



Danville Metropolitan Planning Organization

West Piedmont Planning District Commission



Danville-Pittsylvania Area Long-Range Transportation Plan: Year 2040

Developed by

The Danville Metropolitan Planning Organization

in cooperation with

The Virginia Department of Transportation, The Virginia Department of Rail and Public Transportation, The Federal Highway Administration, and The Federal Transit Administration

October 2015

The contents of this report reflect the views of the author(s), who are responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the Federal Highway Administration (FHWA), or the Commonwealth Transportation Board. This report does not constitute a standard, specification, or regulation. FHWA acceptance of this report as evidence of fulfillment of the objectives of this planning study does not constitute approval of location and design or a commitment to fund any such improvements. Additional project-level environmental impacts assessments and/or studies of alternatives will generally be necessary.



INTRODUCTION

The Danville-Pittsylvania Area Long-Range Transportation Plan – Year 2040 is intended to provide guidance in the development of a multi-modal transportation system that will provide the citizens in the urbanized area with enhanced mobility to support a more prosperous economy and a better quality of life. The Plan is a product of a coordinated process that included participation by state, federal and local transportation agencies, and local citizens, businesses, and officials. The process for developing the Plan is also required by federal law. According to the federal law, Moving Ahead for Progress in the 21st Century (MAP-21) under which and in accordance with which this plan was developed:

"It is in the national interest to... encourage and promote the safe and efficient management, operation, and development of surface transportation systems that will serve the mobility needs of people and freight and foster economic growth and development within and between States and urbanized areas, while minimizing transportation-related fuel consumption and air pollution..."

"To accomplish the objectives [stated above], metropolitan planning organizations [MPOs]...in cooperation with the State and public transportation operators, shall develop long-range transportation plans..." (Title 23, United States Code, Sec. 134 (a) & (c).)

The Danville-Pittsylvania Area Long-Range Transportation Plan – Year 2040 was developed by the Danville Metropolitan Planning Organization and the West Piedmont Planning District Commission to provide the City of Danville and the surrounding urbanized areas of Pittsylvania County with a comprehensive set of transportation improvements that will address current and projected travel demands to the year 2040.

This Transportation Plan was developed in cooperation with the Virginia Department of Transportation, the Virginia Department of Rail and Public Transportation, the Federal Highway and Federal Transit Administrations, and was based on expected funding streams. The transportation improvements in this Transportation Plan can be funded by the year 2040, thereby meeting the federal planning requirements for a financially constrained transportation plan. In some instances funding is not available for all phases of project development (Preliminary Engineering – PE, Right of Way acquisition – ROW or Construction), and consequently only partial funding (indicated as PE and/or ROW) is included.

TRANSPORTATION FUNDING

In addition to identifying transportation needs, the planning process also evaluates the likely level of funding for improvements to meet those needs. From a statewide perspective, the amount of funds available for roadway improvements has been declining at an accelerating pace, and since most of the funding in the Danville-Pittsylvania urbanized area roadway needs involved state resources, local funding forecasts have also been reduced. However, since the adoption of the Long-Range Transportation Plan - Year 2035 in 2010, forecasts of roadway funding resources have stabilized as a result of transportation funding reform passed by the General Assembly in 2013. When the Year 2035 Transportation Plan was updated in 2010, funding was forecasted to be \$68 million, which was approximately half the amount identified in the previous plan update. As a result of the 2013 funding reform and completion of the Robertson Bridge, development of the Year 2040 Transportation Plan provided for an estimate of approximately \$61 million - the forecast of future roadway improvement funding through 2040.

Estimates of funding for this Plan also consider commitments of forecasted funds for improvement projects which are currently programmed. For example, the improvements associated with widening of Mount Cross Road, Phase 1 are partially funded out of the \$61 million in forecasted funding resources. This project has been included in The Virginia Transportation Six-Year Improvement Program: 2016 – 2021. Additional projects are also funded out of the Six-Year Improvement Program, and these funds are also part of the forecasted resources through 2040. As detailed below, subtracting these programmed commitments from the estimated \$61,215,226 in forecasted funding resources (\$2,448,609 annually) the total unallocated resources are:

PROJECT (Jurisdiction)

- 1. Multi-Use Trail (D) \$17
2. Route 58 Widening (D) 1,050
3. Mount Cross Road – Phase 1 (D) 914
4. Craghead Street - EMS Signal & Reconstruction 1,100
5. Route 41 – Shoulder Widening (P) 4,000
6. Kentuck Church Road – Reconstruction (P) 305

TOTAL PROJECT ALLOCATIONS \$7,386
UNALLOCATED RESOURCES – 2040 \$53,829

While substantial funding resources are programmed for specific projects, to provide for flexibility in addressing a range of deficiencies, a proportion of forecasted funds have been allocated to functional needs instead of to a defined improvement project. Such functional needs include safety and operational improvements, and bridge rehabilitation and replacement improvements.

In addition to compliance with federal legislation, the 2040 Plan considers recent changes in state legislation. House Bill 2, enacted in 2014, provides a method for programming a portion of funds for roadway improvement projects based on the following factors: 1) Congestion mitigation, 2) Economic development, 3) Accessibility, 4) Safety, and 5) Environmental Quality. Weighting of these factors is an important aspect of the score a project will receive as projects compete for limited funding. The Goals that have been recommended for the 2040 Plan, and the relative weights for scoring are as follows:

- 1. A System that Accommodates Economic Growth (Accessibility) 35%
2. A Safe Multi-Modal System (Congestion mitigation) 30%
3. A System that Serves Land Use 15%
4. A System that Operates Efficiently 10%
5. A System that Respects Environmental Resources 10%

RECOMMENDED IMPROVEMENTS

The process for developing the list of recommended improvements for funding in the Plan involved a transportation needs assessment that used both quantitative and qualitative methods. Quantitative methods included updating and refining the regional travel demand model and the development of the year 2040 traffic forecasts. These forecasts were based on land use forecasts developed for this study. Qualitative methods included public input obtained through public meetings, mailings and coordination with local government leaders. Through each of these input mechanisms, the study team tabulated a comprehensive list of regional transportation needs across all modes of travel. The recommended improvements included in this Transportation Plan also cover all modes of travel and were developed to respond to these needs. Where appropriate, the effectiveness of the improvements was tested using the regional transportation model. The social and environmental impacts of the improvements in the Transportation Plan were also assessed at an overview level. Through public meetings, the general public reviewed and commented on the recommended improvements.

The transportation improvements for the Danville-Pittsylvania urbanized area that have been included in the Financially Constrained Long-Range Transportation Plan are described in this Transportation Plan. Projects included in the Transportation Plan were those that were judged by the study team and local government officials to exhibit a comparatively higher priority than those not included. Estimated based on the forecasted year of expenditure, the costs of the complete set of transportation projects that was developed as part of the transportation planning process exceeded the estimates of available transportation funding to the year 2040. Projects that were considered to exhibit a comparatively lower priority, as well as those that may have an implementation timetable beyond the 2040 horizon, were considered for inclusion in the region's "Transportation Vision Plan." Vision Plan projects are those that could be constructed should additional funding become available; however, no timetable or method for implementation has been developed for these improvements. The Vision Plan projects are described separately in this document.

CITIZEN PARTICIPATION

The citizen participation program followed the process and procedures of the Public Involvement Participation Plan and Notification Procedures Manual. Three informal Citizen Information meetings were held on February 25, 2015, April 16, 2015, and July 23, 2015, respectively. The first meeting focused on identifying issues and concerns, the second meeting presented improvement alternatives, and the third meeting presented the recommended alternatives. All meetings were held at the Danville Regional Airport.

Notices of the meetings were published in the local newspaper, and posted on the MPO website. In addition, notice was posted on the City's public access cable channel. Direct notices were sent to targeted mailing lists of interested individuals and organizations. For example, individuals who had attended previous corridor study meetings received letters notifying them of the meetings. In addition, articles were published in the local newspaper describing the planning process, and detailing the purpose, location, and schedule of the meetings.

Continuous coordination was provided through regular meetings of the Danville-Pittsylvania Metropolitan Planning Organization's (MPO) project management team. This team was established at the initiation of the process and included representatives of the City of Danville, Pittsylvania County, the West Piedmont Planning District Commission, the Virginia Department of Transportation, the Virginia Department of Rail and Public Transportation and the Federal Highway Administration.

In addition, presentations of the recommended plan were provided to the Pittsylvania County Board of Supervisors on October 5, 2015 and to the Danville City Council on October 8, 2015.

A formal public hearing was held on October 21, 2015. Its purpose was to provide the public with the opportunity to comment prior to the adoption by the Metropolitan Planning Organization. Following review and consideration of the comments provided both at the citizen information meetings and at the public hearing, the Danville-Pittsylvania Area Long-Range Transportation Plan – Year 2040 was adopted by the Danville Metropolitan Planning Organization on October 28, 2015.

TRANSPORTATION VISION PLAN

As developed during the planning process, the transportation improvements included in the financially constrained plan (shown on the map on the reverse) reflect local and regional priorities for use of the limited amount of funding forecast through the year 2040. There are numerous other improvements that, due to financial constraints, were not included in the Danville-Pittsylvania Area Long-Range Transportation Plan – Year 2040 Financially Constrained Plan. However, these improvements indicate the range of roadway improvements that local government officials in the area would actively pursue were forecast funding levels to be increased.

Table of Vision Plan Transportation Improvements

Table with 5 columns: Map ID (1), Project Description (From/To), Estimated Cost (2), Locality, Remarks, Proposed Typical Section (3). Lists projects like Pinney Forest Road, VA 41 Extension, and S. Boston Rd.

Mass Transit and Airport Improvements: Concurrent with development of the Danville-Pittsylvania Area Long-Range Transportation Plan: Year 2040, Danville Transit developed the Transit Development Program: Fiscal Year 2015 (TDP). The purpose of the development plan is to identify facility and service needs, to evaluate financial resources, and to develop recommended improvements.

Service Improvements: One key service improvement occurred in 2013, when Danville Transit was awarded a New Freedom grant in the amount of \$128,402. The purpose was to assist with financing the net operating cost associated with reducing duplicated human services-related transportation service and to promote increased scheduling flexibility for persons with disabilities and ambulatory seniors.

Capital Investment: For FY2016, Danville Transit's capital budget includes the purchase of three replacement buses; the rehabilitation of two buses, and the purchase of one fleet expansion bus. The total fleet is currently 20 buses.

Capital costs are funded principally through Federal (FTA 5311) funds, with State funds and local funds making up the balance of costs.

Danville Regional Airport: The Danville Regional Airport infrastructure includes a primary 5,900 foot long Precision ILS runway and a secondary 3,910 foot runway. Drainage work was done to address the accumulation of rain water on the runway. Additionally, a hump was lowered in the middle of the runway to improve pilot visibility on the runway. As of January 2015, the project was substantially completed, and was paid for by a \$10 million grant from the Federal Aviation Administration (FAA). The airport does not currently provide scheduled commercial airline service and no major capital improvements are funded or scheduled.

Intercity Passenger and Freight Service: Danville is served by both passenger rail and bus service. AMTRAK service on the Crescent is provided at the station on Craghead Street with scheduled southbound departures at 11:14 p.m. and northbound departures at 4:48 a.m. Greyhound bus service is provided at the station on Spring Street, with scheduled southbound (Durham, NC) departures at 9:55 a.m. and northbound (Richmond, VA) departures at 6:55 a.m. For freight shipping, Danville is served by Norfolk Southern rail and by several trucking companies.

Bicycling and Pedestrian Facilities: Both Pittsylvania County and the City of Danville have bicycle facility plans that are components of the West Piedmont Regional Bicycle Plan. The highest priority improvement is the extension of the existing Ringgold Depot Trail in Pittsylvania County to connect with the existing Riverwalk Trail in the vicinity of the Danville Regional Airport. Additional improvements anticipated include extensions of the Riverwalk Trail in Danville.

Roadway Improvements: The location of the recommended roadway improvements are shown on the map on the reverse side of this document and are listed in the Table of Recommended Roadway Improvements: Year 2040 Financially Constrained Plan. Drawings of the proposed typical sections are also shown.

For some improvements, sufficient funding for completing preliminary engineering (PE) has been recommended. This ensures that such projects are eligible for federal and state funding, while preserving available funding for completing several improvement projects.

As shown above, the forecasted unallocated funding resources forecasted for the planning period are \$53.829 million. The total funding allocation for the proposed roadway improvements shown in the Table is \$54.203 million, which is within 0.7% of the funding allocation.

PLANNING FACTORS

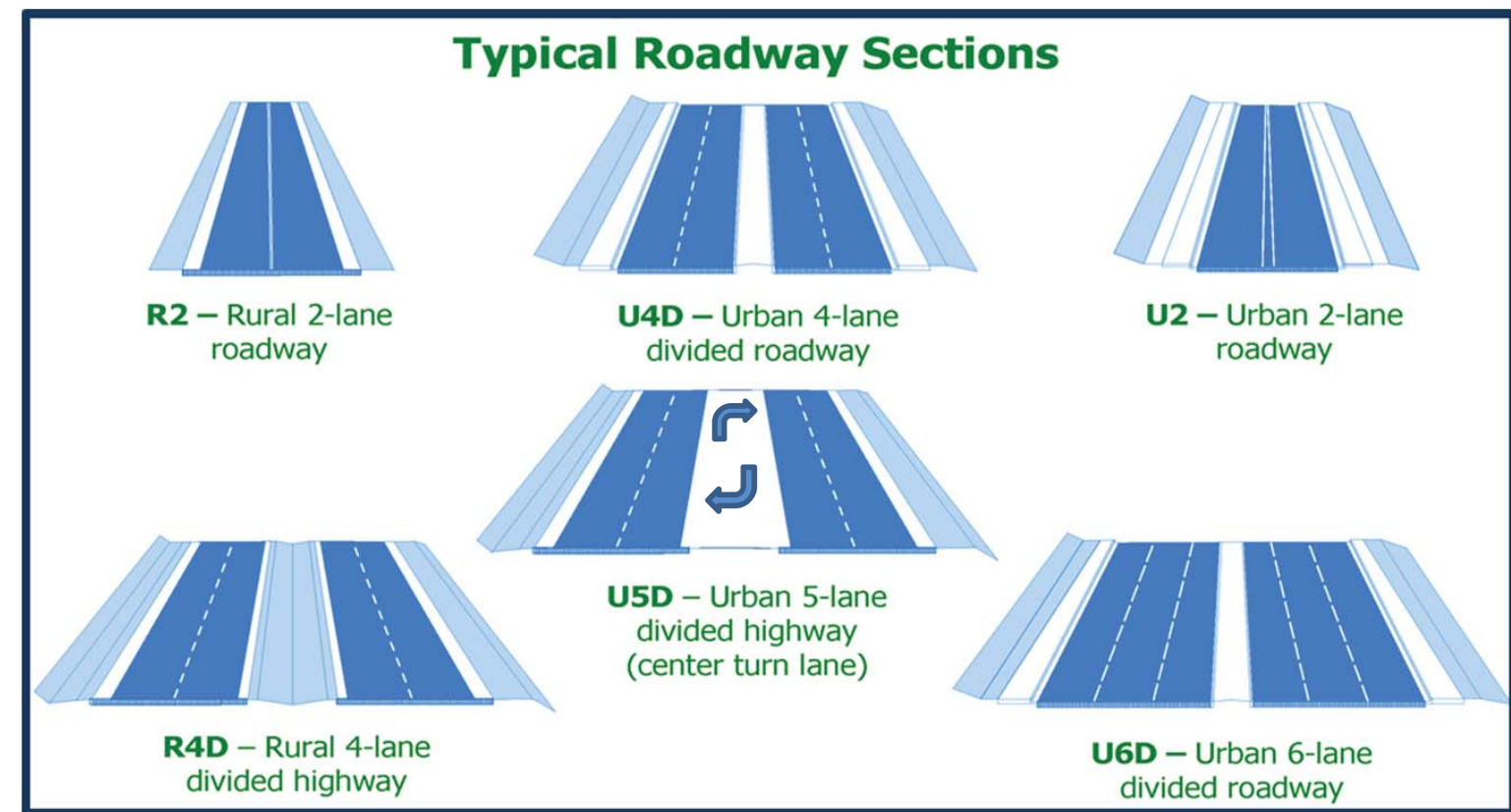
To ensure compliance with federal law, Moving Ahead for Progress in the 21st Century, under which and in accordance with which this plan was developed: the federal legislation governing transportation planning, and with the rules promulgated to implement MAP-21, the 2040 Transportation Plan was developed to address key planning factors:

(1) Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency: The Plan places special emphasis on ensuring multi-modal access to major industrial areas. This includes the policy for ensuring that any proposed improvements to the Danville Expressway are consistent with its proposed inclusion into the federal interstate system of highways as Interstate 785. Such improvements should meet design guidelines for interstate freeways.

Table of Recommended Roadway Improvements: Year 2040 Financially Constrained Plan

Table with 9 columns: 2040 Map ID (1), Project Description (From/To), Locality, Description, Proposed Typical Section (2), Estimated Cost at Year of Expenditure (3), Estimated Cost - Prior Allocation (4), Year of Expenditure, Previous Allocation (Prior to 2016), Fund Allocation in L RTP: (2016-2040). Lists projects like Route 58 Business & Berry Hill Road, Kentuck Road, Sandy Creek Bridge, etc.

Notes: 1. Map ID number matches number of map of location of improvements. 2. Proposed improved roadway cross sections are illustrated in the panel labeled "Typical Roadway Sections." 3. Planning-level cost estimates based on average estimates for typical section or project description. Inflation has been included in estimate computation. Unless otherwise noted, cost estimates include preliminary engineering (PE), right of way acquisition and construction. Allocations in italic are for PE and right of way only (See #16, #18 and #19).



(2) Increase the safety of the transportation system for motorized and non-motorized users: The Plan allocates substantial funding for corridor and intersection safety improvements along Pinney Forest Road, at the Elizabeth Street interchange with the Danville Expressway and along Route 58, and promotes policies for ensuring transit access to employment and retail centers;

(3) Increase the security of the transportation system for motorized and non-motorized users: The Plan provides redundancy for travel routes, avoiding vulnerable bottlenecks for which no alternative routes are available;

(4) Increase accessibility and mobility of people and freight: The Plan focuses on addressing existing safety and capacity deficiencies, and provides for more direct routes to employment centers. It also identifies transit service enhancements and improvements;

(5) 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: The Plan provides a multi-modal approach to address potential services to economic development opportunities and is consistent with State plans for roadways, transit, and trails. Finally, major improvements have been located away from environmentally sensitive areas;

(6) Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight: The Plan provides for enhanced intermodal access by improving capacity, geometry and safety on major inter-city routes and to employment centers. It also provides for access improvements at the airport and enhanced transit accessibility to industrial areas;

(7) Promote efficient system management and operation: The Plan emphasizes development of transportation system management approaches to addressing deficiencies. It provides for operational improvements along Route 58, for example; and,

(8) Emphasize the preservation of the existing transportation system: The Plan includes substantial investment in existing facilities, including transit, airport, pedestrian and bicycle, and roadway improvements. It emphasizes improvements at existing alignments, interchanges and intersections, and it provides for bridge replacements and pavement section upgrades.

The citizen participation program followed the process and procedures of the Public Involvement Participation Plan and Notification Procedures Manual. Three informal Citizen Information meetings were held on February 25, 2015, April 16, 2015, and July 23, 2015, respectively. The first meeting focused on identifying issues and concerns, the second meeting presented improvement alternatives, and the third meeting presented the recommended alternatives. All meetings were held at the Danville Regional Airport.

Notices of the meetings were published in the local newspaper, and posted on the MPO website. In addition, notice was posted on the City's public access cable channel. Direct notices were sent to targeted mailing lists of interested individuals and organizations. For example, individuals who had attended previous corridor study meetings received letters notifying them of the meetings. In addition, articles were published in the local newspaper describing the planning process, and detailing the purpose, location, and schedule of the meetings.

Continuous coordination was provided through regular meetings of the Danville-Pittsylvania Metropolitan Planning Organization's (MPO) project management team. This team was established at the initiation of the process and included representatives of the City of Danville, Pittsylvania County, the West Piedmont Planning District Commission, the Virginia Department of Transportation, the Virginia Department of Rail and Public Transportation and the Federal Highway Administration.

In addition, presentations of the recommended plan were provided to the Pittsylvania County Board of Supervisors on October 5, 2015 and to the Danville City Council on October 8, 2015.

A formal public hearing was held on October 21, 2015. Its purpose was to provide the public with the opportunity to comment prior to the adoption by the Metropolitan Planning Organization. Following review and consideration of the comments provided both at the citizen information meetings and at the public hearing, the Danville-Pittsylvania Area Long-Range Transportation Plan – Year 2040 was adopted by the Danville Metropolitan Planning Organization on October 28, 2015.

TRANSPORTATION VISION PLAN

As developed during the planning process, the transportation improvements included in the financially constrained plan (shown on the map on the reverse) reflect local and regional priorities for use of the limited amount of funding forecast through the year 2040. There are numerous other improvements that, due to financial constraints, were not included in the Danville-Pittsylvania Area Long-Range Transportation Plan – Year 2040 Financially Constrained Plan. However, these improvements indicate the range of roadway improvements that local government officials in the area would actively pursue were forecast funding levels to be increased.

Table of Vision Plan Transportation Improvements

Table with 5 columns: Map ID (1), Project Description (From/To), Estimated Cost (2), Locality, Remarks, Proposed Typical Section (3). Lists projects like Pinney Forest Road, VA 41 Extension, and S. Boston Rd.

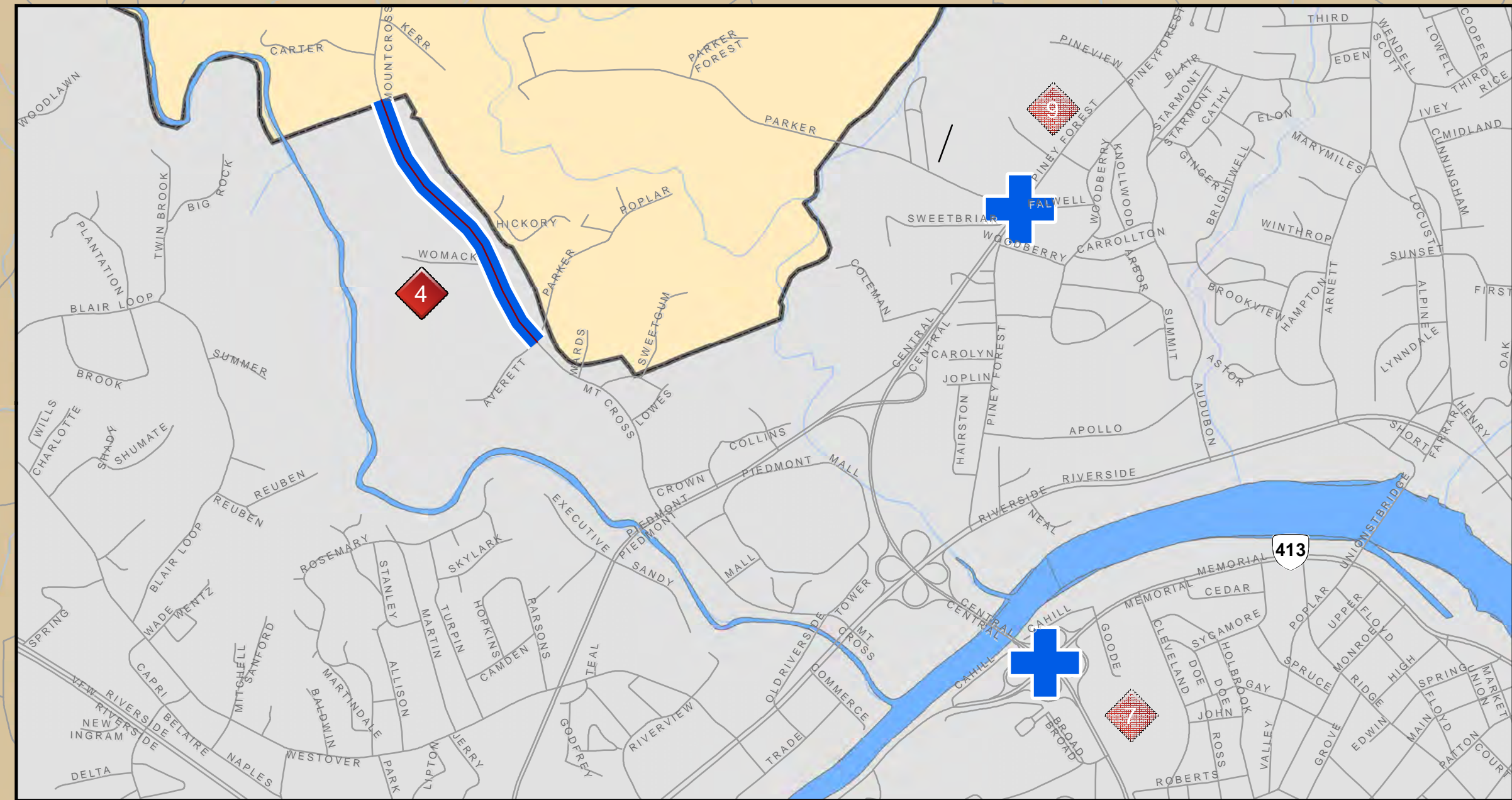
Table of Vision Plan Transportation Improvements (continued)

Table with 5 columns: Map ID (1), Project Description (From/To), Estimated Cost (2), Locality, Remarks, Proposed Typical Section (3). Continuation of the Vision Plan table with projects like Moorefields Bridge Road, Ringgold to Riverwalk Trail, Pinney Forest Parkway, etc.

Notes: 1. Map ID number matches number of map of location of improvements. 2. Planning-level cost estimates based on average estimates for typical section or project description. Unless otherwise noted, cost estimates include preliminary engineering (PE), right of way acquisition and construction. 3. Proposed improved roadway cross sections are illustrated in the panel labeled "Typical Roadway Sections."

DANVILLE - PITTSYLVANIA AREA LONG-RANGE TRANSPORTATION PLAN - YEAR 2040

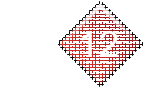



October 2015



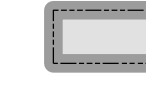

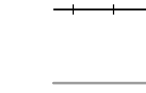

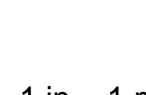
Pittsylvania County

Legend

Projects

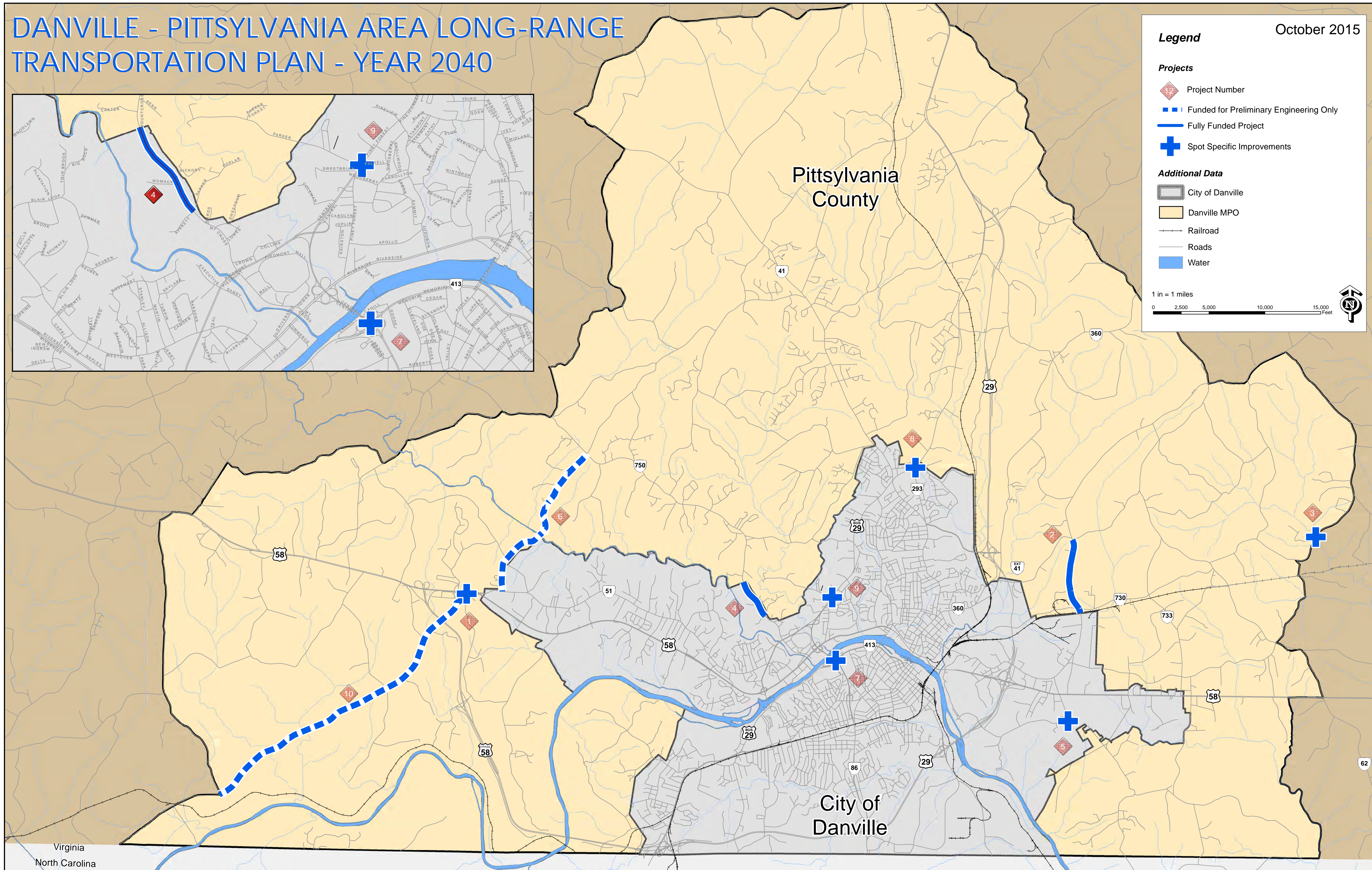
-  Project Number
-  Funded for Preliminary Engineering Only
-  Fully Funded Project
-  Spot Specific Improvements

Additional Data

-  City of Danville
-  Danville MPO
-  Railroad
-  Roads
-  Water

1 in = 1 miles

0 2,500 5,000 10,000 15,000 Feet

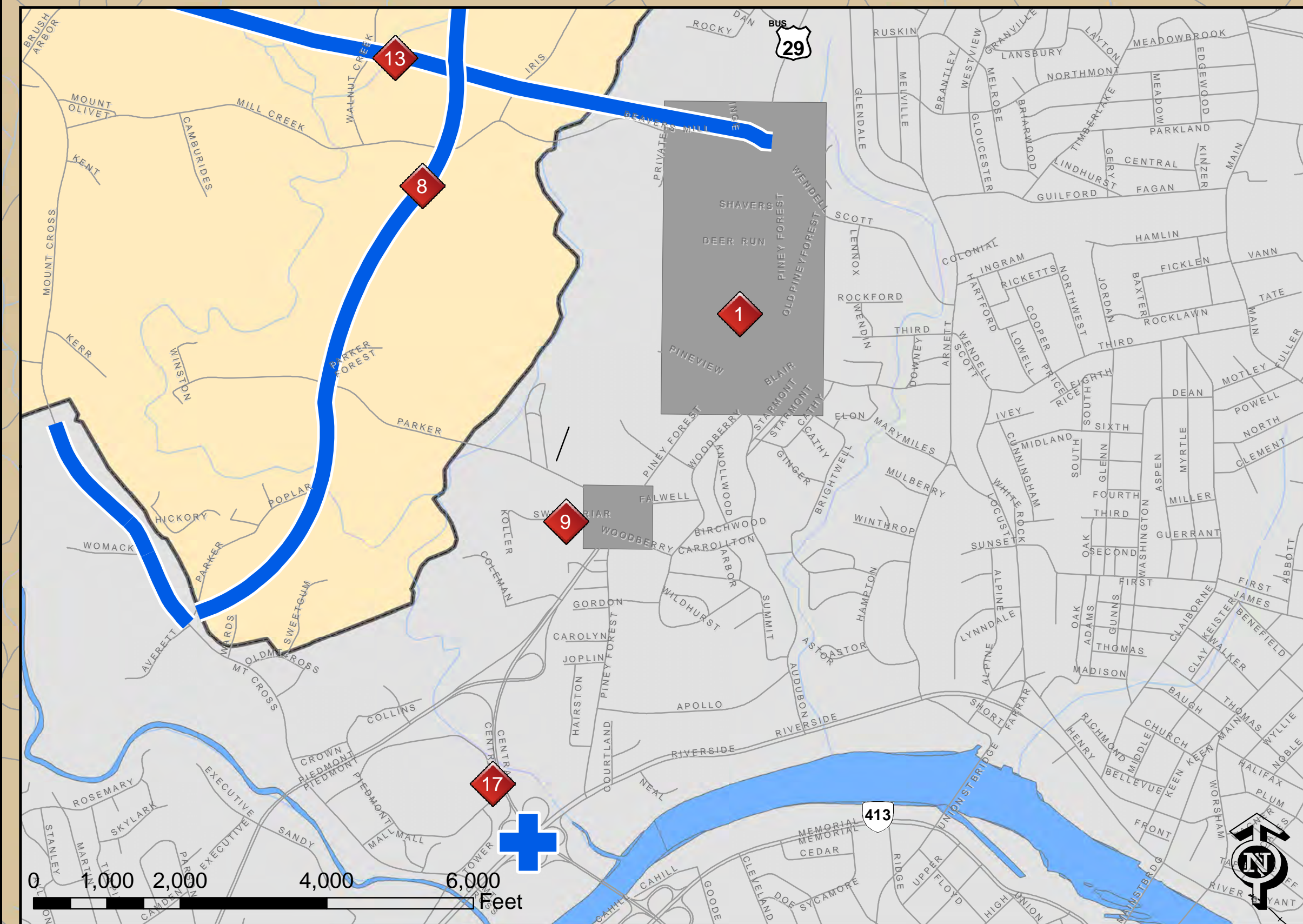


Virginia
North Carolina

City of Danville

DANVILLE - PITTSYLVANIA AREA VISION PLAN IMPROVEMENTS - YEAR 2040

October 2015



Legend

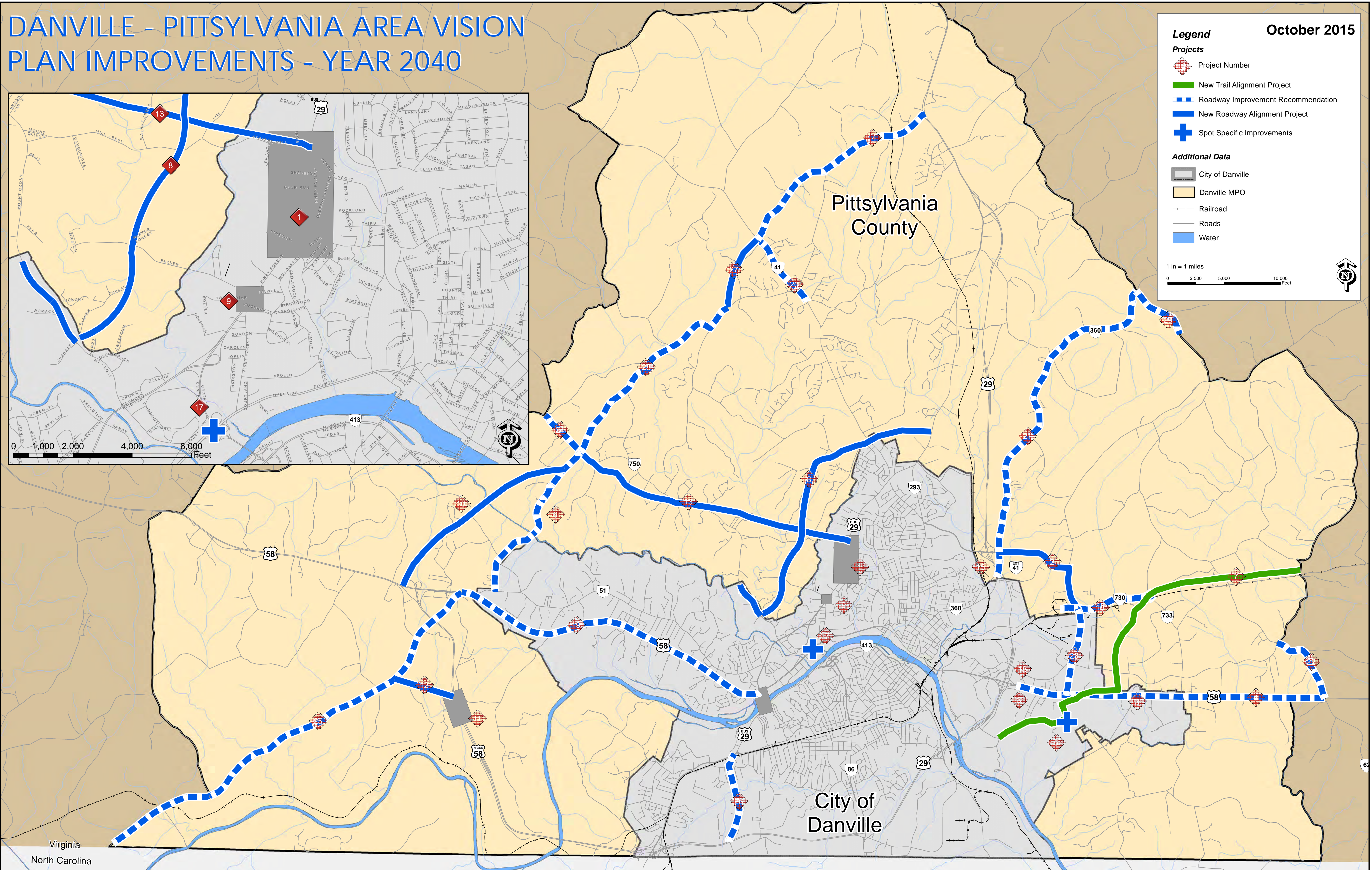
Projects

- Project Number
- New Trail Alignment Project
- Roadway Improvement Recommendation
- New Roadway Alignment Project
- Spot Specific Improvements

Additional Data

- City of Danville
- Danville MPO
- Railroad
- Roads
- Water

1 in = 1 miles
0 2,500 5,000 10,000 Feet



Virginia
North Carolina