



## **Virginia's Long-Range Multimodal Transportation Plan**

# **Corridors of Statewide Significance: North Carolina to West Virginia Corridor**

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Commonwealth Transportation Board**

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March 2010**

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# 1

## Corridor Overview

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### 1.1 Transportation Facilities

The North Carolina to West Virginia Corridor is mostly defined by U.S. Highway 220, running north-to-south in the eastern United States with its northern terminus in Waverly, New York near the Pennsylvania border and its southern terminus in Rockingham, North Carolina. U.S. 220 also traverses through Pennsylvania, West Virginia, and Virginia and is 680 miles in total length. Interstate 73 is a planned interstate which will run from Myrtle Beach, South Carolina to Sault Ste. Marie, Michigan and parallel U.S. 220 for much of its length through Virginia, from the North Carolina border to Roanoke. Figure 1 shows the entire U.S. 220 corridor in the United States. Figure 2 illustrates the corridor through the Commonwealth of Virginia and shows all modal facilities.

U.S. 220 travels over mountainous terrain for much of its run through the Commonwealth of Virginia, leading to slower vehicle speeds. It is primarily a four-lane roadway between the North Carolina State Line and Roanoke, where it overlaps with I-581 and then I-81 and approximately 20 miles north of Roanoke before switching to a two-lane rural facility and traveling into West Virginia to the north. The only section where the roadway is not a two-lane section along this stretch is where it overlaps with I-64 between Clifton Forge and Covington. In Virginia, U.S. 220 travels for approximately 183 miles, with its southern terminus at the North Carolina State Line, just south of Martinsville, Virginia and its northern terminus at the West Virginia State Line north of Highland County, Virginia.

U.S. Highway 220 serves as both a local access road through southwestern Virginia and as a throughway between North Carolina and West Virginia. Through Roanoke, as it overlaps with Interstate 581, it serves as the main corridor through the City. It is mainly a four-lane highway south of Roanoke and between Roanoke and Covington to the north, though it serves as local access through various small communities in these areas. North of Botetourt County, it is a two-lane mountain road that accesses small communities and rural areas.

FIGURE 1

**North Carolina to West Virginia Corridor National Context Map**



# Virginia Statewide Multimodal Transportation Plan

## Key Location Map



## Legend

- US 220
- Airport
- Railroad
- Greyhound Terminal
- Amtrak Station
- Park and Ride
- County Line
- MPO Area
- Planning District

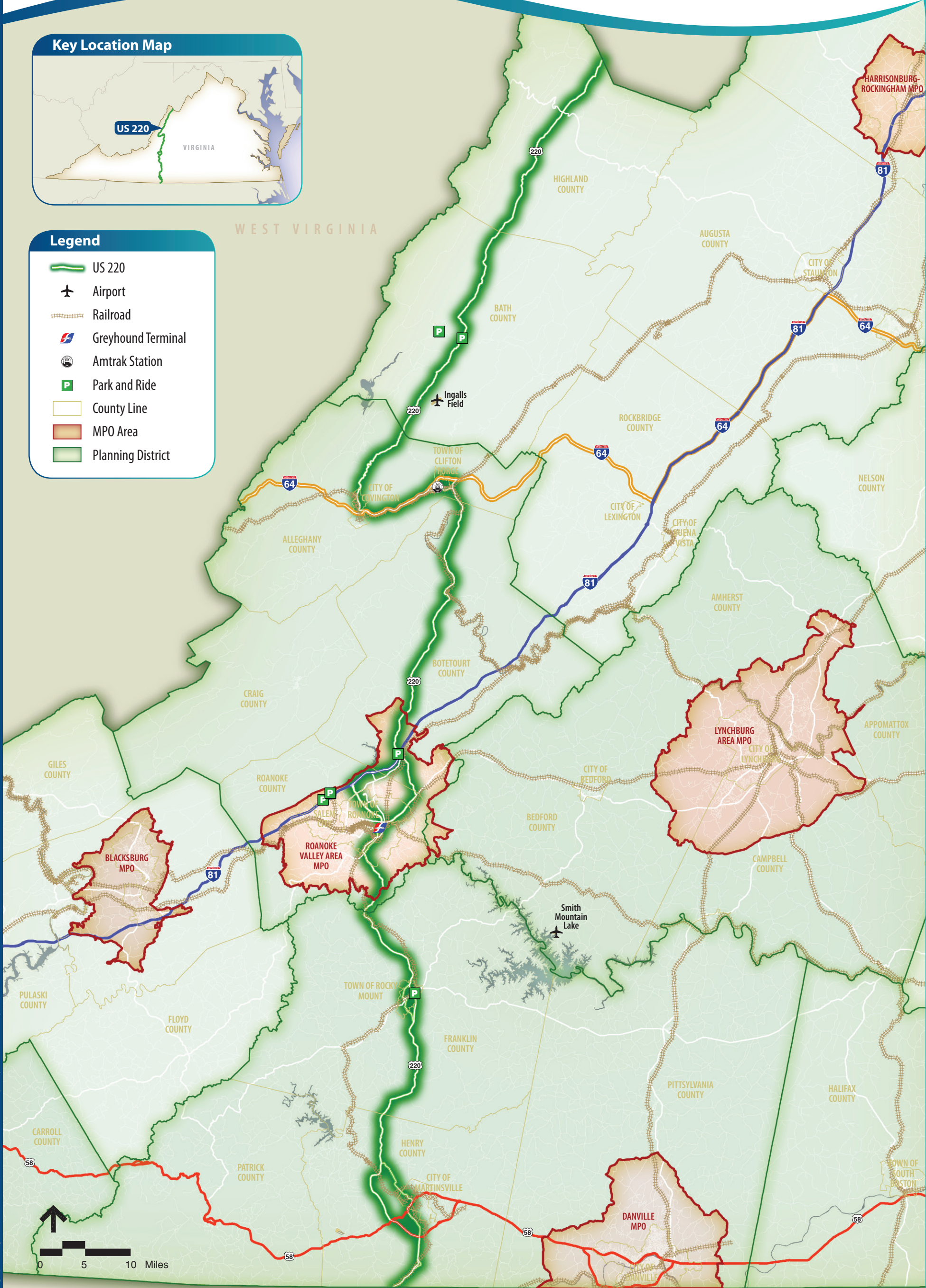


FIGURE 2  
North Carolina to West Virginia Corridor Map



The North Carolina to West Virginia Corridor passes through three separate Planning Districts as well as the Roanoke Valley Metropolitan Planning Organization. To the south, it passes through the West Piedmont PDC where U.S. 220 serves the City of Martinsville in Henry County, and it bypasses the city to the west, connecting with U.S. Highway 58 for a short stretch along the bypass. U.S. 220 Business Route accesses the downtown area of the City of Martinsville. Through the West Piedmont Planning District, U.S. 220 is primarily a four-lane highway with multiple curves and hills and provides access to the various small communities it connects.

The corridor then passes through the Roanoke Valley-Allegheny PDC where it serves the City of Roanoke and connects to the smaller communities of the City of Covington and the Town of Clifton Forge. U.S. 220 connects to I-81, U.S. Highway 11, and U.S. Highway 460 in the City of Roanoke and provides direct access to commercial air service at Roanoke Regional Airport. Outside of the City of Roanoke, where U.S. 220/I-581 is the main access from I-81 to the City of Roanoke and the main corridor through the City, the corridor acts as a local access road and connects a number of small communities. U.S. 220 is a scenic four-lane highway north of the City of Roanoke through Roanoke County and Botetourt County before becoming a two-lane highway. It remains a two-lane highway throughout Allegheny County and north, except between Clifton Forge and Covington, where it overlaps with I-64.

#### North Carolina to West Virginia Corridor Jurisdictions

- Henry County
- Franklin County
- Roanoke County
- City of Roanoke
- Botetourt County
- Allegheny County
- City of Covington
- Bath County

The section of U.S. 220 between I-81 and I-64 (between Roanoke and Clifton Forge) is frequently used as a connection between the two interstates instead of connecting near Lexington to the north and east. This connection is used mostly for freight movement from southern Virginia to points west and vice versa, though passenger travel also travels along this route.

U.S. 220 next passes through the Central Shenandoah PDC and serves the two least populated counties in Virginia, Bath County and Highland County. U.S. 220 serves as a local access road, accessing predominately rural communities through this region and as a throughway to West Virginia to the north of Highland County.

U.S. 220 runs concurrently with three interstates in the Roanoke Valley-Allegheny PDC, including I-581 through the City of Roanoke. North of Roanoke, U.S. 220 overlaps with I-81 for seven miles. U.S. 220 runs concurrently with I-64 in Alleghany County, and for all but a mile of this stretch, U.S. Highway 60 overlaps with U.S. 220 and I-64. U.S. 220 and U.S. 60 split off from I-64 south of the City of Covington and run concurrently with each other into the City before diverging. I-64 and I-81 are both part of other Corridors of Statewide Significance.

There are two line-haul transit services that use the North Carolina to West Virginia Corridor for passenger travel. The Ferrum Express provides connections between Ferrum College and Downtown Roanoke. There are stops along the way in Rocky Mount. The route operates Thursday, Friday, and Saturday only. Thursday and Friday service is offered in the evening only and Saturday service is expanded to provide afternoon service as well. The route provides connections to the greater Metro Valley system that serves Roanoke. In addition, Roanoke Area Dial-a-Ride (RADAR) provides an express bus service between Iron Gate and Covington in Allegheny County, called the Allegheny Highlands Mountain Express, which also runs along I-64 where the routes run concurrently. In addition, Greyhound service is available in Roanoke, and six park and ride lots are available in the corridor.

#### U.S. 220 Transit Facilities

- Ferrum Express
- Allegheny Highlands Mountain Express
- Greyhound
- Park-and-ride lots

Norfolk Southern rail lines run within the North Carolina to West Virginia Corridor between Martinsville and Roanoke, connecting to the Crescent Corridor and Heartland Corridor in Roanoke, providing freight rail access in this region. These lines then run between Roanoke and Clifton Forge, connecting with multiple lines along CSX's Coal Corridor. The Buckingham Branch, which runs between Clifton Forge and Richmond, connects within the corridor and runs parallel to U.S. 220 for a short stretch before connecting to CSX coal lines in Clifton Forge. In addition, there is an Amtrak station in Clifton Forge, which provides passenger rail service east and west of the North Carolina to West Virginia Corridor along the Cardinal Route running between New York City, NY and Chicago, IL. There are no direct connections to any port facilities along U.S. 220, though there is a connection to I-81 in Roanoke, which leads to the Virginia Inland Port.

#### U.S. 220 Rail Facilities

##### Freight Rail:

- Norfolk Southern

##### Short Line:

- Buckingham Branch Railroad

##### Connections to:

- Norfolk Southern Crescent Corridor
- Norfolk Southern Heartland Corridor
- Norfolk Southern Coal Corridor
- CSX Coal Corridor
- Amtrak Cardinal Route

Roanoke Regional Airport provides commercial air service to a dozen major cities and connecting service to the hubs of five major airlines. This airport also provides general aviation service. Table 1 details the airport facilities along the North Carolina to West Virginia Corridor, which includes three other general aviation facilities. The location of these facilities and the airport designation as defined by the Virginia Air Transportation System Plan are also listed.

**Table 1                      North Carolina to West Virginia Corridor Airport Facilities**

<b>Airport</b>	<b>Type</b>	<b>Location</b>
Roanoke Regional	Commercial Service	Roanoke County
Blue Ridge	General Aviation – Regional	Henry County
Smith Mountain Lake	Local Service	Bedford County
Ingalls Field	General Aviation – Regional	Bath County

# 2

## Corridor Functions

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### 2.1 Corridor Functions in Virginia

The North Carolina to West Virginia Corridor is primarily defined by U.S. Highway 220. U.S. 220 is a scenic, mountainous roadway through most of its length in Virginia and provides a key access roadway to West Virginia. It is a prime logging route in Virginia and provides access to tourist activities, including multiple ski resorts. The corridor also provides a linkage between I-81 and I-64, running between Roanoke and Clifton Forge. This part of the route is frequently used as a shortcut by freight and passenger traffic alike, traveling from northbound I-81 to westbound I-64 or from eastbound I-64 to southbound I-81.

#### Functions of U.S. 220

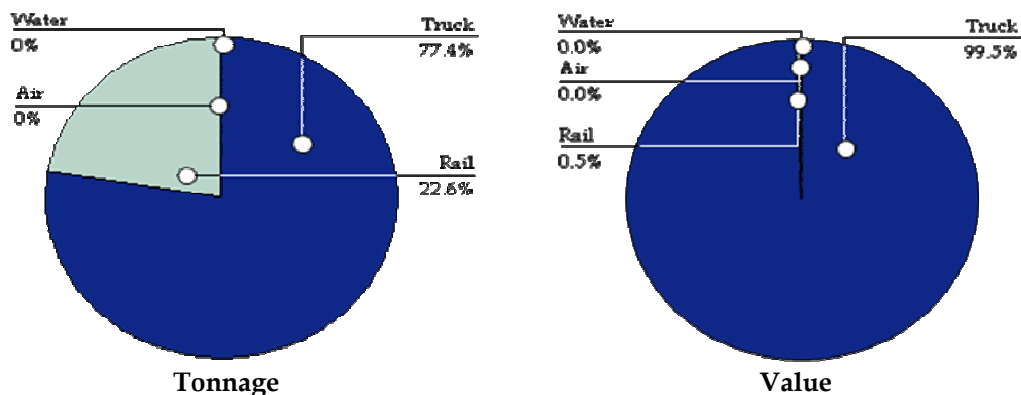
- Logging and freight route
- Link between I-81 and I-64
- Scenic route and tourism

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### 2.2 Freight Movement

The North Carolina to West Virginia Corridor is an important freight corridor, with most freight movement accomplished via truck along the highway facilities. Rail options for freight movement are also available. Trucking accounts for 77 percent of the freight movement, and freight rail accounts for the remainder of the total freight movement; mostly on Norfolk Southern rail lines, which run between the North Carolina state line and Roanoke, where they connect to both Norfolk Southern's Heartland Corridor, running east-to-west and connecting with the Port of Virginia, as well as their Crescent Corridor, running north-to-south and connecting with the Virginia Inland Port. Figure 3 shows the freight tonnage by mode along the North Carolina to West Virginia Corridor as well as the freight value by mode.

Figure 3 Total Freight Tonnage and Value by Mode



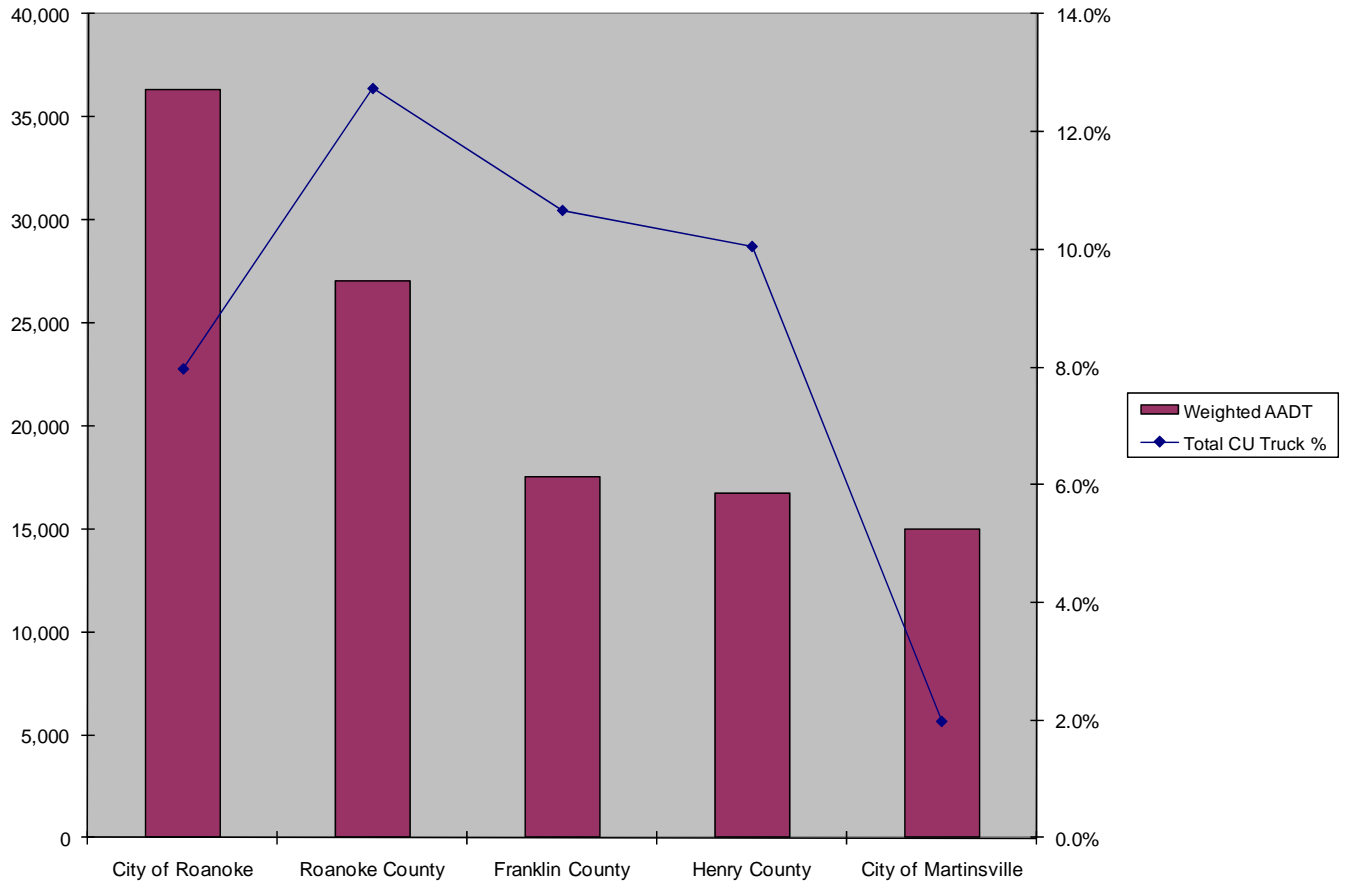
(Source: Statewide Freight Study)

As seen in Figure 3, most freight along the North Carolina to West Virginia Corridor is handled by truck despite the presence of Norfolk Southern rail lines along much of the corridor. In addition, over 99 percent of the total freight value moved along the corridor is handled along the highway facilities by truck. There is no movement of freight via air or water.

Figure 4 shows that trucks account for anywhere between 2 and 12 percent of the total traffic along U.S. 220. Roanoke County has the highest truck percentage. Truck percentages remain high through Franklin County and Henry County, but there is a drop-off in the City of Martinsville, as trucks likely use the bypass around the City to continue through to North Carolina.



Figure 4 U.S. 220 Average Annual Daily Traffic (AADT) and Truck Percentages



(Source: Statewide Freight Study)

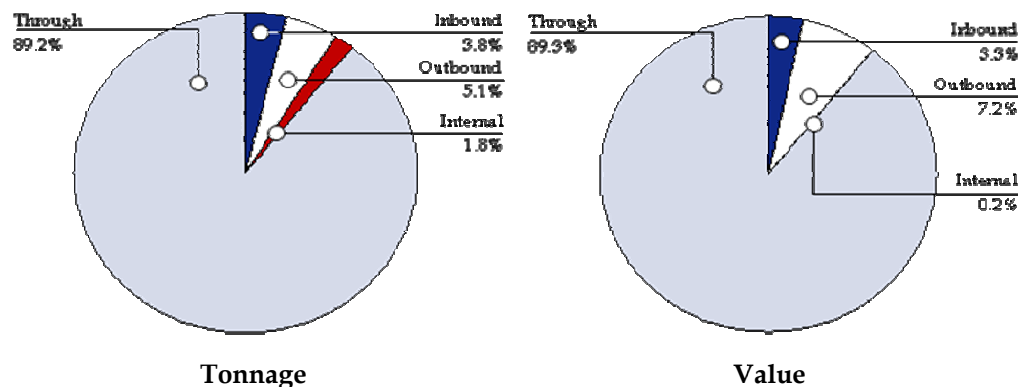
Figure 5 shows the major distribution centers in Virginia. As seen in the figure, many have access to the North Carolina to West Virginia Corridor, mostly in and around the City of Roanoke.



Figure 6 shows the freight tonnage and value by direction. As seen in this figure, almost 90 percent of the total freight traffic along the corridor is through freight between North Carolina and points south and West Virginia and points north. There is more outbound freight than inbound freight, though neither represents a large portion of the total freight movement, and there is a small amount of internal freight movement. The distribution centers likely represent a large portion of the destinations along the North Carolina to West Virginia Corridor.

Figure 6

### Freight Tonnage and Value by Direction



(Source: Statewide Freight Study)

According to the Statewide Freight Study, freight volumes along the North Carolina to West Virginia Corridor will continue to grow and be influenced by a number of factors leading to increased transportation demand. Projected population growth along the corridor, while less than the overall projected population growth in Virginia, will play a major role. In addition, changes in national and global logistics patterns and the corridor's evolving industry structure will lead to increased demand for freight along this already heavy freight corridor.

With increases in freight demand, it is important that sufficient capacity to carry the expected volumes of freight exists in the future, not only along the highway facilities but along the rail facilities as well. The construction of Interstate 73 along a separate parallel alignment to U.S. 220 will likely remove a large portion of the truck traffic from U.S. 220 and relocate it to the faster, safer interstate facility. There are currently no rail initiatives for the North Carolina to West Virginia Corridor's Norfolk Southern rail facilities, however.

## 2.3 Link Between I-64 and I-81, Scenic Route and Tourism

The North Carolina to West Virginia Corridor serves as a link between I-81 and I-64 for both passengers and freight. While I-81 connects to I-64 in Lexington, many drivers use U.S. 220 as a short cut to connect between Roanoke and Clifton Forge. Over half of the roadway is a four-lane section; however, north of Eagle Rock, it is a winding, mountainous two-lane undivided roadway.

U.S. 220 offers a scenic route, traveling over mountains and offering a non-interstate option. It accesses the George Washington National Forest in the western part of the state and provides the main access through the sparsely populated Bath and Highland Counties.

### 2.3.1 Population Projections

The Virginia Transportation Research Council (VTRC) completed a report as part of VTrans2035, detailing population and employment trends and projections to 2035 for these socioeconomic factors. Increases in population will impact the amount of traffic on the roadway, impacting all traffic along the roadway, both local and through traffic, and it will impact both passenger and freight traffic along the highway.

Table 3 details the population projections for 2010 and 2035 based on two different sources, one a private vendor (NPA Data Associates) and one a public source (Virginia Employment Commission-VEC). Projections by both of these sources only extended to 2030, so linear regression was used by VTRC to project to 2035. The data was organized by Planning District. Figure 7 illustrates the population density projections for the year 2010 at the Planning District level along the North Carolina to West Virginia Corridor, and Figure 8 illustrates the density projections for the year 2035 and the increase in population density from 2010 to 2035.

**Table 3 Population Projections to 2035**

PDC	2010 Value		Midpoint 2035 Forecast		Percentage Increase		Annual Effective Growth Rate	
	VEC	NPA	VEC	NPA	VEC	NPA	VEC	NPA
West Piedmont	248,072	245,930	260,317	258,456	4.9%	5.1%	0.2%	0.2%
Roanoke Valley-Allegheny	267,634	266,590	287,827	287,762	7.5%	7.9%	0.3%	0.3%
Central Shenandoah	281,272	277,850	341,310	330,428	21.3%	18.9%	0.8%	0.7%
<b>Statewide Totals</b>	<b>8,010,340</b>	<b>8,057,350</b>	<b>10,278,943</b>	<b>10,926,181</b>	<b>28.3%</b>	<b>35.6%</b>	<b>1.0%</b>	<b>1.2%</b>

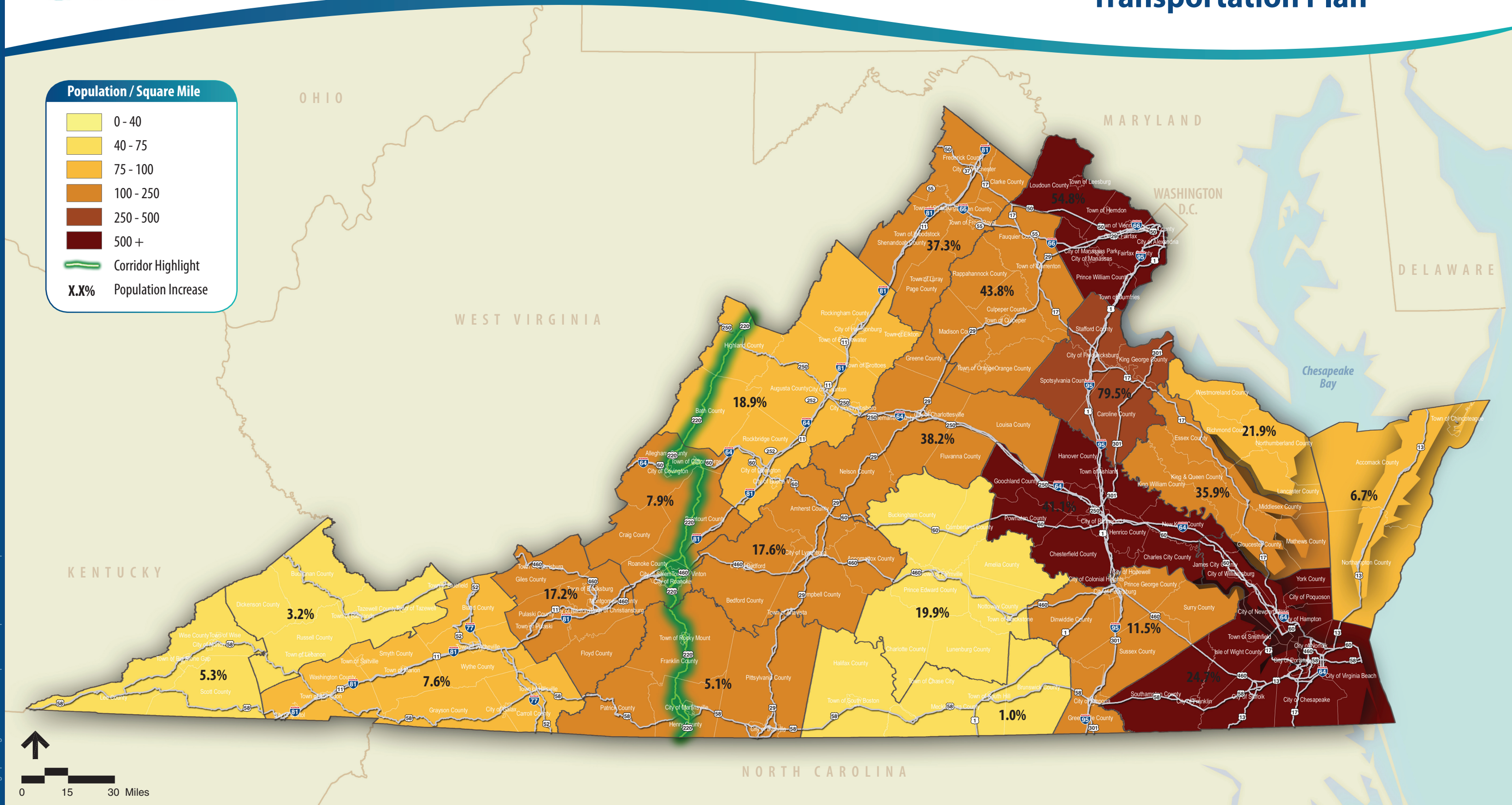
Source: Virginia Transportation Research Council







# Virginia Statewide Multimodal Transportation Plan



**FIGURE 8**  
Population Density 2035 Projections -North Carolina to West Virginia Corridor

As seen in Table 3 and in the graphics, the increases in population between 2010 and 2035 along the North Carolina to West Virginia Corridor are far less than the state averages. The corridor travels through mostly rural areas, with the only urban area being the Roanoke region. This area is not expected to see a substantial amount of growth. The West Piedmont PDC, where U.S. 220 passes through Martinsville, is expected to see even less growth. While the Central Shenandoah Planning District is expected to grow, it is likely that the growth will be along the I-81 corridor near Harrisonburg and Staunton and not in Bath County or Highland County. These are two of the least-densely populated counties in the nation.

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### 2.3.2 Corridor Mobility for Aging Population

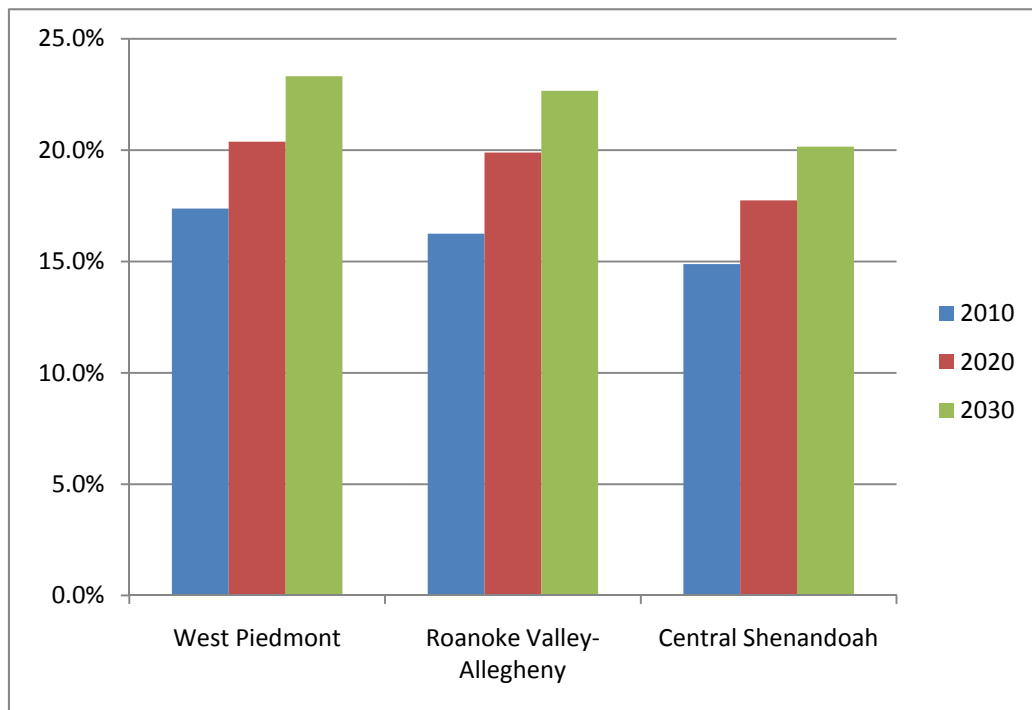
In addition to general population projections, VTRC projected the ages of the population, broken down in five-year increments for a total of 18 categories. The percentage of population that is over age 65 was calculated based on these projections, and this information is available in Figure 9 for the years 2010, 2020, and 2030. The percentages were calculated for each Planning District along the North Carolina to West Virginia Corridor.

As seen in this figure, the percentage of the population over age 65 is expected to increase in all Planning Districts, with the percentage of the population over age 65 expected to be at least 20 percent for all three PDCs. The highest over-age 65 population is projected to be in the more rural West Piedmont Planning District.

As the older population increases, it is likely that the population without access to a vehicle will increase as well, leading to a need for other modes of transportation, especially transit. While the Roanoke region has a local transit system, this does not allow for residents of this area to travel beyond the borders of the region. There are some line-haul transit options such as the Alleghany Mountain Express and Greyhound service, but currently, there are no other options. As the population ages, increased demand response transit for the elderly and disabled should be investigated and implemented.

Figure 9

Percentage of Population over Age 65 (Projections)



### 2.3.3 Levels of Service

Figure 10 shows the existing levels of service (LOS) along the North Carolina to West Virginia Corridor, with red areas indicating undesirable levels of service (i.e., LOS 'E' or LOS 'F'). All areas not marked in red are where acceptable levels of service (i.e., LOS 'A' through LOS 'D') currently exist. Under existing conditions, the levels of service are acceptable along all areas of the corridor, except for a very short stretch near the junction of U.S. 220 and I-581 in the City of Roanoke.

Figure 11 shows the future levels of service using the same color coding. As seen in this figure, there will be areas of deficiency in the Roanoke region along I-581/U.S. 220, as well as U.S. 220 ALT. In addition, there are projected to be short stretches of undesirable levels of service in the heart of the City of Martinsville, the City of Covington, and the Town of Rocky Mount.

The future levels of service take into account projects along the roadway that are planned by the Virginia Department of Transportation. Even with planned expansions of the roadway and other programmed improvements, the highway facilities of the corridor are expected to degrade by 2035. To combat this, localities, PDCs, and MPOs should identify the worst areas and plan for improvements to these areas. Interstate 73 is planned through this region, which may take some of the pressure off of U.S. 220.



Key Location Map



Legend

- Over Capacity
- County Line
- MPO Area
- Planning District

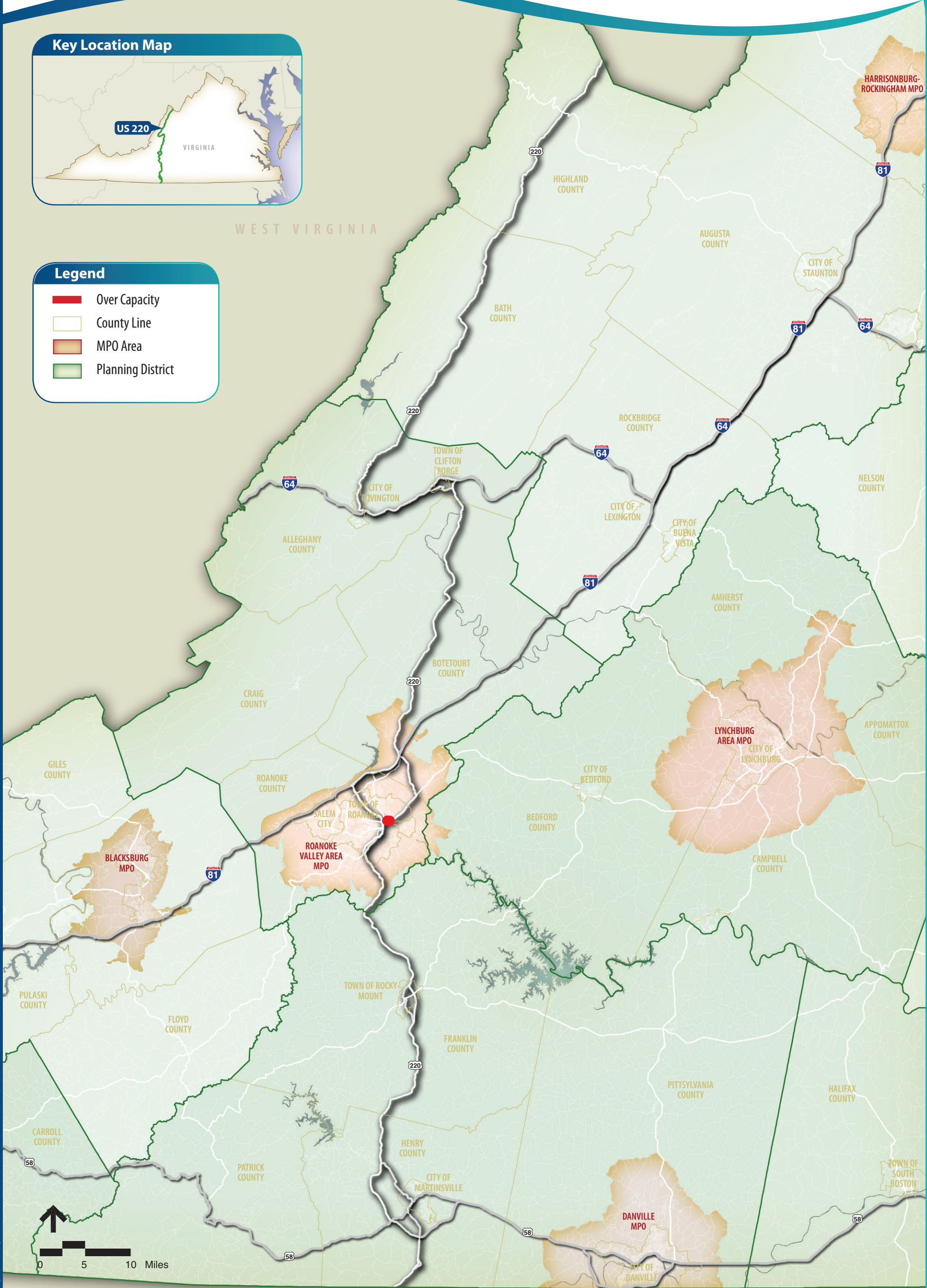


FIGURE 10

North Carolina to West Virginia Corridor Existing Conditions



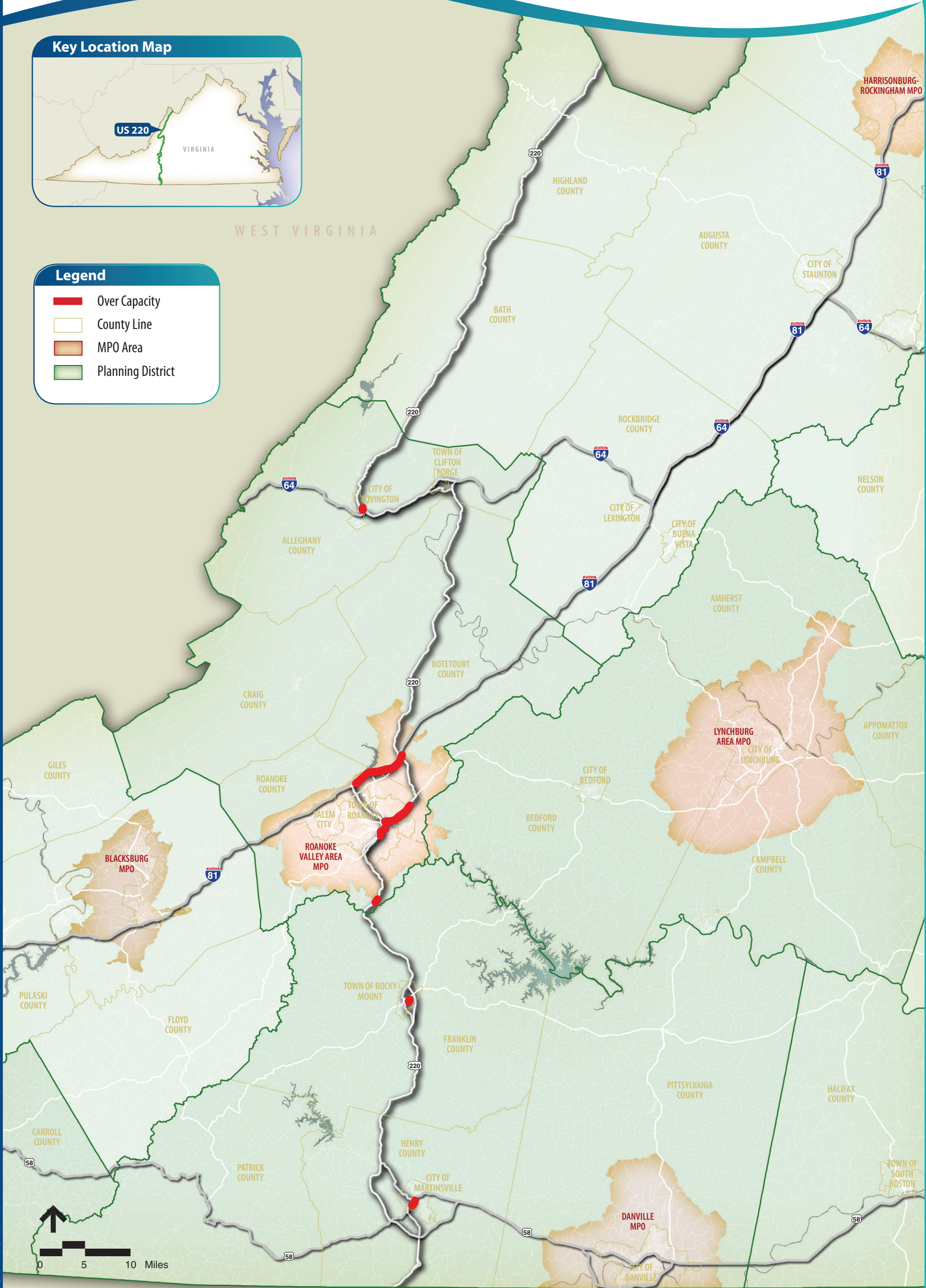


FIGURE 11  
North Carolina to West Virginia Corridor Future Conditions



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### 2.3.4 High-Crash Rate Areas

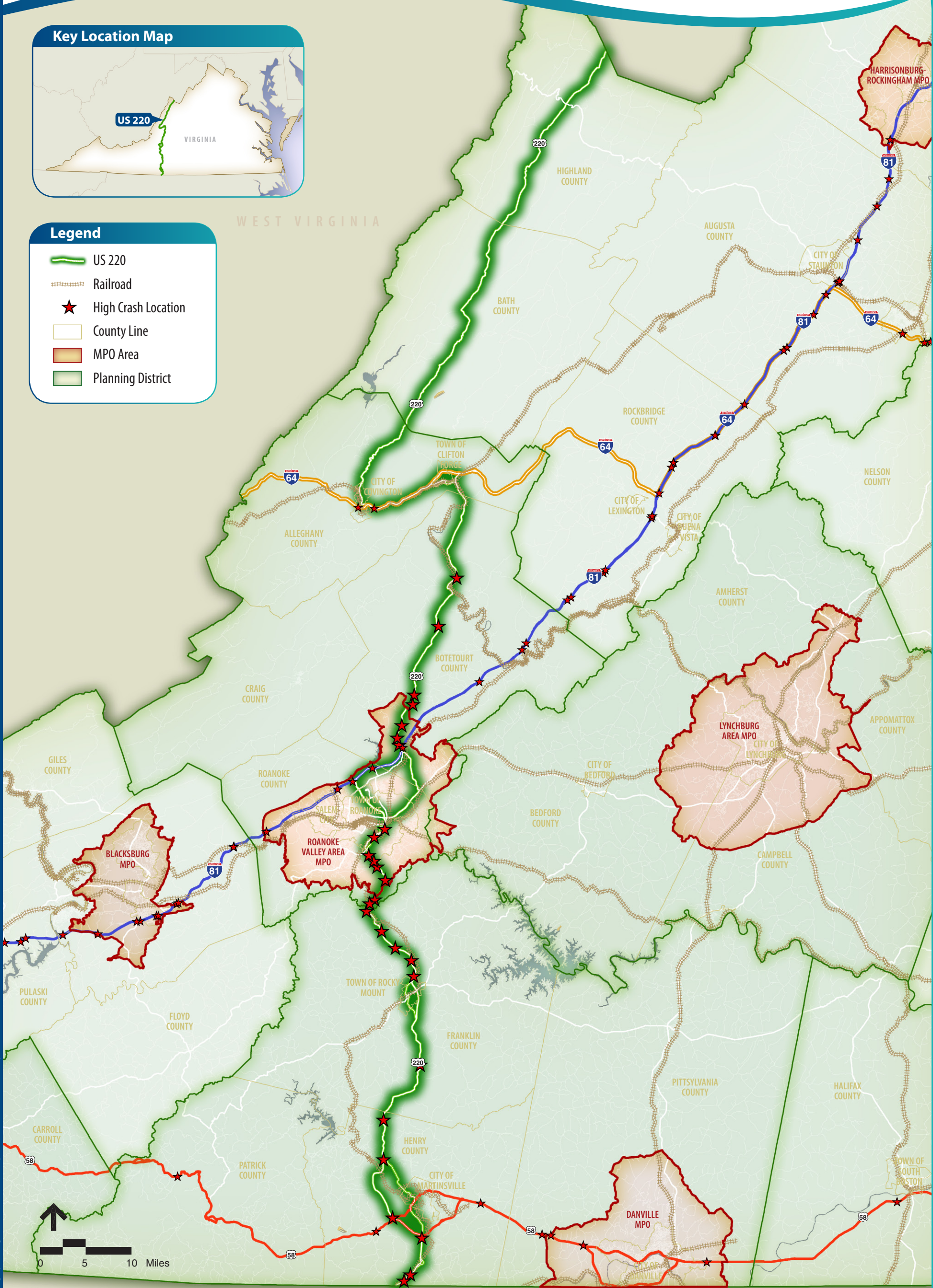
Figure 12 illustrates areas along U.S. 220 that have been identified as high-crash rate areas according to the Virginia Department of Transportation. As seen in this figure, there are multiple high-crash rate areas along the corridor, especially between the City of Roanoke and the Town of Rocky Mount. U.S. 220 is a mountainous and curvaceous roadway, which adds to the likelihood of crashes. In addition, multiple jurisdictions have identified safety issues along U.S. 220 due to the high number of crossovers along the four-lane section, the lack of turn lanes, the high number of driveways and entrances, and the lack of access management along the roadway. North of the City of Covington there are no high-crash rate areas, despite the mountainous, curvaceous nature of the two-lane roadway.

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### 2.3.5 Tourism

Figure 13 illustrates the tourist areas, such as state parks and national forests in the North Carolina to West Virginia Corridor. In addition to these tourist areas, the corridor crosses a number of mountains, making it a winding, curving, mountainous roadway in some locations. This makes it attractive to motorists as a scenic route but it can be a dangerous alternative for freight and passenger traffic. Much of the northern two-lane section of U.S. 220 passes through the George Washington National Forest through Bath County and Highland County, two mostly undeveloped, very rural counties.





**FIGURE 12**  
**North Carolina to West Virginia Corridor High-Crash Rate Locations Map**



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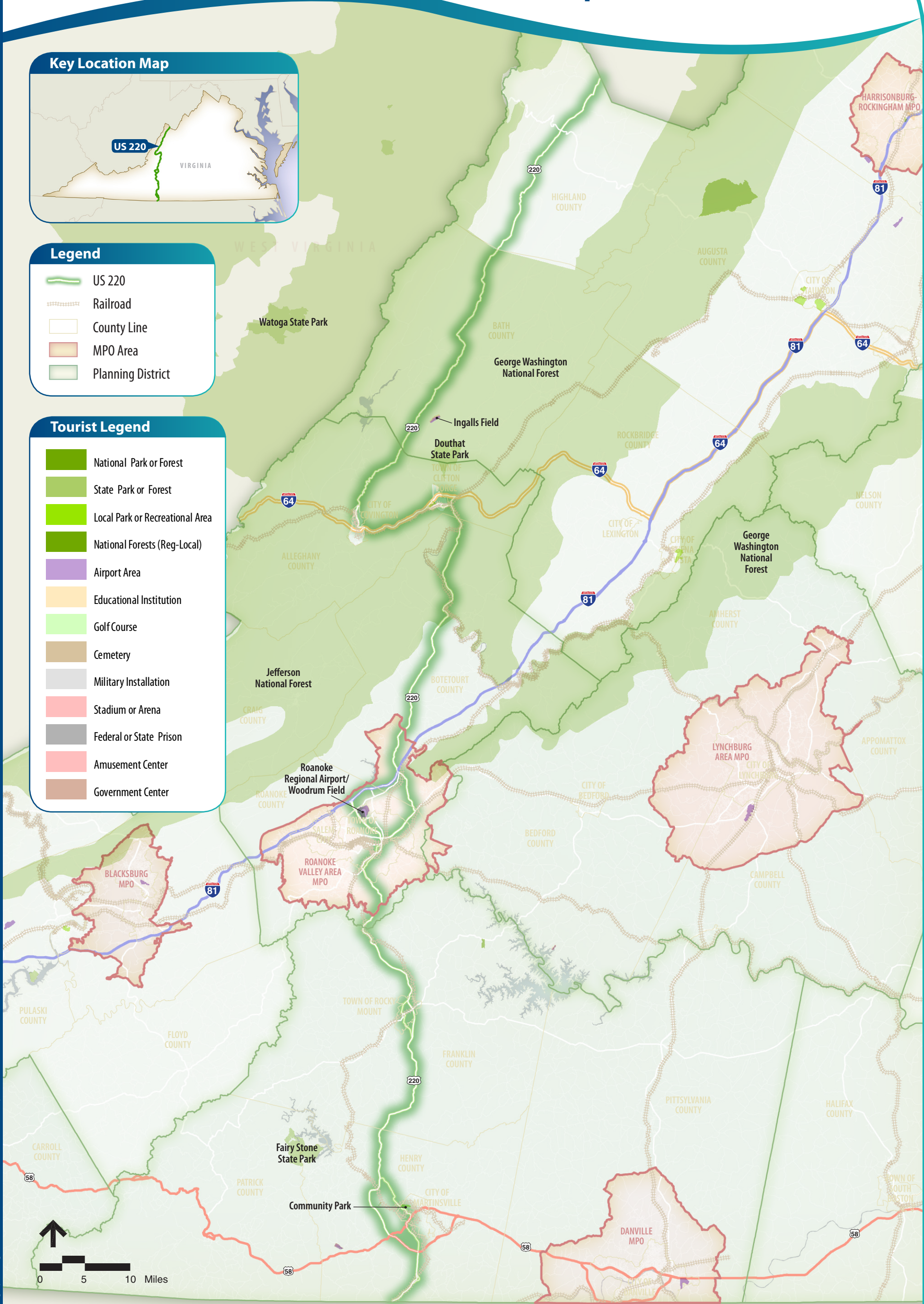


FIGURE 13  
North Carolina to West Virginia Corridor Tourist Areas Map



# 3

## Corridor Strategies

This section discusses the general corridor strategies for the North Carolina to West Virginia Corridor, which have been formulated to improve safety, mobility, and capacity along the corridor. The functions of the North Carolina to West Virginia Corridor are listed below, and Figure 14 presents a matrix that shows how the strategies relate to each function.

### Functions of North Carolina to West Virginia Corridor

- *Logging and freight route*
- *Link between I-81 and I-64 and connection to West Virginia*
- *Scenic route and tourism*

Strategies were formulated based on trends, system performance, issues/challenges, elements of the VDOT Six-Year Program, the Constrained Long-Range Plans for each Metropolitan Planning Organization, visions and plans for the various Planning Districts, and any available Comprehensive Plan visions and strategies for each county and jurisdiction within each corridor. A Regional Planning Forum was held in the spring of 2009 with transportation representatives from across Virginia, including VDOT, Planning Districts and MPOs, transit agencies, the Virginia Airport Authority, the Port of Virginia, and other stakeholders in the Virginia transportation system. Public meetings were held in four locations in June and July of 2009 (Northern Virginia, Richmond, Hampton Roads, and Roanoke). Corridor deficiencies and what could be done to alleviate these deficiencies were discussed, with this information playing a major role in the formulation of these strategies. These strategies are part of a continuing planning process and are designed to be used as a guide for future transportation plans along the corridor within Virginia. They are not the explicit policy of the Commonwealth Transportation Board (CTB), though they are designed to assist the CTB, state and local transportation agencies, and local planning organizations in their planning efforts along the corridor. Specific corridor strategies and improvement recommendations will ultimately be developed as part of subsequent planning analyses at the State and local level.

**Figure 14 - North Carolina to West Virginia Corridor Strategies vs. Functions Matrix**

Strategies	Functions		
	Link between I-81 and I-64/ Connection to West Virginia	Scenic Route/Tourism	Logging/Freight Route
Complete construction of Interstate 73 between I-581 in Roanoke and the North Carolina border, separating through traffic from local traffic along the corridor.	●	⊙	●
Increase safety along the North Carolina to West Virginia Corridor by addressing high crash areas and making necessary improvements, including the addition of turn lanes and the closing and/or improvement of crossovers along the roadway.	●	●	●
Improve transit in rural areas along the North Carolina to West Virginia Corridor by offering increased demand response services and services for the elderly and disabled.	○		
Improve access management.	●	●	●
Implement Intelligent Transportation Systems (ITS) throughout the North Carolina to West Virginia Corridor as appropriate.	●	○	●

● Strong Correlation      ○ Medium Correlation      ⊙ Some Correlation

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### 3.1 Strategies for North Carolina to West Virginia Corridor

Strategy: Complete construction of Interstate 73 between I-581 in Roanoke and the North Carolina border, separating through traffic from local traffic along the corridor.

Interstate 73 is a planned interstate that will run from Myrtle Beach, South Carolina to Sault Ste. Marie, Michigan, with a portion running through Virginia. It will run parallel to the North Carolina to West Virginia Corridor between the North Carolina state line and Roanoke, diverging from an overlap with U.S. 220 near the state line. U.S. 220 through Virginia is a mountainous, rural highway with many safety issues, so the decision was made to identify a separate location for the new interstate facility. Although many localities are in favor of this new interstate facility, and the Regional Planning Forum identified this interstate as necessary to improve safety and capacity in this region, work on I-73 had been suspended as this report was being prepared pending the resolution of a lawsuit to prevent further development of the project.

Construction of this new facility will separate through traffic from local traffic between North Carolina and Roanoke, greatly improving capacity and safety along U.S. 220. I-73 would be a safer, faster alternative to U.S. 220 in this region for both passengers and freight traffic, and U.S. 220 could then be used primarily for local access to the small towns and communities it serves. I-73 would follow along the I-81 corridor between Roanoke and Blacksburg, and then follow an improved U.S. 460 into West Virginia, offering interstate access to West Virginia.

Strategy: Increase safety along the North Carolina to West Virginia Corridor by addressing high-crash rate areas and making necessary improvements.

Safety was deemed a major concern along U.S. 220. Some issues that have been identified are the lack of turn lanes at certain median crossovers, the high number of median crossovers, and the lack of access management. Improvements to add turn lanes and consolidate entrances should be part of the safety improvements along this corridor. In addition, other areas with safety deficiencies should be further identified along the North Carolina to West Virginia Corridor, and roadway safety audits should be completed for these areas. Improvements should be recommended and implemented to ensure better safety. Improved safety will enhance travel for both passengers and freight, helping all functions of the corridor.

Strategy: Improve transit in rural areas along the North Carolina to West Virginia Corridor by offering increased demand response services and services for the elderly and disabled.

Most areas of the North Carolina to West Virginia Corridor outside of the Roanoke region are not served by local transit, as the corridor traverses primarily rural areas. Many County, City, and Town Comprehensive Plans call for the need for more modal options and less use of single-occupant vehicles, and they discuss the need for demand response service to more rural areas. With the elderly population in Virginia expected to increase in the future, the need for these services will increase. The elderly and disabled will require services to shuttle them to medical facilities as



well as to urban centers. While fixed route services are likely not feasible in most of these areas, increased demand response services should be able to fill this need.

Strategy: Improve access management.

Access management along the highway facilities of U.S. 220 is considered poor in many places, due to the large number of access points to strip development and residential areas. In addition, as mentioned above, there is a lack of turn lanes, especially left-turn lanes along multi-lane sections of the roadway, which restricts access and leads to safety concerns. Access management should be improved along the highway through consolidation of entrances, more clustered new development, as opposed to strip development, and the construction of turn lanes at the consolidated entrances.

Strategy: Implement Intelligent Transportation Systems (ITS) throughout the North Carolina to West Virginia Corridor as appropriate.

ITS should be implemented along the current North Carolina to West Virginia Corridor, and should be implemented as a major part of the new I-73 corridor. ITS improvements would include variable message signs along the highway to warn drivers of incidents. ITS, which directs traffic to other roadways miles ahead of a crash could save many hours of time for passengers as well as trucks in the case of an incident. Other ITS measures will improve capacity and safety for through travel as well as freight traffic. In addition to highway ITS, the air facilities along the North Carolina to West Virginia Corridor should consider available navigational aid systems.

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## 3.2 Strategies vs. VTrans2035 Goals

The above strategies relate to the seven goals of VTrans2035, and Figure 15 illustrates this relationship. A discussion of each of the goals is below.

- **Goal 1: Safety and Security – Provide a safe and secure transportation system.** All of the strategies relate to the safety and security of the roadways, especially the strategy that deals directly with addressing safety concerns through better access management along U.S. 220. The construction of I-73 will remove many trucks from U.S. 220 and offer a faster, safer option for through traffic, both freight and passenger. More demand response transit service for the elderly and disabled improves their safety and security as well.
- **Goal 2: System Maintenance and Preservation – Preserve and maintain the condition of the existing transportation system.** All of the strategies help to achieve this goal, as the existing transportation system is maintained, preserved and even improved. While the construction of a new interstate facility (I-73) will be accomplished along a separate alignment from U.S. 220, the current alignment of U.S. 220 will still exist to provide local access with less through traffic.
- **Goal 3: Mobility, Connectivity, and Accessibility – Facilitate the easy movement of people and goods, improve interconnectivity of regions and**

**activity centers, and provide access to different modes of transportation.** All of the strategies promote increased mobility, connectivity, and accessibility, especially the construction of I-73. Any increase in capacity along the roadway and improving safety helps to achieve this goal.

- **Goal 4: Environmental Stewardship – Protect the environment and improve the quality of life for Virginians.** Any increase in roadway capacity that minimizes the amount of time vehicles are on the roadway, leading to fewer emissions, helps to achieve environmental stewardship. All of the strategies should lead to increased capacity, especially the construction of I-73. Increased transit for rural areas also assists with this goal.
- **Goal 5: Economic Vitality – Provide a transportation system that supports economic prosperity.** The construction of I-73 could lead to economic development along the U.S. 220/I-73 corridor in the future, as new and better access will be available to the rural areas it will serve south of Roanoke. There is potential for extensive development at the interchanges along U.S. 220, as well as potential for further economic development within the towns and communities that I-73 accesses. In addition, more rural transit opportunities could lead to more economic development in these areas.
- **Goal 6: Coordination of Transportation and Land Use – Facilitate the effective coordination of transportation and land use to promote livable communities.** The construction of I-73 should be accomplished in accordance with land use decisions in the areas the interstate will travel through, including development at interchanges. In addition, the safety improvements to U.S. 220 should include consolidating entrances and crossovers and improving access management. Any development along the U.S. 220 highway facility should be accomplished with transportation and access management in mind, and any increase in transit, including demand response services, should also be coordinated with land use. In addition, local planning efforts should protect airspace and ensure that airports are not compromised by encroachment of incompatible land uses.

**Figure 15 - North Carolina to West Virginia Corridor Strategies vs. Goals Matrix**

Strategies	Goals					
	Safety and Security	System Maintenance and Preservation	Mobility, Connectivity, and Accessibility	Environmental Stewardship	Economic Vitality	Coordination of Transportation and Land Use
Complete construction of Interstate 73 between I-581 in Roanoke and the North Carolina border, separating through traffic from local traffic along the corridor.	●	●	●	○	○	○
Increase safety along the North Carolina to West Virginia Corridor by addressing high crash areas and making necessary improvements, including the addition of turn lanes and the closing and/or improvement of crossovers along the roadway.	●	●	○			○
Improve transit in rural areas along the North Carolina to West Virginia Corridor by offering increased demand response services and services for the elderly and disabled.	○	○	○	●	⊙	⊙
Improve access management.	●	●	○			●
Implement Intelligent Transportation Systems (ITS) throughout the North Carolina to West Virginia Corridor as appropriate.	●	●	○	○		

● Strong Correlation      ○ Medium Correlation      ⊙ Some Correlation