



Virginia's Long-Range Multimodal Transportation Plan

Corridors of Statewide Significance: Conclusions

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Corridor Conclusions

1.1 Introduction

Eleven Corridors of Statewide Significance were analyzed as part of the VTrans2035 effort, and general strategies for each corridor were developed to be used as a guide for future transportation investments along each corridor. The corridors were defined by the major highway facilities, with five of the corridors running along an Interstate and the remaining six defined by a U.S. Highway. However, the corridors also included parallel roadways as well as other modal facilities, such as freight and passenger rail, long distance transit options, port facilities, and airports, including airports with commercial service as well as general aviation facilities. The corridors must be either multimodal or an extended freight corridor to be considered a CoSS. They also must provide a unique statewide function and/or address statewide goals, involve a high volume of travel, and connect major activity centers and/or regions or states.

Each CoSS has differing functions within the Commonwealth of Virginia. All of the corridors have some freight component, whether it is one of the main functions, as with the Crescent Corridor and the Heartland Corridor, or whether it plays a smaller role, such as with the Western Mountain Corridor and the North Carolina to West Virginia Corridor. Passenger travel is significant along each of the Corridors of Statewide

Corridors of Statewide Significance

- › Washington to North Carolina Corridor
- › Crescent Corridor
- › East-West Corridor
- › Northern Virginia Connector
- › Western Mountain Corridor
- › Heartland Corridor
- › Seminole Corridor
- › Southside Corridor
- › Northern Neck Corridor
- › Eastern Shore Corridor
- › North Carolina to West Virginia Corridor

Significance, though there are many different purposes for the travel. Some corridors have a large educational institution component (Crescent Corridor, East-West Corridor), while others are significant for military bases (Washington to North Carolina Corridor, Heartland Corridor) or tourism (Seminole Corridor, Crescent Corridor).

Many corridors provide a link between various urban centers, such as Northern Virginia, the Richmond region, the Hampton Roads region, and other smaller Virginia cities, such as Roanoke, Lynchburg, Bristol, Charlottesville, and Harrisonburg (Crescent Corridor, East-West Corridor, Seminole Corridor). In addition, many corridors, especially some of the corridors defined by interstates, serve through traffic (Washington to North Carolina Corridor, Crescent Corridor), and many serve both purposes. Some of the corridors, such as the Southside Corridor and Heartland Corridor, provide local access to many smaller communities along their length, and some, such as the Eastern Shore Corridor, which is the only connection to the Eastern Shore from the rest of Virginia, provide important links that otherwise would not be available.

Each of the corridors differs both in their functions and in their importance to Virginia, their volume of traffic, and their modal choices. Some corridors, such as the Northern Neck Corridor, are defined almost entirely by their highway facilities, as there is little rail or long distance transit along the corridor, while others, such as the Northern Virginia Connector and the Washington to North Carolina Corridor are heavy multimodal corridors, with multiple transit options. Some corridors are primarily rural in nature (Southside Corridor, North Carolina to West Virginia Corridor), while others are primarily urban and suburban (Northern Virginia Connector), though most pass through both rural and urban areas.

All eleven Corridors of Statewide Significance were analyzed separately to determine the best investment strategies moving into the future. These strategies were based upon the functions of the corridor, perceived issues along the corridor, MPO plans, jurisdictional Comprehensive Plans, City Plans, and Town Plans along the corridor, inputs from study's public outreach effort, input from a stakeholder listening session, and input from the Regional Planning Forum. The Regional Planning Forum was held in Spring 2009 in Charlottesville, Virginia and brought together many Planning District and Metropolitan Planning Organization directors and staff to discuss the functions and issues of each corridor, and possible solutions. Following this forum, a series of public meetings were held in various areas of Virginia to solicit more comments and suggestions. In addition, projects in the VDOT Six-Year Plan and Constrained Long-Range Plans from MPOs were considered for more localized input into the issues and strategies for each corridor.

Strategies varied along the corridors, depending on the corridors' functions and perceived issues and needs. Some dealt with adding roadway capacity, while others dealt with safety and access management issues. Some were focused on additional transit capacity, while others called for more passenger rail. The following section details the strategies common to many of the Corridors of Statewide Significance.

1.2 Common Strategies

There were many strategies for each of the eleven Corridors of Statewide Significance that were common among multiple corridors. Some of the same issues and perceived solutions exist throughout Virginia along the corridors.

The strategies were related to the functions of each corridor and to the VTrans2035 goals. Many strategies addressed the goal of safety and security or system preservation and maintenance, while most addressed the goal of mobility, connectivity, and accessibility. In addition, some related to the synergy between transportation and land use, while others promoted economic vitality and/or environmental stewardship. All strategies addressed multiple VTrans2035 goals. These strategies are explained in detail below.

Common Strategies

- Increase rail capacity (including passenger rail).
- Multimodal coordination at the Port of Virginia.
- Improve rural transit (human services-related).
- Improve safety at high-crash rate areas.
- Implement and/or improve ITS.
- Improve access management.
- Encourage clustered development instead of strip development.
- Increase transit options and transit capacity.
- Increase Transportation Demand Management.
- Improve ground access to airports.

Increase rail capacity including passenger rail capacity.

A major perceived deficiency in many corridors was the rail capacity for both freight and passengers. While there are multiple freight rail lines, mostly owned and operated by either Norfolk Southern or CSX, and while many of these lines also have Amtrak service along them, the need to move more freight to rail will require additional rail capacity. The percentage of freight moved by rail along most corridors is less than one-quarter of the total freight movement along the corridor. In most cases, the total value of freight moved by truck along the highway facilities of the corridor is over 90 percent of the total freight value along the corridor. The Virginia Statewide Rail Plan calls for many improvements to rail lines throughout Virginia, especially along the Crescent Corridor, the Seminole Corridor, the Heartland Corridor, and the Washington to North Carolina Corridor. This will increase freight capacity and hopefully allow more movement of freight via rail and less via truck. This would improve safety and capacity along the highway facilities of each corridor.

In addition, there is a need for additional passenger rail throughout Virginia, especially along the Crescent Corridor. The TransDominion Express (TDX) is a proposed passenger rail service that will run on existing tracks throughout Virginia. Phase I includes service between Lynchburg and Washington D.C., and this service started in October 2009. If ridership and revenue goals are met and additional funding is identified, the Commonwealth will advance the next phases of the project. This will include expansion to Roanoke and Bristol as well as necessary rail infrastructure improvements to support this initiative. This would help alleviate some of the passenger rail congestion, though there may be a market for additional passenger rail north of Roanoke and in other locations throughout the

Commonwealth. Also, there is a high-speed rail initiative along the United States East Coast, which includes Virginia. High-speed rail is proposed along the Washington to North Carolina Corridor, connecting Washington D.C. with Richmond and south to Raleigh and Atlanta. There would also be a spur to the Hampton Roads region along the East-West Corridor.

Ensure multimodal coordination with the expansion of Craney Island at the Port of Virginia.

According to the Virginia Statewide Rail Plan, the Central Rail Yard Expansion project at Norfolk International Terminals at the Port of Virginia will allow more freight coming into the Port of Virginia to travel by rail instead of by truck. In addition, with the expansion of Craney Island, it is expected that 50 percent of the total freight from this major new facility will be moved by rail from the Port of Virginia. With expansion of the Port of Virginia through the Craney Island project, more rail capacity and more freight movement via rail is essential. This will lead to increased capacity and safety along all the corridors that provide access to and from the Port of Virginia, including the East-West Corridor, the Heartland Corridor, the Northern Neck Corridor, the Eastern Shore Corridor, and the Southside Corridor.

Improve transit in rural areas by offering increased demand response services and services for the elderly and disabled.

There are urban areas throughout the Commonwealth that are served by local transit systems with extensive fixed-route schedules, such as in Northern Virginia, Richmond, Hampton Roads, and even in smaller areas, such as Roanoke, Charlottesville, and Lynchburg. However, in some rural areas, access to transit is limited, if not non-existent. 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 for those without vehicles. As the elderly population in Virginia is expected to increase in the future, the need for these services will increase. The elderly and disabled require services to take them to medical facilities along many corridors that access rural areas, such as the Heartland Corridor, the Southside Corridor, the Crescent Corridor, and the East-West Corridor. While fixed route services are likely not feasible in most of these areas, increased demand response services could fill this need.

Improve safety by addressing high crash rate areas and making necessary improvements.

Many jurisdictions call for safety improvements along the various Corridors of Statewide Significance. This is especially true along the Crescent Corridor where truck volume is high and mountainous terrain exists throughout. In addition, access management issues exist along many of the more rural corridors, where multiple driveways and entrances create safety concerns, and where a lack of turn lanes creates safety issues. The specific problem areas should be further identified, and roadway safety audits should be completed for these areas. Improvements should be recommended and implemented to ensure improved safety.

Implement Intelligent Transportation Systems (ITS), as appropriate, to increase capacity and safety.

Currently, ITS exists along most interstates in Virginia; however, there are areas that are lacking ITS infrastructure, and these should be upgraded where necessary. This could include multiple options, including dynamic message signs along the highway to warn drivers of incidents. Along U.S. Highways, signal optimization and timing can be utilized, while along the interstates, incident management and congestion management strategies are more likely to be used. Relevant navigational aid systems at the aviation facilities can also be employed throughout Virginia.

Improve access management.

Examples of poor access management have been identified along areas of many corridors, such as the Seminole Corridor, Heartland Corridor, Southside Corridor, and Eastern Shore Corridor. Along certain stretches of highway, there are many driveways and entrances, creating safety concerns. Access management standards should be applied to any new development along these corridors, and where possible, entrances and driveways should be consolidated using inter-parcel access. The number of median crossovers along the corridors should be reduced to improve safety and capacity for freight and vehicle traffic along the corridor.

Encourage concentrated development centers to avoid strip development, and coordinate land use and transportation decisions.

Portions of the Heartland Corridor, Southside Corridor, and Eastern Shore Corridor run through more rural areas that have potential for economic development, such as commercial development and/or industrial development. Multiple Town Plans and Comprehensive Plans state that commercial and/or industrial development should be encouraged; however, this development should be clustered and that strip development directly along the highway should be discouraged. This should lead to better access management and better safety along these roadways.

Increase transit options and transit capacity.

This strategy is relevant to corridors with a large amount of transit capacity and transit usage already in place, such as the Washington to North Carolina Corridor and the Northern Virginia Connector. Along these corridors, there are initiatives to expand Metrorail, such as to Dulles Airport and beyond, as well as plans to extend Virginia Railway Express (VRE) passenger commuter rail to the south and to the west. In addition, more park and ride capacity is needed along these corridors as well as along less transit-heavy corridors, such as the Crescent Corridor and the East-West Corridor. Also planned are new High Occupancy Toll (HOT) lanes along the Washington to North Carolina Corridor, which would add more highway capacity for carpools and/or those willing to pay the demand-set prices for the HOT lanes. This option could also be explored for the Northern Virginia Connector. In addition, refurbishments and upgrades to the existing transit infrastructure, including buses, Metrorail lines, and Metrorail trains should be included in any expansion to ensure maximum capacity and maximum safety for riders.

Encourage increased Transportation Demand Management.

Transportation Demand Management (TDM) measures should be used to further decrease the number of single-occupancy vehicles on the highway facilities of corridors such as the Washington to North Carolina Corridor (especially throughout Northern Virginia) and the Northern Virginia Connector. These should include encouraging carpooling, vanpooling, and transit use by employers and residential centers and could include opening more telework centers and encouraging telecommuting. Parking management is another TDM strategy that could be employed. This strategy could employ ITS technologies as well, such as counting the number of available parking spaces and notifying the drivers on the highways of vacancy or having parking information available via smart-phones or internet. As population increases and the number of commuters along these corridors increases, the need for TDM will become more vital, as the highway facilities cannot be widened any more than is currently planned in most locations.

Transit-oriented development is encouraged by many localities. This type of mixed-use development, centered around transit stations, encourages transit use by making transit more accessible and convenient, eliminating one leg of the journey for potential riders. These developments typically encourage not only transit ridership but carpooling and vanpooling as well. As Metrorail and VRE are potentially expanded south and west, transit-oriented development should be encouraged. TDM measures should be required by the various localities in an attempt to coordinate transportation with land use decisions. This is being currently done by Fairfax and Arlington Counties, and it should be implemented in the localities to the south and west along the Washington to North Carolina Corridor and the Northern Virginia Connector.

Improve ground access to air facilities.

There are numerous airport facilities along the Corridors of Statewide Significance, including airports with commercial service, reliever facilities, and general aviation facilities. Ground access to many of these airport facilities should be improved to ensure their maximum usage. Ground access to airports has been identified as a weakness across Virginia. In addition, the long distances from some areas of Virginia to airports with commercial service has been identified as a major issue, especially along the Crescent Corridor and in the southwest and western areas of the state. Increases in capacity to the highway facilities and offering other modal options to the airports could potentially assist in alleviating this problem.