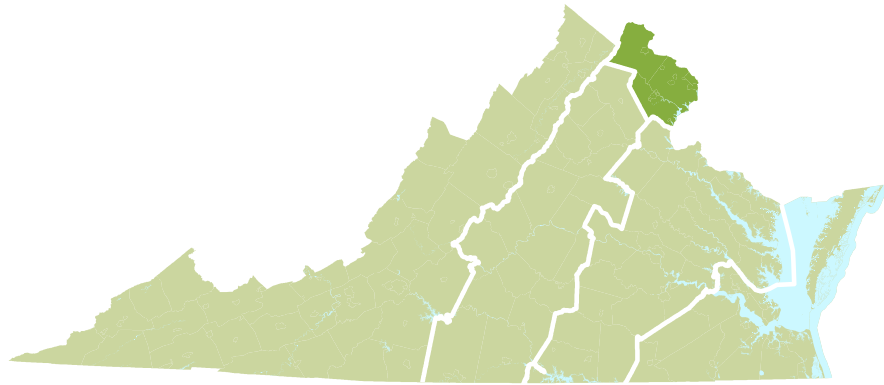


REGION 2: NORTHERN



The Northern Region is expanding as a center of global economic importance. Factors fueling expansion include growth in government and service related industries, as well as emerging sectors such as high tech, biomedical and biotech, energy and environmental research, and communications. The region is also home to Dulles International Airport, which serves as both an international gateway and economic engine for the state.

It is likely the workforce will continue to be diverse, highly mobile, well-educated, and transient. The region will continue to attract creative and innovative employees and employers from around the world as long as mobility is maintained and congestion is managed. At the same time, the population in the region will continue to mature as the proportion of the population over age 65 increases. Trends toward smaller households, more diverse populations and more compact, higher density, mixed-use communities will likely flourish.

PDCs in the Northern Region

- Northern Virginia Regional Commission

Strategies for the Northern Region

- Increase Use of Congestion Pricing
- Increase Use of HOT Lanes
- Add Bus Rapid Transit
- Increase Road, Transit and Freight Capacity
- Increase Use of ITS
- Increase Use of TDM
- Increase and Improve Bicycle and Pedestrian Facilities

The population growth rate for the Northern Region is the highest in the state. In addition, employment growth and future projections for DVMT in the Northern Region show that the demand for more transportation options is growing faster than in any other region. To address the anticipated demographic trends and changes, increased transit capacity and accessibility is necessary. Strategies to accommodate the demand for transit include: increasing fixed-route bus service frequencies and expanding fixed-route coverage; extending VRE service; increasing the frequency of inter-city passenger rail; and expanding the use of streetcars and Bus Rapid Transit. Expanding freight rail capacity will provide an opportunity to relieve congested highways from additional freight traffic. Transportation demand management strategies and ITS techniques should be further expanded to reduce congestion and enhance the reliability of transportation services. In addition, expanding the capacity and improving the connectivity of the road network and providing improvements to the major radial connectors will help maintain a high level of mobility in the region.

An example of the needed public transportation capacity expansion and major investment is the extension of Metrorail to Dulles by the MWAA in cooperation with DRPT, WMATA, Fairfax County and Loudoun County. The project is comprised of a 23.1-mile extension of Metrorail (a 22% increase in track miles for the existing 106.3 mile Metrorail system) in the rapidly growing Dulles Corridor in Fairfax and Loudoun Counties. The Dulles Corridor is home to several of the Washington, DC metropolitan region's most dynamic and rapidly growing activity centers, including Tysons Corner, Dulles International Airport, Reston, Herndon and eastern Loudoun County. The project will provide high-quality, high-capacity transit service in this burgeoning corridor. The Dulles Metrorail Extension will result in travel time savings, expand the reach of the existing regional Metrorail system, offer an alternative to automobile travel and support future development along the corridor.

MULTIMODAL FACILITIES AND SERVICES: NORTHERN REGION

Fixed Route (FR) & Demand Response (DR) Transit (9):

- Alexandria DASH (FR)
- Arlington Transit (FR/DR)
- Fairfax Connector (FR)
- Fairfax CUE (FR)
- Loudoun County Transit (FR)
- Potomac & Rappahannock Transportation Commission (PRTC) (FR)
- Virginia Railway Express (VRE) (FR)
- Virginia Regional Transit (FR/DR)
- Washington Metropolitan Area Transit Authority (WMATA) (FR/DR)

Human Service Transportation (3):

- ECHO.INC
- Jewish Community Center of Northern Virginia
- The Arc of Greater Prince William

Transportation Demand Management (8):

- Alexandria Local Motion
- Arlington County Commuter Assistance Program
- DATA
- Fairfax County Ridesources
- Link
- Loudoun County Rideshare
- PRTC OMNIMATCH
- TYTRAN

Freight Rail (2):

- CSX National Gateway Corridor
- Norfolk Southern Crescent Corridor

Short Line (1):

- Shenandoah Valley Railroad

Passenger Rail (2):

- Amtrak Crescent Route
- Amtrak Northeast Corridor

Highway (2):

- High Occupancy Vehicle (HOV) Lanes
- Park and Ride

Airports (4):

- Leesburg Municipal
- Manassas Regional
- Ronald Reagan Washington National
- Washington Dulles International

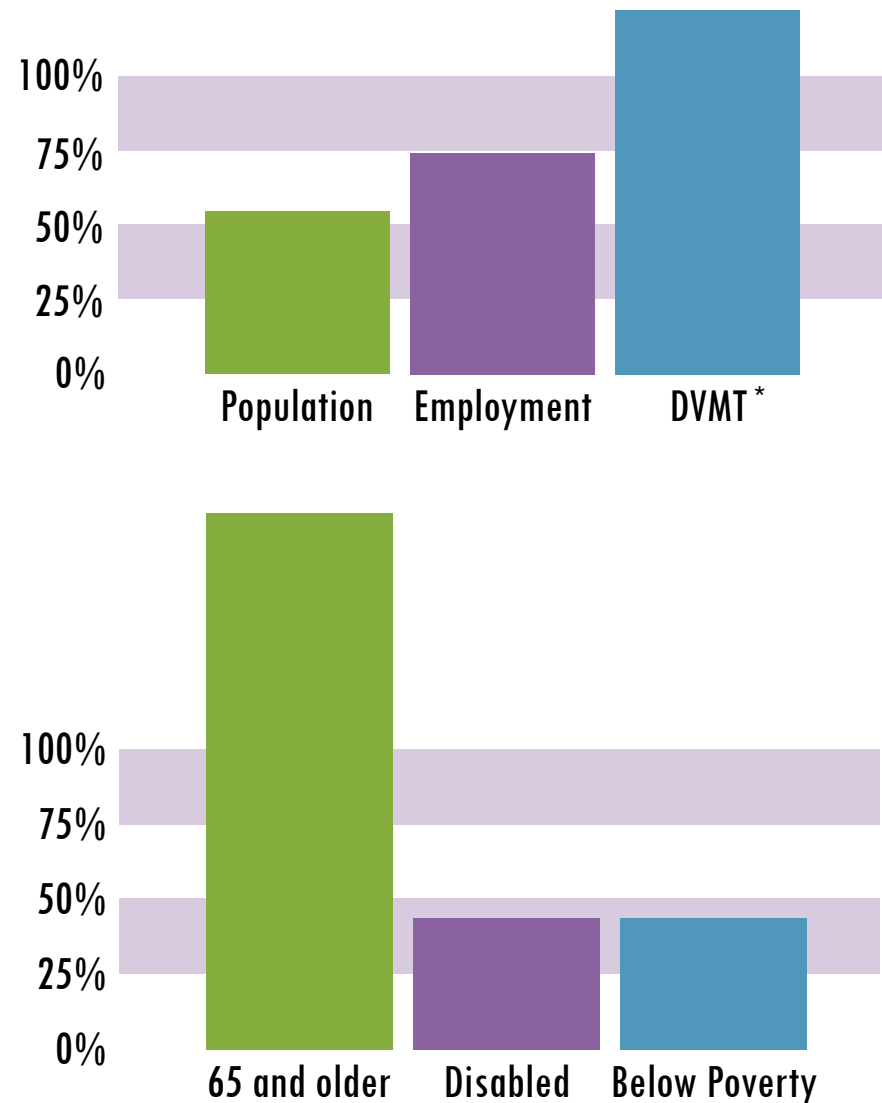
TRANSPORTATION FACILITIES AND SERVICES

The major highway facilities in the Northern Virginia Region include I-66, I-95, I-395, Route 1, and I-495. The major east-west route is I-66, which is a four-to-eight-lane interstate located in the northern part of the Virginia, traveling through urban, suburban and rural areas over the course of its approximately 75-mile length. The western limit of I-66 is located at I-81 near Strasburg, and the eastern limit is the border of the District of Columbia in Arlington. I-66 is primarily a commuting corridor used to connect residential areas to the west to employment centers to the east, especially through Prince William, Fairfax, and Arlington Counties.

The main north-south corridor is I-95, which is a multi-lane interstate that runs along the east coast of the United States, traveling from Maine to Florida and serving as the primary north-south connector on the east coast. In Virginia, it serves as the main through corridor for both passengers and freight, with almost 40% of the total interstate traffic using the corridor. It links the Washington, DC, metropolitan area with Richmond, and provides access to numerous military facilities including Fort Belvoir and Quantico Marine Base. I-95 offers the main access via I-495 and I-395 to government facilities and other employment uses in and around Washington D.C. and funnels DC traffic across the Woodrow Wilson Bridge via the Capital Beltway.

In addition to the current military installations, the Base Relocation and Closure program (BRAC) is expected to move a significant number of military and government personnel to Marine Corps Base Quantico and Fort Belvoir, including the Engineer Proving Ground (EPG) along I-95, and to the Washington Headquarters Service (WHS) located directly along I-395. This will result in an increased role of I-95 and parallel facilities as an important military corridor, adding a significant amount of traffic.

Figure 38: Northern Regional Characteristics Percent Change (2010 - 2035)



*DVMT: Daily Vehicle Miles Traveled (2006-2035)

In addition to several major highways, the Northern Region has extensive public transportation services. There are two reversible HOV-2 and HOV-3 lanes on I-95 and I-395. Interstate 66 HOV restrictions change direction between the AM and PM peak periods. The WMATA Metrorail's Blue Line and Yellow Line follow the I-395, I-495, Route 1 and I-95 corridors. Metrorail's Orange Line parallels I-66. The VRE operates commuter rail on two lines, one that parallels the I-95 corridor and one that parallels the I-66 corridor. Express bus transit service in Northern Virginia is provided by the Potomac and Rappahannock Transportation Commission (PRTC). PRTC provides the OmniRide and Metro Direct service that travels between Dumfries and Washington, DC. WMATA also operates express service along the Route 1 corridor. The Richmond Highway Express (REX) is a limited-stop express bus route operating between Fort Belvoir in Fairfax County and the King Street Metro in Alexandria. Other transit services included the Fairfax Connector, CUE Bus System (City of Fairfax), Arlington County Bus System (ART), DASH Bus System (City of Alexandria), GEORGE Bus System (City of Falls Church), and Loudoun County commuter bus routes.

The Northern Region has eight Transportation Demand Management agencies that help to promote strategies like carpooling, vanpooling, work-from home initiatives and flexible work hours. To fill critical mobility gaps for Virginians who do not have access to a personal automobile and live outside of public transit service areas or need specialized transportation services, three human service agencies exist in the Northern region.

The Ronald Reagan Washington National Airport and Washington Dulles International Airport together serve over 40 million passengers every year, providing access to destinations around the world. These commercial airports and two other reliever air facilities are vital to the economic vitality of the region and the Commonwealth. These air facilities depend on a high-quality surface transportation system to provide a seamless connection between the airports and final destinations.

CHARACTERISTICS

The Socioeconomic and Travel Demand Forecasts for Virginia and Potential Policy Responses report completed by the VTRC identifies a number of trends that will impact transportation in the future. Anticipated increases in population will impact the amount of traffic on the roadway and demand for transportation alternatives, impacting commuters and those traveling throughout the Northern Region. This trend will impact both passenger and freight traffic along the highway.

Table 21 details the population projections for 2010 and 2035 as well as the absolute change and percent change between 2010 and 2035. In addition, Figure 38 illustrates the percent change in population, employment and DVMT between 2010 and 2035 for the Northern Region.

Population: Population forecasts for the Northern Region show that the population is expected to account for 31% of the entire state population by the year 2035. This region is expected to experience a growth in population of approximately 54% between 2010 and 2035, compared to an estimated 36% change statewide. These increases will result in more people wanting to go more places, producing increased travel and congestion.

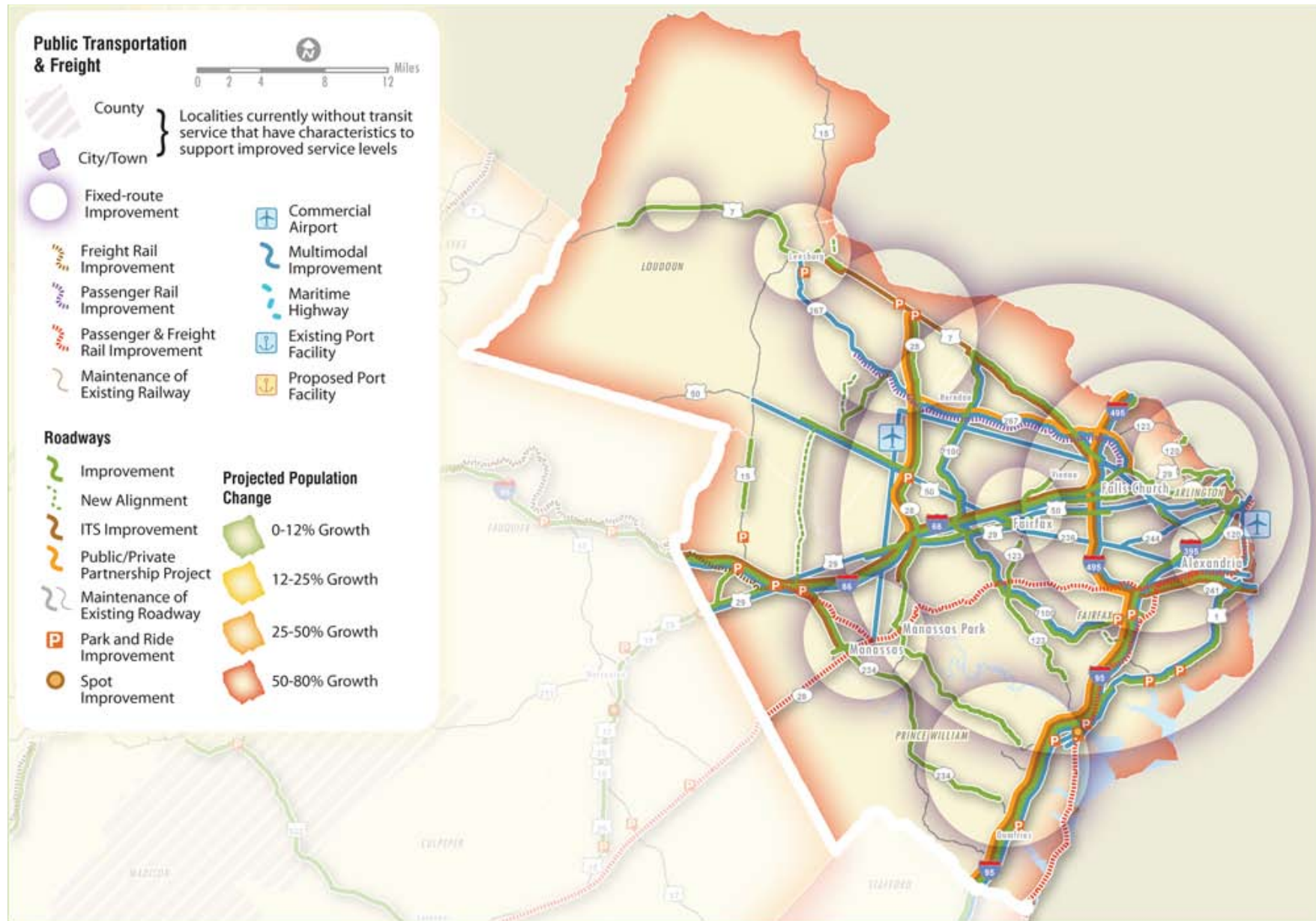
Employment: Similar to population, employment within the Northern Region is expected to increase dramatically by 74% between 2010 and 2035, compared to a 36% increase statewide for the same time period. It is estimated that the region will add slightly over one job for each individual added to the population during this time frame. Depending on where these new jobs locate, and where the new employees will be commuting from, this increase could result in a negative impact on air quality and congestion. Knowledge of this anticipated change provides an opportunity to be proactive in determining where these jobs may locate, and encouraging development patterns that foster increased demand for transit.

Daily Vehicle Miles Traveled: Currently, DVMT for the Northern Region accounts for 22% of the DVMT for the entire state. DVMT for the region is expected to increase by 123% between 2006 and 2035, resulting in the Northern Region accounting for close to 32% of statewide DVMT by 2035. The highway assets within this region are already highly congested. In order to counteract the estimated change in DVMT opportunities for encouraging greater transit use and other forms of TDM have been identified in the recommendations for this region.

Table 21: Northern Region Characteristics by PDC

Population	2010 Forecast	Midpoint 2035 Forecast	Absolute Change	Percent Change
Northern Virginia (8)	2,250,780	3,484,698	1,233,918	55%
State Total	8,057,350	10,926,181	2,868,831	36%
Employment (Jobs)	2010 Forecast	Midpoint 2035 Forecast	Absolute Change	Percent Change
Northern Virginia (8)	1,724,160	3,007,614	1,283,454	74%
State Total	5,206,470	7,753,739	2,547,269	49%
Daily Vehicle Miles Traveled (DVMT)	Actual VMT in 2006	2035 DVMT Based on Population (in Millions)	Absolute Change	Percent Change
Northern Virginia (8)	49,453,417	110.1	60,646,583	123%
State Total	222,178,082	345.4	123,221,918	55%

Figure 39: Northern Region Recommendations Map



PUBLIC TRANSPORTATION RECOMMENDATIONS

In the Northern Region, and across the entire state, Virginia's public transportation systems must maintain a state of good repair for fleet vehicles and maintenance equipment. DRPT recognizes and prioritizes state of good repair issues through its asset management database and funding requirements. State of good repair is discussed in detail in Chapter 3 and funding is discussed in-depth in Chapter 5.

The population growth rate in the Northern Region is the highest in the state. In fact, employment growth and future projections for DVMT in the Northern Region show that the demand for more transportation options is growing faster than in any other region. The high population growth in the Northern Region necessitates the following recommendations for the entire region:

- Major Capacity Investments
- Focused Expansion of Fixed Route Coverage
- Increased Transportation Demand Management

There are a number of points within the public transportation systems that service Northern Virginia where future capacity challenges may occur, including service at the Pentagon, crossing the 14th Street Bridge, and crossing the Roosevelt Bridge. The increasing popularity and demand of VRE service will also strain its system capacity in the future.

Major capacity investments are needed to increase mobility in this highly-congested urban area, provide more transportation choices, and support the projected growth for employment and economic development.

Focused expansion of fixed route coverage, like new express and feeder bus services in the Capital Beltway Corridor and expansion of commuter bus service to Loudoun County, will continue the reach of public transportation services in areas of high population growth.

Transportation demand management strategies for the Northern Region are identified according to geographic setting and are identified in Table 22.

Table 22: TDM Strategies for the Northern Region

Geographic Setting	Jurisdictions	TDM Strategies
Urban Core Areas	Alexandria City, Arlington County	Build on existing transit options and bike/walk options
		Develop suburban transit links for inbound / reverse commute
		Address short-trip lengths
		Strong focus on employment end outreach
		Target both commute trips and non-work travel of residents
		Integrate TDM into local planning, MTPs, LRTPs
		Increase parking management
		Promote alternative work hours and teleworking at employment
		Enhance cross-jurisdictional coordination for TDM
Suburban Feeder Areas	Fairfax County, Loudoun County, Prince William County	Expand non-SOV use for non-work trips in suburban centers
		Strong focus on employment outreach in suburban centers
		Promote feeder area ridesharing for long-distance commutes
		Promote teleworking to employers and residents
		Expand transit options; develop transit links to urban and suburban employment
		Integrate TDM into the land development process; encourage mixed-use
		Integrate TDM into local planning, MTPs, LRTPs
		Enhance cross-jurisdictional coordination for TDM

As identified in Table 23, the transit agencies in the Northern Region have the following ITS investment recommendations for the next six years, as identified in the DRPT Statewide ITS Strategic Plan.

Table 23: ITS Investments for the Northern Region

Transit Agency	ITS Investments in the Next 6 Years					
	Transit Operations	Customer Amenities	Service Planning	Fare Collection	Security	Maintenance/Management
Alexandria Transit Company (DASH)	x	x	x		x	
Arlington Transit (ART)		x	x		x	
Fairfax County DOT (Connector)	x	x	x		x	x
Fairfax CUE			x			
King Street Trolley						
Loudoun County Office of Trans. Services		x	x			
PRTC OmniRide	x				x	
PRTC OmniLink	x					
Virginia Railway Express		x			x	
Virginia Regional Transit	x	x	x		x	x
WMATA		x				

RAIL RECOMMENDATIONS

The rail recommendations for the Northern Region shown in Tables 24-1 and 24-2 represent those projects within identified transportation corridors that will increase the freight shipments to and from ports, improve commuter and intercity rail within regions of the Commonwealth and other freight improvement projects identified by Class and shortline railroads in Virginia.

All improvements address one or more of the following:

- Reducing passenger car and truck freight traffic to alleviate highway congestion, reduce energy demands and reduce pollutants
- Increasing freight capacity throughout the Commonwealth to support greater demand for freight rail shipping, growth in the coal industry and improved capacity at Virginia’s ports
- Improving passenger rail by enhancing system performance and adding capacity

Table 24-1: Rail Recommendations for the Northern Region

I-95/I-64 Intercity Passenger Rail Project	
Phase I - Capacity/ Station Improvements	One new daily round trip train from Richmond to Washington, DC as a demonstration project for three years beginning in FY2010, station improvements at Staples Mill Station and the rehabilitation of one train set.
	Design and construction of capacity improvements from Washington, DC to Richmond and Newport News, including third main track sections and enhancements to increase on-time performance.
Phase II - Regional Trains to Newport News	Complete capacity improvements from Phase I and extend three regional trains from Staples Mill Station to Newport News for a total of five daily trains to serve Newport News, Richmond and Washington, DC. Enhance passenger rail stations.
Phase III - Additional Trains/Rolling Stock	Four additional trains with half-hour service between Newport News, Richmond and Washington, DC for a total of nine daily trains.
Phase V - New Bridge/Track Capacity	Bridge capacity improvements between Newport News and Washington, DC, including a new Potomac River bridge.
	Connect third track sections in the I-95 corridor and second main line sections between Richmond and Newport News.

Table 24-2: Rail Recommendations for the Northern Region

Southeast High Speed Rail (SEHSR) Project	
Phases II and III - Construction and Improvements	Engineering, track construction and improvements from Washington, DC to the North Carolina state line for high speed rail service.
	The scale of improvements will be determined by segment, including: Washington, DC to Richmond, Richmond to Petersburg, and Petersburg to the North Carolina state line.
National Gateway Project	
Phase I - Capacity Improvements	Adds corridor double stack clearance capacity by removing or modifying five bridges that obstruct the vertical clearance needed for double stack rail operations on the I-95 Corridor between the North Carolina state line and Washington, DC. (Railroad Avenue Bridge, Woodbridge)
	Environmental studies and preliminary engineering for two new highway grade separated bridges.
	Engineering, design and construction of the new double stack Virginia Avenue Tunnel.
Phase II - Clearance Completion	Completes Virginia Avenue Tunnel double stack clearance and bridge clearance work.
I-81/Route 29 Intercity Passenger Rail Project	
Phase I (Lynchburg)	Add one daily train between Washington, DC and Lynchburg Kemper Street Station as a demonstration project for three years beginning in 2009.
	Increase commuter capacity in the VRE service area.
	Complete the capacity study for the entire project corridor from Washington, DC to Bristol and Lynchburg.
	Increase capacity for a second train to Lynchburg with construction of second main line track between Nokesville and Calverton.
Phase III (Bristol) and IV (Richmond)	Provide train service from Bristol to Richmond and from Bristol to Washington, DC.

HIGHWAY RECOMMENDATIONS

The Northern Region presents a unique challenge in that it contains the highest population densities in the state as well as the highest concentration of employment centers. Travel trends in the Northern Region continue to indicate a significant amount of “hub and spoke” commuter traffic heading from outlying suburban areas into downtown DC. However, within the last few decades significant exurban employment centers (Tysons Corner, Dulles Corridor, Fort Belvoir) have developed on the fringes of the region, creating a shift in commuting patterns. Highway recommendations for the Northern Region focus on additional capacity expansion that capitalizes on the region’s significant high occupancy vehicle use, and the expansion of park and ride facilities.

Park and Ride Recommendations: The Northern Region currently has approximately 200 Park and Ride facilities, many of which are at capacity every day. It is recommended that 12 new facilities be constructed, with a majority of the facilities along I-66 and I-95, and expansion to the Woodbridge VRE lot is recommended as identified in Figure 39.

Other Recommendations: In addition to the Park and Ride recommendations, the multiple highway recommendations are shown in Figure 39 and listed in Tables 25 to 29. The Highway Recommendation Table Reference Guide (Figure 40) provides explanation of the multiple elements included in the highway recommendation tables.

How the Recommendations are Organized: The highway recommendations presented in the 2035 Virginia Surface Transportation Plan address the performance measures presented in Chapter 4. These include: congestion; roadway capacity; safety; and maintenance. The highway recommendations support the goals established in VTrans2035: Safety and Security; System Maintenance and Preservation; Mobility, Accessibility and Connectivity; Economic Vitality; Environmental Stewardship; and Coordination of Transportation and Land Use.²⁶ The recommendations have been related to

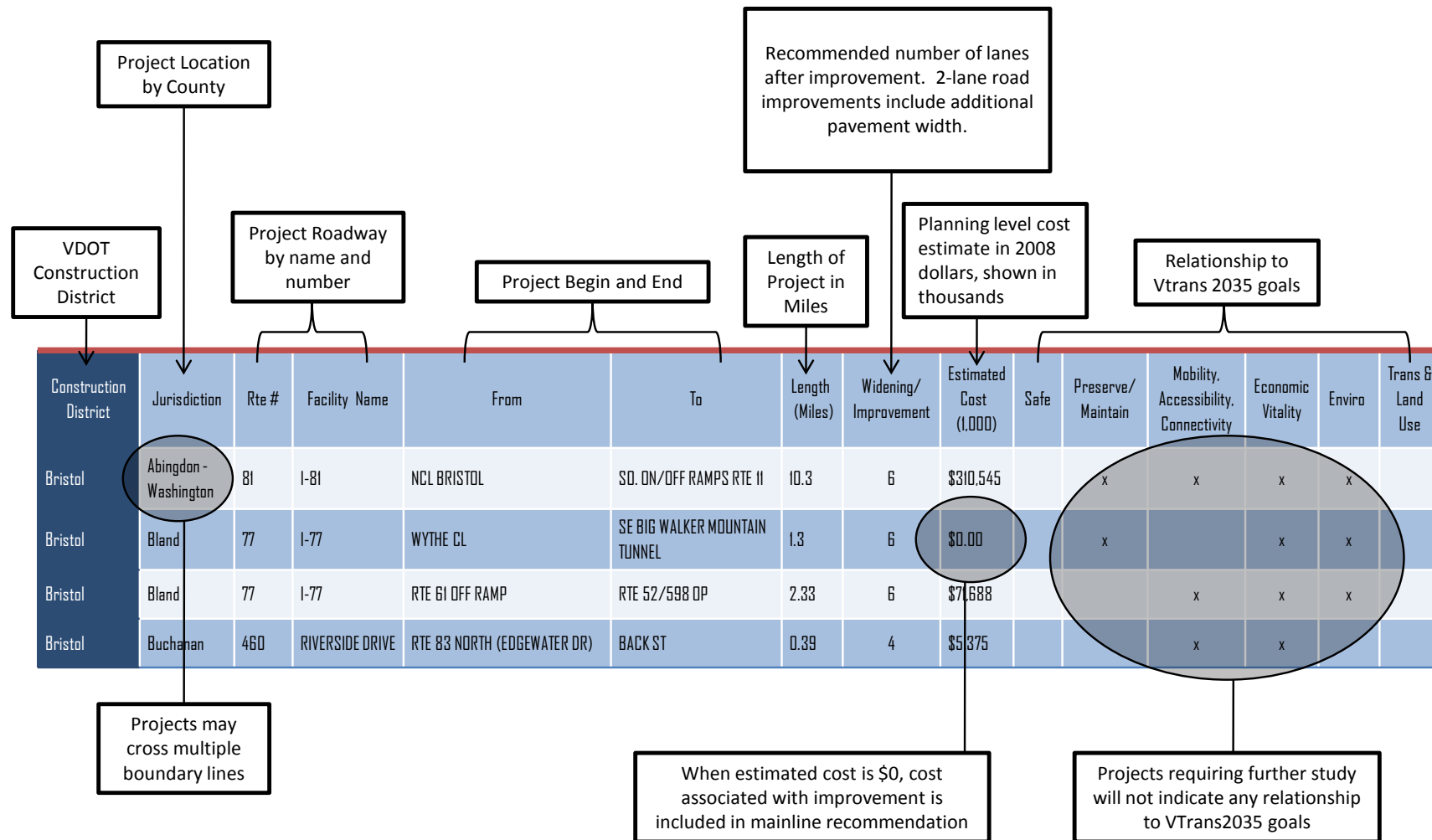
these goals in the tables that follow. The recommendations are presented in the following categories:

- Recommendations to Existing Facilities – These recommendations represent improvements to the current roadway network. It is assumed any structures or interchanges that fall within the limits of the recommendation will be improved along with the roadway. It should also be noted that any recommendations identified as an improvement to 2 lanes denotes additional lane width to an existing 2-lane roadway.
- Recommendations to New Locations – These recommendations represent new facilities that would be added to the roadway network.
- Recommendations for Further Study – These are recommendations where a need has been identified, but alternatives are still being analyzed.
- Other Recommendations – These are recommendations that do not fall into the above categories. Examples include interchange and intersection improvements, standalone bridge replacements, re-striping and access management.
- ITS Recommendations – Intelligent Transportation System recommendations (as described in Chapter 4).
- Park and Ride Recommendations – These are recommendations for new Park and Ride lots or expansion to existing Park and Ride lots. Specifics for Park and Rides are not provided as each location will need to be studied to identify an appropriate location and level of demand.

²⁶ Not all VTrans2035 goals were tied to specific recommended improvements. For the VTrans2035 goals of Linking Land Use and Transportation, Program Delivery, Environmental Stewardship, VDOT addresses compliance at the program level as discussed in Chapter 4 of the VSTP.

Figure 40: Highway Recommendation Table Reference Guide

Highway Recommendation Table Reference Guide*



*It is recognized that with any highway project there is a potential for community concerns that will need to be addressed prior to projects advancing.

Table 25-1: Northern Region Recommendations to Existing Facilities

Construction District	Jurisdiction	Rte #	Facility Name	From	To	Length (Miles)	Widening/Improvement	Estimated Cost (1,000)	VTrans2035 Goals Addressed					
									Safe	Preserve/Maintain	Mobility, Accessibility, Connectivity	Economic Vitality	Enviro	Trans & Land Use
Northern Virginia	Alexandria - Arlington - Fairfax	395	I-395 HOV - I-395 REVERSIBLE HOV	RTE I-95	END OF 395 REVERSIBLE	8.46	3	\$521,064		x				
Northern Virginia	Arlington	27	WASHINGTON BOULEVARD	RTE 50	RTE 244 SOUTH	0.82	6	\$11,896			x		x	
Northern Virginia	Arlington	27	WASHINGTON BOULEVARD	RTE 244 SOUTH	I-395 NO./ARMY-NAVY DR.	0.35	6	\$5,078	x		x		x	
Northern Virginia	Arlington	27	WASHINGTON BOULEVARD	I-395 NO./ARMY-NAVY DR.	OFF RMP TO RTE 244(N. INT.)	0.61	6	\$17,951					x	
Northern Virginia	Arlington	27	WASHINGTON BOULEVARD	OFF RMP TO RTE 244(N.INT.)	RMP FROM PENTAGON	0.24	6	\$5,620			x		x	
Northern Virginia	Arlington	29	LEE HIGHWAY	FALLS CHURCH CL	SYCAMORE STREET	0.48	4	\$15,039	x		x		x	
Northern Virginia	Arlington	29	LEE HIGHWAY	RTE 309 NORTH	RTE 309 SOUTH	0.72	6	\$21,925			x		x	
Northern Virginia	Arlington	29	LEE HIGHWAY	RTE 309 SOUTH	KENMORE STREET	0.36	6	\$10,962			x		x	
Northern Virginia	Arlington	50	ARLINGTON BOULEVARD	RTE 120	RTE 27	0.93	6	\$25,082			x		x	
Northern Virginia	Arlington	110	JEFFERSON DAVIS HIGHWAY	ROUTE 50	MEMORIAL DRIVE	0.56	6	\$8,125			x			
Northern Virginia	Arlington	120	NORTH GLEBE ROAD	RTE 123	MILITARY ROAD	0.46	4	\$13,267			x			
Northern Virginia	Arlington	120	NORTH GLEBE ROAD	HENDERSON ROAD	RTE 50	0.6	6	\$27,469	x		x		x	
Northern Virginia	Arlington	120	SOUTH GLEBE ROAD	I-395	WEST GLEBE ROAD	0.19	6	\$6,699	x				x	
Northern Virginia	Fairfax	1	RICHMOND HIGHWAY	RTE 235 NORTH	ALEXANDRIA CL	4.5	8	\$157,293	x		x			

Table 25-2: Northern Region Recommendations to Existing Facilities

Construction District	Jurisdiction	Rte #	Facility Name	From	To	Length (Miles)	Widening/Improvement	Estimated Cost (1,000)	VTrans2035 Goals Addressed					
									Safe	Preserve/Maintain	Mobility, Accessibility, Connectivity	Economic Vitality	Enviro	Trans & Land Use
Northern Virginia	Fairfax	7	LEESBURG PIKE	RTE 7100 (FAIRFAX PKWY)	DULLES TOLL ROAD	8.48	6	\$251,576		x	x	x	x	
Northern Virginia	Fairfax	7	LEESBURG PIKE	DULLES TOLL ROAD	RTE I-495	2.28	8	\$78,283		x	x	x	x	
Northern Virginia	Fairfax	7	LEESBURG PIKE	RTE 2327	RTE 244	1.51	6	\$42,021			x		x	
Northern Virginia	Fairfax	29	LEE HIGHWAY	RTE 621	RTE I-66	2.17	6	\$62,937		x	x			
Northern Virginia	Fairfax	29	LEE HIGHWAY	RTE 28	RTE 7100 (FAIRFAX PKWY)	2.9	6	\$98,187		x	x			
Northern Virginia	Fairfax	29	LEE HIGHWAY	RTE 608	EATON PLACE	4.05	6	\$115,537			x			
Northern Virginia	Fairfax	29	LEE HIGHWAY	ECL FAIRFAX	RTE 243	0.8	6	\$24,665		x	x		x	
Northern Virginia	Fairfax	29	LEE HIGHWAY	0.7 MI EAST PRINCE WILLIAM CL	RTE 621	0.29	4	\$6,608		x	x		x	
Northern Virginia	Fairfax	29	LEE HIGHWAY	RTE 243	WCL FALLS CHURCH	4.25	6	\$134,251		x	x			
Northern Virginia	Fairfax	50	LEE JACKSON HIGHWAY	RTE I-66	RTE 29 SOUTH	1.39	6	\$47,483		x	x	x	x	
Northern Virginia	Fairfax	50	ARLINGTON BOULEVARD	ECL FAIRFAX	RTE 7247	3.35	6	\$102,008			x			
Northern Virginia	Fairfax	95	CAPITAL BELTWAY	RAMP TO RTE I-495	RTE 241	4.05	12	\$239,031			x			
Northern Virginia	Fairfax	123	OX ROAD	DAVIS DR	SCL FAIRFAX	10.51	6	\$383,639		x	x			
Northern Virginia	Fairfax	123	CHAIN BRIDGE ROAD	NCL FAIRFAX	SCL VIENNA	3.09	6	\$102,111		x	x			

Table 25-3: Northern Region Recommendations to Existing Facilities

Construction District	Jurisdiction	Rte #	Facility Name	From	To	Length (Miles)	Widening/Improvement	Estimated Cost (1,000)	VTrans2035 Goals Addressed					
									Safe	Preserve/Maintain	Mobility, Accessibility, Connectivity	Economic Vitality	Enviro	Trans & Land Use
Northern Virginia	Fairfax	495	I-495	RTE 193	MARYLAND SL	1.47	10	\$107,919			x	x		
Northern Virginia	Fairfax	7100	FAIRFAX COUNTY PARKWAY HOV	FRANCON-SPRINGFLD BLVD	RTE 7(LEESBURG PIKE)	20.39	6	\$445,821			x	x		
Northern Virginia	Fairfax	7100	FAIRFAX COUNTY PARKWAY HOV	RTE 636	RTE 645	4.98	6	\$71,814			x			
Northern Virginia	Fairfax	7900	FRANCONIA SPRINGFIELD PARKWAY	RTES 636/638	RTE I-95	2.75	8	\$51,150			x		x	
Northern Virginia	Leesburg	7	MARKET ST EAST	BATTLEFIELD PARKWAY	ECL LEESBURG	0.95	8	\$24,584		x	x	x	x	
Northern Virginia	Leesburg	15	LEESBURG BYPASS	RTE 15 (KING STR.)	RTES 15/7 (MARKET ST. EAST)	1.6	6	\$58,468		x	x	x		
Northern Virginia	Leesburg - Loudoun	7	HARRY BYRD HIGHWAY	RTE 9	RTE 15 (KING STR.)	4.36	6	\$88,183		x	x	x		
Northern Virginia	Loudoun	7	HARRY BYRD HIGHWAY	ECL PURCELLVILLE	RTE 9	5.35	6	\$79,606		x	x	x		
Northern Virginia	Loudoun	28	SULLY ROAD	RTE 625(WAXPOOL RD)	RTE 7(HARRY BYRD HWY)	3.16	8	\$96,571		x		x		
Northern Virginia	Loudoun	606	LOUDOUN COUNTY PARKWAY	RTE 621	RTE 267	5.01	4	\$70,357			X	x		
Northern Virginia	Loudoun - Fairfax	28	SULLY ROAD	RTE I-66	RTE 625(WAXPOOL RD)	11.23	8	\$236,025		x	x	x		
Northern Virginia	Loudoun - Fairfax	50	JOHN S MOSBY - LEE JACKSON HIGHWAY	RTE 616	RTE 661	7.17	6	\$159,933		x	x	x		
Northern Virginia	Manassas	28	NOKESVILLE ROAD	WCL MANASSAS	GOODWIN DRIVE	0.56	6	\$36,551			x			

Table 25-4: Northern Region Recommendations to Existing Facilities

Construction District									VTrans2035 Goals Addressed					
	Jurisdiction	Rte #	Facility Name	From	To	Length (Miles)	Widening/Improvement	Estimated Cost (1,000)	Safe	Preserve/Maintain	Mobility, Accessibility, Connectivity	Economic Vitality	Enviro	Trans & Land Use
Northern Virginia	Manassas	910	LIBERIA AVENUE	PRINCE WILLIAM PARKWAY	CENTREVILLE ROAD	1.77	6	\$53,897			x			
Northern Virginia	Manassas - Prince William	234	PRINCE WILLIAM PARKWAY	RTE 234 BUS	E.B. RAMP TO RTE I-66	7.78	6	\$129,662		x	x	x		
Northern Virginia	Prince William	15	JAMES MADISON HIGHWAY	RTE 29	ROUTE I-66	2.93	4	\$42,556	x		x	x		
Northern Virginia	Prince William	15	JAMES MADISON HIGHWAY	RTE 234	LOUDOUN CL	4.25	4	\$51,221			x			
Northern Virginia	Prince William	28	NOKESVILLE ROAD	RTE 660 WEST	WCL MANASSAS	0.62	6	\$14,508	x		x	x		
Northern Virginia	Prince William	28	CENTREVILLE ROAD	LIBERIA AVENUE	NCL MANASSAS PARK	0.91	6	\$29,797					x	
Northern Virginia	Prince William	29	LEE HIGHWAY	ROUTE 605	RTE 55	9.71	6	\$134,557	x	x	x	x		
Northern Virginia	Prince William	66	I-66	RTE 15	RTE 29	2.85	8	\$79,107		x	x		x	
Northern Virginia	Prince William	95	I-95	STAFFORD CL	RTE 123	12.48	8	\$553,097		x	x	x		
Northern Virginia	Prince William	123	GORDON BOULEVARD	RTE 1 (JEFF DAVIS HWY)	RTE I-95 OP	0.61	6	\$20,706			x		x	
Northern Virginia	Prince William	234	DUMFRIES ROAD	RTE 1450	RTE 234 BUS	12.2	6	\$339,927				x		
Northern Virginia	Prince William	3000	PRINCE WILLIAM PARKWAY	ECL MANASSAS	RTE 640(MINNIEVILLE ROAD)	10.37	6	\$295,638	x		x			
Northern Virginia	Prince William - Fairfax	1	JEFFERSON DAVIS - RICHMOND HIGHWAY	RTE 123	RTE 235 NORTH	9.8	6	\$350,568			x			

Table 25-5: Northern Region Recommendations to Existing Facilities

Construction District	Jurisdiction	Rte #	Facility Name	From	To	Length (Miles)	Widening/Improvement	Estimated Cost (1,000)	VTrans2035 Goals Addressed					
									Safe	Preserve/Maintain	Mobility, Accessibility, Connectivity	Economic Vitality	Enviro	Trans & Land Use
Northern Virginia	Prince William - Fairfax	28	CENTREVILLE ROAD	NCL MANASSAS PARK	RTE 29	4.74	6	\$141,998	x	x	x	x		
Northern Virginia	Prince William - Fairfax	66	I-66	RTE 29	RTE 29 EAST	8.84	10	\$219,913			x	x		
Northern Virginia	Prince William - Fairfax	95	I-95 REVERSIBLE HOV	.25 MS RTE 234 OP	RTE I-495	17.97	3	\$1,392,990		x	x			
Northern Virginia	Purcellville - Loudoun	7	HARRY BYRD HIGHWAY	RTE 7 BUS WEST	ECL PURCELLVILLE	4.08	6	\$68,458		x	x			
Northern Virginia	Vienna - Fairfax	66	I-66	RTE 29 EAST	RTE I-495	12.59	10	\$320,680		x	x			

Table 26: Northern Region Recommendations to Existing Facilities Identified for Further Study

Construction District	Jurisdiction	Rte #	Facility Name	From	To	Length (Miles)	Widening/Improvement	Estimated Cost (1,000)	VTrans2035 Goals Addressed*					
									Safe	Preserve/Maintain	Mobility, Accessibility, Connectivity	Economic Vitality	Enviro	Trans & Land Use
Northern Virginia	Arlington	66	I-66	FAIRFAX CL	DC BOUNDARY	6.85	4	\$45,344						
Northern Virginia	Arlington	66	I-66	RTE I-495	ARLINGTON CL	3.44	4	\$105,545						
Northern Virginia	Prince William	66	I-66	FAUQUIER CL	ROUTE 15	3.61	TBD	TBD						

*Recommendations have not been related to VTrans2035 goals as projects require further study

Table 27: Northern Region Recommendations to New Locations

Construction District	Jurisdiction	Rte #	Facility Name	From	To	Length (Miles)	Widening/Improvement	Estimated Cost (1,000)	VTrans2035 Goals Addressed					
									Safe	Preserve/Maintain	Mobility, Accessibility, Connectivity	Economic Vitality	Enviro	Trans & Land Use
Northern Virginia	Leesburg	909	BATTLEFIELD PARKWAY	FORT EVANS ROAD	EDWARDS FERRY ROAD	0.72	4	\$18,522			x			
Northern Virginia	Loudoun	411	LOUDOUN COUNTY PKWY	RTE 621	Route 772	4.49	4	\$90,990			x	x		
Northern Virginia	Prince William	95	I-95 HOV	STAFFORD CL	0.6 MS RTE 234	4.41	3	\$238,760	x		x			
Northern Virginia	Prince William-Loudoun	411	TRI-COUNTY PKWY	RTE 234 BYP	RTE 50	10.4	4	\$474,756			x	x		

Table 28: Northern Region Other Recommendations

Construction District	Jurisdiction	Rte #	Facility Name	Improvement Description	Estimated Cost (1,000)	VTrans2035 Goals Addressed						
						Safe	Preserve/Maintain	Mobility, Accessibility, Connectivity	Economic Vitality	Enviro	Trans & Land Use	
Northern Virginia	Prince William	1	JEFFERSON DAVIS HIGHWAY	Construct grade separated interchange at Route 123. Alternative improvement - provide Displaced Left-Turn (DLT) intersection.	\$50,000	x		x				

Table 29: Northern Region ITS Recommendations (A description of ITS project types can be found on pp. 59-60)

							VTrans2035 Goals Addressed				
Route	Limits	Short-Term (0-7 years)	Mid-Term (8-15 years)	Long-Term (16-25 years)	Other	Safe	Preserve/Maintain	Mobility, Accessibility, Connectivity	Economic Vitality	Enviro	Trans & Land Use
I-95	Fredericksburg to Springfield	Core Infrastructure	ICM	SLCS		x		x		x	
I-95			ATM	Intellidrive		x		x		x	
I-66	495 to Rt. 15	Core Infrastructure	ATM	Tolling/Pricing (HOT)		x		x		x	
I-66		ICM	SLCS	Intellidrive		x		x		x	
I-495	Entire Length	Core Infrastructure	ICM	Intellidrive		x		x		x	
I-495			Tolling/Pricing (HOT)			x		x		x	
I-495			ATM			x		x		x	
Rt. 7	495 to Rt. 15	Core Infrastructure	Traveler Information			x		x		x	
Rt. 7			Signal Timing Optimization			x		x		x	
Rt. 7			Transit Signal Priority			x		x		x	
Rt. 28	Rt. 267 to Rt. 616	Core Infrastructure	Traveler Information			x		x		x	
Rt. 28			ATM			x		x		x	
Rt. 234	Rt. 66 to Rt. 28	Core Infrastructure	Traveler Information			x		x		x	
Rt. 234			Signal Timing Optimization			x		x		x	
Rt. 3	I-95 to Rt. 620	Signal Optimization	ICM			x		x		x	
Rt. 17	I-95 to Rt. 749	Signal Optimization	ICM			x		x		x	