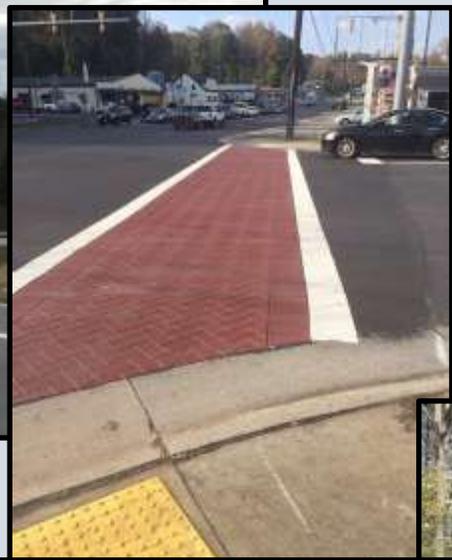


West Piedmont Planning District 2045 Rural Long Range Transportation Plan

Prepared by the West Piedmont Planning District Commission

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Introduction and Executive Summary

This *West Piedmont Planning District 2045 Rural Long-Range Transportation Plan* serves as an update to the *West Piedmont Planning District Commission 2035 Rural Long Range Transportation Plan*, adopted in 2011. As such, this plan incorporates various updates reflecting priorities articulated within Virginia's Multimodal Transportation Plan, *VTrans 2045*; Smart Scale, a new tool representing a paradigm shift in the way transportation projects are prioritized for funding; and local needs and priorities.

VTrans 2045/Smart Scale

Whereas the current plan presents many transportation needs along primary and secondary roads, this iteration of the plan focuses on priorities advanced in *VTrans 2045*, particularly needs on Corridors of Statewide Significance (CoSS), in Urban Development Areas (UDAs), and identified as Potential for Safety Improvements (PSI) within both the VDOT Salem and Lynchburg construction districts. Though associated mainly with metropolitan planning areas/organizations (MPAs/MPOs), Regional Networks are another component of Smart Scale, encompassing all of Pittsylvania County in the context of our region. Smart Scale, which ranks and funds transportation projects based on needs identified within *VTrans 2045*, scores each potential project based on each of five factors which evaluate the project's impact on:

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

Corridors of Statewide Significance

Corridors of Statewide Significance (CoSS) are defined by *VTrans 2045* as: "An integrated, multimodal network of transportation facilities that connect major centers of activity within and through the Commonwealth and promote the movement of people and goods essential to the economic prosperity of the state." These corridors have four characteristics in common. First, they are multimodal, meaning that they facilitate multiple modes of transportation such as automotive travel, rail, etc. Second, connectivity – particularly with regard to the linkage of states, regions, and/or major centers of activity – is a hallmark of these corridors. A third attribute of the CoSS is that they accommodate a significant volume of travel. Fourth, they satisfy statewide goals and/or facilitate a unique function at the state scale. Virginia is currently served by 12 of these corridors. Corridors of Statewide Significance within the West Piedmont Planning District include U.S. Routes 220 and 29, which facilitate north/south travel, and U.S. Route 58, which facilitates east/west travel.

Urban Development Areas (UDAs)

Urban Development Areas (UDAs) are designated areas, typically within a locality or even comprising an entire locality such as a city, in which the governing body wishes to encourage growth, with a particular emphasis on Traditional Neighborhood Development (TND). TND is reminiscent of development prior to World War II, which generally consists of greater density and walkability than is associated with the spread out, auto-oriented form of growth common during the post-World War II era. Virginia State Code specifies that development within UDAs shall incorporate road designs that are pedestrian friendly, street linkages with pedestrian circulation networks and other

roads, a mix of uses and housing types to incorporate affordable housing, curtailing of turning radii and street widths, and side and front yard setback reductions. A locality will designate a UDA by amending its comprehensive plan, which is intended to accommodate the locality's projected growth over a minimum period of 10 years. Development standards within a UDA will be a minimum of six townhouses; 12 apartments, cooperative, or condominium units; or four single-family residences on a per-acre basis. Furthermore, commercial development must occupy a minimum Floor Area Ratio (FAR) of 0.4. FAR is a ratio of the developed area to the land area. For example, if a commercial lot consists of 20,000 square feet, the commercial structure must cover at least 40% of that area, or 8,000 square feet.

Regional Networks (RN)

Regional Networks (RNs) are road networks within cities and counties which comprise Metropolitan Planning Areas/Metropolitan Planning Organizations (MPAs/MPOs). In short, an MPA/MPO is a metropolitan planning area mandated by the Federal-Aid Highway Act of 1962 to be created for urban areas with at least 50,000 persons, and whose planning process is based on a 3-C planning process, which stands for continuing, comprehensive, and cooperative planning. Unlike the traditional MPO limit which often includes only part of a surrounding county, the Regional Network comprises the entire area of the county as well as the core city on which the MPO is established. The intent of the Regional Network is to effectively plan for intraregional travel, such as in the case of commuters traveling between a city's urban core and its surrounding suburbs, with the long-term goal of bringing about a future economic vision for the region. The Danville Regional Network comprises the City of Danville and Pittsylvania County in its entirety.

Safety

A fourth basis of Smart Scale applications is safety needs, expressed within the context of VTrans 2045 as Potential for Safety Improvement (PSI). A PSI "score" is derived from a sum of the number of crashes on a given roadway segment or intersection minus (-) the predicted number of crashes for that particular segment or intersection.

Smart Scale is not the only project funding source, however, and mechanisms such as Revenue Sharing, the Highway Safety Improvement Program (HSIP), VDOT Road Maintenance Funding, and other grants and local funding sources are available to facilitate transportation investments in the Region. Therefore, while an emphasis is placed on Smart Scale projects, other projects which may not qualify for Smart Scale, are also included in this plan. More information about a variety of funding sources can be found in Appendix C.

The advent of Smart Scale, noted above, is one reason why the West Piedmont Planning District's Rural Long-Range Transportation Plan is being updated. But there are others. As transportation funding mechanisms evolve, so do design innovations which influence the safety and functionality of the transportation system. Examples of such innovations include the embrace by the Virginia Department of Transportation (VDOT) of innovative intersection designs such as Roundabouts, RCUTS, and Continuous Green-T intersections; separated bike lanes and traditional bike lanes; and pedestrian safety infrastructure including bulb-outs and mid-block crossings and their associated safety mechanisms.

Regional Overview

The West Piedmont Planning District Commission (WPPDC), the entity responsible for developing this Rural Long-Range Transportation Plan, provides regional planning services to the localities within its jurisdiction which include Franklin, Henry, Patrick, and Pittsylvania counties, the cities of Danville and Martinsville, and the Town of Rocky Mount. Many planning districts within the Commonwealth have at least one urbanized area within their boundaries which fall under the jurisdiction of a metropolitan planning organization (MPO), and the West Piedmont Planning District is no exception. The Danville MPO, staffed by the WPPDC, provides transportation planning services for the

City of Danville and the urbanized area of Pittsylvania County, which adjoins the City. The Rural Long-Range Transportation Plan excludes the Danville MPO area, but includes all other areas of the District.

The Region comprises an area of approximately 2,587 square miles and an estimated population of 241,969, according to the U.S. Census Bureau's 2014 - 2018 American Community Survey (ACS), to yield about 93.5 persons per square mile, on average. The Region is predominantly rural, characterized by agricultural and wooded lands interspersed with population centers ranging from small towns and villages to cities. Most of the region's population is concentrated in and around the cities, towns, and villages, with very sparse population densities throughout the rural areas. The western portion of the Region, located in the westernmost sections of Franklin and Patrick counties, is bounded by the Blue Ridge Mountains. The central and eastern portions of the Region, by contrast, are comprised predominantly of rolling topography. As is the case with population, employment is also concentrated in and around the Region's population centers. The largest employment category in the Planning District comprises services such as health care, education, and other professional services. This is followed by the manufacturing and retail sectors, which represent the second- and third-largest sectors in the Region. While most of the service and retail sector establishments are located in and around the population centers, much of the manufacturing employment is located in industrial parks, predominantly situated on the fringes of the larger cities and towns throughout the District.

Regional Transportation System

The major north-south roadways in the West Piedmont Planning District include U.S. Route 220 and U.S. Route 29. The major east-west roadway in the Region is U.S. Route 58. All three of these highways are classified as Corridors of Statewide Significance, which are defined by the Virginia Office of Intermodal Planning and Investment (OIPI) as "An integrated, multimodal network of transportation facilities that connect major centers of activity within and through the Commonwealth and promote the movement of people and goods essential to the economic prosperity of the state. These corridors include highways, rail lines, sea ports, and airport facilities." All three of these highways also comprise the National Highway System (NHS) within the region. The NHS is defined by VDOT as an "[I]nterconnected system of principal arterial routes which will serve major population centers, international border crossings, ports, airports, public transportation facilities, and other intermodal transportation facilities and other major travel destinations; meet national defense requirements; and serve interstate and interregional travel."

Public transit services in the region are provided primarily by two transit agencies. Danville Transit serves the City of Danville, and there are plans to extend this service north along the U.S. Route 29 corridor as far as Hurt, and east along the U.S. Route 58 corridor to South Boston, Halifax County. Piedmont Area Regional Transit (PART) serves the City of Martinsville and parts of Henry County with three routes. RADAR (Roanoke Area Dial-a-Ride) provides limited services between Ferrum, Rocky Mount, and Roanoke. Additionally, senior transportation services throughout the region are coordinated by the Southern Area Agency on Aging (SAAA), based in Martinsville.

RIDE Solutions, a Roanoke-based Transportation Demand Management (TDM) entity, recently expanded its service area to the West Piedmont Planning District, where it is locally administered by the WPPDC. RIDE Solutions facilitates the coordination of carpools and vanpools within the Region, while also promoting transit use, bicycling, walking, and telecommuting/telework. The carpool and vanpool components of this program will be especially valuable to the Region, since some area residents lack reliable transportation to work. Closely related to carpooling is the concept of Park & Ride commuting. The West Piedmont Planning District is home to one official Park & Ride lot, located in the Town of Rocky Mount, along Route 40 near its intersection with U.S. Route 220. Please see additional information about Park & Ride facilities in Chapter 8.

Norfolk Southern Railway operates a freight rail line from Roanoke south through Franklin and Henry counties as well as the City of Martinsville, south to Winston-Salem, NC. Norfolk Southern also operates a separate line through the City of Danville and north along the U.S. Route 29 corridor through Pittsylvania County; this line offers connections east to the Port of Virginia in Hampton Roads. The AMTRAK Crescent utilizes this rail line to provide daily service to Danville, enabling passengers to travel

north to Washington, D.C. and south to Atlanta and New Orleans. In October 2017, AMTRAK extended its Northeast Regional Service to Roanoke, where passengers can travel east to Lynchburg, and then north to Washington, D.C. and points beyond. A study is currently underway to establish a stop in Bedford, where the train originating in Roanoke would pick up and drop off passengers as it travels between Roanoke and Lynchburg. This service addition would not only benefit Roanoke and, potentially Bedford County, but the northern portions of the West Piedmont Planning District as well.

The West Piedmont Planning District is served by two general aviation airports. The Blue Ridge Airport, located in the Spencer area of Henry County, serves the City of Martinsville, and Henry and Patrick counties. Danville Regional Airport serves the City of Danville and Pittsylvania County, as well as nearby communities in North Carolina. Commercial air and freight service are available nearby to the Region, at Roanoke-Blacksburg Regional Airport in Roanoke; Piedmont-Triad International Airport in Greensboro, NC; and Lynchburg Regional Airport.

The West Piedmont Planning District is home to several multi-use trails to facilitate bicycling and walking, including the Dick & Willie Trailway in the City of Martinsville and Henry County, the Danville Riverwalk Trail in the City of Danville, the Ringgold Depot Trail in eastern Pittsylvania County, and the Mayo River Rail Trail in Patrick County. The planned Beaches to Bluegrass Trail system, proposed to extend from Cumberland Gap, Tennessee, east to Virginia Beach, passes through the Region, and will utilize all four trail systems noted herein.

This plan has been developed by the staff of the West Piedmont Planning District Commission, along with a Technical Committee comprising city and county planners, the Southern Area Agency on Aging (SAAA), the Disability Rights and Resources Center, local staff and administrators, the Virginia Department of Transportation (VDOT), and Roanoke Area Dial-a-Ride (RADAR). WPPDC staff, along with this Technical Committee, reviewed and refined the goals from the previous plan.

The goals of the *West Piedmont Planning District 2045 Rural Long Range Transportation Plan* are as follows:

1. Provide a multimodal transportation system that facilitates the efficient movement of people and goods.
2. Provide a safe and secure transportation system for all users.
3. Develop a transportation system that promotes and enhances economic activity for the region, its localities, and for all of its citizens.
4. Provide a transportation system that maximizes quality of life for all residents - with consideration for underserved and vulnerable populations - while minimizing environmental impacts.
5. Preserve the existing transportation system via targeted and cost-effective investments which also provide for multiple users.

Data sources for this plan include needs identified in Virginia's multimodal statewide transportation plan, VTrans 2040 and 2045; Potential for Safety Improvements (PSI) data for 2013 – 2017 and 2014 – 2018; recommendations within the *West Piedmont Planning District Commission 2035 Rural Long Range Transportation Plan* which had not yet been completed and were still deemed viable by localities; the *West Piedmont Economic Development District Comprehensive Economic Development Strategy* (CEDS); road project inventories conducted by WPPDC staff along with locality staff and VDOT planners; comprehensive plans; and input from local planners. A PSI score represents the number of actual crashes minus the predicted number of crashes for a certain type of roadway segment or intersection and its associated traffic volume. See Appendix H for PSI maps by locality for intersections and road segments, based on 2014 – 2018 data. Early in the planning process, a survey was sent out to localities and regional entities to solicit additional insight into local and regional planning needs, and the results of this survey can be found in Appendix A.

West Piedmont Planning District 2045 Rural Long Range Transportation Plan – Introduction and Executive Summary

The project recommendations articulated in this plan are divided between Priority and Vision projects. Priority projects are those which were ranked among the top 20 for each locality, and all projects ranked 21 and below have been categorized as Vision projects. WPPDC staff developed these lists utilizing a Matrix ranking tool created by VDOT. Using this tool, staff input data including Annual Average Daily Traffic (AADT), Level of Service (LOS), traffic flow rates, safety data in the form of crash records on a per-mile basis, Volume to Capacity Ratios, economic development data, environmental impact data, and other data.

