



New River Valley  
Planning District Commission

# Utilizing Virginia's 2035 RLRP in Local Planning

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# Background of Virginia's Rural Transportation Planning Program

The Rural Transportation Planning Program was created by TMPD in 1993 to provide funding to the 20 rural regions for transportation planning

- Currently each Rural PDC receives \$58,000 for rural planning
- Each PDC provides a \$14,500 local match
- Total funds for rural transportation planning activities to support rural transportation planning = \$72,500

Since the inception of the Rural Planning Program, VDOT has invested over \$20,000,000 to support rural transportation planning activities throughout the Commonwealth

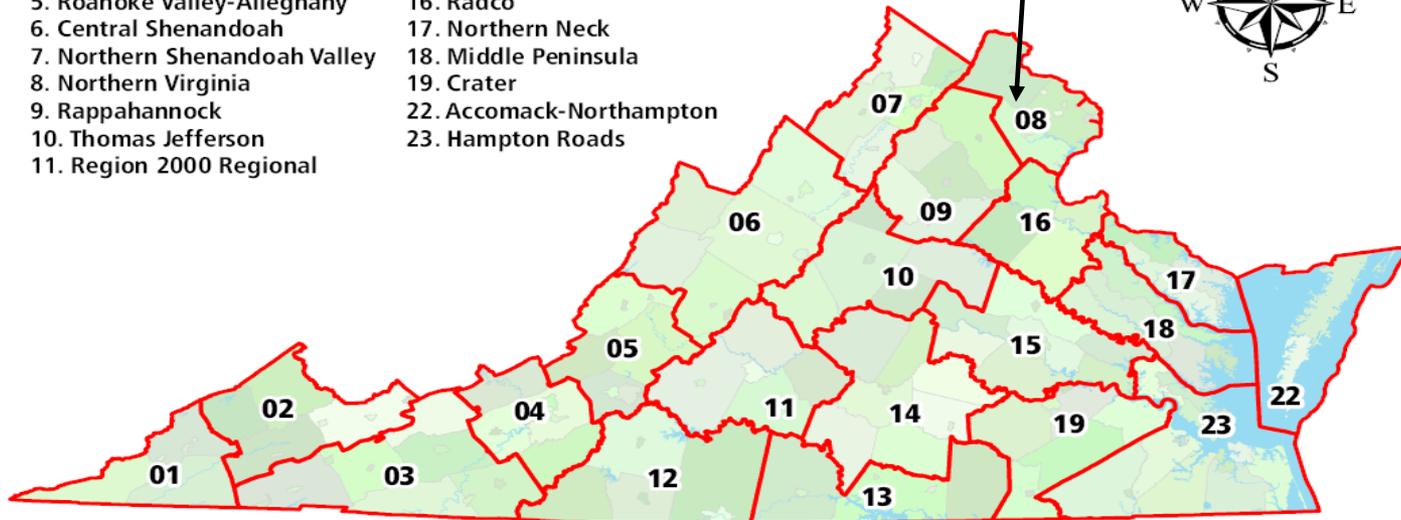


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# Overview of Virginia's Rural Transportation Planning Program

## Virginia Planning District Commission Boundaries

- |                               |                          |
|-------------------------------|--------------------------|
| 1. Lenowisco                  | 12. West Piedmont        |
| 2. Cumberland Plateau         | 13. Southside            |
| 3. Mount Rogers               | 14. Piedmont             |
| 4. New River Valley           | 15. Richmond Regional    |
| 5. Roanoke Valley-Alleghany   | 16. Radco                |
| 6. Central Shenandoah         | 17. Northern Neck        |
| 7. Northern Shenandoah Valley | 18. Middle Peninsula     |
| 8. Northern Virginia          | 19. Crater               |
| 9. Rappahannock               | 22. Accomack-Northampton |
| 10. Thomas Jefferson          | 23. Hampton Roads        |
| 11. Region 2000 Regional      |                          |



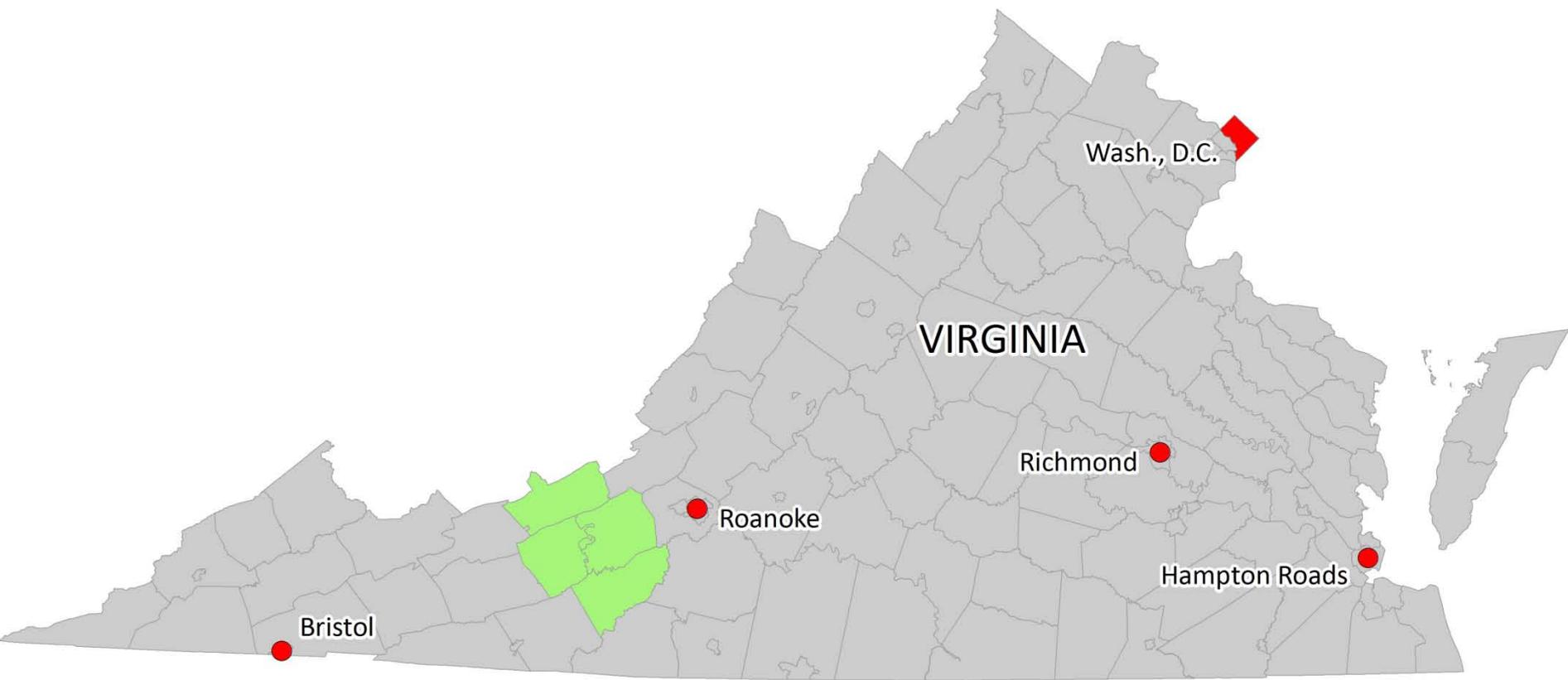
Virginia Department of Transportation - Transportation and Mobility Planning Division 2008

# Overview of Virginia's Rural Long Range Plans

## The development and components of each RLRP consists of:

- Modeled after the federally mandated metropolitan transportation planning process (continuing, comprehensive, and cooperative).
- The transportation plans will have a minimum planning horizon of 20 years and will address the expected impacts of population and employment growth on the transportation system.
- Each will be developed as a vision plan and will be updated every five years.
- It is VDOT's goal that each region will be able to use these plans to identify regional priorities for funding and use the plans when working with the localities in developing the transportation element of their comprehensive plans..

# Virginia's New River Valley



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# Role of Regional Commission (PDC)

- **Coordination**
  - **Each Jurisdiction (NRV = 15)**
  - **Existing Multijurisdictional TAC**
  - **Identifying “Hot Spots”**
- **Data Sharing**
  - **Integrating existing plans**
- **Review + Approve**

# Applying the RLRP Process Locally

- **Select detailed study locations**
  - **“Hot Spot” Criteria (Scale = 1 - 6):**
    - Regional Connectivity
    - Number of Crashes
    - Land Use: Industrial – Minimal Residential

# VDOT – Collecting RLRP Data

- **Identified Roadway system deficiencies**
  - **By Intersection and Segment**
  - **Capacity (LOS)**
  - **Safety (sight distance, access management, signage, etc)**
  - **Geometric (width, curvature, etc)**
  - **Bridge (functionality, structural, etc)**

# Applying the RLRP Process Locally

## Congestion-Related Detailed Study Locations



1: Rt. 8/ Rt. 221 Intersection



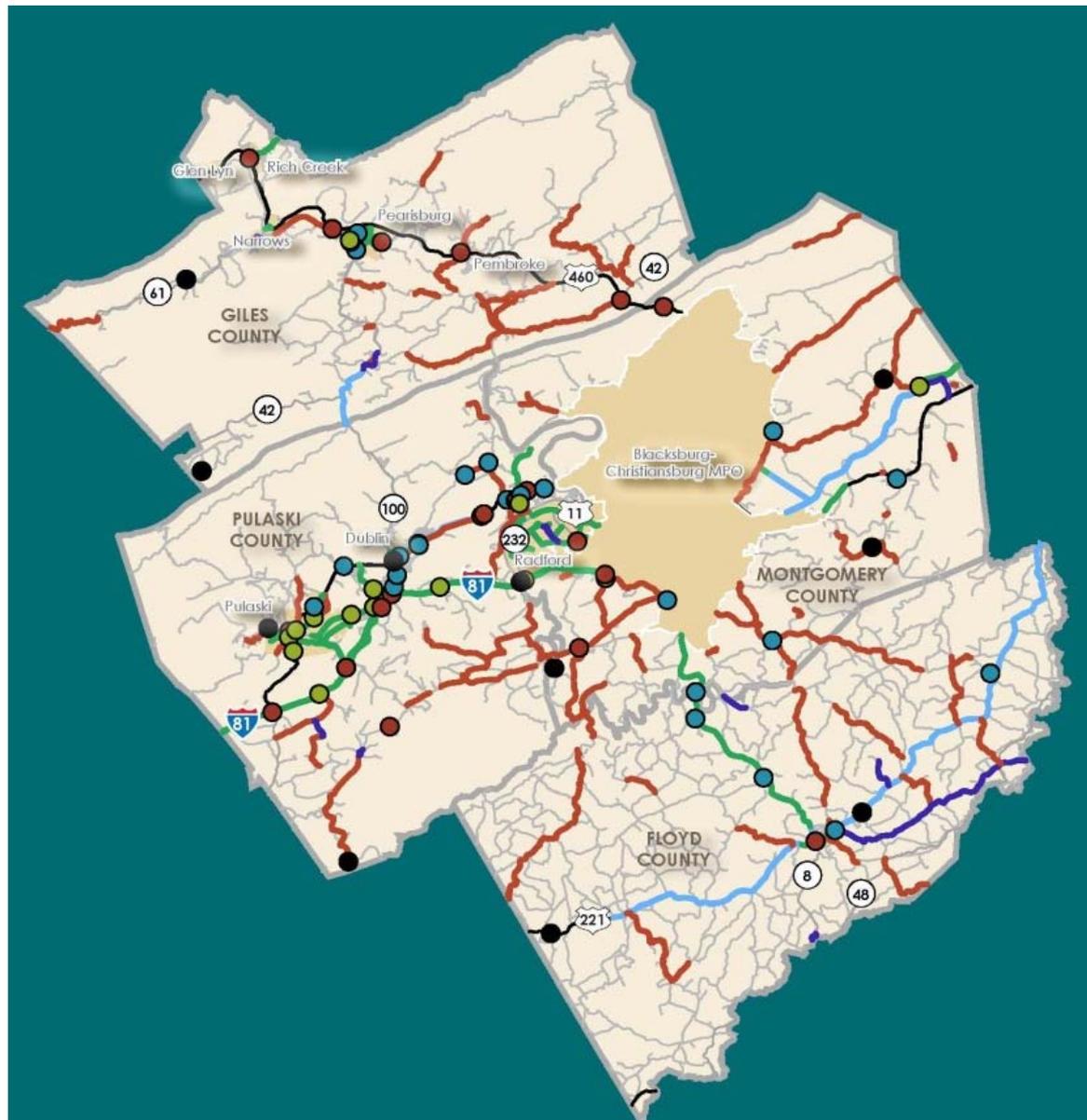
## ROADWAY SYSTEM DEFICIENCIES

### Intersection Deficiency

- Operation Deficiency
- Safety Deficiency
- Both Deficiencies
- Other Deficiencies

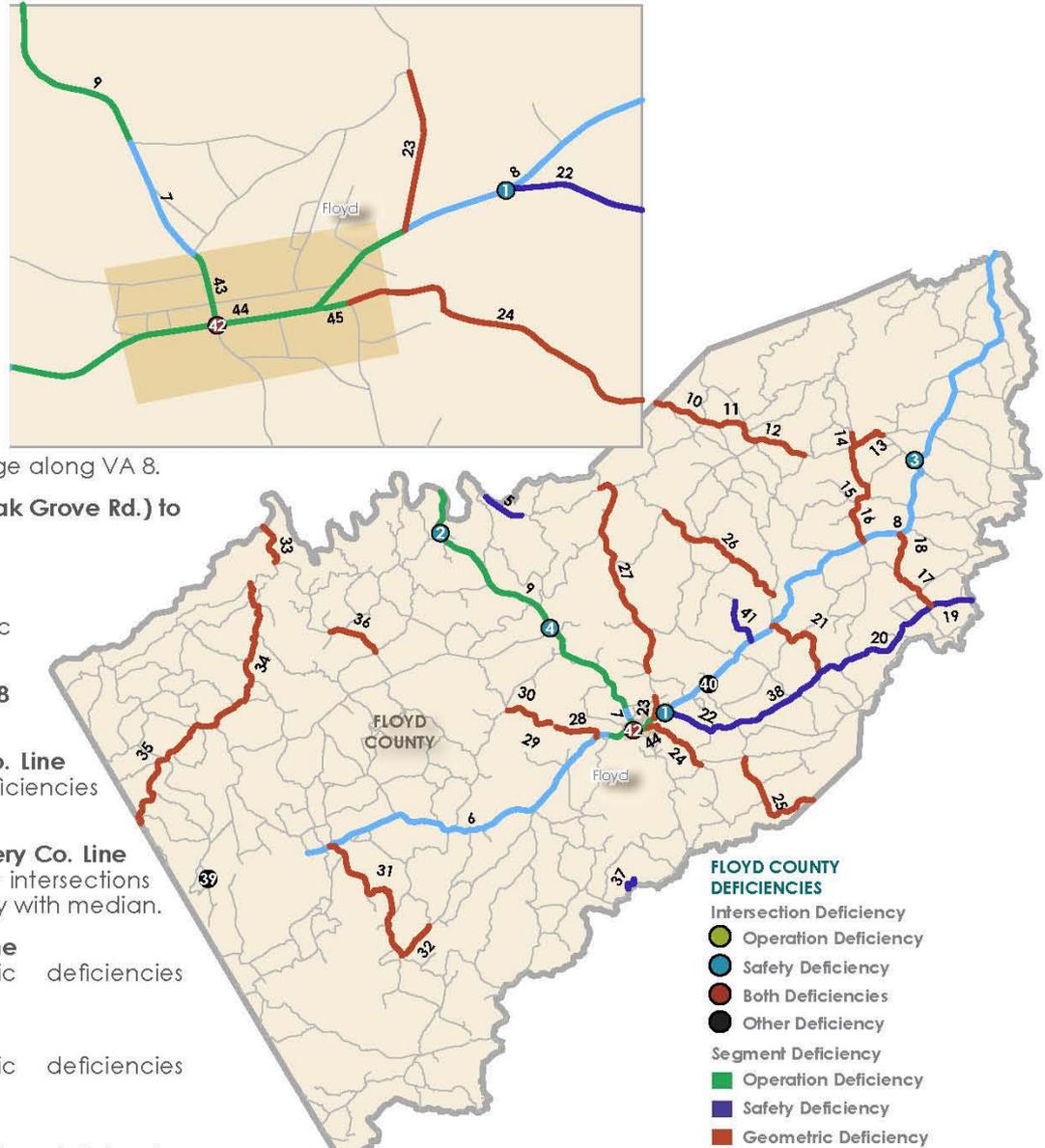
### Segment Deficiency

- Operation Deficiency
- Safety Deficiency
- Geometric Deficiency
- Both Operation and Safety Deficiency



## FLOYD COUNTY RECOMMENDATIONS

- 1 VA 681/US 221**  
Short-term maintenance; Mid-term add/improve turn lanes.
- 2 VA 8/VA 750**  
Short term maintenance and add "Intersection Ahead" signage along VA 8; Mid-term add westbound left turn lane.
- 3 US 221/VA 642**  
Short-term maintenance; Mid-term add turn lanes; Long-term reconstruct intersection to improve sight distance and address safety issues.
- 4 VA 8/VA 730**  
Short-term maintenance; add "Intersection Ahead" signage along VA 8.
- 5 VA 663 (Sowers Mill Rd.) from 0.1 Mi. E. of VA 617 (White Oak Grove Rd.) to 1.0 Mi. E. of VA 617 (White Oak Grove Rd.)**  
Long-term reconstruct to rural roadway design standards.
- 6 US 221 (Floyd Hwy. S.) from VA 787 to T-1004**  
Long-term reconstruct road to address geometric deficiencies (including full-width lanes and shoulders).
- 7 VA 8 (Locust St.) from Floyd Northern Town Limit to VA 748**  
Long-term widen to urban four-lane roadway.
- 8 US 221 (Floyd Hwy. North) from VA 615 N. to Roanoke Co. Line**  
Long-term reconstruct road to address geometric deficiencies (including full-width lanes and shoulders).
- 9 VA 8 (Locust St./Webbs Mill Rd.) from VA 748 to Montgomery Co. Line**  
Mid-term improve shoulders and add turn lanes at major intersections along corridor; Long-term widen to rural four-lane roadway with median.
- 10 VA 612 (Stonewall Rd.) from VA 660 to Montgomery Co. Line**  
Long-term reconstruct road to address geometric deficiencies (10-foot lanes).
- 11 VA 660 (Daniel's Run) from VA 612 to VA 610**  
Long-term reconstruct road to address geometric deficiencies (10-foot lanes).
- 12 VA 610 (Daniel's Run) from VA 660 N. to VA 669**



# PDC – Sharing RLRP Data

Initial  
Review

Present

Format &  
Package

Submit  
Comments

# 46 columns from engineers



Region

# 5 columns for local review

Locality

MAP KEY	LOCATION INFORMATION	DEFICIENCIES	RECOMMENDATIONS -- RLRP DRAFT	ADDITIONAL DISCUSSION
223	VA 177 (Tyler Road) at Rock Road	Safety: Given open, flat and likely high speed conditions along VA 177, the lack of northbound right turn storage increases potential rear-end accidents. Congestion: Identified by the county as a congested intersection. (Source: 3)	Short-Term: Safety: Repaint faded pavement markings. Mid-Term: Safety: Install right turn lane on northbound VA 177 to reduce potential of rear-end accidents. Long-Term: Congestion: Analysis of intersection shows this is not a high-priority congestion related location. Continue to monitor roadway for traffic growth or other potential issues. (Source:1)	
224	US 11 (Main Street) from Memorial Bridge to Grove Avenue  US 11 (Norwood Street) from Grove Avenue to VA 177 (Tyler Avenue)	Congestion: Identified by the county as a congested intersection. (Source: 1, 3)  Congestion: Identified by the county as a congested intersection. (Source: 1, 3)	Long-Term: Congestion: Operations analysis indicates that this roadway segment would accommodate year 2035 travel demands at level of service C. Continue to monitor for issues that may warrant improving roadway from the existing eleven foot lanes to twelve foot lanes. (Source: 1)	Noted that future travel demand appears to be satisfied, but continue to monitor for warrants of upgrading roadway (from 11' to 12')
225	Park Road from Rock Road to 2nd Avenue	Safety: Deficient horizontal alignment including a short, blind-curve. Congestion: Identified by local study for long term capacity improvement. (Source: 1, 6)	Long-Term: Safety: Reconstruct to urban roadway standards and straighten horizontal alignment. Congestion: Reconstruct to urban two-lanes including sidewalks/bike lanes (Source:1, 5)	
226	VA 232 (1st Street) from Bolling Street to Wirt Street	Congestion: Segment will operate with unacceptable LOS D in 2035. (Source: 3)	Long-Term: Congestion: Urban - 4 Lane With Median (Source:3)	
227	Rock Rd from Wadsworth Street to Park Road	Congestion: Segment will operate with unacceptable LOS D in 2035 and was identified by local study for long term capacity improvement. (Source: 5, 3)	Long-Term: Congestion: Widen to urban four-lanes including sidewalks/bike lanes (Source:5)	

Added column for notes and concerns



# RLRP complete in 2011!

# Now What?

# Applying the RLRP Locally

- **DOT developed over 20 RLRPs**
  - **PDC/VDOT engaged local partners**
- **NRVPDC utilized the RLRP for:**
  - **Comprehensive Plan updates**
  - **Day-Rides between DOT and locality**
  - **Corridor Studies**

# Applying the RLRP Locally

- **Comprehensive Plan updates**
  - **Illustrated Recommendations**
  - **Created “Transportation Menus”**
  - **Short/Long-Term Goal development**
  - **Cost estimates for high priorities**
- **2010 Floyd County & Town = Updates**



# Floyd County, VA

## Proposed Route 221 & 642 Improvements

### Description of Safety Deficiencies:

Stop sign setback too far from stop bar due to existing intersection configuration. Exposed box culvert in southwest quadrant of the intersection. Sharp horizontal curve alignment on south-leg of US 221 and vacant building in southwest limit sight distance for westbound VA 642 drivers. Lack of left turn lanes increases potential for rear-end accidents particularly given sight distance limitations.

### Congestion Deficiencies:

None

### Recommendations:

#### Short Term:

Enclose box culvert. Remove vacant building to improve sight distance. Install advance warning sign and paint "STOP" on westbound VA 642 approach to alert drivers to stop ahead.

#### Intermediate Term:

Install north/southbound turn lanes on US 221.

#### Long Term:

Reconstruct intersection to improve sight distance and functionality.



This map was prepared by the New River Valley Planning District Commission in 2010 utilizing VGN imagery. All Images, Logos, and information contained herein is for planning purposes only.



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# Town of Floyd, VA

## Proposed Route 221 & 8 Improvements

### Description of Safety Deficiencies:

Pedestrian sign on northbound approach blocks route signs at the intersection. Vehicles on VA 8 attempting left turns into Country Places Realty cause operational and safety concerns as the entrance is located at the stop bar on the southbound approach. Inadequate ADA provisions on US 221 east of intersection near Blue Ridge Restaurant. Light pole placed in middle of sidewalk in southeast corner restrict safe ADA movement. Diagonal parking along westbound US 221 on north side is too close to functional area of the intersection as vehicles back-out into on-coming traffic or traffic waiting for green light. Crashes at this location exceed the planning threshold (nine crashes over three year period).

### Congestion Deficiencies:

Single lane configuration on all approaches increases delay for vehicles queued behind turning vehicles.

### Recommendations:

#### Short Term:

Raise route signs away from pedestrian signs and to an appropriate height so they are clearly seen by motorists. Relocate light pole on southeast corner to improve ADA requirements.

#### Intermediate Term:

Close access to Country Places Realty on VA 8 and consider access management to provide new access on US 221. Relocate pedestrian cross-walk to east side adjacent to bank and provide required ADA provisions. Eliminate diagonal parking on US 221.

#### Long Term:

Eliminate parking near intersection to allow for short left-turn bays and allow for protected left-turns if warranted by future traffic volumes.



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# Applying Statewide Locally

- **Day-Rides between DOT and locality**
  - **Local Administrators**
  - **Local elected officials**
  - **DOT District Planning & Maintenance**
  - **Local Planning Staff**
  - **Regional Planning Staff**

## Section 1 – Introduction

April 20, 2012 the Virginia Department of Transportation site visits in the Floyd Area. Meeting attendees included:

- Michael Gray, VDOT Transportation Planner
- David Clarke, VDOT Residency Maintenance
- Dan Campbell, Floyd County Administrator
- Virgel H. Allen, Board of Supervisors
- Joe D. Turnman, Board of Supervisors
- Lauren D. Yoder, Board of Supervisors
- Elijah Sharp, PDC Regional Transportation Planner

The purpose of the meeting was to fulfill tasks outlined in the District Commission's Rural Transportation Work Plan and Core Program Requirements, Work Element member jurisdiction a day ride to inventory major roads.

The purpose of the visit was to discuss transportation issues. Participants were to include representatives from the County and the District Commission. The trip helped build relationships and provided an opportunity for transportation challenges.

## Section 2 – Floyd County

### 2.1 Location Descriptions

Mr. Campbell directed the group to 4 locations for site visits:

- US 221 and Route 642 Intersection – Address
- Route 683 (Roger Road) – Slope Stabilization
- Route 681 (Franklin Pike) and Route 661 (Snicker) – Stormwater
- Route 761 (Sugar Tree Road) – Stormwater

Route 683, 681, and 761 are primarily maintenance roads. The Christiansburg Residency, recorded the information for the intersection of US 221 and Route 642 is a major safety concern as the distance is obstructed by an existing structure, horizontal curve, and vegetation.

### 2.2 Potential Recommendations

Route 683 is currently a narrow gravel road that travels through a wooded area and rock outcroppings. There are visible signs of erosion. Local citizens are concerned that the slope could fail a few days. The Board Members were curious about the stability; however, Mr. Clarke was uncertain how much. Ultimately, if the property owner was not willing to pay for the concern, VDOT would simply have to clear the debris.

The intersection of Route 681 and Route 661 currently has trees and dense vegetation, along an old fence line, present on Route 681. The intersection is also located in an area that may not own the right-of-way to clear the overgrown vegetation.

Route 761 currently floods during heavy rainfall periods. The roadway parallels the roadway before passing through a new culvert located in a natural sag that collects runoff from the area. The close proximity of a home and private driveway, and the options to improve the conditions are minimal. VDOT will clear the roadway after heavy rainfall periods.

The intersection of US 221 and Route 642 is a major safety concern. It has been identified in the local Comprehensive Plan as a Transportation Plan. The posted speed limit along US 221 is 35 mph. The sight distance is about 200 ft. The Transportation Plan recommends an avoidance maneuver (decision) sight distance of 495 ft. Potentially, shifting the intersection to the north or south, acquiring structure, or installing traffic calming measures along the roadway.

Mr. Yoder, who is also a volunteer fireman, described an incident that occurred in the area. A vehicle was entering US 221 and struck a tree. The impacted car was thrown over 100 ft. into a grave. The map on the next page illustrates a potential intersection. However, sight distance may still be an issue (based on the current sight distance, the intersection would most likely need to be shifted north or before the horizontal curve to the south).

## Section 4 – Summary

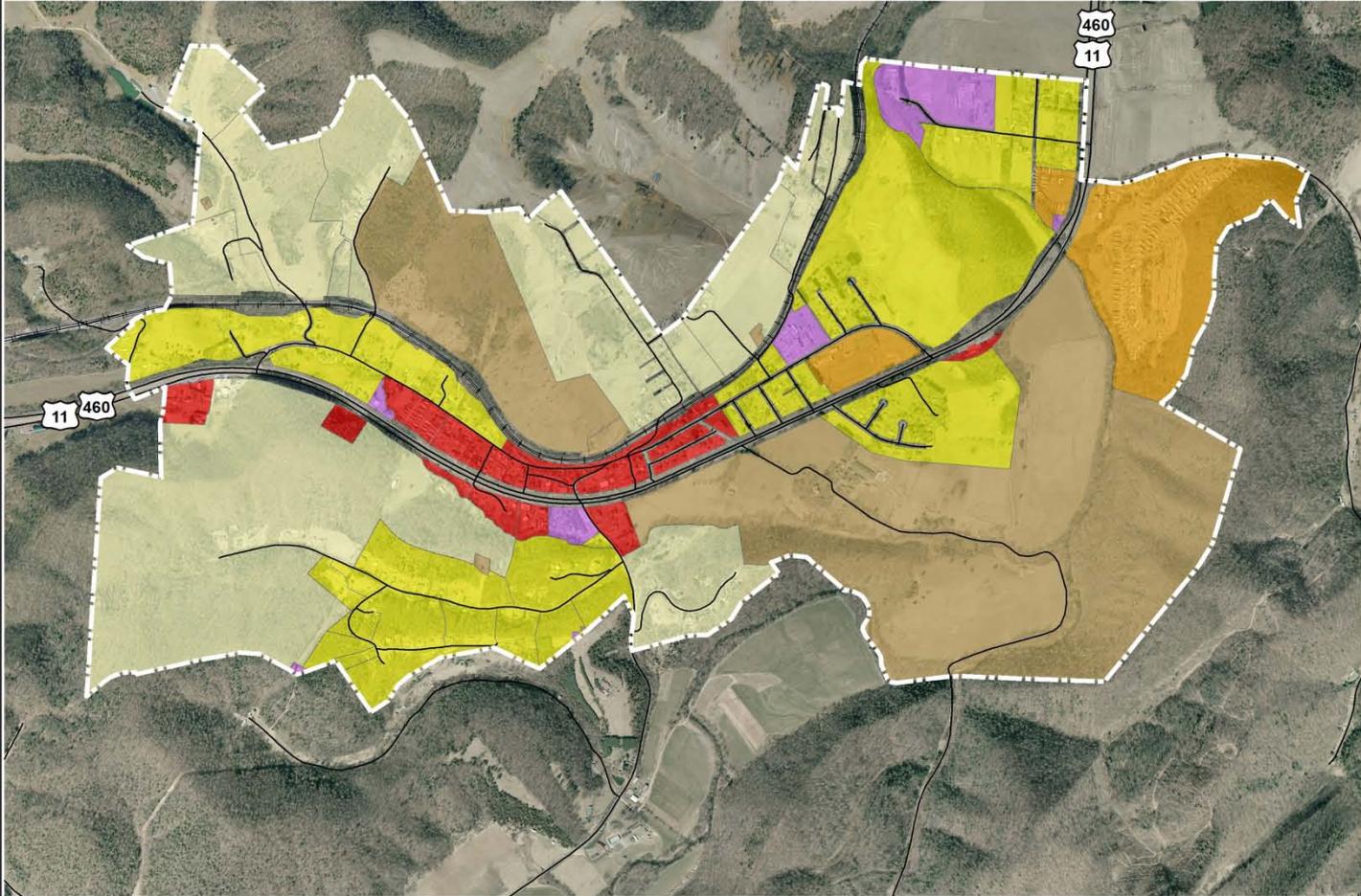
Overall, the County was pleased to see improvements to the roadway network since the Christiansburg Residency became responsible for maintenance. One major concern should be shared with the appropriate divisions of VDOT:

1. Improving the safety at the intersection of US 221 and VA 642

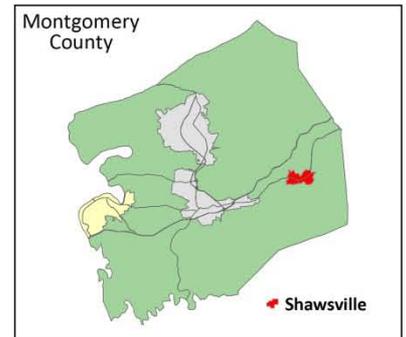
# Applying the RLRP Locally

- **Corridor Studies**
  - Annual request for projects
  - Inquire about specific segments in RLRP
  - Broaden analysis to include:
    - VDOT Standards
    - Flooding Vulnerability
    - Sight, Intersection, and Stopping Distance
    - Local/Regional Plans Comparison

# Shawsville Rt 11\460 Corridor Study Existing Land Use



- Village Land Use**
- Low Density Res.
  - Medium Density Res.
  - High Density Res.
  - Mixed Use
  - Civic
  - Open Space
  - Right of Way
  - Railroad
  - Project Study Area



Map prepared by the NRVPCD, 2012.  
Data provided by Montgomery County and VGIN.

# Route 11/460 Entrances - Shawsville Village Area

Point	Posted Speed Limit (mph)	Existing Entrance Type	Code min. Spacing (ft)	Existing Spacing (ft)	Existing Rating
13	45	PA	250	145	RED
14	45	PA	250	214	YELLOW
15	45	PA	250	158	RED
OM-I	45	Xover	440	275	RED
16	45	FA	335	275	YELLOW
OM-H	45	Xover	440	304	RED
17	45	FA	335	304	YELLOW
18	45	PA	250	171	RED
19	45	PA	250	127	RED



37	45	PA	250	314	GREEN
38	45	PA	250	82	RED
39	45	PA	250	114	RED
40	45	PA	250	236	YELLOW
OM-H	45	Xover	440	113	RED
41	45	PA	250	182	RED
OM-I	45	Xover	440	305	RED
42	45	FA	335	305	YELLOW

Map prepared by the NRVPCD, 2012.  
Data provided by Montgomery County and VGIN.

## Shawsville Rt 11\460 Corridor Study SHEET 6 OF 9



**Acceptability Rating**

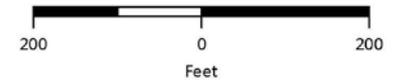
- YES
- MAYBE
- NO

**Segment Length**

— Project Study Area

Tax Parcel

Acceptability rating based on VDOT Access Management Regulations, Minimum Spacing Standards for Commercial Entrances, Intersections, and Crossovers, Figure 24. White numbers indicate a measurement and black numbers correspond with the Route 11/460 Entrances - Shawsville Area data table.



# Shawsville Rt 11\460 Corridor Study

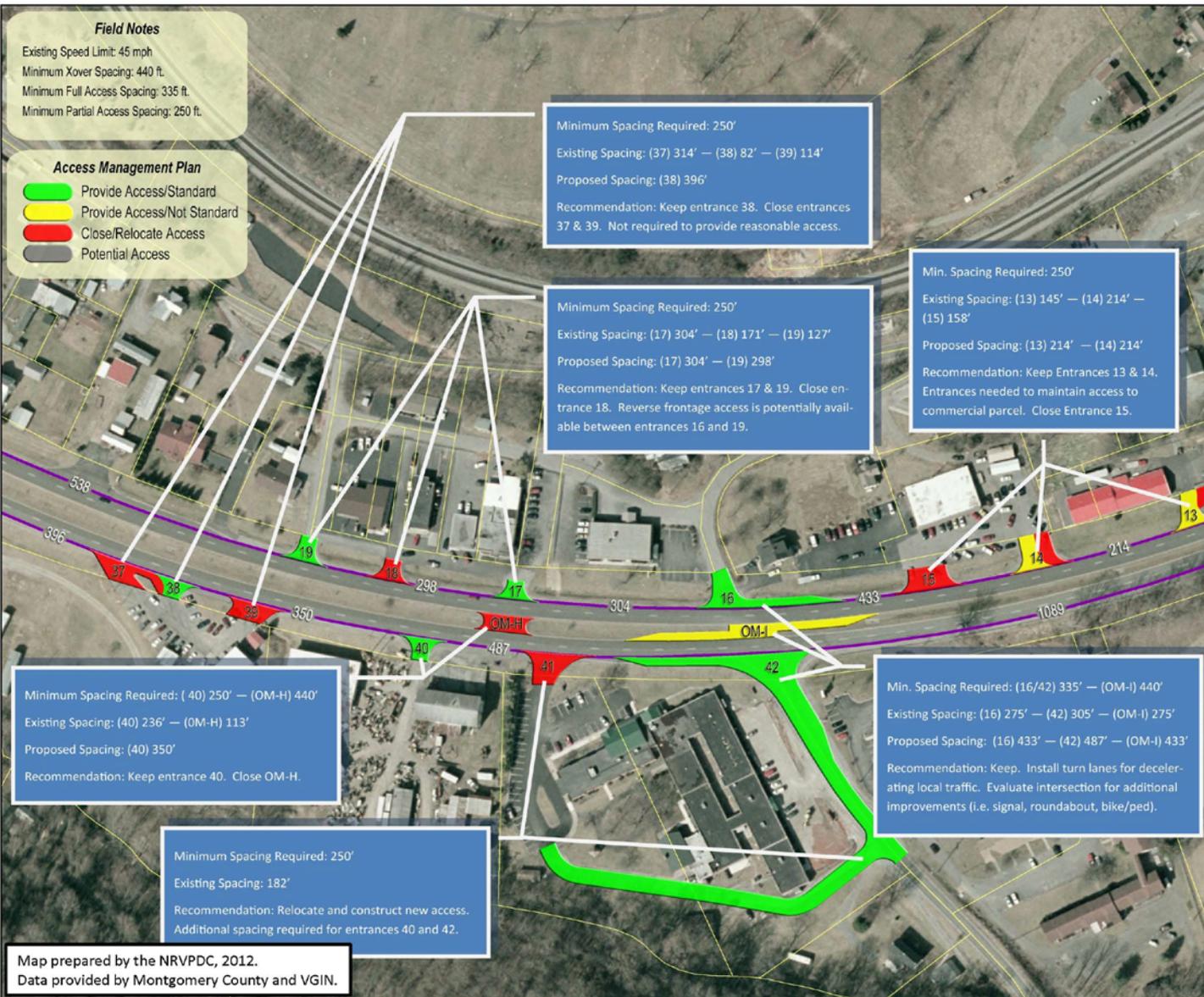
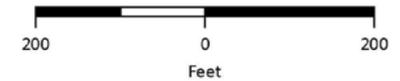
SHEET 6 OF 9



## RECOMMENDATIONS

- Segment Length
- Project Study Area
- Tax Parcel

Acceptability rating based on VDOT Access Management Regulations, Minimum Spacing Standards for Commercial Entrances, Intersections, and Crossovers, Figure 24. White numbers indicate a measurement and black numbers correspond with the Route 11/460 Entrances - Shawsville Area data table.



# Applying the RLRP Locally

- **2035 RLRP:**
  - **Great conversation starting resource**
  - **Utilize Rural Work Program to support local projects**
  - **Opportunities for other planning funds**
  - **VDOT/PDC Partnership – Information Sharing**

# VDOT/PDC Partnership – Information Sharing

- **Annual Rural Workshop**
- **Monthly WEBEX**
  - **Prioritization - Best Practices**
  - **Crash Data & Analysis**
  - **Local Assistance Division - Funding Programs**
  - **Intelligent Transportation Systems (ITS) in rural areas**
  - **DCR - Environmental Layers**
  - **Park and Ride - How to evaluate demand and location**
  - **VDOT 101 - Overview of VDOT**
  - **Safe Route to Schools Program in Rural Area**
  - **Consultant Procurement - State Guidelines and Interpreting Guidelines**
  - **Civil Rights - Title IV Regulations**
  - **Programming 101**
  - **VDOT Bicycle and Pedestrian Plan**
  - **VA Freight Initiatives (Early 2014)**



**New River Valley**  
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# QUESTIONS?

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