruckersville (PSI 82)

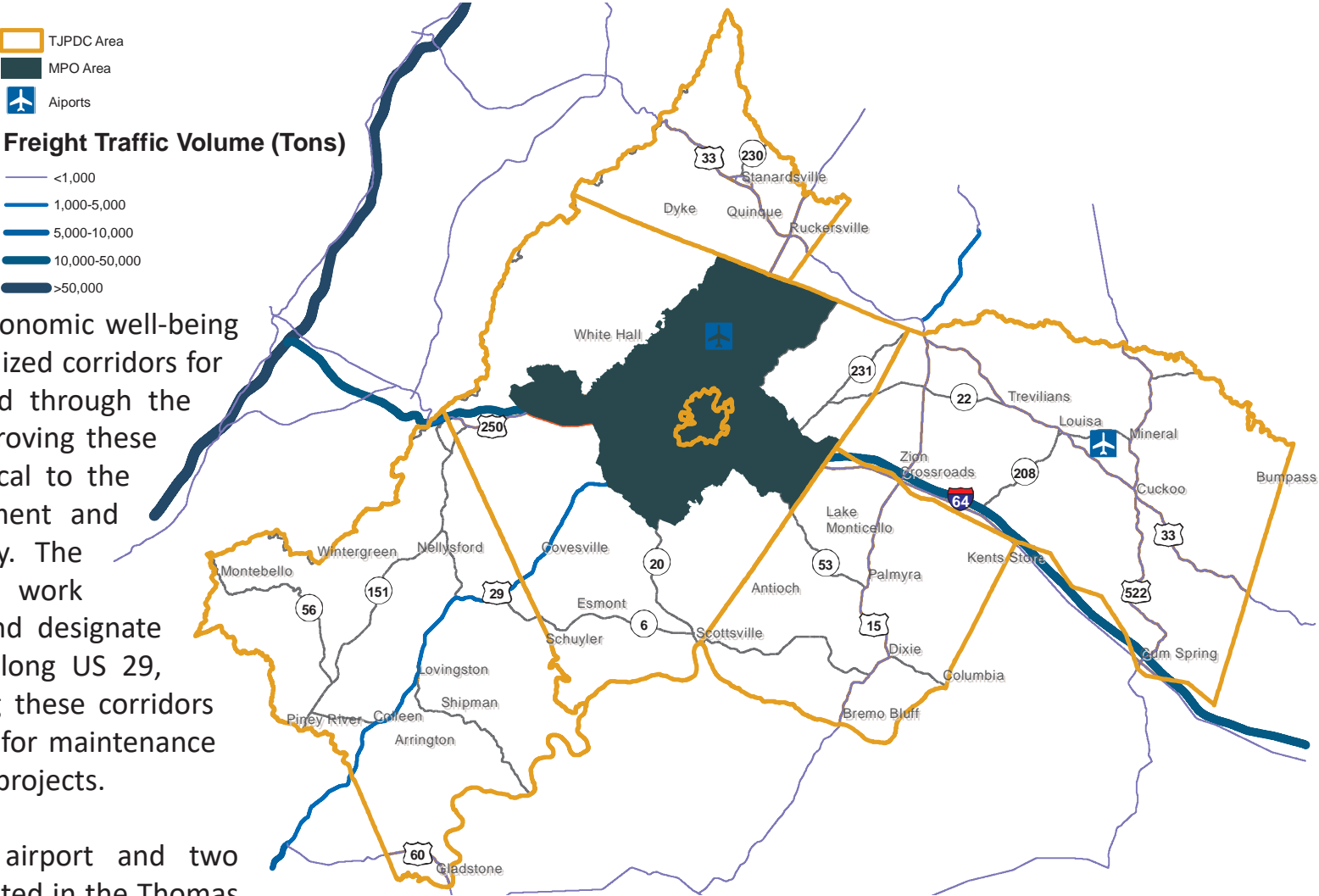
FREIGHT AND INTER-REGIONAL TRANSPORTATION

Situated at a major transportation crossroads, the region is well served by freight and inter-regional transportation connections. These connections include interstate 64 and, within close proximity, Interstate 81, US 250 (a corridor of statewide significance), and rail linkages on several class I railroads (CSX and Norfolk Southern) providing access to major ports and west into the heartland of America. These freight connections are critical to the region’s economic well-being and are the region’s most utilized corridors for transporting goods from and through the region. Maintaining and improving these transportation links are critical to the region’s economic development and long-term economic stability. The region should continue to work collaboratively to identify and designate key rural freight corridors along US 29, I-64, and US 15. Designating these corridors as such could bring revenue for maintenance and construction of roadway projects.

There is one commercial airport and two general aviation facilities located in the Thomas Jefferson region. The Charlottesville-Albemarle Airport is

29 | 2040 RLRP

Approximately 16 interstate carriers serve the Charlottesville urbanized area and broader Planning District via truck freight, four of which have Albemarle County terminals.



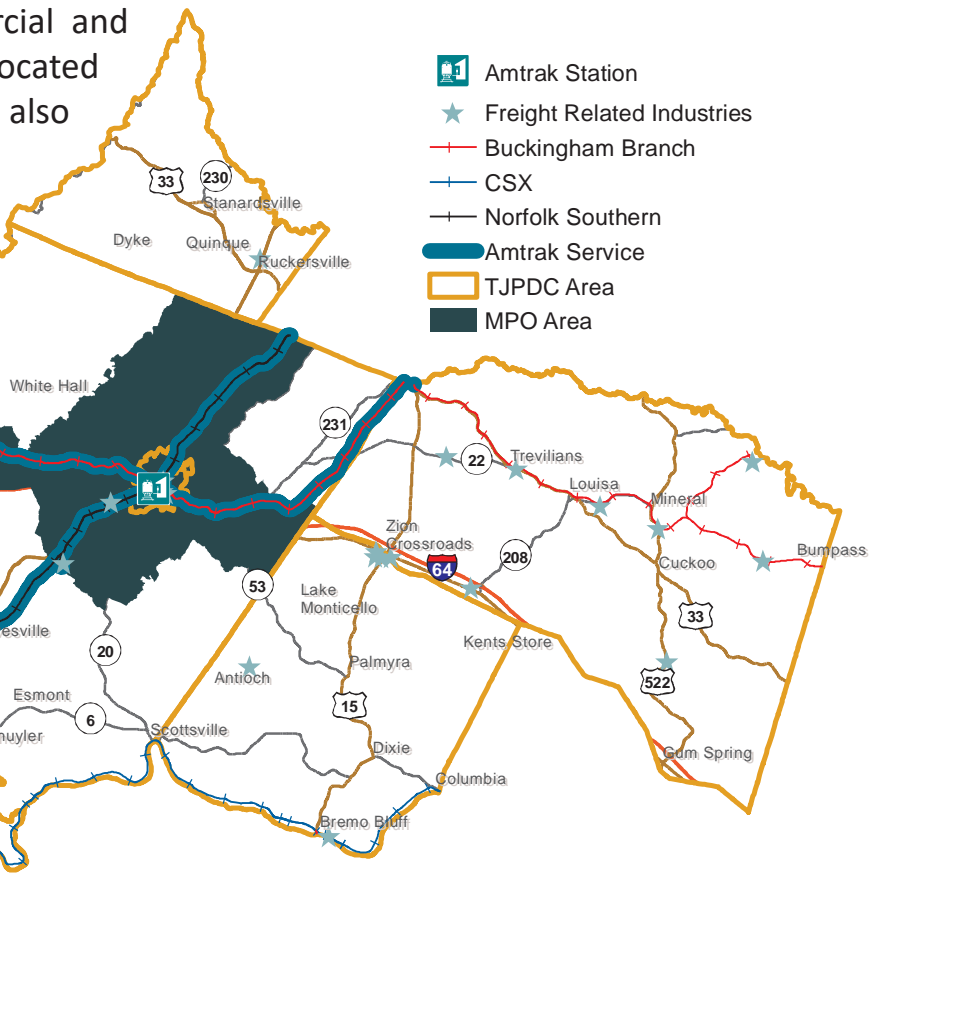
located in northern Albemarle County and provides both commercial and general aviation services. Louisa County Industrial Airpark is located between the towns of Louisa and Mineral. Lake Anna Airport is also located in Louisa County just west of Bumpass.

One Amtrak station, in the City of Charlottesville, serves three routes: The Crescent, which runs from New York to New Orleans daily, and the Cardinal/Hoosier State, which operates between New York and Chicago three days per week. The existing Northeast Regional was extended to Lynchburg in October 2009 with potential final destinations as far north as Boston. There is a stop in Charlottesville.

Additional inter-city transportation is also available via Greyhound Bus Lines, which works in conjunction with Amtrak in the Charlottesville-Albemarle MPO area. Greyhound also provides transportation to major cities within and outside the region, but this transportation is utilized more for recreational travel than standard commuting patterns.

GOODS MOVEMENT

Freight generators with the Thomas Jefferson region were identified and their proximity to nearby major roadway and rail corridors noted. Approximately 16 interstate carriers serve the Charlottesville urbanized area and broader Planning District via truck freight, four of which have Albemarle County terminals: UPS, FedEx, Swift, and Roadway Express. Four roadways



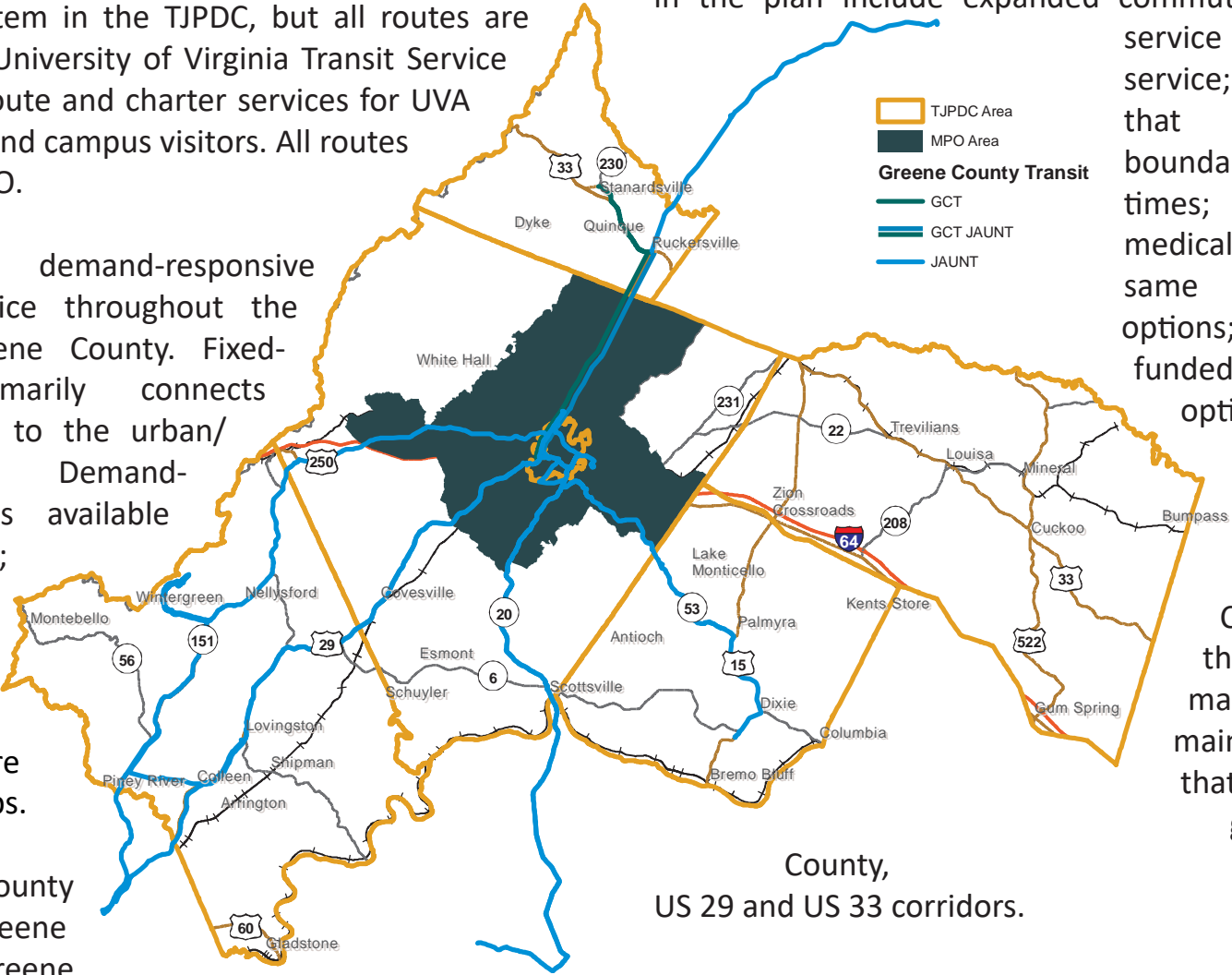
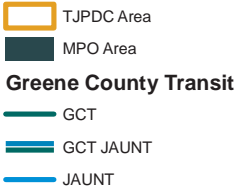
provide primary access to the major commercial areas and business centers at the center of the Planning District - Interstate 64, US 29, US 250 and US 15. Major employers were also identified and mapped by the TJPDC in order to assess additional trip generator locations as part of the traffic analysis.

PUBLIC TRANSPORTATION

Public transportation includes public transit, both fixed-route and demand-responsive, volunteer transportation, and private providers. Charlottesville Area Transit Service operates a public fixed-route transit system in the TJPDC, but all routes are within the MPO. The University of Virginia Transit Service (UTS) operates fixed-route and charter services for UVA students, employees, and campus visitors. All routes are also within the MPO.

JAUNT operates demand-responsive and fixed-route service throughout the PDC, except in Greene County. Fixed-route service primarily connects outlying communities to the urban/metropolitan area. Demand-responsive service is available seven days a week; days and hours of service vary by locality. From July 2016 to June 2017, JAUNT provided more than 355,000 trips. Demand-responsive services in Greene County are provided by Greene County Transit. Greene County Transit operates Monday through Friday with shorter hours on Saturday.

JAUNT completed a Transit Development Plan (TDP) in June 2011. JAUNT, CAT, and Greene County Transit are currently updating their TDP's, any recommendations from those plans can be incorporated at a later date. Transit needs identified in the plan include expanded commuter routes; expanded service hours and weekend service; additional services that cross jurisdictional boundaries; reduced ride times; expanded service to medical facilities; expanded same day transportation options; non-Medicaid funded medical trips; options for recreational trips; and improved coordination with Greene County Transit. Greene County Transit, for their future needs, has made a commitment to maintain service levels that match population growth in Greene especially along the

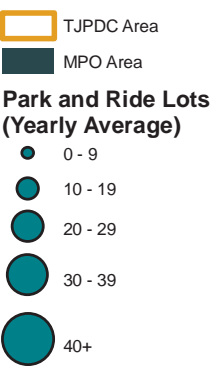
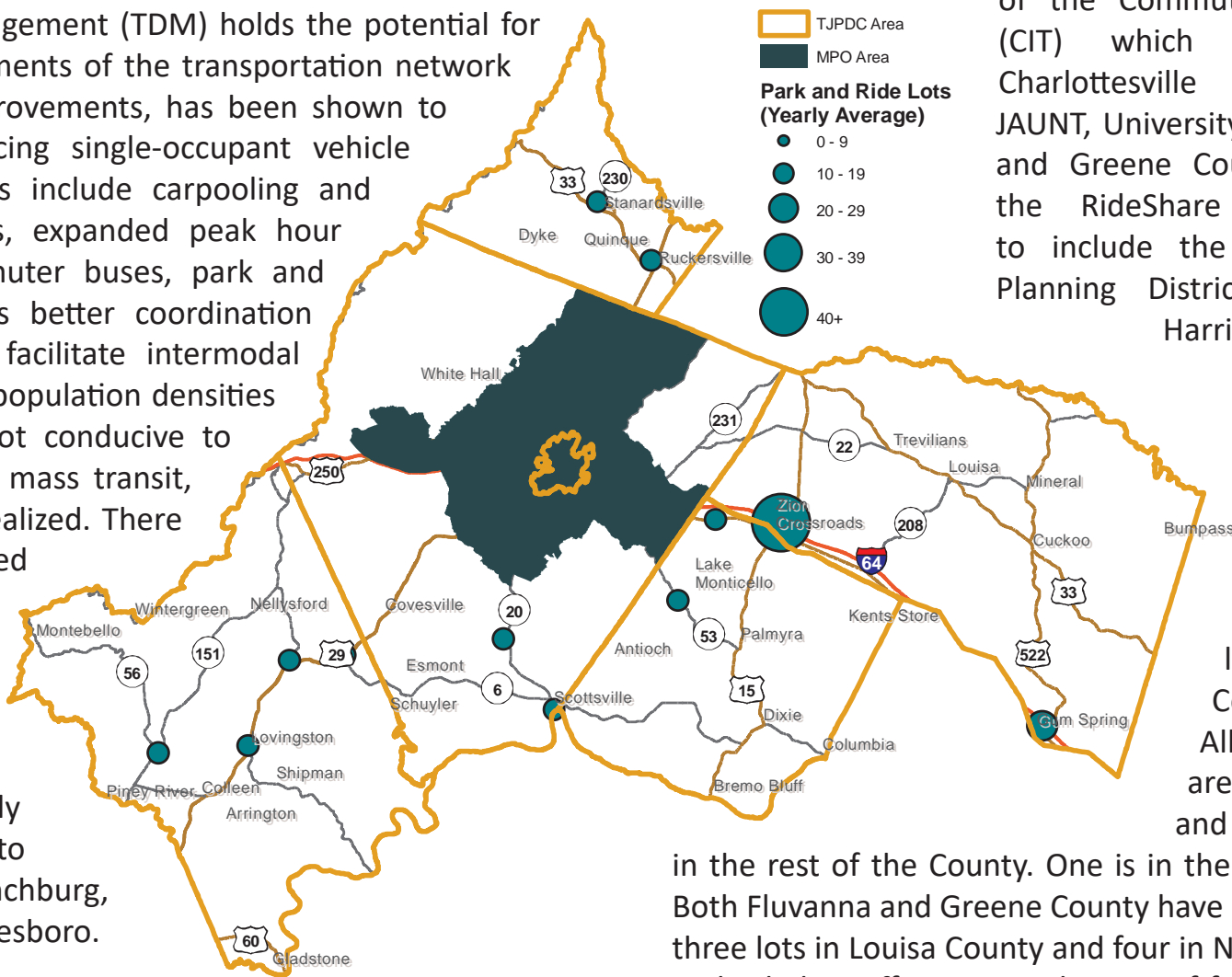


County, US 29 and US 33 corridors.

TRAVEL DEMAND MANAGEMENT

Travel Demand Management (TDM) holds the potential for enhancing many elements of the transportation network and, with other improvements, has been shown to greatly aid in reducing single-occupant vehicle trips. TDM measures include carpooling and vanpooling programs, expanded peak hour public transit, commuter buses, park and ride lots, as well as better coordination between modes to facilitate intermodal transfers. While low population densities in rural areas are not conducive to major shifts towards mass transit, some gains can be realized. There are concentrated areas to which commuters in the TJPDC are currently traveling for employment, primarily Charlottesville and, to a lesser extent, Lynchburg, Richmond, and Waynesboro.

TJPDC coordinates the RideShare program, whose services include car and vanpool matching, referrals to transit providers, inventory, marketing and developing park and ride lots, operating the Guaranteed Ride Home Program, and promoting bicycle and pedestrian transportation. Total active RideShare registrants as of December 2017 was 552.



in the rest of the County. One is in the City of Charlottesville. Both Fluvanna and Greene County have one lot each. There are three lots in Louisa County and four in Nelson County. The park and ride lots offer varying degrees of formality and amenities. Several of the lots are owned and operated by VDOT and include lighting and trash cans. Other parking lots are informal and are gravel strips along VDOT right-of-way at major intersections. Most of the park and ride lots exist at private facilities through agreements with the property owners. The

RideShare is an active participant of the Commuter Information Team (CIT) which includes RideShare, Charlottesville Area Transit (CAT), JAUNT, University Transit Service (UTS), and Greene County Transit. In 2009 the RideShare program expanded to include the Central Shenandoah Planning District (CSPDC) and the Harrisonburg metro area.

There are presently 31 official and unofficial park and ride lots throughout the RideShare service area, with 10 of those lots in Albemarle County. Within Albemarle County, nine are in the urban area and three are spread out

Waynesboro official VDOT park and ride lot, located in the CSPDC, is the busiest lot, with the majority of users commuting to work in the City of Charlottesville. The other two busiest lots are also official VDOT lots at Zion Crossroads and Gum Springs in Louisa County. The average number of all park and ride lot users was 317 in 2017.

BICYCLE AND PEDESTRIAN FACILITIES

Bicycle and pedestrian facilities are well used in the urban areas. Roads without facilities are also used by necessity. The region is traversed by US Bike Route 76, an east to west cross-country bike route, and the Appalachian Trail. The Jefferson Area Bike and Pedestrian Plan outlines potential corridors that can be developed by each locality over time (TJPDC, 2004). Currently TJPDC staff are developing an update to the Jefferson Area Bike and Pedestrian Plan. The update will be integrated into the region’s 2040 Rural Long Range Plan and the MPO’s 2045 Long Range Transportation Plan (LRTP). The Planning District completed a region-wide study of the Bike Route 76. Adopted in 2012, the study provides detailed recommendations for improving safety and bikeability of this on-road transAmerican bike route.

The majority of bicycle route development and planning has been concentrated within the MPO, City of Charlottesville, and Albemarle County. The City of Charlottesville and Albemarle County adopted bicycle plans in 1991 and updated these in 2004 known as the Jefferson Area Bike and Pedestrian Plan. The city has further adopted a Bicycle and Pedestrian Master Plan in 2015.

Other than US Bike Route 76, Fluvanna County maintains minimal bicycle facilities. Biking in Fluvanna County is generally for recreational purposes or short trips. Palmyra and Columbia each have a few narrow walkways, while Fork Union has sidewalks along US 15 and VA 6. Fluvanna County has, however, expanded its trail system at Pleasant Grove near Palmyra. The Fluvanna Heritage Trail and Village Park are designed to provide pedestrian access for tourists and local citizens to the Rivanna River, by linking the village of Palmyra to Pleasant Grove, a county-owned tract of land.

Greene County roads offer potential routes for bicyclists. On some roads there is very little automobile and/or truck traffic; however, most roads do not currently have paved shoulders or bike lanes. Pedestrian activity in Greene County is generally limited to Standardsville and Ruckersville. The Appalachian Trail passes through the western mountains of the County.

The secondary and back roads of Louisa County host numerous bicycle routes, including 25 miles of US Bike Route 76. Louisa County has a painted, on-road bicycle lane on a section of VA 618 near the Town of Mineral. The majority of pedestrian activity and facilities are in the Towns of Louisa and Mineral.

The Blue Ridge Parkway is a key bike route along the western edge of Nelson County and is part of US Bike Route 76. Other major tourist bikeways in Nelson County include the Delfosse Trail, the Rockfish Valley Loop Trails, and the Blue Ridge Railway Trail, which is an ongoing rails to trails project. There are a number of hiking opportunities in the area including trails at Fortunes Cove Preserve, Wintergreen Resort, Crabtree Falls, Nelson County Wilderness Area, and the Appalachian Trail.

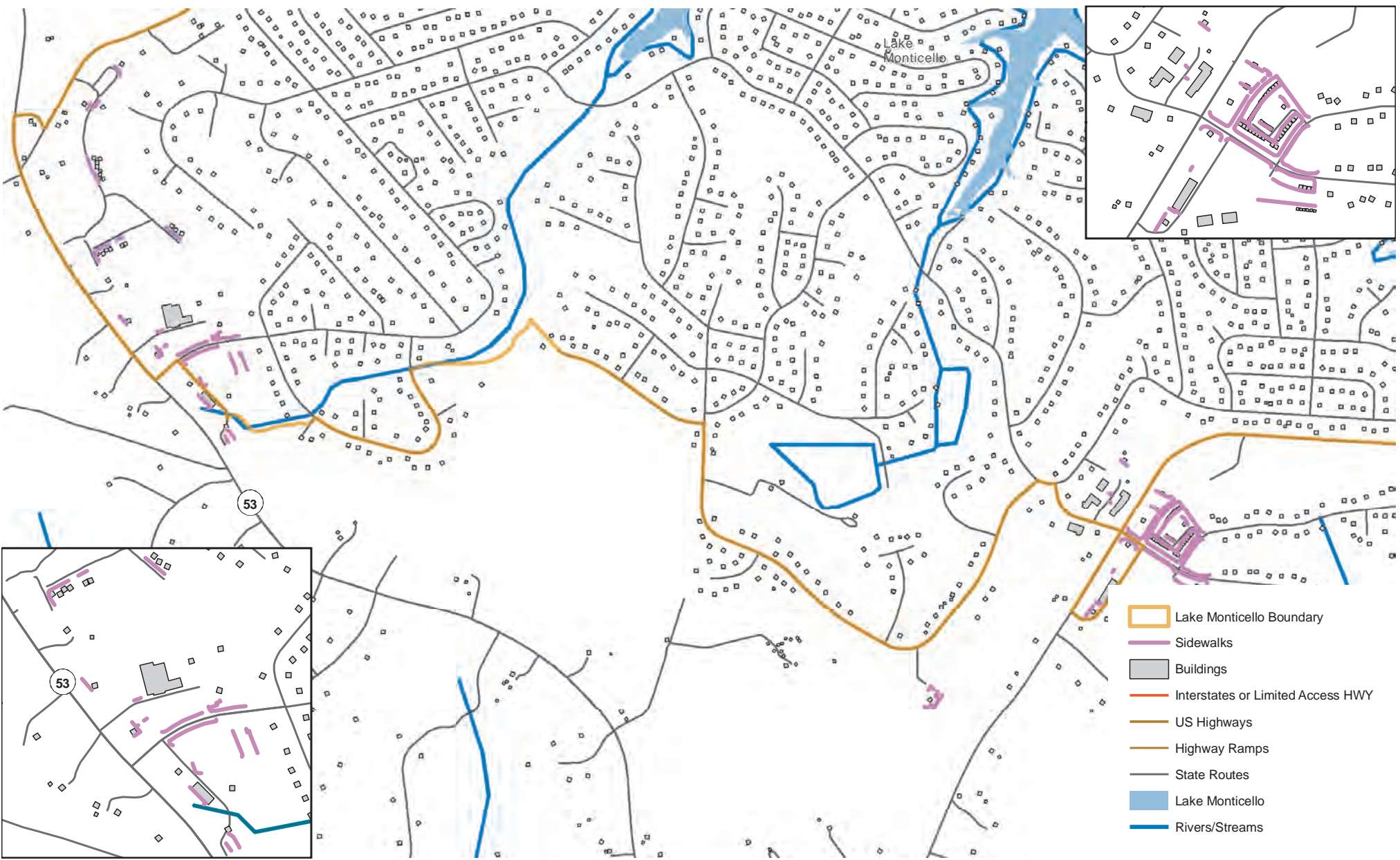


Photo Credit: Louisa County

ALBEMARLE COUNTY | TOWN OF SCOTTSVILLE



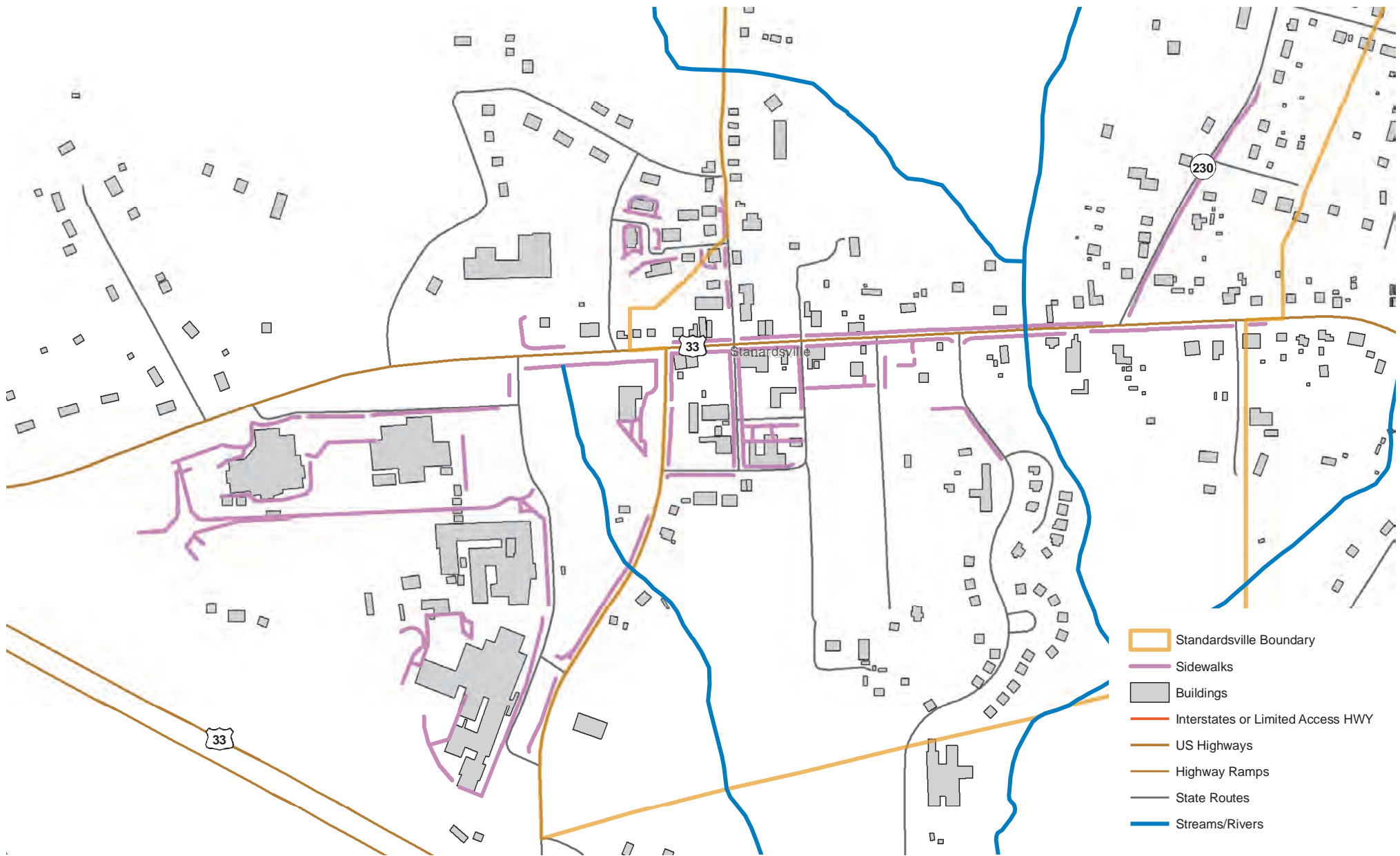
FLUVANNA COUNTY | LAKE MONTICELLO



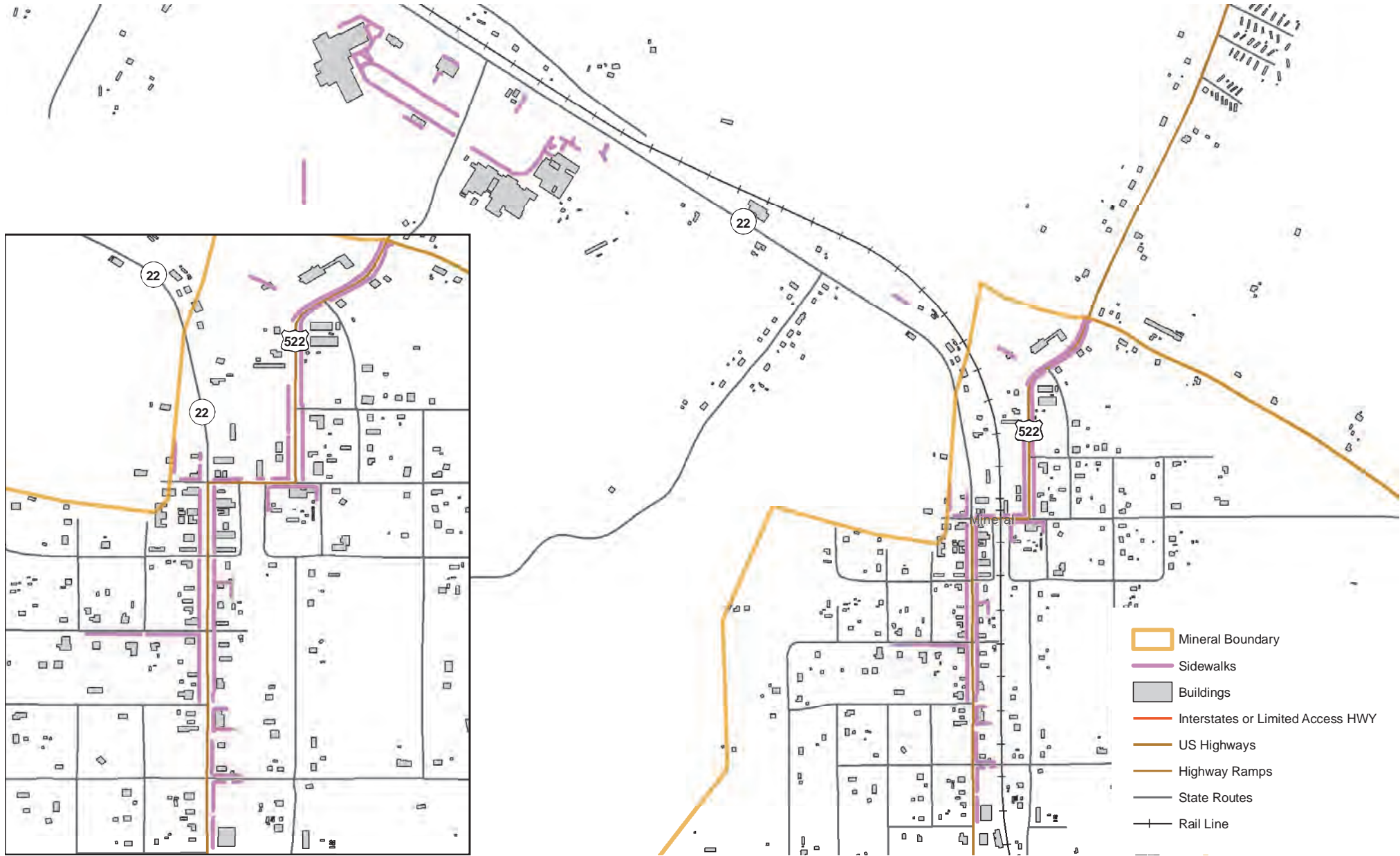
FLUVANNA COUNTY | PALMYRA



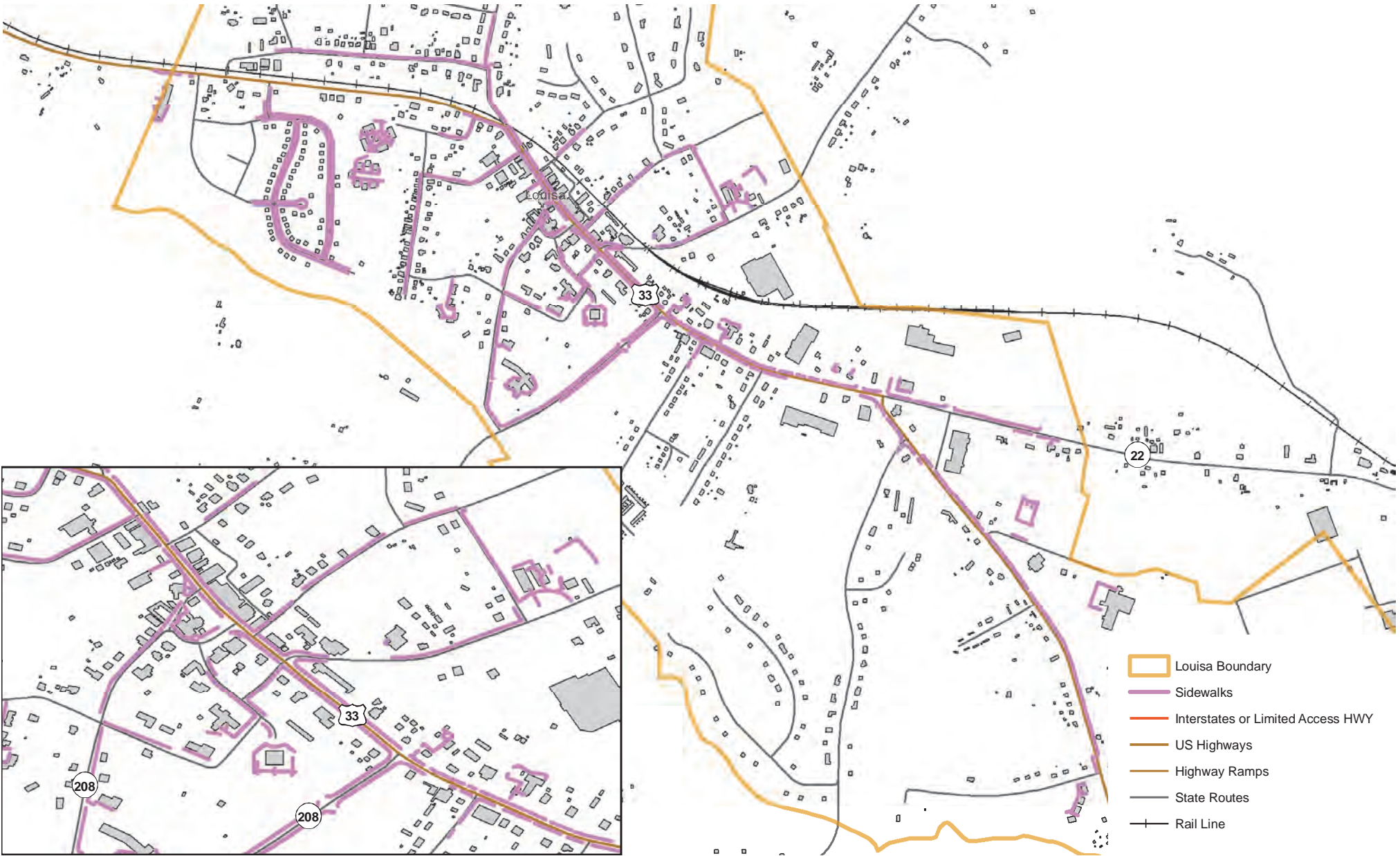
GREENE COUNTY | TOWN OF STANARDSVILLE



LOUISA COUNTY | TOWN OF MINERAL

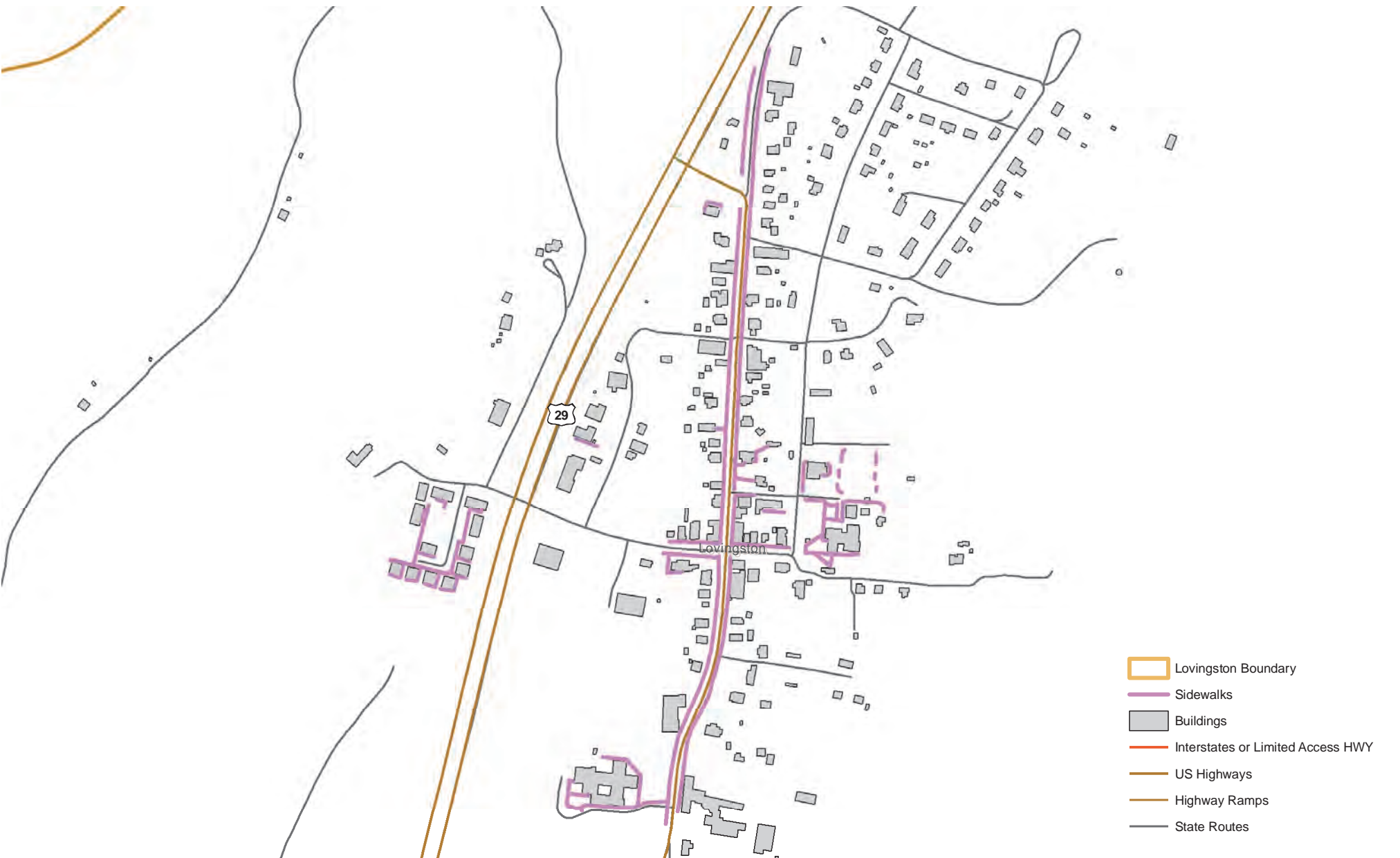


LOUISA COUNTY | TOWN OF LOUISA



LOUISA COUNTY | ZION CROSSROADS

NELSON COUNTY | LOVINGSTON





PERFORMANCE AND RECOMMENDATIONS

DEFICIENCY EVALUATION

The Moving Ahead for Progress in the 21st Century (MAP-21) Transportation Reauthorization bill (P.L.112-141), which took effect in 2012 places greater emphasis on performance-based planning and measures as well as performance-based funding approaches. The bill established national performance goals in seven categories; safety, infrastructure condition, congestion reduction, system reliability, freight movement and economic vitality, environmental sustainability, and reduced project delivery delays. To measure progress towards meeting these goals the bill sets out a set of transportation performance measures. MPO’s, DOT’s and other stakeholders have been working to implement the measures into their planning systems. For the rural areas in Virginia, implementation is on the statewide level with rural plans supporting the statewide goals. Projects included in the RLRP have been reviewed with this in mind.

On the state level, the Smart Scale process has transformed how funding is allocated to transportation projects. Projects must compete for funding based on expected quantifiable outcomes tied to a common set of performance measures. This is further reflected in VTRANS 2040, which is the State’s transportation plan. As a result of these policy changes the 2040 RLRP integrated performance-based planning at its core. This included ensuring that the plan’s goals and objectives were aligned with Map-21 and that projects were evaluated

to determine their potential performance under the Smart Scale scoring systems. Projects identified in this chapter were screened using a performance measure-based project ranking and prioritization tool. By utilizing this approach all projects have been shown to provide transportation benefits falling into the following categories:

- Safety
- Geometry structure
- Bridge sufficiency
- Capacity

The 2040 Rural Long-Range Transportation Plan is designed to identify projects that have the potential to do well and get funded by Smart Scale. To that end, all projects presented in the plan recommendations were evaluated against Smart Scale scoring proxies. A detailed discussion of the Smart Scale process is included in this section. For additional information about Smart Scale please visit www.smartscale.org

To assist in scoring projects TJPDC staff used a spreadsheet scoring template developed by the VDOT Lynchburg office. The spreadsheet tool allowed projects to be evaluated and ranked based on similar categories and weights to Smart Scale and VTRANS. Goals and weights used in evaluating projects included in the plan are highlighted in the table at the top of page 44.

GOAL	WEIGHTS USED FOR SCORING (MATCHING SMART SCALE CATEGORY C)
Goal 1: Provide a transportation system that facilitates the efficient movement of people and goods	15%
Goal 2: Provide a safe and secure transportation system	25%
Goal 3: Retain and increase business and employment opportunities	25%
Goal 4: Improve quality of life and protect the environment	10%
Goal 5: Preserve the existing transportation system and promote efficient system management	25%
Additional points for multimodal transportation	0%

The planning process involved TJPDC staff working with local jurisdictions and the MPO-Technical committee to review project lists in the 2035 Rural Long-Range Transportation plan. These reviews took into account new studies and statewide priorities including STARS, the Route 76 Bike Route study, VTRANS 2040 and local comprehensive plans. To further inform this exercise, Planning District staff conducted a region- wide deficiency analyses using all available data on roadway performance, safety, access to employment, state of good repair and impacts on the natural and human environment. Once the analyses were completed and project areas were identified, the project areas were then fed into the spreadsheet-based scoring tool. This allowed projects to be evaluated and prioritized on a county basis. The projects presented on the following pages are the result of this process.



Photo Credit: Virginia Department of Transportation

Recommendations in the plan are categorized as follows:

1. Safety

Recommendations were developed for both intersections and segments through the region. The recommendations are identified by jurisdiction in blue.

2. Geometry and Structure

a. Geometric Conditions

Roadways and intersections with geometric deficiencies such as substandard lane width, shoulder width, or horizontal and vertical curvature, were identified from the VDOT Statewide Planning System (SPS) database. Higher priorities were given to those roadways with potential geometric concerns that also carried higher levels of traffic. Recommendations to address these needs are identified by jurisdiction in green.

b. Bridge Condition

Current bridge sufficiency ratings were reviewed and those structures with a rating of less than 50 were considered deficient and in need of structural upgrades or replacement. These appear in a separate table by jurisdiction. A functionally obsolete structure has an appraisal rating of three or worse for the deck geometry, under clearance, approach roadway alignment, structural condition or waterway adequacy. This designation means that the structure was built to standards for these criteria that are less conservative than those used today. Please refer to page 26 for Bridge Sufficiencies.

3. Operation

Operational deficiencies focus on problem areas not related to safety, geometry, or capacity. Operational needs address intersection and roadway characteristics that cause localized issues or present challenges for multimodal users. Many of the operational recommendations fall into the long-term recommendations or focus on continued monitoring of potential problem areas.

4. Capacity




Analyses were conducted for intersections identified by the TJPDC and local governments as priority study locations. Forecasted deficiencies are applicable only to anticipated mobility performance measures, since it is not possible to forecast safety issues or geometric and structural deficiencies.

VTRANS

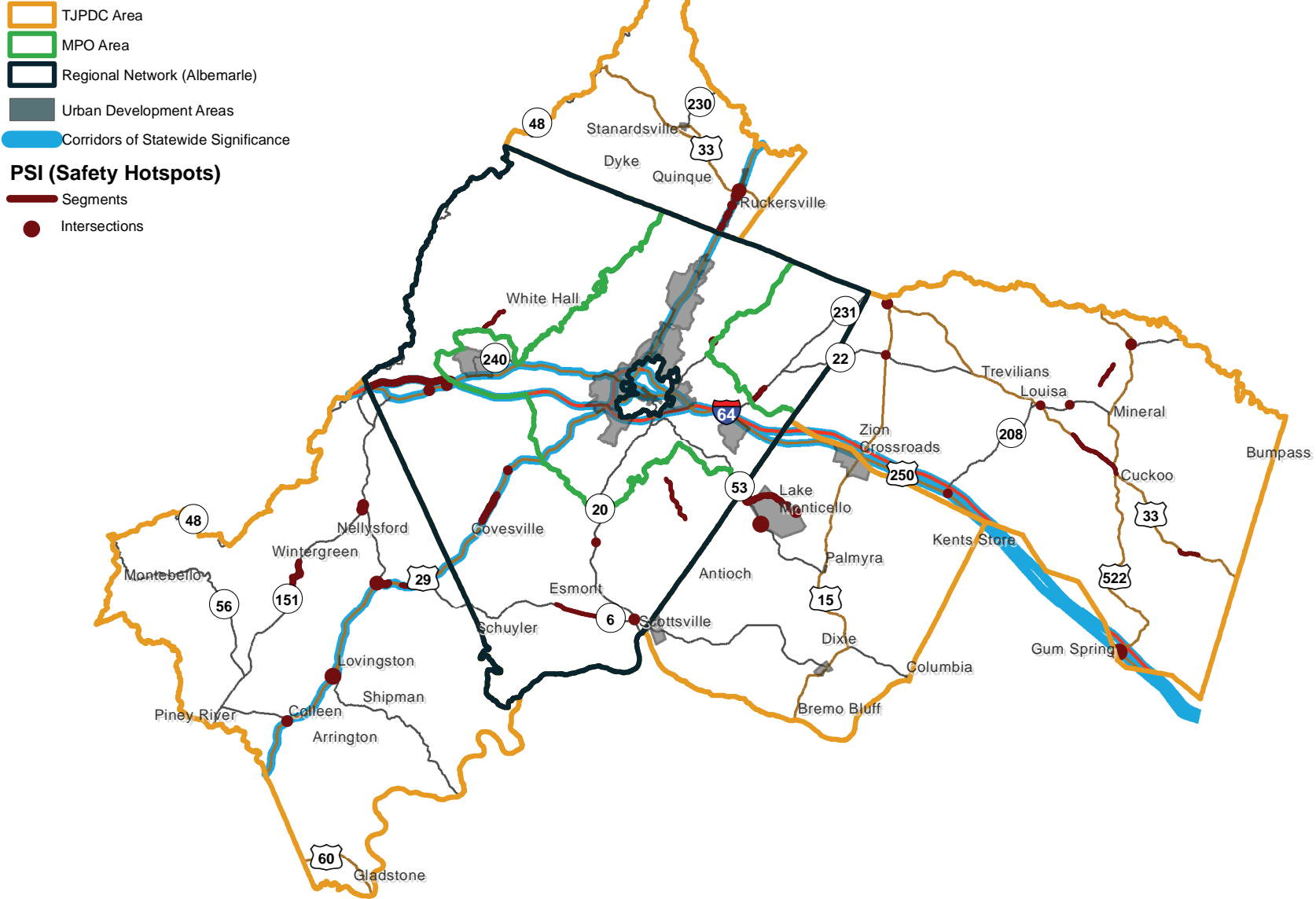
VTRANS is the long-range, statewide multi-modal policy plan that lays out overarching Vision and Goals for transportation in the Commonwealth. It identifies transportation Investment Priorities and provides direction to transportation agencies on strategies and programs to be incorporated into their plans and programs. The VTRANS 2040 Multi-modal Transportation Plan has identified transportation needs throughout the Commonwealth. Many of the needs identified in VTRANS are reflected in this plan. These include projects on the regions Corridors of Statewide Significance, Regional Networks, Urban Development areas, and Statewide Safety Needs. VTRANS needs within the planning District are shown on the adjacent VTRANS Needs map.

In addition to screening projects for VTRANS Needs, the VTRANS 2025 Needs assessment and Recommendations were referenced during project identification. Detailed recommendations for the Culpepper and Lynchburg Districts are included in the plan appendix. A list of relevant recommendations for the Culpepper District are below.

Note: There were no Lynchburg District recommendations within the the TJPDC.

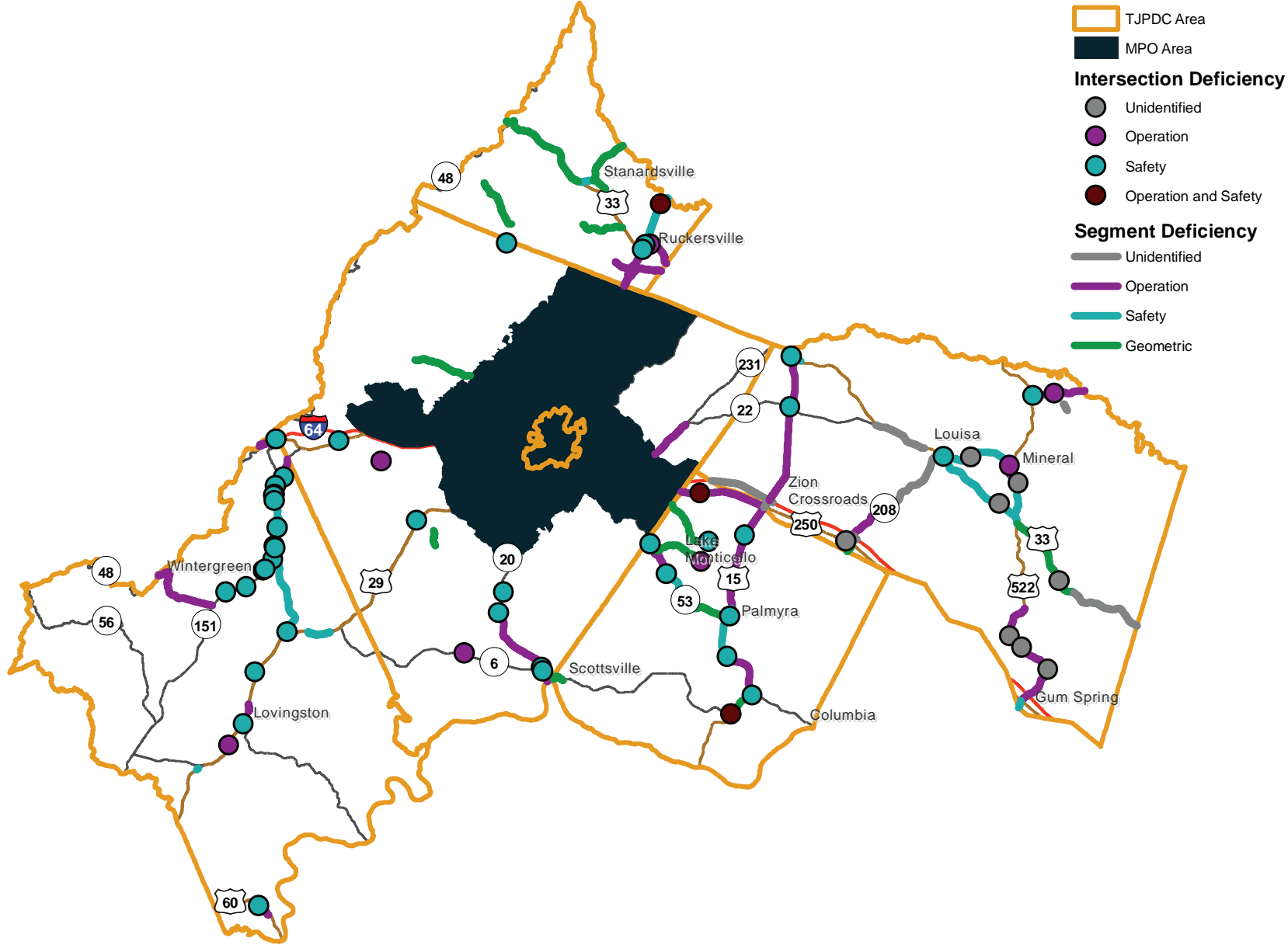
Need ID	Need Description	Need Icons	Total Score (out of 20)	Final Tiering
C.8	Within the Culpepper District, US 29 between Charlottesville and Culpepper has mode choice (mode choice needs now represented by expanded C.4) and safety needs		16	II
C.9	Within the Culpepper District, I-64 and US 250 for east-west intercity travel from Charlottesville have redundancy and mode choice issues		23	II
C.10	Within the Culpepper District, Fluvanna County UDA's have safety, network connectivity, and pedestrian/bicycle access issues		7	III

VTRANS NEEDS



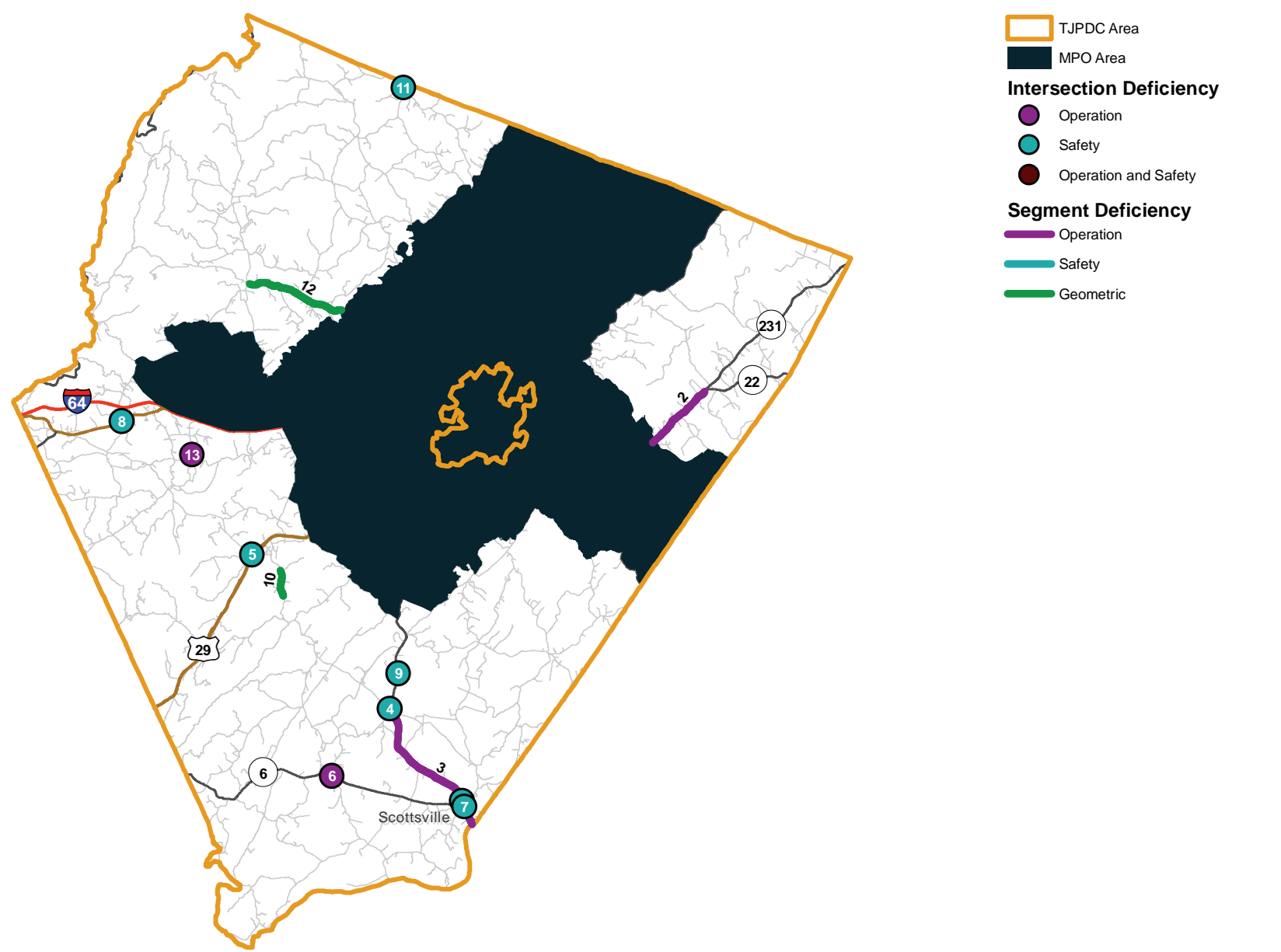
TJPD REGION

ROADWAY SYSTEM DEFICIENCIES



ALBEMARLE COUNTY

ROADWAY SYSTEM DEFICIENCIES



ALBEMARLE COUNTY | PRIORITIZATIONS

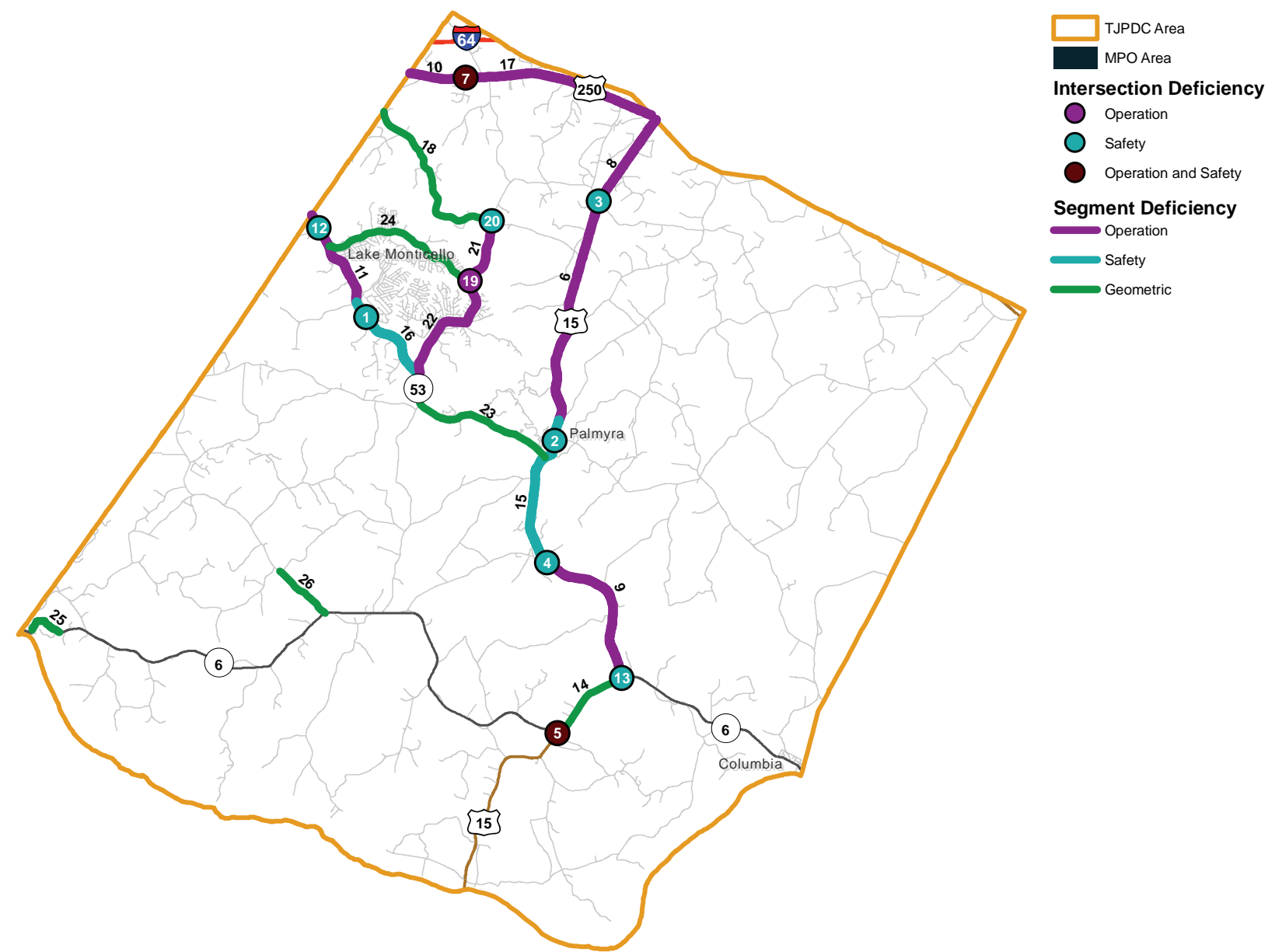
Rank	Project Name	Project ID	Type	Route	From	To
1	VA 20/VA 726	307	Intersection	VA 20/VA 726	VA 20 (Valley Street)	VA 726 (James River Road)
2	Gordonsville Road-South	308	Segment	VA 231	VA 22 (Louisa Road)	Charlottesville-Albemarle MPO
3	Scottsville Road-North	303	Segment	VA 20	VA 712 (Plank Road)	Charlottesville-Albemarle MPO
4	VA 20/VA 712	304	Intersection	VA 20/VA 712	VA 20 (Scottsville Road)	VA 712 (Plank Road)
5	US 29/VA 692	310	Intersection	US 29/VA 692	US 29 (Monacan Trail Road)	VA 692 (Plank Road)
6	VA 6/VA 627	306	Intersection	VA 6/VA 627	VA 6 (Irish Road)	VA 627 (Porters Road)
7	VA 20/VA 6	309	Intersection	VA 20/VA 6	VA 20 (Valley Street)	VA 6 (Irish Road)
8	US 250/VA 691	311	Intersection	US 250/VA 691	US 250 (Rockfish Gap Turnpike)	VA 691 (Ortman Road)
9	VA 20/VA 720	302	Intersection	VA 20/VA 720	VA 20 (Scottsville Road)	VA 720 (Harris Creek Road)
10	Plank Road	312	Segment	VA 712	VA 813 (Starlight Road)	VA 1012 (Garden Gate Road)
11	VA 810/VA 663	313	Intersection	VA 810/VA 663	VA 810 (Dyke Road)	VA 663 (Simmons Gap Road)
12	Garth Road	314	Segment	VA 614	VA 810 (White Hall Road)	Charlottesville-Albemarle MPO
13	VA 635/VA 637	315	Intersection	VA 635/VA 637	VA 635 (Miller School Road)	VA 637 (Dick Woods Road)

VTRANS Needs Key: CoSS: 1 Safety: 2 UDA: 3 Regional Network: 4

Rank	Lanes	VTRANS Needs	Description
1	2	2, 3, 4	Monitor for safety improvements
2	2	2	Long-Term: Spot safety and geometric improvements, full-width lanes and pave shoulders for bikes
3	2	2	Long-Term: Spot safety and geometric improvements and pave shoulders for bikes
4	2	3, 4	Mid-Term: Reconstruct westbound lanes; Long-Term: Realign or relocate intersection to improve geometry and sight distance
5	2	1, 2, 3, 4	Mid-Term: Lengthen left turn lanes
6	2	3, 4	Long-Term: Realign or relocate intersection to improve geometry and sight distance
7	2	3, 4	Long-Term: Improve alignment of intersection (Town of Scottsville)
8	2	1, 2, 3, 4	Long-Term: Reconstruct intersection to improve safety
9	2	2, 3, 4	Monitor for safety improvements
10	2		Long-Term: Reconstruct road to address geometric deficiencies (including full-width lanes and shoulders)
11	2	3, 4	Monitor for safety improvements
12	2		Long-Term: Realign to improve geometry and sight distance
13	2	3, 4	Long-Term: Reconstruct with alternative intersection treatments

FLUVANNA COUNTY

ROADWAY SYSTEM DEFICIENCIES



FLUVANNA COUNTY | PRIORITIZATIONS

Rank	Project Name	Project ID	Type	Route	From	To
1	VA 53/ VA 1015 Intersection	6501	Intersection	VA 53/VA 1015	VA 53 (Thomas Jefferson Parkway)	VA 1015 (Turkeysag Trail)
2	US 15/VA 601 Intersection	6503	Intersection	US 15/VA 601	VA 601 (Courthouse Road)	US 15 (James Madison Highway)
3	US 15/VA 631 Intersection	6504	Intersection	US 15/VA 631	US 15 (James Madison Highway)	VA 631 (Troy Road)
4	US 15/VA 673 Intersection	6505	Intersection	US 15/VA 673	US 15 (James Madison Highway)	VA 673 (Bethel Church Road)
5	US 15/US 6 Intersection	6506	Intersection	US 15/VA 6	US 15 (James Madison Highway)	VA 6 (West River Road)
6	James Madison Highway-North	6507	Segment	US 15	VA 616 (Union Mills Road)	VA 632 (Ridge Road)
7	US 250/VA 1030 Intersection	6508	Intersection	US 250/VA 1030	US 250 (Richmond Road)	VA 1030 (Fieldstone Drive)
8	James Madison Highway-Zion	6509	Segment	US 15	Louisa County Line	VA 616 (Union Mills Road)
9	James Madison Highway-South	6510	Segment	US 15	VA 673 (Bethel Church Road)	VA 6 (East River Road)
10	Richmond Road-West	6511	Segment	US 250	Albemarle County Line	VA 600 (Paynes Mill Road)
11	Thomas Jefferson Parkway-West	6512	Segment	VA 53	Albemarle County Line	VA 636 (Nahor Manor Road)
12	VA 53/Martin Kings Intersection	6513	Intersection	VA 53/VA 618	VA 53 (Thomas Jefferson Parkway)	VA 618 (Martin Kings Road)
13	VA 53/Lake Monticello Road Intersection	6514	Intersection	VA 53/VA 618	VA 53 (Thomas Jefferson Parkway)	VA 618 (Lake Monticello Road)
14	James Madison Highway	6515	Segment	VA 6/US 15	VA 6 (West River Road)	US 15 (James Madison Highway)
15	James Madison Highway-Central	6516	Segment	US 15	VA 632 (Ridge Road)	VA 673 (Bethel Church Road)

VTRANS Needs Key: CoSS: 1 Safety: 2 UDA: 3 Regional Network: 4

Rank	Lanes	VTRANS Needs	Description
1	2	2	Long-Term: Reconstruct a roundabout
2	2	2, 3	Monitor for safety improvements
3	2	2	Monitor for safety improvements
4	2		Monitor for safety improvements
5	2	2, 3	Long-Term: Reconstruct intersection as one-lane roundabout
6	2		Long-Term: Reconstruct road to address geometric deficiencies (including full-width lanes and shoulders)
7	2	1	Monitor for operational and safety improvements
8	2	3	Long-Term: Reconstruct road to address geometric deficiencies (including full-width lanes and shoulders)
9	2		Long-Term: Reconstruct road to address geometric deficiencies (including full-width lanes and shoulders)
10	2	1	Long-Term: Widen to four lanes within median
11	2	2	Long-Term: Reconstruct road to address geometric deficiencies (including full-width lanes and shoulders)
12	2		Short-Term: Maintenance and replace signage
13	2	2	Mid-Term: Add turn lanes and consider a roundabout; Long-Term: Reconstruct roadway to lower vertical curve
14	2		Long-Term: Reconstruct road to address geometric deficiencies (including full-width lanes and shoulders)
15	2		Monitor for safety improvements

FLUVANNA COUNTY | PRIORITIZATIONS

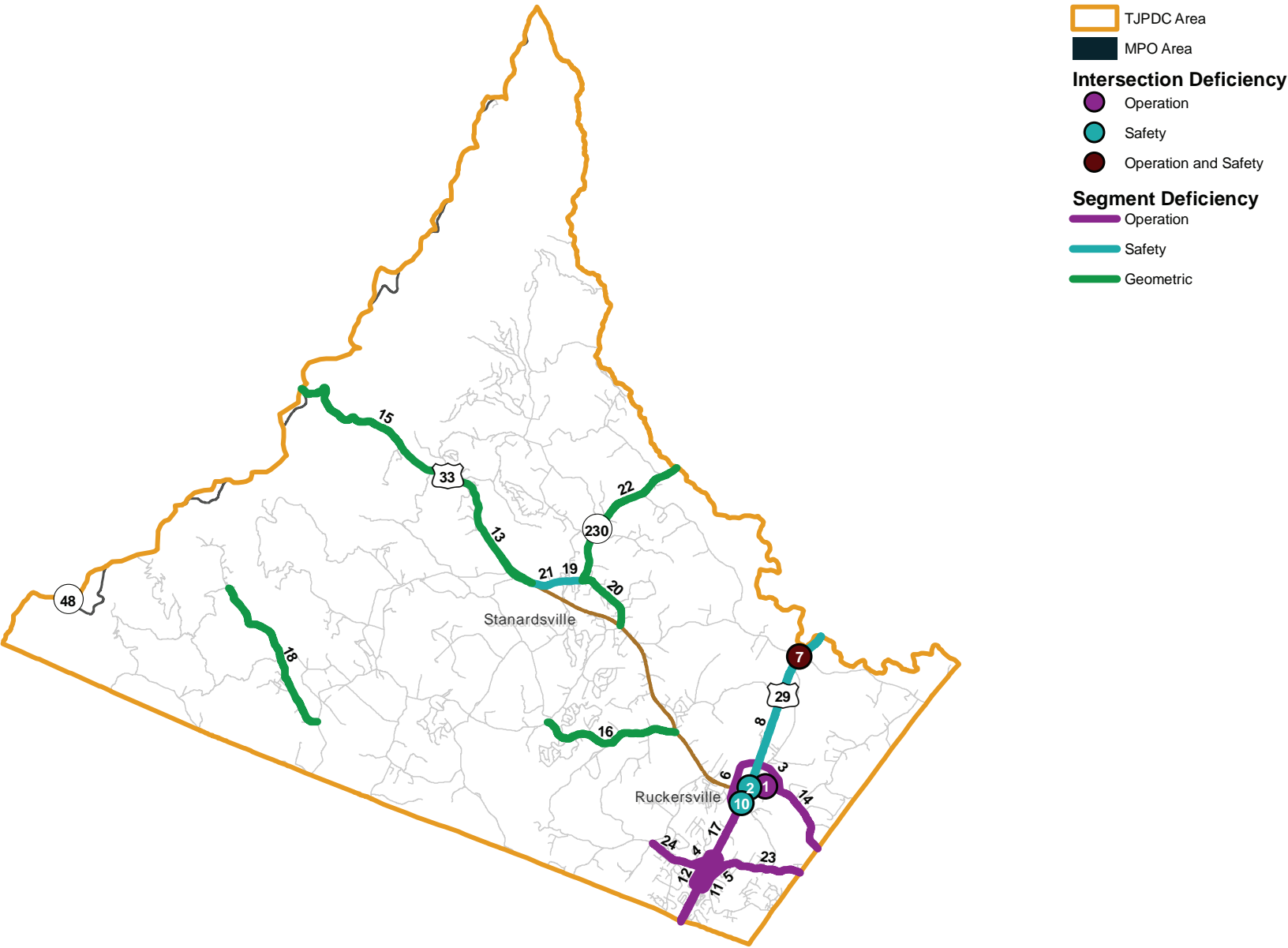
Rank	Project Name	Project ID	Type	Route	From	To
16	Thomas Jefferson Parkway-Central	6517	Segment	VA 53	VA 636 (Nahor Manor Road)	VA 600 (South Boston Road)
17	Richmond Road-East	6518	Segment	US 250	VA 600 (Paynes Mill Road)	Louisa County Line
18	Union Mills Road	6519	Segment	VA 616	Albemarle County Line	VA 600 (South Boston Road)
19	VA 600/VA 618	6520	Intersection	VA 600/VA 618	VA 600 (South Boston Road)	VA 618 (Lake Monticello Road)
20	VA 600/VA 616	6521	Intersection	VA 600/VA 616	VA 600 (South Boston Road)	VA 616 (Union Mills Road)
21	South Boston Road-North	6522	Segment	VA 600	VA 618 (Lake Monticello Road)	VA 616 (Union Mills Road)
22	South Boston Road-Central	6523	Segment	VA 600	VA 53 (Thomas Jefferson Parkway)	VA 618 (Lake Monticello Road)
23	Thomas Jefferson Parkway-East	6524	Segment	VA 53	VA 600 (South Boston Road)	US 15 (James Madison Highway)
24	Lake Monticello Road	6525	Segment	VA 618	VA 53 (Thomas Jefferson Parkway)	VA 600 (South Boston Road)
25	West River Road	6526	Segment	VA 6	Scottsville Town Line	VA 675 (Old Drivers Hill Road)
26	Rolling Road-South	6527	Segment	VA 620	VA 6 (West River Road)	VA 639 (Long Acre Road)

VTRANS Needs Key: CoSS: 1 Safety: 2 UDA: 3 Regional Network: 4

Rank	Lanes	VTRANS Needs	Description
16	2	2	Long-Term: Reconstruct road to address geometric deficiencies (including full-width lanes and shoulders)
17	2	1	Long-Term: Widen to four lanes with median
18	2		Long-Term: Consider roundabout or signalization and addition of turn lanes
19	2	2, 3	Mid-Term: Add turn lanes and consider a roundabout; Long-Term: Reconstruct roadway to lower vertical curve
20	2		Long-Term: Reconstruct with alternative intersection treatments
21	2		Long-Term: Widen to four lanes
22	2		Long-Term: Widen to four lanes
23	2		Long-Term: Reconstruct road to address geometric deficiencies (including full-width lanes and shoulders)
24	2		Long-Term: Reconstruct road to address geometric deficiencies (including full-width lanes and shoulders)
25	2	3	Long-Term: Realign to improve geometry and sight distance
26	2		Long-Term: Reconstruct road to address geometric deficiencies (including full-width lanes and shoulders)

GREENE COUNTY

ROADWAY SYSTEM DEFICIENCIES



GREENE COUNTY | PRIORITIZATIONS

Rank	Project Name	Project ID	Type	Route	From	To
1	US 33/VA 680	7901	Intersection	US 33/VA 680	US 33 (Spotswood Trail)	VA 680 (Pinewood Court)
2	US 29/US 33	7902	Intersection	US 29/33	US 29 (Seminole Trail)	US 33 (Spotswood Trail)
3	New Road, Northeast US 29/US 33	7903	Segment	New	US 29 (Seminole Trail)	US 33 (Spotswood Trail)
4	New Road West US 29/VA 607	7904	Segment	New	US 29 (Seminole Trail)	VA 607 (Cedar Grove Road)
5	New Road, East US 29/VA 607	7905	Segment	New	US 29 (Seminole Trail)	VA 607 (Matthew Mill Road)
6	New Parallel, West US 29/US 33	7906	Segment	New	US 29 (Seminole Trail)	US 29 (Seminole Trail)
7	US 29/VA 609	7907	Intersection	US 29/VA 609	US 29 (Seminole Trail)	VA 609 (Fredericksburg Road)
8	Seminole Trail-North	7908	Segment	US 29	US 33 (Spotswood Trail)	Madison County Line
10	US 29/VA 616	7910	Intersection	US 29/VA 616	US 29 (Seminole Trail)	VA 616 (Carpenter Mill Road)
11	New Parallel, East US 29/VA 607	7911	Segment	New	US 29 (Seminole Trail)	US 29 (Seminole Trail)
12	New Parallel, West US 29/VA 607	7912	Segment	New	US 29 (Seminole Trail)	US 29 (Seminole Trail)
13	Spotswood Trail-Central	7913	Segment	US 33	VA 636 (Goose Pond Road)	US 33 Business-West
14	Spotswood Trail-East	7914	Segment	US 33	US 29 (Seminole Trail)	Orange County Line
15	Spotswood Trail-West	7915	Segment	US 33	Rockingham County Line	VA 636 (Goose Pond Road)
16	Amicus Road	7916	Segment	VA 633	VA 623 (Swift Run Road)	US 33 (Spotswood Trail)
17	Seminole Trail-South	7917	Segment	US 29	Albemarle County Line	US 33 (Spotswood Trail)
18	Bacon Hollow Road	7918	Segment	VA 627	VA 632 (Wyatt Mountain Road)	VA 810 (Dyke Road)
19	Main Street-Central	7919	Segment	US 33 Business	VA 230 (Madison Road)	VA 622 (Celt Road)
20	Main Street-East	7920	Segment	US 33	VA 230 (Madison Road)	US 33 (Spotswood Trail-West)

VTRANS Needs Key: CoSS: 1 Safety: 2 UDA: 3 Regional Network: 4

Rank	Lanes	VTRANS Needs	Description
1	2	1, 2, 3	Long-Term: Realign or relocate intersection to improve geometry and sight distance
2	6	1, 3	Deficiency with low priority, continue to monitor for potential improvements
3	2	1, 2, 3	Long-Term: Construct new roadway
4	2	1, 2, 3	Long-Term: Construct new roadway
5	2	1, 3	Long-Term: Construct new roadway
6	2	1	Long-Term: Construct new roadway
7	4	1, 2	Long-Term: Reconstruct intersection to improve safety
8	4	1	Long-Term: Eliminate crossovers
10	4	1, 2, 3	Short-Term: Maintenance and improve signage; Long-Term: Add curb and gutter to eastbound roadway
11	2	1, 2, 3	Long-Term: Construct new roadway
12	2		Long-Term: Construct new roadway
13	4		Monitor for geometric improvements
14	2	2, 3	Long-Term: Widen road to increase capacity and/or accommodate travel demand on alternative corridors
15	2		Monitor for geometric improvements
16	2		Long-Term: Reconstruct road to address geometric deficiencies (including full-width lanes and shoulders)
17	4	1, 2, 3	Long-Term: Widen to six lanes with median, remove traffic signals and upgrade to provide alternative forms of access, including interchanges
18	2		Long-Term: Reconstruct road to address geometric deficiencies (11-foot lanes)
19	2	3	Mid-Term: Consider conducting a truck circulation study; Long-Term: Consider prohibiting truck through traffic (Town of Standardsville)
20	2		Long-Term: Reconstruct road to address geometric deficiencies (including full-width lanes and shoulders)

GREENE COUNTY | PRIORITIZATIONS

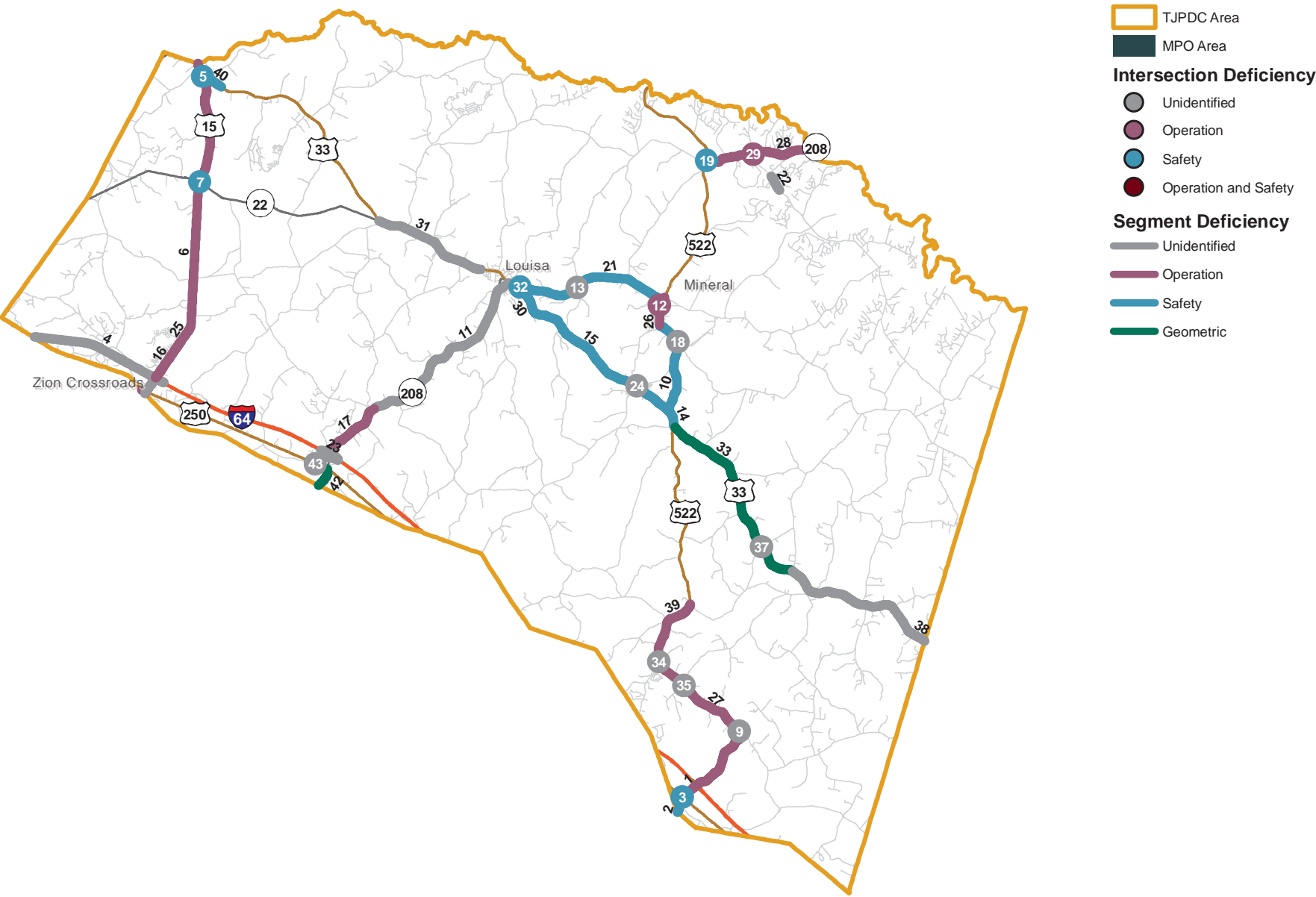
Rank	Project Name	Project ID	Type	Route	From	To
21	Main Street-West	7921	Segment	US 33 Business	US 33 (Spotswood Trail)	VA 622 (Celt Road)
22	Madison Road	7922	Segment	VA 230	US 33 Business	Madison County Line
23	Matthew Mill Road	7923	Segment	VA 607	US 29 (Seminole Trail)	Orange County Line
24	Cedar Grove Road	7924	Segment	VA 607	US 29 (Seminole Trail)	VA 743 (Advance Mills Road)

VTRANS Needs Key: CoSS: 1 Safety: 2 UDA: 3 Regional Network: 4

Rank	Lanes	VTRANS Needs	Description
21	2		Deficiency with low priority, continue to monitor for potential improvements
22	2		Long-Term: Reconstruct road to address geometric deficiencies (including full-width lanes and shoulders)
23	2	2	Long-Term: Widen road to increase capacity and/or accommodate travel demand on alternative corridors
24	2	2	Deficiency with low priority, continue to monitor for potenetial improvements

LOUISA COUNTY

ROADWAY SYSTEM DEFICIENCIES



LOUISA COUNTY | PRIORITIZATIONS

Rank	Project Name	Project ID	Type	Route	From	To
1	Cross County Road-South	10901	Segment	US 522	US 250 (Three Notch Road)	Interstate 64
2	Sandy Hook Road	10902	Segment	US 522	Goochland County Line	US 522 (Cross County Road)
3	US 522/US 250	10903	Intersection	US 522/250	US 522 (Cross County Road)	US 250 (Three Notch Road)
4	Interstate 64-West	10904	Segment	I-64	Fluvanna County Line	US 15 (James Madison Highway)
5	US 15/US 33	10905	Intersection	US 15/33	US 15 (James Madison Highway)	US 33 (South Spotswood Trail)
6	James Madison Highway-North	10906	Segment	US 15	VA 617 (East Green Springs Road)	Orange County Line
7	US 15/VA 22	10907	Intersection	US 15/VA 22	US 15 (James Madison Highway)	VA 22 (Louisa Road)
8	James Madison Highway-Zion	10908	Segment	US 15	Fluvanna County Line	Interstate 64
9	US 522/VA 663	10909	Intersection	US 522/VA 663	US 522 (Cross County Road)	VA 663 (Owens Creek Road)
10	Pendleton Road	10910	Segment	US 522	Town of Mineral, Southern Limits	US 33 (Jefferson Highway)
11	Courthouse Road-North	10911	Segment	VA 208	VA 640 (East Jack Jouett Road)	US 33/VA 22 (East Main Street)
12	US 522/East First Street	10912	Intersection	US 522	US 522 (Mineral Avenue/ Piedmont Avenue)	US 522 (East First Street)
13	VA 208/22/VA 767	10913	Intersection	VA 208/22/767	VA 208/22 (Davis Highway)	VA 767 (School Bus Road)
14	Cuckoo	10914	Segment	US 522/33	US 522 (Pendleton Road)	US 33 (Jefferson Highway)
15	Jefferson Highway	10915	Segment	US 33	Town of Louisa, Southern Limits	US 522 (Cross County Road/ Pendleton Road)
16	James Madison Highway-South	10916	Segment	US 15	Interstate 64	Sommerfield Drive
17	Courthouse Road-South	10917	Segment	VA 208	Interstate 64	VA 640 (East Jack Jouett Road)
18	US 522/VA 700	10918	Intersection	US 522/VA 700	US 522 (Pendleton Road)	VA 700 (Mica Road)

VTRANS Needs Key: CoSS: 1 Safety: 2 UDA: 3 Regional Network: 4

Rank	Lanes	VTRANS Needs	Description
1	2	1, 2	Long-Term: Widen to four lanes with median
2	2	1, 2	
3	2	1, 2	Deficiency with low priority, continue to monitor for potential improvements
4	4	1	
5	2	2	
6	2	2	Long-Term: Reconstruct road to address geometric deficiencies (including full-width lanes and shoulders)
7	2	2	Deficiency with low priority, continue to monitor for potential improvements
8	4	1, 3	
9	2		
10	2	2	
11	2		
12	2		Deficiency with low priority, continue to monitor for potential improvements
13	2		
14	2	2	
15	2	2	
16	2		Monitor capacity demands in this corridor and develop strategies for accommodating/managing these demands through a mix of travel demand and growth management, as well as enhanced multi-modal travel capacity and consideration of accommodating demands on both existing and potential new parallel corridors. Seek to reserve rights-of-way (through setbacks) from I-64 to Sommerfield Drive in order to allow for potential widening of this section of the corridor to four lanes with a median
17	2		Long-Term: Reconstruct road to address geometric deficiencies (including full-width lanes and shoulders)
18	2		

LOUISA COUNTY | PRIORITIZATIONS

Rank	Project Name	Project ID	Type	Route	From	To
19	US 522/VA 208	10919	Intersection	US 522/VA 208	US 522 (Zachary Taylor Highway)	VA 208 (New Bridge Road)
20	East Main Street	10920	Segment	VA 22/208	US 33 (Jefferson Highway)	Town of Louisa, Eastern Limits
21	Davis Highway	10921	Segment	VA 22/208	Town of Louisa	Town of Mineral
22	Kentucky Springs Road	10922	Segment	VA 652	VA 790 (Mitchell Point Road)	Boones Point Road
23	Exit 143 Interchange	10923	Segment	I-64/VA 208	Interstate 64	VA 208 (Courthouse Road)
24	US 33/VA 605	10924	Intersection	US 33/VA 605	US 33 (Jefferson Highway)	VA 605 (Willis Proffitt Road)
25	James Madison Highway-Central	10925	Segment	US 15	Sommerfield Drive	VA 617 (East Green Springs Road)
26	Mineral Avenue	10926	Segment	US 522	VA 22/208 (Piedmont Avenue)	Town of Mineral, Southern Limits
27	Cross County Road-Central	10927	Segment	US 522	Interstate 64	VA 629 (Cartersville Road)
28	New Bridge Road	10928	Segment	VA 208	US 522 (Zachary Taylor Highway)	Spotsylvania County Line
29	VA 652/VA 208	10929	Intersection	VA 208/652	VA 652 (Kentucky Springs Road)	VA 208 (New Bridge Road)
30	Jefferson Highway	10930	Segment	US 33	VA 22/208 (East Main Street)	Town of Louisa, Eastern Limits
31	Louisa Road	10931	Segment	US 33	US 33 (Jefferson Highway)	Town of Louisa, Western Limits
32	VA 22/US 33	10932	Intersection	VA 22/US 33	VA 22 (Davis Highway)	US 33 (Jefferson Highway)
33	Jefferson Highway-Central	10933	Segment	US 33	US 522 (Cross County Road)	VA 609 (Buckner Road)
34	US 522/VA 619	10934	Intersection	US 522/VA 619	US 522 (Cross County Road)	VA 619 (New Line Road)
35	US 522/VA 601	10935	Intersection	US 522/VA 601	US 522 (Cross County Road)	VA 601 (Paynes Mill Road)
36	Louisa Avenue	10936	Segment	US 522	US 522/VA 618 (East First Street)	Town of Mineral, Northern Limits

VTRANS Needs Key: CoSS: 1 Safety: 2 UDA: 3 Regional Network: 4

Rank	Lanes	VTRANS Needs	Description
19	2	2	Mid-Term: Consider installation of traffic signal and add turn lanes
20	2	2	Long-Term: Remove street parking and reconfigure eastbound and westbound lanes to provide additional capacity
21	2	2	Short-Term: Improve warning signs for railroad crossing; Mid-Term: Lengthen turn lanes; Long-Term: Widen to four lanes
22	2		
23	4	1	
24	2		
25	2		Monitor capacity demands in this corridor and develop strategies for accommodating/managing these demands through a mix of travel demand and growth management, as well as enhanced multi-modal travel capacity and consideration for accommodating demands on both existing and potential new parallel corridors
26	2		Long-Term: Widen road to increase capacity and/or accommodatetravel demand on alternative corridors or modes
27	2		Long-Term: Reconstruct road to address geometric deficiencies (including full-width lanes and shoulders)
28	2	2	Long-Term: Widen to four lanes with median
29	2		Long-Term: Add turn lanes and consider realignment and signalization of VA 652/VA 670 intersection
30	2	2	
31	2		
32	2	2	Deficiency with low priority, continue to monitor for potential improvements
33	2	2	Long-Term: Reconstruct road to address geometric deficiencies (including full-width lanes and shoulders)
34	2		
35	2		
36	2		Long-Term: Construct new bypass route

LOUISA COUNTY | PRIORITIZATIONS

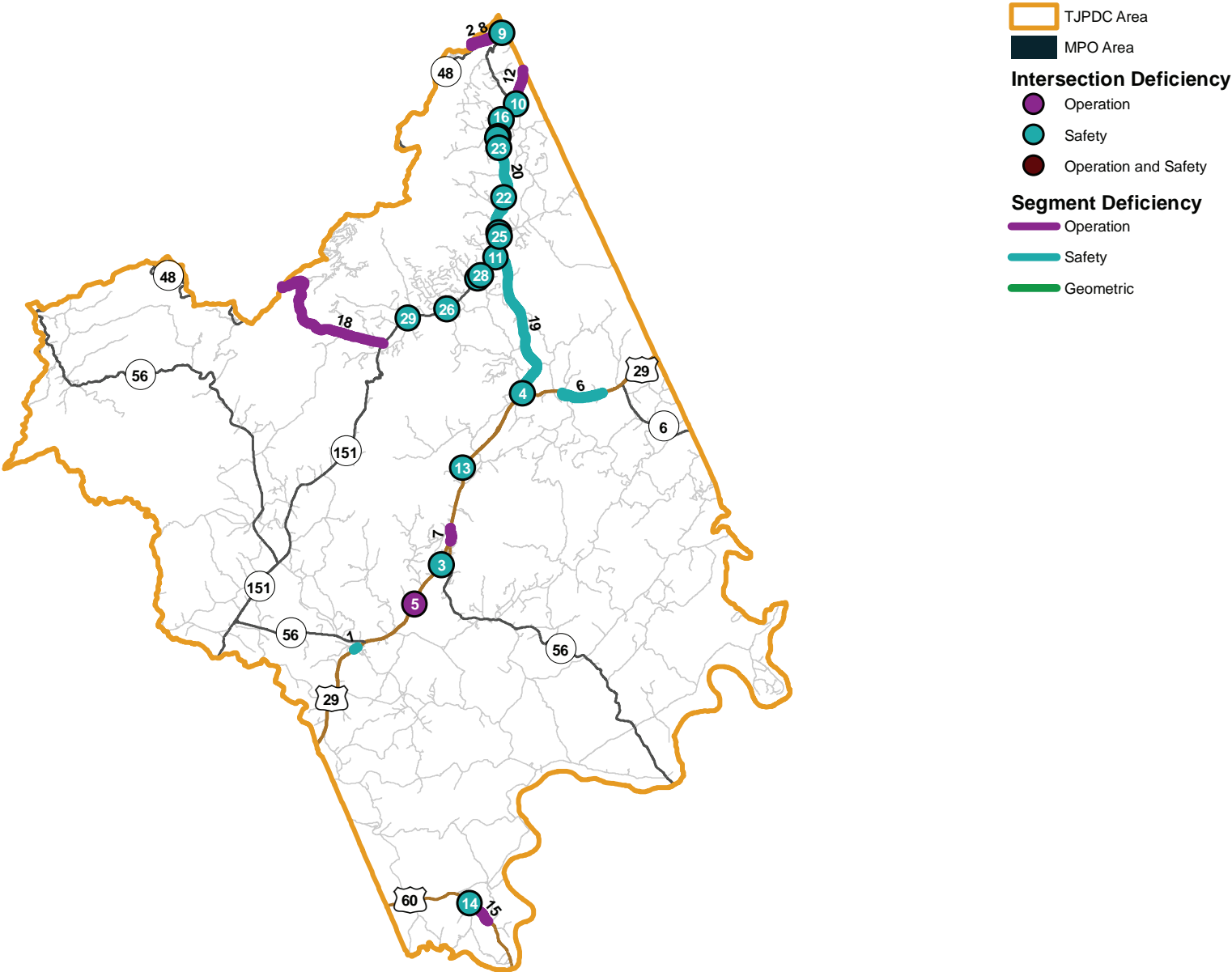
Rank	Project Name	Project ID	Type	Route	From	To
37	US 33 (Jefferson Hwy)/VA 648 Gardners Road	10937	Intersection	US 33/VA 648	US 33 (Jefferson Highway)	VA 648 (Gardners Road/Jouett School Road)
38	Jefferson Highway-East	10938	Segment	US 33	VA 609 (Buckner Road)	Hanover County Line
39	Cross County Road-North	10939	Segment	US 522	VA 629 (Cartersville Road)	VA 648 (Gardners Road)
40	South Spotswood Trail	10940	Segment	US 33	US 15 (James Madison Highway)	VA 691 (Old Louisa Road)
41	East First Street	10941	Segment	US 522	VA 22/208 (Piedmont Avenue)	US 522 (Louisa Avenue)
42	Kents Store Road	10942	Segment	VA 659	Fluvanna County Line	US 250 (Three Notch Road)
43	US 250/VA 626	10943	Intersection	US 250/VA 626	US 250 (Three Notch Road)	VA 626 (Evergreen Road/Mallory Road)

VTRANS Needs Key: CoSS: 1 Safety: 2 UDA: 3 Regional Network: 4

Rank	Lanes	VTRANS Needs	Description
37	2		
38	2	2	
39	2		Long-Term: Reconstruct road to address geometric deficiencies (including full-width lanes and shoulders)
40	2	2	
41	2		
42	2	1, 2	Long-Term: Reconstruct road to address geometric deficiencies (including full-width lanes and shoulders)
43	2	1	

NELSON COUNTY

ROADWAY SYSTEM DEFICIENCIES



NELSON COUNTY | PRIORITIZATIONS

Rank	Project Name	Project ID	Type	Route	From	To
1	US 29 Acess Management at Colleen	12501	Segment	US 29	VA 655 (Colleen Road)	3999 Thomas Nelson Highway
2	Interstate 64	12502	Segment	I-64	Albemarle County Line	Augusta County Line
3	Thomas Nelson/Front Street	12503	Intersection	US 29/Business 29	US 29 (Thomas Nelson Highway)	Business 29 (Front Street/ Callohill Drive)
4	River Road/Thomas Nelson	12504	Intersection	VA 6/US 29	VA 6 (River Road)	US 29 (Thomas Nelson Hwy)
5	Nelson County Middle & High School	12505	Intersection	US 29/VA 741	US 29 (Thomas Nelson Highway)	VA 741 (Drumheller Orchard Lane)
6	Thomas Nelson Highway-North	12506	Segment	US 29/VA 6	VA 617 (Rockfish River Road)	VA 779 (Mosby Lane)
7	Thomas Nelson Highway-Central	12507	Segment	US 29	VA 718 (Mountain Cove Road)	9749 Thomas Nelson Highway
8	Rockfish Gap Turnpike	12508	Segment	US 250	Albemarle County Line	Augusta County Line
9	US 250/VA 6	12509	Intersection	US 250/VA 6	US 250 (Rockfish Gap Turnpike)	VA 6 (Afton Mountain Road)
10	US 151/VA 6/VA 638-North	12510	Intersection	US 151/VA 6/ 638	US 151 (Critzers Shop Road)	VA 638 (Avon Road), North
11	US 151/VA 6 (River Road)	12511	Intersection	US 151/VA 6	US 151 (Rockfish Valley Highway)	VA 6 (River Road)
12	Critzers Shop Road	12512	Segment	US 151	Albemarle County Line	VA 6 (Afton Mountain Road)
13	US 29/VA 775	12513	Intersection	US 29/VA 775	US 29 (Thomas Nelson Highway)	VA 775 (Anderson Lane/Lewis Lane)
14	US 60/VA 622	12514	Intersection	US 60/VA 622	US 60 (Richmond Highway)	VA 622 (Allens Creek Road/ Spring Lane)
15	Richmond Highway	12515	Segment	US 60	Robertson Lane (Private)	VA 809 (Payne Place)

VTRANS Needs Key: CoSS: 1 Safety: 2 UDA: 3 Regional Network: 4

Rank	Lanes	VTRANS Needs	Description
1	4	1, 2	Short-Term: Improve signage; Mid-Term: Lengthen turn lanes
2	4	1, 2	Long-Term: Widen road to include truck climbing lanes
3	2	1, 2	Short-term: Modify signal timing and improve signage and pavement markings
4	4	1, 2	Long-Term: Address safety deficiencies
5	4	1	Monitor for safety improvements
6	4	1, 2	Long-Term: Address safety deficiencies
7	4	1	Monitor for operational improvements
8	4	1	Long-Term: Widen road to increase capacity and address geometric deficiencies (including full-width lanes and shoulders)
9	4	1	Monitor for safety improvements
10	2		Deficiency with low priority, continue to monitor for potential improvements
11	2	2	Deficiency with low priority, continue to monitor for potential improvements
12	2		Long-Term: Widen road to increase capacity and address geometric deficiencies (including full-width lanes and shoulders)
13	4	1	Short-Term: Improve signage Long-Term: Consider closing median opening and installing rumble strips
14	2		Mid-Term: Improve intersection to address site distance deficiency
15	2		Monitor for operational improvements

NELSON COUNTY | PRIORITIZATIONS

Rank	Project Name	Project ID	Type	Route	From	To
16	Rockfish Valley Highway/ VA 640	12516	Intersection	VA 6/US 151/VA 640	VA 6/US 151 (Rockfish Valley Highway)	VA 840 (Tanbark Drive)
17	US 151/VA 6/VA 638-South	12517	Intersection	US 151/VA 6/638	VA 6/US 151 (Rockfish Valley Highway)	VA 638 (Avon Road), South
18	Beech Grove Road	12518	Segment	VA 664	US 151 (Patrick Henry Highway)	US 48 (Blue Ridge Parkway)
19	River Road	12519	Segment	VA 6	VA 6/US 151 (Rockfish Valley Highway)	US 29 (Thomas Nelson Highway)
20	Rockfish Valley Highway-North	12520	Segment	US 151/VA 6	VA 6 (Afton Mountain Road)	VA 6 (River Road)
21	US 151/VA 6/VA 609	12521	Intersection	US 151/VA 6/609	VA 6-US 151 (Rockfish Valley Highway)	VA 609 (Mill Lane)
22	Rockfish Valley Highway/ VA 784	12522	Intersection	VA 6-US 151/VA 784	VA 6-US 151 (Rockfish Valley Highway)	VA 784 (Bland Wade Lane)
23	US 151/VA 6/VA 760	12523	Intersection	US 151/VA 6/760	VA 6/US 151 (Rockfish Valley Highway)	VA 760 (Sunrise Drive)
24	US 151/VA 729	12524	Intersection	US 151/VA 729	US 151 (Rockfish Valley Highway)	VA 729 (Creek Road)
25	US 151/VA 635	12525	Intersection	US 151/VA 635	US 151 (Rockfish Valley Highway)	VA 635 (Greenfield Road)
26	US 151/VA 634	12526	Intersection	US 151/VA 634	US 151 (Rockfish Valley Highway)	VA 634 (Adial Road)
27	US 151/Rodes Farm Drive	12527	Intersection	US 151/VA 613	US 151 (Rockfish Valley Highway)	VA 613 (Rodes Farm Drive)

VTRANS Needs Key: CoSS: 1 Safety: 2 UDA: 3 Regional Network: 4

Rank	Lanes	VTRANS Needs	Description
16	2		Short-Term: Refresh the yellow lines and stop bars and move the stop sign; Mid-Term: Consider rumble strips on Route 840 (Tanbark Drive) approaches; Long-Term: Regrade Route 840 (Tanbark Drive) to improve visibility to Route 151; Long-Term: Regrade the embankment in the southwest and southeast quadrants
17	2		Short-Term: Move the stop bar on Route 638 (Avon Road) closer to the roadway to improve sight distance; Short-Term: Add deer crossing signs south of the intersection and gas station
18	2		Monitor for operational improvements
19	2	2	Long-Term: Address safety deficiencies
20	2	2	Long-Term: Address safety deficiencies
21	2		Mid-Term: Improve access management; Long-Term: Widen the bridge structure
22	2		Mid-Term: Consider changing flashers to be demand responsive, so that they flash only when a vehicle is present or approaching (35 mph advisory speed sign with flashers already present); Long-Term: Regrade the roadway to improve sight distance and eliminate the dip in the road, or; Long-Term: Consider relocating VA 784 (Bland Wade Lane) south of the fitness center
23	2		Short-Term: Add deer crossing signs in vicinity of intersection; Long-Term: Regrade the roadway to reduce crest and reduce embankment
24	2		Mid-Term: Restripe the roadway to provide a northbound left turn into the Ashley’s Market southern access Long-Term: Add a southbound right turn lane on Route 151 for turning traffic onto VA 729 (Creek Road), and move the stop bar on VA 729 (Creek Road) closer to the southband through lane
25	2		Short-Term: Extend the northbound right turn lane by utilizing (restriping) the existing northbound shoulder prior to the start of the turn lane
26	2		Mid-Term: Add sidewalks for pedestrians; Long-Term: As new development or re-development occurs, improve access management and inter-parcel connectivity
27	2		Short-Term: Review commercial signage to ensure signage is not within the VDOT right-of-way; Long-Term: Reduce the crest of hill and regrade the embankments to improve sight distance

NELSON COUNTY | PRIORITIZATIONS

Rank	Project Name	Project ID	Type	Route	From	To
28	US 151/Lodebar Estate	12528	Intersection	US 151/VA 613	US 151 (Rockfish Valley Highway)	VA 613 (Lodebar Estate)
29	US 151/VA 627	12529	Intersection	US 151/VA 627	US 151 (Rockfish Valley Highway)	VA 627 (Spruce Creek Lane and Glenthorne Loop)

VTRANS Needs Key: CoSS: 1 Safety: 2 UDA: 3 Regional Network: 4

Rank	Lanes	VTRANS Needs	Description
28	2		Short-Term: Review commercial signage to ensure signage is not within the VDOT right-of-way; Long-Term: Reduce the crest of hill and regrade the embankments to improve sight distance
29	2		Short-Term: Add intersection-ahead signage with flashers on the northbound approach; Mid-Term: Realign Route 627 (Spruce Creek Lane) to reduce skew (by 25 degrees) and improve sight distance Long-Term: Regrade the embankment in the southwest quadrant



PLAN ADOPTION

On July 17, 2018 the Rural Technical Advisory Committee (RTAC) formally recommended the 2040 Rural Long Range Transportation Plan to the Thomas Jefferson Planning District Commission.

On August 2, 2018 the Thomas Jefferson Planning District Commission (TJPDC) formally adopted the 2040 Rural Long Range Transportation Plan.



APPENDICES

TOP INDUSTRIES

ALBEMARLE COUNTY

Industry	Employment
Educational Services	11,440
Health Care and Social Assistance	7,181
Retail Trade	5,687
Accommodation and Food Services	4,216
Professional, Scientific, and Technical Services	3,981

FLUVANNA COUNTY

Industry	Employment
Educational Services	988
Public Administration	559
Construction	464
Retail Trade	362
Administrative and Support and Waste Management and Remediation Services	341

GREENE COUNTY

Industry	Employment
Retail Trade	554
Educational Services	551
Accommodation and Food Services	372
Health Care and Social Assistance	352
Professional, Scientific, and Technical Services	294

LOUISA COUNTY

Industry	Employment
Manufacturing	1,236
Retail Trade	1,064
Transportation and Warehousing	1,013
Educational Services	960
Construction	920

NELSON COUNTY

Industry	Employment
Accommodation and Food Services	561
Educational Services	525
Manufacturing	499
Health Care and Social Assistance	323
Agriculture, Forestry, Fishing and Hunting	291

CITY OF CHARLOTTESVILLE

Industry	Employment
Health Care and Social Assistance	10,397
Accommodation and Food Services	5,198
Educational Services	3,941
Retail Trade	3,211
Professional, Scientific, and Technical Services	2,356

TOP EMPLOYERS

ALBEMARLE COUNTY

Employer	Employees
University of Virginia/ Blue Ridge Hospital	1,000 and over
County of Albemarle	1,000 and over
Sentara Healthcare	1,000 and over
State Farm Mutual Automobile Insurance	500 - 999
U.S. Department of Defense	500 - 999

FLUVANNA COUNTY

Employer	Employees
Fluvanna County School Board	500 - 999
Fluvanna Correctional Center	250 - 499
County of Fluvanna	100 - 249
Fork Union Military Academy	100 - 249
Lake Monticello Owners	100 - 249

GREENE COUNTY

Employer	Employees
Greene County School Board	250 - 499
Walmart	100 - 249
County of Greene	100 - 249
Sunland Employee Leasing LLC	100 - 249
Lowes’ Home Center, Inc.	100 - 249

LOUISA COUNTY

Employer	Employees
Walmart	1,000 and over
Louisa County Public School Board	500 - 999
Dominion Virginia Power	500 - 999
Fluor Daniel Services Corporation	500 - 999
Klockner Pentaplast America	500 - 999

NELSON COUNTY

Employer	Employees
Wintergreen Resort	250 - 499
Nelson County School Board	250 - 499
County of Nelson	100 - 249
Devils Backbone Brewing Company	100 - 249
Veritas Vineyard and Winery	50 - 99

CITY OF CHARLOTTESVILLE

Employer	Employees
University of Virginia Medical Center	1,000 and over
City of Charlottesville	1,000 and over
UVA Health Services Foundation	1,000 and over
Charlottesville City School Board	500 - 999
Servicelink Management Company Inc.	500 - 999

PARK AND RIDE LOT LOCATIONS

Albemarle County	
Maple Grove Christian Church	Azalea Park
Peace Lutheran Church	Route 29 & I-64
Walmart	Mountainside Senior Living
Darden Towe Park	Keene
Avon Street Extended	Scottsville

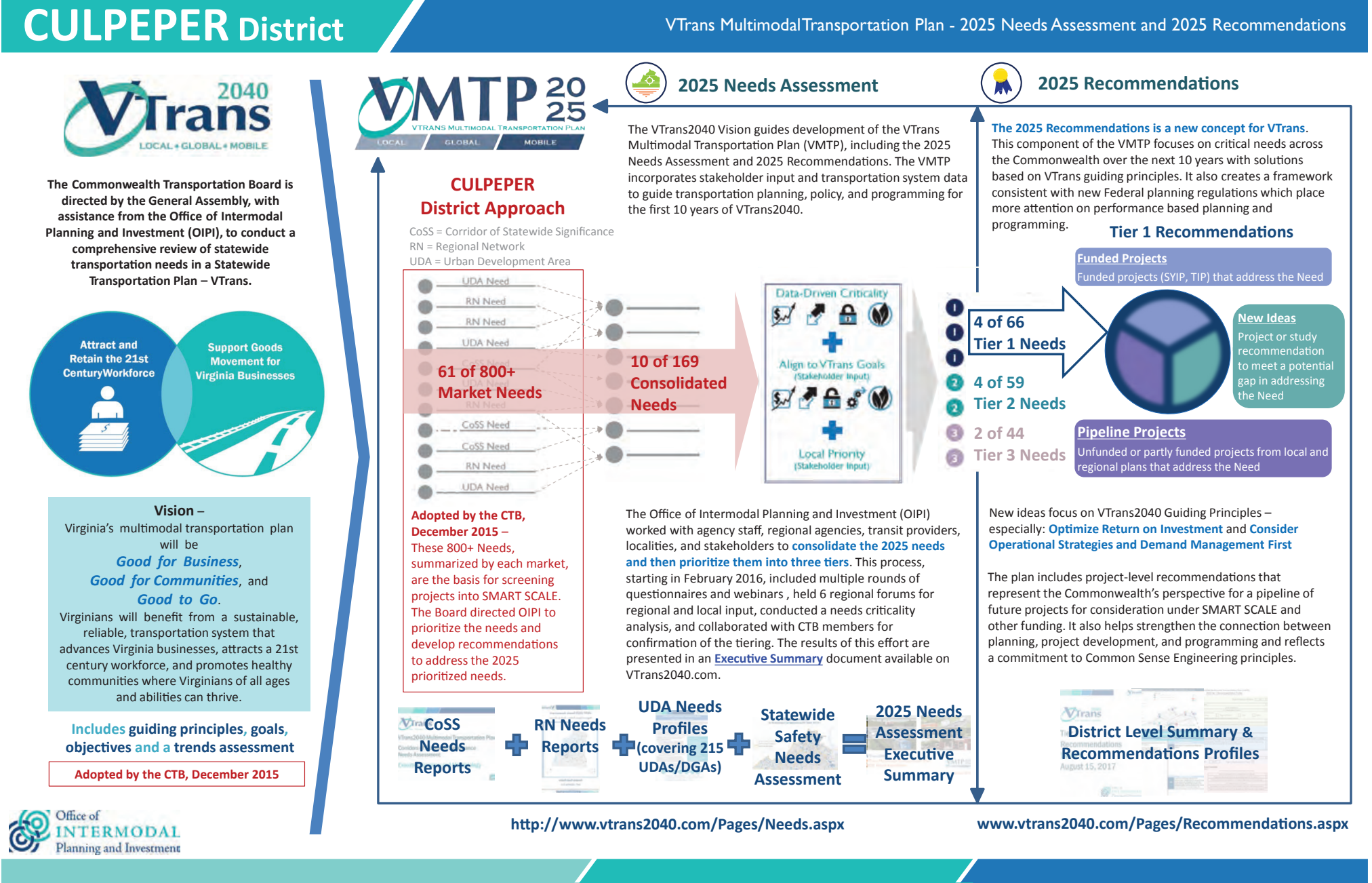
Fluvanna County	
Beaver Dam Baptist Church	
Lake Monticello	

Greene County	
Walmart	
Greene County School System	

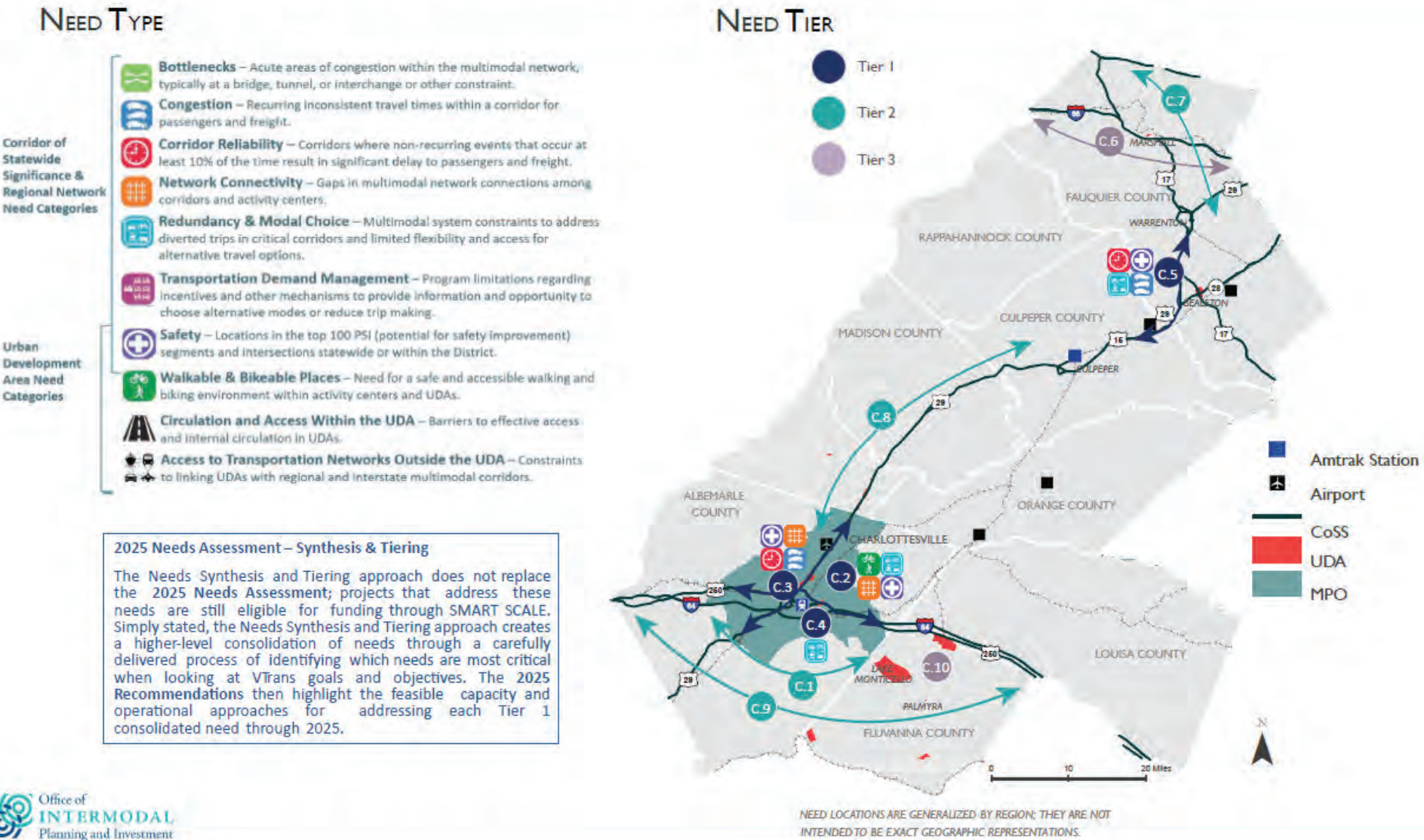
Louisa County	
Gum Springs	
Zion Crossroads	

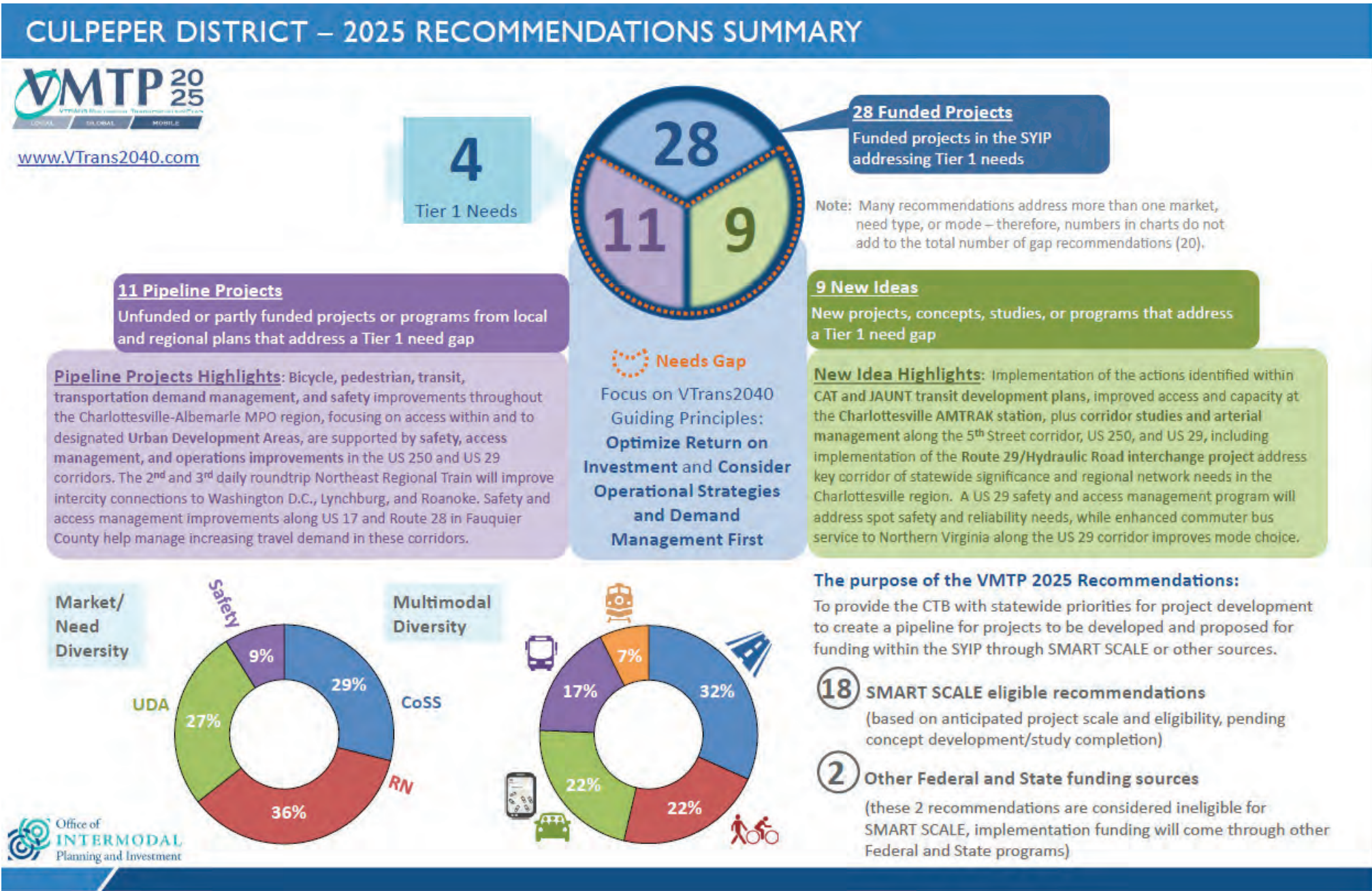
Nelson County	
Route 6 East	
Route 6 West	
Lovingston	
Roseland	

City of Charlottesville	
Azalea Park	



CULPEPER DISTRICT – 2025 GENERALIZED MAP OF CONSOLIDATED NEEDS





STAUNTON DISTRICT – 2025 GENERALIZED MAP OF CONSOLIDATED NEEDS

NEED TYPE

- Corridor of Statewide Significance & Regional Network Need Categories

Bottlenecks – Acute areas of congestion within the multimodal network, typically at a bridge, tunnel, or interchange or other constraint.

Congestion – Recurring inconsistent travel times within a corridor for passengers and freight.

Corridor Reliability – Corridors where non-recurring events that occur at least 10% of the time result in significant delay to passengers and freight.

Network Connectivity – Gaps in multimodal network connections among corridors and activity centers.

Redundancy & Modal Choice – Multimodal system constraints to address diverted trips in critical corridors and limited flexibility and access for alternative travel options.

Transportation Demand Management – Program limitations regarding incentives and other mechanisms to provide information and opportunity to choose alternative modes or reduce trip making.
- Urban Development Area Need Categories

Safety – Locations in the top 100 PSI (potential for safety improvement) segments and intersections statewide or within the District.

Walkable & Bikeable Places – Need for a safe and accessible walking and biking environment within activity centers and UDAs.

Circulation and Access Within the UDA – Barriers to effective access and internal circulation in UDAs.

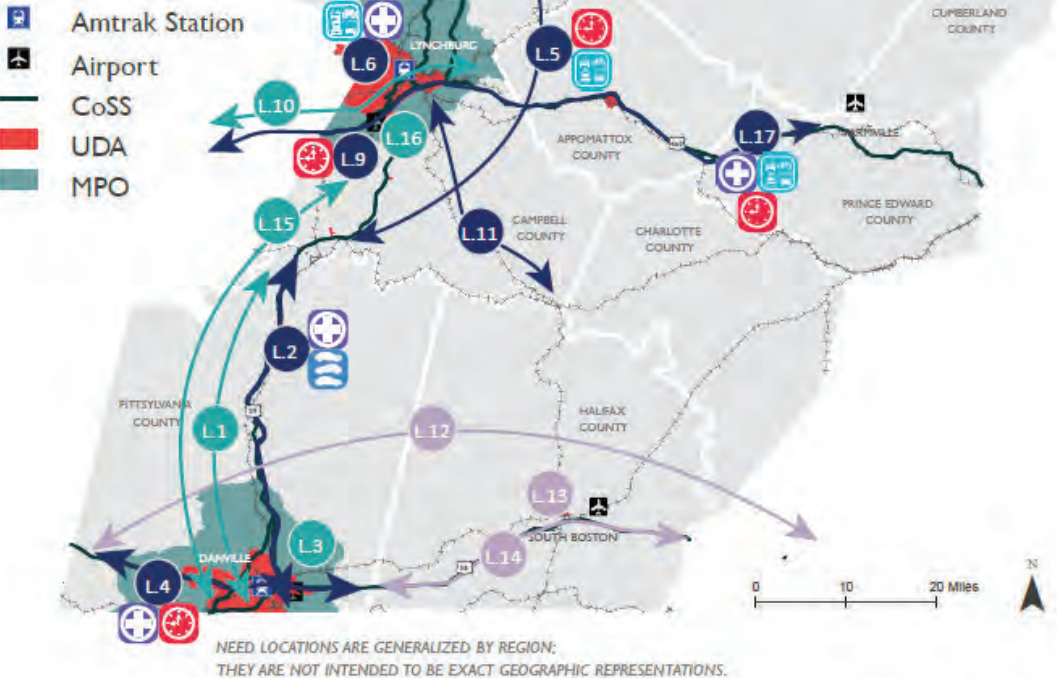
Access to Transportation Networks Outside the UDA – Constraints to linking UDAs with regional and interstate multimodal corridors.

NEED TIER

- Tier 1
- Tier 2
- Tier 3

DISTRICT-WIDE NEEDS

- L7 Walkability and placemaking needs in activity centers
- L8 Paratransit connecting rural workforce to activity centers



2025 Needs Assessment – Synthesis & Tiering

The Needs Synthesis and Tiering approach does not replace the 2025 Needs Assessment; projects that address these needs are still eligible for funding through SMART SCALE. Simply stated, the Needs Synthesis and Tiering approach creates a higher-level consolidation of needs through a carefully delivered process of identifying which needs are most critical when looking at VTrans goals and objectives. The 2025 Recommendations then highlight the feasible capacity and operational approaches for addressing each Tier 1 consolidated need through 2025.

LYNCHBURG District

TIERED CONSOLIDATED NEEDS

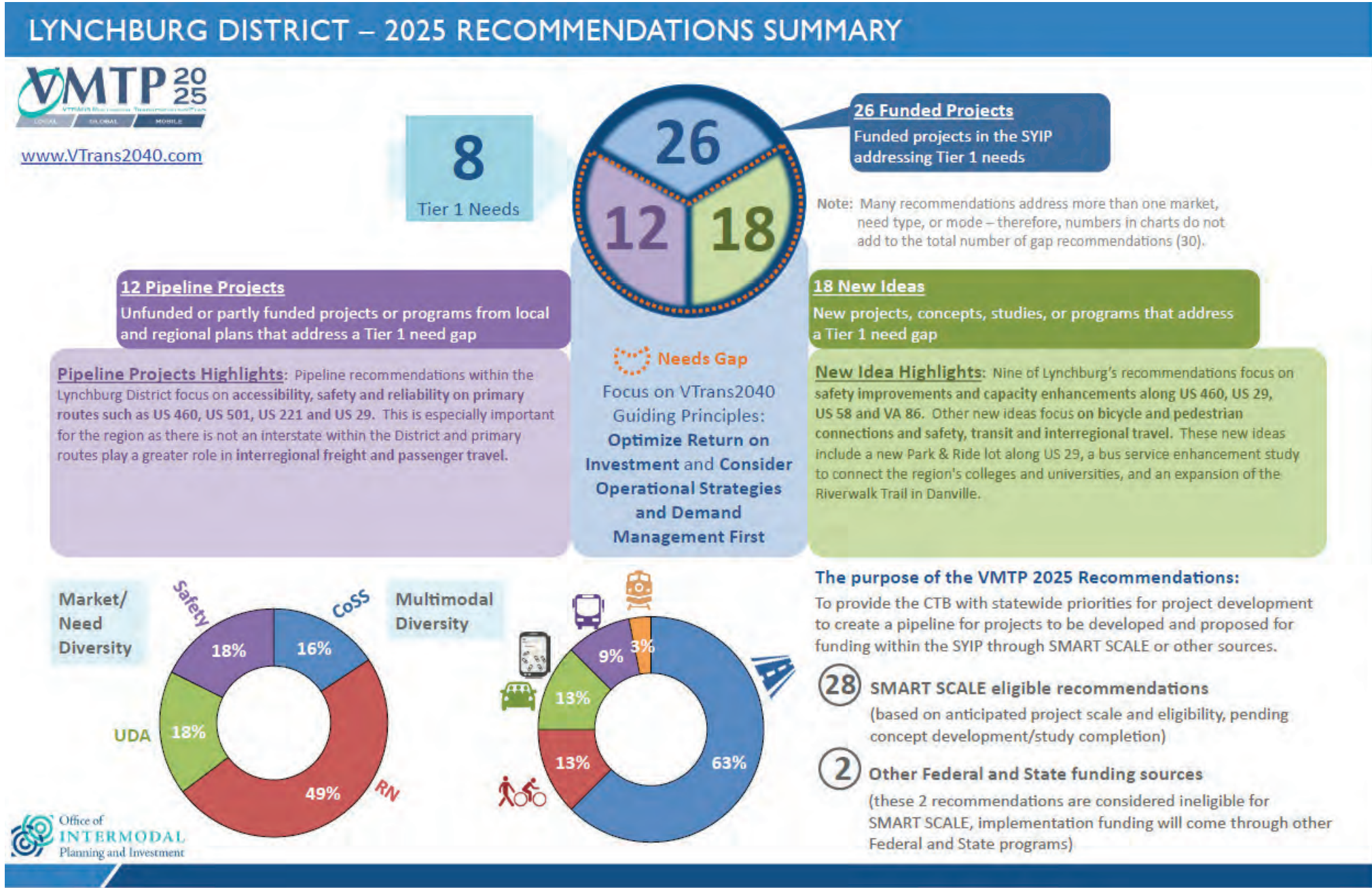
2025 Needs Assessment – Synthesis & Tiering

The process of tiering needs included a data-driven criticality analysis and multiple steps of stakeholder coordination and direct outreach, including briefings with CTB members in summer 2016. The below graphic summarizes the overall approach to consolidating and tiering needs.



Need ID	Need Description	Need Icons	Total Score (out of 20)	Final Tiering
L.7	Within the Lynchburg District and regional networks, the activity centers have walkability and placemaking needs to support the emerging workforce.		16	1
L.6	Within the Central Virginia MPO, the Lakeside Drive / Lynchburg Expressway area has safety, congestion and mode choice needs to support the knowledge sector.		15	1
L.9	Within the Central Virginia MPO, the Wards Road area has reliability needs to help connect local activity centers.		14	1
L.4	Within the Danville MPO and throughout Pittsylvania County, US 58 has reliability and safety needs for commute, through and freight traffic.		14	1
L.17	Within the Lynchburg District, the US 460 corridor between Bedford and Farmville has redundancy, mode choice, safety and reliability needs.		14	1
L.2	Within the Danville MPO and throughout Pittsylvania County, US 29 has congestion and safety needs to address freight and commuter traffic, especially during peak periods.		11	1
L.5	Within the Central Virginia MPO and through Amherst and Campbell Counties, the US 29 corridor has reliability and mode choice needs for passengers and freight.		13	1
L.11	Within the Central Virginia MPO and in Campbell County, the US 501 corridor has travel time reliability needs in order to support the knowledge and local economic sectors for workforce travel.		10	1
L.10	Within the Central Virginia MPO and in Bedford County, the US 221/US 460 corridor has travel time reliability and mode choice needs to better serve inter and intra-regional centers.		13	2
L.3	Within the Danville MPO, there are safety needs due to minimal active transportation infrastructure.		12	2
L.15	Within the Lynchburg District, the US 29 corridor between Danville and Lynchburg has mode choice and travel demand management (TDM) needs associated with intercity travel.		12	2
L.16	Within Central Virginia MPO, there are additional air service needs from the Lynchburg Regional Airport.		10	2
L.8	Within the Lynchburg District and through Bedford County, the rural areas have paratransit needs to connect the rural workforce to activity centers.		9	2
L.1	Within the Danville MPO and throughout Pittsylvania County, the US 29 corridor has mode choice and travel demand management needs.		9	2
L.13	Within the Lynchburg District, the Town of South Boston has safety needs.		8	3
L.12	Within the Lynchburg District and cross-District, US 58 has mode choice needs to support intercity travel from Danville and Hampton Roads.		7	3
L.14	Within the Lynchburg District, US 58 East in Halifax County has reliability issues.		5	3

To expand view of table and see more details, view online at www.vtrans2040.com



REFERENCES

- 2016 Smart Scale Technical Guide
- 2035 Rural Long Range Transportation Plan
- 2040 Long Range Transportation Plan
- Bike Route 76 Corridor Study
- Greene County Transit
- JAUNT
- Route 151 Corridor Study
- Route 29 Corridor Study
- U.S. Census Bureau
- VTRANS 2040
- Weldon Cooper Center for Public Service



Photo Credit: Nelson County

