APPENDIX I

DC2RVA RECOMMENDATION REPORT

D.C. TO RICHMOND SOUTHEAST HIGH SPEED RAIL

U.S. Department
of Transportation

1200 New Jersey Avenue, SE.
Washington, D.C. 20590

**Federal Railroad
Administration**

September 27, 2018

Jennifer L. Mitchell
Director, Department of Rail and Public Transportation
600 East Main Street, Suite 2102
Richmond, VA 23219

Dear Ms. Mitchell:

The Federal Railroad Administration (FRA) has received and accepted the Recommendation Report prepared by the Virginia Department of Rail and Public Transportation (DRPT) for the Southeast High Speed Rail, Washington, DC to Richmond, VA Tier II Environmental Impact Statement (EIS) – DC2RVA Project. FRA's acceptance of the Commonwealth's recommendation supports DRPT's advancement of a Recommended Preferred Alternative in the forthcoming Final EIS for the Project. DRPT prepared the report as a record of the Commonwealth's Recommended Preferred Alternative for the Project, as defined in the Tier II Draft EIS for the Project, published on September 8, 2017, and as further refined in the report.

The Project extends for 123 miles along the CSX Transportation (CSXT) railroad corridor from the Potomac River in Arlington, VA through Richmond to Centralia, VA. In the Draft EIS, FRA and DRPT defined the corridor in six alternative areas from north to south, each with unique existing conditions, constraints or needs. The alternative areas and DRPT's corresponding Recommended Preferred Alternatives are listed below.

Area 1: Arlington (Long Bridge Approach), Milepost 110 to 109.3
Recommended Preferred Alternative Deferred to Final EIS

Area 2: Northern Virginia (Arlington to Fredericksburg), Milepost 109.3 to 62
Build Alternative 2A, Add One Track / Improve Existing Track

Area 3: Fredericksburg (Dahlgren Spur to Crossroads), Milepost 62 to 48
Build Alternative 3B, Add One Track East of Existing

Area 4: Central Virginia (Crossroads to Doswell), CSXT Milepost 48 to 19
Build Alternative 4A, Add One Track / Improve Existing Track

Area 5: Ashland (Doswell to I-295), CSXT Milepost 19 to 9
Recommended Preferred Alternative Deferred to Final EIS

Area 6: Richmond (I-295 to Centralia), Milepost 9 to A11

Build Alternative 6F, Full Service Staples Mill Road/Main Street Stations

DRPT did not define a Recommended Preferred Alternative for Area 1 in Arlington or Area 5 through Ashland in the Draft EIS due to the need for additional study or public outreach in these sections.

For Area 1, the Draft EIS defined three Build Alternative configurations that would connect to the Long Bridge over the Potomac River and carry the service operated on the DC2RVA Corridor north to Washington, D.C. FRA, in partnership with the District Department of Transportation (DDOT), is preparing a separate EIS for the Long Bridge Project (http://longbridgeproject.com/), which is a study to provide additional long-term railroad capacity and improve the reliability of railroad service through the Long Bridge Corridor. At the time of preparation of the Draft EIS, the Long Bridge study had advanced multiple options for an expanded four-track crossing of the river, which generally oriented on three alignments "upstream," "downstream," or centered upon the existing bridge. The Draft EIS for the Project defined three Build Alternatives for Area 1, each connecting to one of the three alignments proposed in the Long Bridge study. The Project includes the expanded capacity over the Long Bridge in its No-Build Alternative and baseline infrastructure; therefore, DRPT was unable to define a Recommended Preferred Alternative for Area 1 in the Draft EIS until the Long Bridge Study defined a preferred alternative for the connecting project.

For Area 5, the Draft EIS evaluated seven Build Alternatives to provide additional rail capacity through Hanover County and the Town of Ashland to support the development of the service proposed in the Project. The seven alternatives reflect four general alignment options as listed below.

5A: Maintain Two Tracks Through Town
Construct a third track primarily on the west side of the CST right-of-way for 3.1 miles north and 4.7 miles south of Ashland and retain the existing two-track alignment for 2.2 miles through town.

5B: Add One Track East of Existing
Construct a third track primarily on the west side of the CSXT right-of-way for 3.1 miles north and 4.7 miles south of Ashland and add a third track on the east side of the right-of-way for 2.2 miles through town.

5C: Add Two-Track West Bypass
Construct a third track on the west side of the CSXT right-of-way for one mile north and three miles south of Ashland and construct a new double-track bypass for eight miles in Hanover County to the west of Ashland.

5D-Ashcake: Three Tracks Centered Through Town (Relocate Station to Ashcake)
Construct a third track primarily on the west side of the CSXT right-of-way for 3.1 miles north and 4.7 miles south of Ashland and add a third track with a

realignment of the existing tracks for 2.2 miles through town.

DRPT elected not to define a Recommended Preferred Alternative for Area 5 in the Draft EIS to allow for additional community participation in the development, evaluation and recommendation for selection of a Preferred Alternative in Hanover County and the Town of Ashland. Prior to and concurrent with the public comment period for the Draft EIS, DRPT established the Ashland/Hanover Area Community Advisory Committee (CAC) to advise and inform DRPT on DC2RVA alternatives and issues in the Ashland/Hanover County area. The CAC included representatives from the Town of Ashland, Hanover County, CSX Transportation, Randolph-Macon College and the Richmond Regional Transportation Planning Organization. The CAC met monthly from May through September 2017 for a total of five meetings, which were open to the public. Recognizing that the improvements proposed in each of the alternatives considered in Area 5 generated community concerns, DRPT and the CAC defined three "least objectionable" alternatives, as listed below.

5A: Maintain Two Tracks Through Town "3-2-3 Option"
Similar to Build Alternative 5A, but with further minimization of Project infrastructure, primarily retaining the Amtrak Station at its existing station between England Street and College Avenue. The station would include two approximately 350-foot platforms as proposed for improvement under a separate project between Amtrak, the Town of Ashland, DRPT and CSXT.

5C: Add Two-Track West Bypass "Modified Alignment"
Similar to Build Alternative 5C, but with on a modified alignment closer to the Town of Ashland, which was previously eliminated from consideration during the Alternative Analysis phase of the Draft EIS. The new alignment would avoid impacts to a commercial facility and reduce impacts to residential properties.

Three-Track Trench
Following the alignment of Alternative 5D, this alternative would construct three tracks in a trench below grade through the center of town.

Concurrent with the publishing of the Draft EIS and CAC process, and at FRA's request, DRPT prepared supplemental operations analysis of the DC2RVA Corridor including the three primary configurations considered through Area 5 (two or three tracks through town and a two-track bypass) to evaluate the ability of the proposed infrastructure to deliver the passenger service defined in the Project as well as forecasted growth of CSXT freight service through 2045. The supplemental analysis demonstrated that a DC2RVA Corridor with expanded capacity in Area 5 via either a two-track bypass of or a triple-track route through Ashland would operate most efficiently; however, an alternative with a two-track segment for approximately two miles through Ashland would also meet the Purpose and Need of the Project. Although the alternatives constructing either a two-track bypass or adding a third track through town would provide the greatest benefits (highest speed, shortest trip time and least delays), DRPT determined that the costs and impacts to build these alternatives was not commensurate with the benefits. DRPT describes the

supplemental operations analysis process in detail in the Recommendation Report. FRA has reviewed the Recommendation Report prepared by DRPT and concurs with the Commonwealth's recommendation to advance Build Alternative 5A (Maintain Two Tracks Through Town) as the Preferred Alternative for Area 5 in the Final EIS for the Project. Alternative 5A, as part of the program of improvements through the DC2RVA Corridor provides the infrastructure required to meet the Purpose and Need of the Project. Additionally, Alternative 5A will avoid impacts to Section 4(f) parks or historic properties, which NEPA requires FRA to select as an "avoidance" alternative.

Although DRPT did not include a Recommended Preferred Alternative for Area 1 in the report, FRA understands that DRPT intends to advance Alternative 1B (Add Two Tracks on the West) in the Final EIS. On June 19, 2018, DDOT published the *Long Bridge Project EIS Alternatives Development Report*, which identifies the alternatives that will be carried forward into the Long Bridge Draft EIS, all of which propose the construction of additional capacity upstream from the existing bridge. The upstream alternatives align with DC2RVA Alternative 1B, which includes two new tracks generally on the west side of the CSXT right-of-way in Area 1 south of the Potomac River.

With the Recommended Preferred Alternatives for Areas 2, 3, 4 and 6 presented in the Draft EIS, and the advancement of Alternative 5A in Area 5 and Alternative 1B in Area 1, the Final EIS for the Project will define a contiguous Recommended Preferred Alternative for the entirety of the DC2RVA Corridor as listed below.

Area 1: Build Alternative 1B, Add Two Tracks on the West
Area 2: Build Alternative 2A, Add One Track / Improve Existing Track
Area 3: Build Alternative 3B, Add One Track East of Existing
Area 4: Build Alternative 4A, Add One Track / Improve Existing Track
Area 5: Build Alternative 5A, Maintain Two Tracks Through Town
Area 6: Build Alternative 6F, Full Service Staples Mill Road / Main Street Stations

Thank you for your cooperation through the development of the DC2RVA Project. If you have any questions, please contact FRA's Southeast Project Manager, Randy Brown, at 202-309-4065 or randall.brown@dot.gov.

Sincerely,

Michael Johnsen
Supervisory Environmental Protection Specialist

Office of Railroad Policy and Development
Federal Railroad Administration

May 8, 2018

DC TO RICHMOND
SOUTHEAST HIGH SPEED RAIL

DC2RVA Recommendation Report

DRPT
Virginia Department of Rail and Public Transportation

U.S. Department of Transportation
Federal Railroad Administration

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1 INTRODUCTION

This report presents the recommendations of the Commonwealth Transportation Board (CTB) and the Virginia Department of Rail and Public Transportation (DRPT) for the Recommended Preferred Alternative for the Washington, D.C. to Richmond Southeast High Speed Rail (DC2RVA) Project. The purpose of the DC2RVA Project is to increase capacity to deliver higher speed passenger rail, support the expansion of commuter rail, and accommodate growth of freight rail service in an efficient and reliable multimodal rail corridor. These recommendations are based on the alternative's ability to meet the Project's Purpose and Need, consideration of impacts to the human and natural environment, costs, and operability/constructability, along with the public and agency comments received following the publication of the Tier II Draft Environmental Impact Statement (EIS) for the DC2RVA Project on September 8, 2017.

DRPT has prepared this Recommendation Report to document the Commonwealth's Recommended Preferred Alternative for the DC2RVA Project, as defined in the Draft EIS and further refined in this report, and to seek concurrence from the Federal Railroad Administration (FRA) on this recommendation. Subject to FRA approval, DRPT will advance the Commonwealth's Recommended Preferred Alternative as the Preferred Alternative for the DC2RVA Project in the Final EIS.

DRPT acknowledges that this Recommendation Report, or FRA concurrence with this report, is non-binding. FRA, as the lead Federal agency for the preparation of the EIS under the National Environmental Policy Act (NEPA), will formally define the Preferred Alternative in the Final EIS and Record of Decision (ROD) for the DC2RVA Project. The Final EIS will provide detailed responses to the many comments received on the Draft EIS and will document the impacts of the Project on the human and natural environments. The ROD will confirm the Preferred Alternative for the Project as defined in the Final EIS. The Project cannot be advanced until FRA has signed the ROD.

2 RECOMMENDED PREFERRED ALTERNATIVE

2.1 PROJECT OVERVIEW

The FRA and Virginia DRPT are working to improve intercity passenger rail service in the north-south corridor between Washington, D.C. and Richmond, VA. These passenger rail service and rail infrastructure improvements are collectively known as the Washington, D.C. to Richmond Southeast High Speed Rail (DC2RVA) Project. The purpose of the DC2RVA Project is to increase capacity to deliver higher speed passenger rail, support the expansion of commuter rail, and accommodate growth of freight rail service in an efficient and reliable multimodal rail corridor. The DC2RVA Project will enable passenger rail to be a competitive transportation choice for intercity travelers between Washington, D.C. and Richmond, and beyond. The DC2RVA Project extends 123 miles along an existing rail corridor owned by CSX Transportation (CSXT) from Arlington, VA, (CSXT control point RO at milepost CFP 110.1, in Arlington County just south of the Long Bridge across the Potomac River) to Richmond, Virginia (CSXT control point Centralia at milepost S 10.9, in Chesterfield County south of Richmond).

The proposed improvements of the DC2RVA Project include the following:

- Construct additional main line tracks and track crossovers
- Straighten curves in existing tracks to allow for higher speeds
- Improve intercity passenger rail stations and station areas
- Improve sidings and signals
- Implement roadway crossing safety improvements
- Add an additional nine passenger train round trips in the corridor

The DC2RVA Project is being evaluated by FRA and DRPT through the framework of an EIS to satisfy the requirements of NEPA. NEPA requires projects that have a federal nexus and may have a significant impact on the natural and/or built environment to be evaluated through a rigorous process that allows the public to understand and comment on the benefits and impacts of the project. On September 8, 2017, FRA released the DC2RVA Tier II Draft EIS for public review and comment. The Draft EIS documents the environmental effects of the proposed DC2RVA improvements along with measures to avoid, minimize, and otherwise mitigate those effects. The Draft EIS evaluates multiple alternatives defined in six areas of the 123-mile corridor and includes DRPT's recommendations for a preferred alternative by area. The public comment period for the Draft EIS ended November 7, 2017. DRPT held five public hearings and conducted additional public outreach to answer questions and solicit public comments during the comment period.

Virginia's CTB establishes the administrative policies and oversees transportation projects and initiatives for the Commonwealth's transportation system. The CTB, made up of 17 members appointed by the governor, allocates transportation funding to specific projects, locates routes, and considers funding for highways, rail, and public transportation projects. The CTB Rail Committee, a subgroup of the CTB, meets separately and works with DRPT staff on policies, procedures, special projects, and reports related to rail.

Based on agency and public comments on the Draft EIS and additional public outreach, the CTB voted in December 2017 to adopt DRPT's Recommended Preferred Alternative as the Commonwealth's Recommended Preferred Alternative for improvements along the DC2RVA corridor.

2.2 RECOMMENDED PREFERRED ALTERNATIVE AND RATIONALE

The Draft EIS included DRPT's Recommended Preferred Alternative for the majority of the DC2RVA Project with the exception of Areas 1 and 5. DRPT deferred the recommendation of a preferred alternative for Area 1 until the completion of a separate EIS for the Long Bridge over the Potomac River. This report confirms DRPT's Recommended Preferred Alternative from the Draft EIS with the inclusion of Build Alternative 5A in Ashland, and continued the deferral of a recommendation for Area 1 until an alignment for the construction of additional capacity over the Long Bridge is determined in a separate study, the Long Bridge Project Alternatives Development Report, being conducted by FRA and the District of Columbia Department of Transportation (DDOT). After completion of the public review and comment period for the Draft EIS, DRPT presented the Recommended Preferred Alternative for the full DC2RVA Project with the deferral of a decision for Area 1 to the CTB in November 2017, which the CTB endorsed as the Commonwealth's Recommended Preferred Alternative in its December 6, 2017, resolution (Attachment A). The Commonwealth's Recommended Preferred Alternative is based on the following findings as they support the Purpose and Need for the DC2RVA Project:

- Expanded passenger, commuter, and freight service on the corridor is an important component to addressing congestion in the I-95 corridor.
- Northern Virginia has the most rail traffic congestion in the corridor and is the DC2RVA priority for implementation.

In determining its Recommended Preferred Alternative, the Commonwealth fully considered the Project's Purpose and Need, all of the information and analysis contained in the Draft EIS, the comments received during the formal comment period and through the Town of Ashland/Hanover County Community Advisory Committee (CAC) process, and the additional infrastructure validation and operations modeling conducted in support of the Project. DRPT evaluated impacts to the natural and human environment and assessed information on intercity passenger rail ridership, rail operations, cost, and constructability for each alternative. The Recommended Preferred Alternative was informed by extensive outreach and communications undertaken with the public, stakeholders, and elected officials in the DC2RVA corridor, plus prior corridor studies, including the 2002 Southeast High Speed Rail (SEHSR) Tier I EIS and ROD.

The Commonwealth's Recommended Preferred Alternative includes a service plan that would improve the reliability of the intercity passenger service while adding nine additional daily intercity passenger round trips (18 trains per day). Four of these new round trips would provide

regional service from Hampton Roads through Richmond to Amtrak's Northeast Corridor (NEC). One new round trip would originate at Richmond's Main Street Station. An additional four round trips would provide interstate service from North Carolina through Virginia, continuing on to Amtrak's NEC. From Washington, D.C., DRPT intends for all of the new trains to continue on to Philadelphia, New York, and Boston, subject to available capacity and future operating schedules on the NEC. The service plan also includes a maximum authorized passenger train speed for the corridor of 90 mph with a reduced trip time (where practicable), and improved on-time performance of the intercity passenger train service.

In the Draft EIS, DRPT evaluated rail alignment Build Alternatives in six areas along the DC2RVA corridor, as well as the No Build Alternative. In the SEHSR Tier I EIS, FRA and the Federal Highway Administration (FHWA) determined that the No Build Alternative did not meet the Tier I Purpose and Need of the Project, but it was included in the DC2RVA Draft EIS to provide a basis for comparison with the Build Alternatives. Each of the six alternative areas contains one or more Build Alternatives that include rail alignment and associated roadway and station work. The Recommended Preferred Alternative is a combination of one Build Alternative from each of the six alternative areas to form a contiguous "best-fit" alternative for the 123-mile DC2RVA corridor.

All alternatives selected meet the DC2RVA Purpose and Need to increase railroad capacity between Washington, D.C., and Richmond to deliver higher speed passenger rail, support the expansion of commuter rail, and accommodate growth of freight rail service in an efficient and reliable multimodal rail corridor. Adding capacity supports increased frequency, improved reliability, and reduced travel time of passenger rail operations in Virginia and beyond.

DRPT seeks FRA concurrence on the Commonwealth's Recommended Preferred Alternative as defined in the Draft EIS and further refined in this Recommendation Report, including:

Area 1: Retain Alternatives 1A, 1B, and 1C;

Area 2: Build Alternative 2A, Add One Track / Improve Existing Track;

Area 3: Build Alternative 3B, Add One Track East of Existing;

Area 4: Build Alternative 4A, Add One Track / Improve Existing Track;

Area 5: Build Alternative 5A, Maintain Two Tracks Through Town; and

Area 6: Build Alternative 6F, Full Service Staples Mill Road / Main Street Stations.

FRA and DRPT did not include a Recommended Preferred Alternative for Area 5 in the Draft EIS; however, after consideration of comments received on the Draft EIS and through the CAC process, the Commonwealth recommends including Build Alternative 5A (Maintain Two Tracks Through Town) as the Preferred Alternative through Ashland. Subject to FRA approval and documentation in the Final EIS and ROD, the Preferred Alternative for the DC2RVA Project will include a contiguous 123-mile route consisting of Build Alternatives 1A/1B/1C, 2A, 3B, 4A, 5A and 6F.

The following summarizes some of the key considerations by the CTB in developing their Recommended Preferred Alternative within each Alternative Area:

Alternative Area 1: Arlington (Long Bridge Approach)

Virginia recognizes the critical importance of increasing rail capacity across the Potomac River at the Long Bridge north of Arlington and is working with FRA, DDOT, and other stakeholders to evaluate alternatives that address this issue in a separate EIS. DRPT identified the

approximately one-mile Alternative Area 1 immediately south of the Long Bridge to evaluate potential connections between the DC2RVA corridor and the future recommendation from the separate Long Bridge EIS. In the Draft EIS, DRPT evaluated three alternatives to add two tracks within existing CSXT right-of-way to connect to multiple future Long Bridge recommendation options:

- 1A. Add two tracks east
- 1B. Add two tracks west
- 1C. Add one track west and one track east

Each of these Area 1 alternatives supports expanded intercity passenger service, VRE commuter service, and CSXT freight service. All project improvements in Area 1 are within existing CSXT-owned right-of-way.

The Commonwealth recommends that FRA defer selection of a preferred alternative in Area 1 through Arlington in the Final EIS and ROD for the DC2RVA Project until determination of an alignment for the construction of additional capacity over the Long Bridge in a separate EIS being conducted by FRA/DDOT. The Long Bridge Project Alternatives Development Report is expected to be released later this year and include a recommended preferred alternative.

Alternative Area 2: Northern Virginia

Alternative Area 2 is the most congested area on the rail corridor, with intercity passenger trains, VRE commuter trains, and CSXT freight trains occupying space on the existing tracks. This 47.3-mile area of the corridor, from Crystal City to Fredericksburg, also passes through developed urban areas and crosses several major rivers, including at the Occoquan River, Neabsco Creek, Powells Creek and Aquia Creek. In the Draft EIS, DRPT considered and dismissed alternative alignments that increased speed and/or capacity but extended outside the CSXT right-of-way in Area 2 in order to reduce impacts to property, wetlands, and existing infrastructure. The Commonwealth recommends Alternative 2A, which would add a fourth track to the triple-track section from Crystal City to Alexandria and add a third track in locations that currently have only two tracks from Alexandria to Fredericksburg. The recommended preferred alternative would support expanded intercity passenger service, VRE commuter service, and CSXT freight service. Project improvements are largely within existing CSXT-owned right-of-way, and locations of river crossings have been carefully selected to reduce impacts to natural and built resources. The recommended preferred alternative increases passenger train speeds where practicable while keeping project improvements within the CSXT-owned right-of-way; speed increases are variable, with increased speeds of 80 to 90 mph achieved in some sections.

The Commonwealth's Recommended Preferred Alternative for Area 2 is Build Alternative 2A (Add One Track / Improve Existing Track), as defined in the Draft EIS, and the Commonwealth seeks FRA concurrence to adopt this as the Preferred Alternative for Area 2 through Northern Virginia in the Final EIS for the DC2RVA Project.

Alternative Area 3: Fredericksburg

Alternative Area 3 extends approximately 14 miles through Fredericksburg, from the Dahlgren Spur just north of the Rappahannock River to VRE's Spotsylvania Station at Crossroads, VA. The corridor in this area crosses the Rappahannock River, passes through the City of

Fredericksburg, and traverses extensive historic and cultural resources including the Fredericksburg National Military Park. In the Draft EIS, DRPT screened multiple bypass alignments, and evaluated three alternatives in detail:

- 3A. Maintain Two Tracks Through Town
- 3B. Add One Track Through Town East of Existing Tracks
- 3C. Add a Two-Track Bypass East of Town

Maintaining two tracks through the City of Fredericksburg (and therefore having only two platform edges at the Fredericksburg Station) does not provide sufficient capacity to support increased intercity passenger service, support VRE commuter service, and accommodate CSXT freight service through the City, and does not meet Purpose and Need of the Project. Adding a two-track bypass to the east of the City does provide sufficient capacity, but would incur substantial impacts to wetlands, historic and cultural resources, property, and infrastructure. In addition, there was strong local opposition to a new greenfield bypass. Therefore, the Commonwealth recommends Alternative 3B to add a third main track to link existing sections of three or more tracks and provide a continuous three track corridor through the City. Alternative 3B provides the capacity to support intercity passenger service, VRE commuter service, and CSXT freight service. This alternative would have fewer impacts to property, wetlands, and infrastructure than a bypass, and occurs largely within the existing CSXT-owned right-of-way. Alternative 3B supports past and ongoing investments by the Commonwealth and VRE, and has local government support.

The Commonwealth's Recommended Preferred Alternative for Area 3 is Build Alternative 3B (Add One Track East of Existing), as defined in the Draft EIS, and the Commonwealth seeks FRA concurrence to adopt this as the Preferred Alternative for Area 3 through Fredericksburg in the Final EIS for the DC2RVA Project.

Alternative Area 4: Central Virginia

Alternative Area 4 extends approximately 29 miles, from Spotsylvania to Doswell, through a largely rural area with multiple small waterway crossings and extensive wetlands. This portion of the corridor represents the best opportunity for passenger trains to achieve and maintain the 90 mph maximum achievable speed. In the Draft EIS, DRPT screened multiple alignments to improve capacity and reach the 90 mph speed, while minimizing impacts to wetlands, waterways, and other resources. DRPT carried one alternative forward for further evaluation in the Draft EIS—Alternative 4A, which adds a third main track to the west of the existing two tracks through most of Area 4, increases passenger train speed, and would put project improvements largely within the existing CSXT-owned right-of-way. The Commonwealth recommends Alternative 4A. The recommended preferred alternative would support expanded intercity passenger service and CSXT freight service, while minimizing impacts to wetlands and property.

The Commonwealth's Recommended Preferred Alternative for Area 4 is Build Alternative 4A (Add One Track / Improve Existing Track), as defined in the Draft EIS, and the Commonwealth seeks FRA concurrence to adopt this as the Preferred Alternative for Area 4 through Central Virginia in the Final EIS for the DC2RVA Project.

Alternative Area 5: Ashland

Alternative Area 5 extends approximately 10 miles along the CSXT corridor, from Doswell to I-295. Near the center of Area 5, the existing two-track main line runs at-grade for approximately two miles on very narrow right-of-way through the center of Railroad Avenue/Center Street in the Town of Ashland. DRPT conducted extensive public outreach in the Ashland/Hanover County area, and during development of the Draft EIS screened multiple at-grade, above-ground, below-ground, and bypass alignments, including use of the existing Buckingham Branch Railroad east of I-95. In the Draft EIS, DRPT evaluated seven alternatives in detail:

- 5A. Maintain Two Tracks Through Town (3-2-3 Option)
- 5A–A. Maintain Two Tracks Through Town (Relocate Station to Ashcake)
- 5B. Add One Track Through Town East of Existing Tracks
- 5B–A. Add One Track Through Town East of Existing Tracks (Relocate Station to Ashcake)
- 5C. Add Two-Track Western Bypass
- 5C–A. Add Two-Track Western Bypass (Relocate Station to Ashcake)
- 5D–A. Three Tracks Centered Through Town (Add One Track), Relocate Station to Ashcake

During preparation of the DC2RVA Draft EIS, DRPT recognized that many of the alternatives for greater rail capacity in the Town of Ashland and Hanover County area generated community concerns. DRPT subsequently established the Ashland/Hanover Area Community Advisory Committee (CAC) to advise and inform DRPT on DC2RVA alternatives and issues in the Ashland/Hanover County area. The CAC was tasked with reassessing all previous options considered for greater rail capacity in the Ashland/Hanover County area and identifying potential options that could meet the Purpose and Need of the DC2RVA Project, while also minimizing or avoiding potential impacts to the community. The CAC process was initiated to run in parallel to the Draft EIS. The Committee was specifically requested to:

- Review all alternatives studied to date as presented in the Draft EIS.
- Recommend alternative(s), including new alternatives or modifications to alternatives, to meet the DC2RVA Purpose and Need.
- Identify and represent the concerns of members' communities.
- Apply a structured and transparent approach seeking consensus.

After careful and deliberate consideration of over 30 options for greater rail capacity in the Ashland/Hanover area, the CAC was unable to reach consensus on a community preferred alternative, but did agree that the following were the least objectionable options for each category of alternatives. The CAC identified the following Least Objectionable Alternatives:

- Alternative 5A – The option to add a third track north and south of town and maintain two tracks through town (3-2-3 option) was the least objectionable option for adding rail capacity through the Town of Ashland at-grade.
- Three-Track Trench – An option to construct a three-track trench emerged through the CAC process as a variant of Alternatives 5B-Ashcake and 5D-Ashcake to construct three

tracks through the Town of Ashland, and was the least objectionable option for adding capacity below grade. This option would close the downtown Ashland station.

- Modified Alternative 5C and 5C-Ashcake – The western bypass closest to the Town of Ashland, which was identified as AWB 1 and screened out in the Draft EIS, was the least objectionable option for adding rail capacity outside the Town of Ashland as a variant of Alternative 5C and 5C-Ashcake —with the provision that the alignment would be adjusted to avoid directly impacting a commercial facility, and to minimize impacts to residential properties.

Based on the information and analyses of the seven Build Alternatives presented for Area 5 in the Draft EIS, public comments on the Draft EIS, and information and comments developed through the CAC process, and subsequent infrastructure validation and rail operations analyses, the Commonwealth recommends Alternative 5A as the Preferred Alternative for Area 5. Alternative 5A provides sufficient capacity to support intercity passenger rail service and CSXT freight service while keeping improvements largely within existing CSXT-owned right-of-way. Alternative 5A has the least impact on property, wetlands and other natural resources, historic and cultural resources, and the built environment compared to other project alternatives that meet the Purpose and Need. Alternative 5A also best addresses the larger Ashland/Hanover community's concerns, including strong opposition to a bypass from Hanover County residents, and strong opposition to adding a track through Ashland from Town residents and Randolph-Macon College.

In comparison to Area 3 through Fredericksburg, the Commonwealth determined that two tracks and two platform edges at the existing Ashland Amtrak station provide sufficient capacity in Ashland, but would be insufficient in Fredericksburg. The rail corridor through Fredericksburg is more congested with greater train volumes and levels of service at the station. In Fredericksburg, the existing tracks and platforms serve 16 daily VRE commuter trains (8 round trips) in addition to intercity passenger trains and CSX freight trains. While the same intercity passenger trains pass through both Fredericksburg and Ashland, more trains stop in Fredericksburg. Therefore, the Commonwealth determined that two tracks would be sufficient for the Project in Ashland.

The Commonwealth's Recommended Preferred Alternative for Area 5 is Build Alternative 5A (Maintain Two Tracks Through Town), as defined in the Draft EIS, and the Commonwealth seeks FRA concurrence to adopt this as the Preferred Alternative for Area 5 through Ashland in the Final EIS for the DC2RVA Project.

Alternative Area 6: Richmond

In the Richmond area, DRPT identified alternatives by station location and service combinations along the two main north-south rail routes through the City: the CSXT A-Line on the west and the CSXT S-Line running through the city center. DRPT evaluated eight Build alternatives for Area 6 in the Draft EIS —five are single station alternatives and three are two-station alternatives:

- 6A. Staples Mill Road Station Only (A-Line)
- 6B–A-Line. Boulevard Station Only (A-Line)
- 6B–S-Line. Boulevard Station Only (S-Line)
- 6C. Broad Street Station Only (A-Line)

- 6D. Main Street Station Only (S-Line)
- 6E. Split Service, Staples Mill Road/Main Street Stations (A-Line)
- 6F. Full Service, Staples Mill Road/Main Street Stations (S-Line)
- 6G. Shared Service, Staples Mill Road/Main Street Stations (A-Line and S-Line)

Richmond area alternatives that would rely on the A-Line (Alternatives 6A, 6B–A-Line, 6C, 6E, and 6G) to carry additional passenger service were eliminated from further consideration in the Draft EIS as being unable to meet the Project's Purpose and Need. Rail operations analyses show that passenger and freight rail performance goals cannot be met using the A-Line without additional track capacity; however, the existing A-Line through Richmond runs in a trench down the middle of I-195, which itself is within a trench. These alternatives would also require a new third track on a bridge across the James River. An additional track cannot be added to the A-Line without expanding both the rail trench and the I-195 trench, creating extensive infrastructure and property impacts.

The three Richmond area alternatives that rely on the S-Line (Alternatives 6B–S-Line, 6D, and 6F) were retained primarily because they would consolidate passenger service on the S-Line through downtown Richmond leaving the A-Line primarily for CSXT freight operations. Although the S-Line route from Centralia to Staples Mill Road is one mile longer than the A-Line and passes through the urbanized core of Richmond, there is more opportunity to construct necessary capacity improvements on the S-Line than on the A-Line. Additionally, the S-Line alternatives 6D and 6F allow for the expansion of intercity passenger rail service to Richmond Main Street Station, which is nearer to the City's Central Business District.

Alternative 6B–S-Line Boulevard Station Only (S-Line) is feasible and could meet the DC2RVA passenger and freight service performance goals. However, the Boulevard Station would not be consistent with prior FRA and Commonwealth decisions regarding the SEHSR program, and does not meet FRA and Amtrak guidance for intercity passenger trains to serve the city center. Furthermore, the Boulevard Station option was not endorsed by political leaders from the City of Richmond or Henrico County.

Alternative 6D. Main Street Station Only (S-Line) would not meet the Project's Purpose and Need due to insufficient track and platform capacity. Spatial constraints posed by support structures for I-95 and the Triple Crossing (an iconic piece of rail infrastructure in Shockoe Bottom where three rail lines cross each other at different elevations in a highly-constrained environment), limit Main Street Station to two tracks and two platform edges on the west side served by the S-Line. For the Main Street Station Only alternative, a third track and three platform edges are required on the west side to support the increased passenger service, including all necessary passenger train crew changes, and meet passenger and freight performance goals. In addition, potential impacts to historic and cultural resources from a third track and expanded platforms are also a concern and would increase the Project's footprint within the area identified for a future memorial to Shockoe Bottom's history as a slave trading district.

Alternative 6F. Full Service, Staples Mill Road/Main Street Stations (S-Line) is feasible and does support passenger service and freight service to meet the Purpose and Need. In this alternative, only Staples Mill Road Station—with three tracks and three platform edges—would provide crew changes. Providing crew changes exclusively at Staples Mill Road Station would reduce

the station dwell time at Main Street Station, thereby allowing passenger and freight performance goals to be met while maximizing the number of passenger trains that could stop at Main Street Station. Under the Full Service alternative, Main Street Station would have platform lengths of 850 feet, minimizing the project footprint. Alternative 6F is consistent with prior FRA and Commonwealth decisions regarding the SEHSR program and Main Street Station as Richmond's downtown intercity passenger station, including decisions documented in the SEHSR Tier I ROD (2002), Richmond to Hampton Roads Tier I ROD (2012), and Richmond to Raleigh Tier II ROD (2016). The alternative is also consistent with FRA and Amtrak guidance on providing intercity passenger service to the central business district and the use of a suburban station. Plus, there is strong local support for this alternative, including from the City of Richmond and Henrico County, and the alternative is consistent with their respective comprehensive plans.

The City of Richmond, in written comments made to DRPT concerning the Draft EIS, has requested that Alternative 6F be revised to allow for checked baggage handling and a 1,200-foot platform at Main Street Station. DRPT considered and dismissed adding a third track on the west side of the station due to site constraints and potential impacts to cultural resources in the area. DRPT also considered and dismissed making the west side platforms 1,200 feet long in keeping with the Project's Basis of Design to fully accommodate Long Distance trains due to site constraints and concerns over potential impacts to cultural resources. DRPT instead recommended a reduced platform length of 850 feet plus walkways extending beyond the platform ends on the raised viaducts to provide crew access to the entire train. The 850-foot platforms fully accommodate Northeast Regional and Interstate Corridor trains. The 850-foot platforms do not preclude checked baggage service at Main Street Station. Amenities, including checked baggage service, to be provided at each station for a particular passenger train service will be determined through coordination between Amtrak, its state funding partners, the City of Richmond, and other station stakeholders, and are not included as part of the DC2RVA project.

DC2RVA's Basis of Design, following Amtrak's Station Program and Planning Guidelines (2013), calls for 1,200-foot long platforms for stations servicing Amtrak's Long Distance passenger trains and 850-foot long platforms for stations serving only Regional passenger trains. The Basis of Design matches the length of the platforms to the length of the train consists, with the goal of allowing direct access from the entire train – locomotive, passenger cars, etc. – to the platform with a single stop. Matching the platform length to the train consist optimizes passenger access, and allows crew members to exit the train safely at the station if needed. DRPT considered adding two 1,200-foot long platforms on the west side of Main Street Station that would accommodate the full length of Long Distance trains. However, DRPT determined that two 1,200-foot platforms were not practical on the west side due to physical site constraints and potential impacts to cultural resources. Site constraints that precluded extending the platforms to 1,200 feet include:

- The viaduct on the west side of the station threads between two piers (located at the southwest corner of the station building adjacent to East Main Street) supporting I-95 elevated above the viaduct. These piers physically prevent the west side platforms from extending south.
- Approximately 500 feet north of the renovated train shed, the viaducts pass over E. Broad Street. The vertical clearance for Broad Street beneath the rail viaducts is 13 feet-8

inches, which is less than the VDOT standard of 16 feet-6 inches. Broad Street also slopes upward west of the rail viaducts to climb over I-95. Adding a platform across Broad Street on the west would compound the roadway clearance limitations in order to maintain access to an extended platform.

- The existing rail trestle bridge over Broad Street is an approximately 75-foot thru-truss girder span that prevents access to the tracks from a platform over Broad Street – thus any platform extending north from the station across Broad Street would have an approximately 75-foot gap with no access to the train.

The Project's preliminary conceptual design efforts took into consideration cultural and archeological resources in Shockoe Bottom. Map overlays were created using historic maps and previously identified historic sites to assure that known sites and buildings were included in the analysis. In addition, Project boundaries were compared to the conceptual outlines of the proposed Shockoe Bottom Memorial Park, a proposed memorial to the Richmond slave trade and slave jail, which operated on land in the vicinity of Main Street Station.

Additional trains planned in the DC2RVA Project would follow the current track alignment and remain within the existing CSXT right-of-way in this area. Proposed new tracks would be located on the existing viaducts where tracks existed previously. The only ground disturbance necessary for passenger rail operations in this area would be from support piers for passenger platforms on the east and west side of Main Street Station. These would be constructed adjacent to the existing rail viaduct and would not impact known archaeological sites.

The Project will continue its cultural resource investigations in Shockoe Bottom in the winter and spring of 2018. As this work progresses, the Commonwealth is committed to avoiding sensitive archaeological sites and minimizing the footprint of station infrastructure overall.

Based on the above past study conclusions, FRA guidance, operational considerations, infrastructure modifications to avoid sensitive resources, and DRPT's commitment to minimize the Project footprint to reduce potential impacts to sensitive cultural and archeological resources around Main Street Station, the Commonwealth's Recommended Preferred Alternative for Area 6 is Build Alternative 6F (Full Service Staples Mill Road / Main Street Stations), as defined in the Draft EIS, and the Commonwealth seeks FRA concurrence to adopt this as the Preferred Alternative for Area 6 through Richmond in the Final EIS for the DC2RVA Project.

Figure 2-1 presents the Commonwealth's Recommended Preferred Alternative and includes a brief summary for each alternative area. A more detailed discussion of DRPT's Recommended Preferred Alternative for each alternative area is provided in the following sections.

ALTERNATIVE AREA 1: ARLINGTON (LONG BRIDGE APPROACH)
Location: CFP 110 - CFP 109.3
Recommendation: Defer selection between Alternative 1A, 1B, and 1C until FRA/DDOT makes a recommendation for additional capacity at Long Bridge
Approximate Length: 1 Mile

ALTERNATIVE AREA 2: NORTHERN VIRGINIA
Location: CFP 109.3 - CFP 062
Recommendation: Alternative 2A
Add a Third or Fourth Track
Approximate Length: 47.3 Miles

ALTERNATIVE AREA 3: FREDERICKSBURG
Location: CFP 062 - CFP 048
Recommendation: Alternative 3B
Add a Third Main Track through City
Approximate Length: 14 Miles

ALTERNATIVE AREA 4: CENTRAL VIRGINIA
Location: CFP 048 - CFP 019
Recommendation: Alternative 4A
Add a Third Main Track
Approximate Length: 29 Miles

ALTERNATIVE AREA 5: ASHLAND
Location: CFP 019 - CFP 009
Recommendation: Alternative 5A Maintain Two Tracks Through Town, Add a Third Main Track north and south of Town
Approximate Length: 10 Miles

ALTERNATIVE AREA 6: RICHMOND
Location: CFP 009 - A011 Centralia
Recommendation: Alternative 6F
Main Street Station
and Staples Mill Road Station
Full Service with S-Line Improvements
Approximate Length: 23 Miles

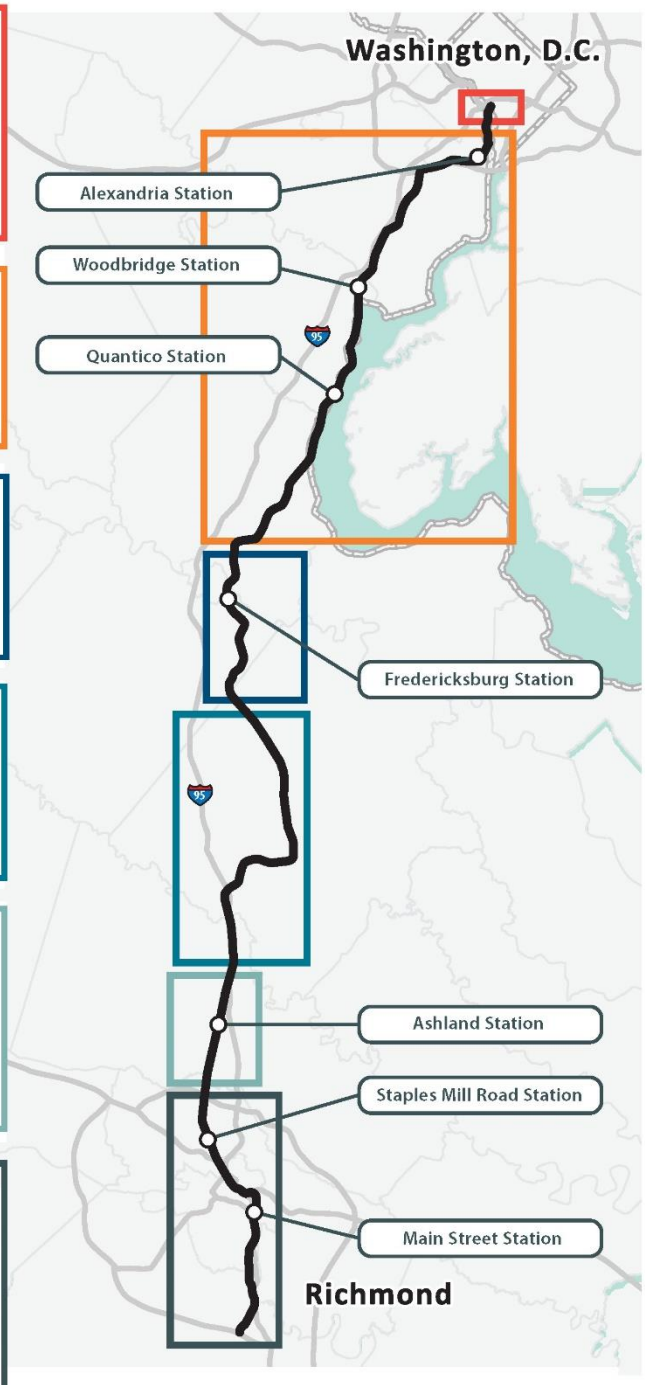


Figure 2-1: Commonwealth Recommended Preferred Alternative

2.3 ALTERNATIVE AREA 1: ARLINGTON LONG BRIDGE APPROACH—CFP 110 TO CFP 109.3

This less than one-mile-long section of the DC2RVA corridor provides the transition between the DC2RVA corridor and the approach to the Long Bridge across the Potomac River. DRPT is working with FRA and DDOT to evaluate possible alternatives for increasing the rail corridor's capacity across the Potomac River via the Long Bridge as part of a separate EIS (Long Bridge Rail Capacity Study, anticipated to be completed in 2019). The DC2RVA Project assumes that expanded capacity across the Potomac River will be required to accommodate both the future year No Build and Build service plans expanded service south of Washington, D.C.

In the Draft EIS, DRPT evaluated three different configurations for the short section of track south of the Potomac River, which will become the connection between the Long Bridge preferred alternative and the DC2RVA corridor. The maximum authorized speed in this section is designed for 45 mph. DRPT considered the environmental, social, and economic impacts of each of the three Build Alternatives, in addition to each alternative's ability to meet the Project Purpose and Need. DRPT determined that each of the three Build Alternatives (1A, 1B, and 1C, as shown in Figure 2-2) are very similar in their impacts, and there are no overriding issues that would drive DRPT to select one over the other. To avoid unnecessarily limiting the options that could be considered as part of the separate FRA/DDOT Long Bridge Project Alternatives Development Report, DRPT determined that any of the three Build Alternatives would be acceptable and recommends **retaining all three Build Alternatives** in order to support a deferred selection of a preferred alternative to

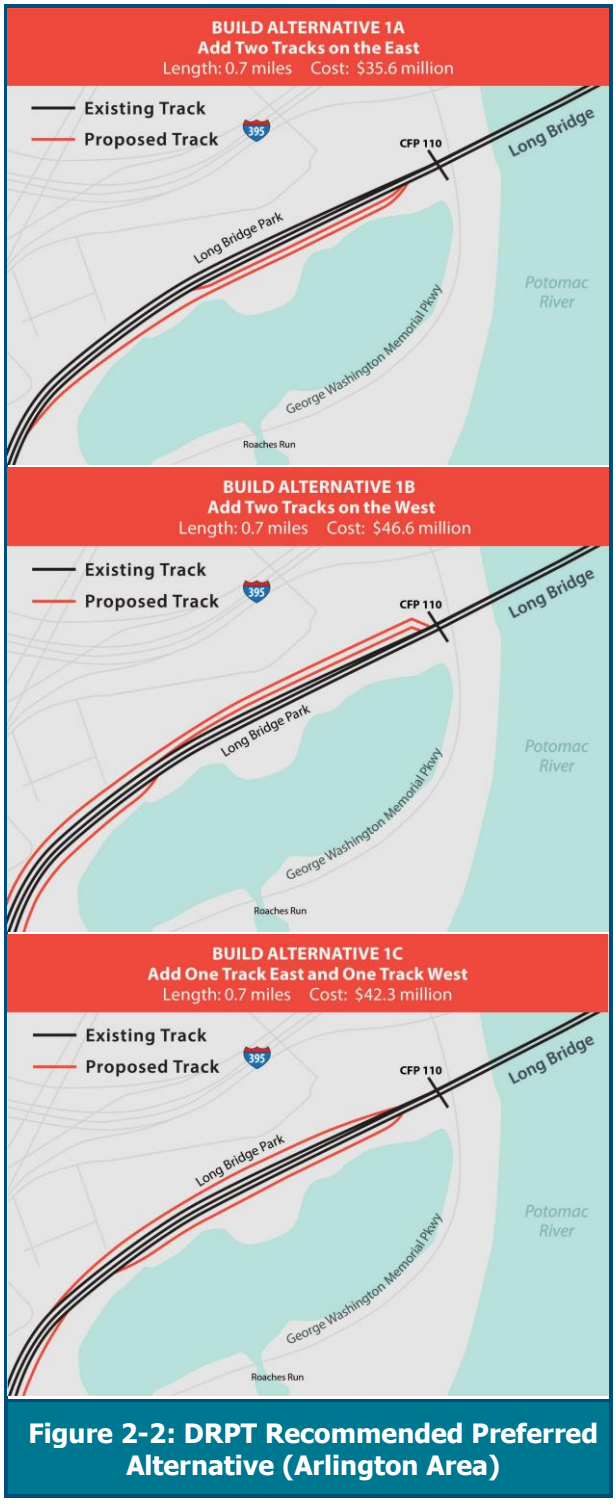


Figure 2-2: DRPT Recommended Preferred Alternative (Arlington Area)

physically align with the preferred alignment of the Long Bridge EIS. DRPT is participating as a cooperating agency in the Long Bridge study.

2.4 ALTERNATIVE AREA 2: NORTHERN VIRGINIA CFP 109.3 TO CFP 62

DRPT determined that additional rail capacity is required in the Northern Virginia area to increase train service and improve reliability. The Draft EIS evaluates the impacts of a single alternative **Build Alternative 2A: Add One Track/Improve Existing Track**. All other alternatives were removed from consideration during the screening process due to their higher levels of impacts to the human and natural environment or they did not meet the Purpose and Need of the Project, as described in the Alternatives Technical Report (Appendix A of the Draft EIS).

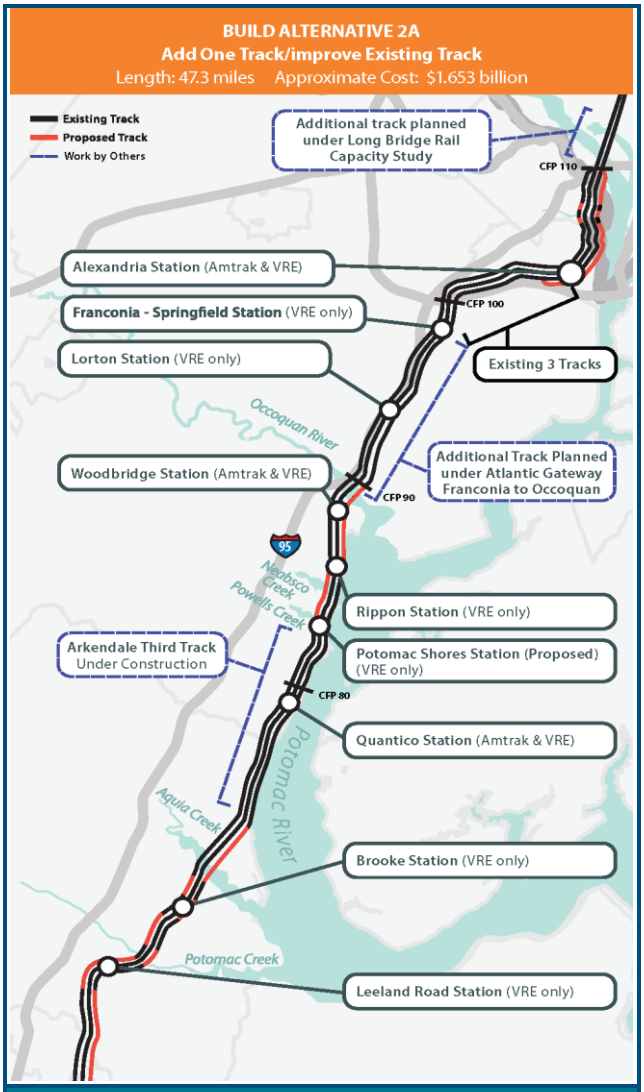


Figure 2-3: DRPT Recommended Preferred Alternative (Northern Virginia Area)

As shown in Figure 2-3, Alternative 2A would construct one additional main line track adjacent to the existing tracks in some sections and no additional track in some sections to create a corridor with four interoperable main tracks north of Alexandria and three interoperable main tracks from Alexandria to Fredericksburg. Due to constraints of the geography through this location, the maximum authorized speed by design in this section is 79 mph.

DRPT determined that because this alternative would generally be located within the existing CSXT right-of-way, it avoids impacts to the natural and human resources to the extent practicable. This alternative does have some unavoidable impacts, including those associated with several new bridge crossings of major waterways. Table 2-1 summarizes the performance of Build Alternative 2A against the Purpose and Need evaluation criteria and its impact on the human and natural environment.

Table 2-1: Evaluation of Northern Virginia Area Alternative Against the Purpose and Need and its Impact on the Human and Natural Environment

Purpose and Need Elements & Summary of Factors Considered[1]	2A. Add One Track/Improve Existing Track
Provide an efficient and reliable multimodal rail corridor	
Impacts to human and natural resources:	
Wetland impacts	**5.19 acres**
Section 4(f) park impacts[2]	**0.04 acres**
Historic properties impacts[2]	**1 property**
Right-of-way acquisition	**33 acres**
Residential relocations	**2 residential relocations**
Commercial relocations	**0**
Optimizes cost:	
Construction costs (2025)[3]	**$1,652.6 million**
Increase the capacity of the multimodal rail system through infrastructure improvements	
Increases multimodal rail capacity	**Yes**
Improve the frequency of passenger rail operations (*Refer to Area 6 Richmond for values)*	
Supports ridership demand within the corridor and beyond	**Yes**
Increases passenger train frequency by up to 9 round trips per day	**Yes**
Improve the reliability of passenger rail operations (*Refer to Area 6 Richmond for values)*	
Passenger Train On-Time Performance (2045 OTP)	**Supports the DC2RVA proposed service plan for on-time performance**
Improve the travel time of passenger rail operations (*Refer to Area 6 Richmond for values)*	
Travel time DC-Richmond	**Supports the DC2RVA proposed service plan for reduced travel time**
Accommodate VRE commuter rail service operations	
Accommodates VRE commuter rail service operations	**Incorporates VRE planned infrastructure improvements at VRE stations and integrates VRE schedules.**
Accommodate freight rail service operations	
Freight time delay (2045)	**Does not increase impacts to freight time delay**
Accommodates rail freight future growth, yard operations, access to local customers, and sidings for crew changes and layovers	**Yes**
Improve modal connectivity with other public transportation systems	
Aligns with FRA and Amtrak guidelines for station facilities, and state and local plans	**Yes**
At-grade crossing total daily delay (% change from No Build)	**1% decrease**
Changes in roadway travel patterns (% change in traffic, adjacent roadways at stations)	**<1%**
Improve multimodal rail operations safety	
Grade-separation of public at-grade crossings	**0**
Closure of public at-grade crossings	**1**
Safety improvements of public at-grade crossings (four quadrant gates and/or median treatment)	**2**
New public crossings	**0**
Provides platform and station improvements	**Yes**
Provides upgrades to signals and communication systems	**Yes**
Improve Air Quality & Reduce Greenhouse Gas Emissions (*Refer to Area 6 Richmond for values)*	
Supports reduction of CO2 emissions	**Yes**
Supports decreases in energy consumption	**Yes**

Notes: 1) Refer to Chapters 2 and 4 of the Draft EIS for complete list of factors evaluated and the evaluation results for each Build Alternative. 2) Other avoidance alternatives do not exist that would meet the Purpose and Need for the DC2RVA Project. 3) Does not include rolling stock.

2.5 ALTERNATIVE AREA 3: FREDERICKSBURG DAHLGREN SPUR TO CROSSROADS—CFP 62 TO CFP 48

DRPT evaluated three Build Alternatives in the Fredericksburg area. The Recommended Preferred Alternative (**Build Alternative 3B: Add One Track East of Existing**, as shown in Figure 2-4) would add a new third main line adjacent to the existing tracks on the east, which would provide the capacity needed to increase train service and improve reliability. Due to constraints of the geography through this location, the maximum authorized speed in this section by design is 79 mph where feasible.

Figure 2-4: DRPT Recommended Preferred Alternative (Fredericksburg Area)

Build Alternative 3A would maintain the existing two tracks through Fredericksburg. DRPT concludes that Build Alternative 3A would not provide the capacity needed to meet the DC2RVA service plan objectives. Build Alternative 3C would construct a two-track bypass to the east of Fredericksburg. While a new bypass would provide the capacity required to meet the DC2RVA service plan objectives, DRPT concludes that, compared with adding a new third main line through Fredericksburg, the bypass alternative would have greater cost and greater impacts to the natural and human environment and would result in more residential relocations.

While the Recommended Preferred Alternative's impacts to historic resources would be greater than the two other Fredericksburg area Build Alternatives, it remains primarily within the existing CSXT right-of-way, and its impacts to wetlands and residential and commercial properties would be substantially lower than the bypass alternative (3C). Both Build Alternatives with additional track include new bridge crossings of the Rappahannock River, a parallel single-track bridge for Build Alternative 3B, and a new double-track bridge for Build Alternative 3C. The construction costs for Build Alternative 3B would be less than the bypass, and Build Alternative 3B is included in the *Fredericksburg Comprehensive Plan*. In summary, DRPT prefers Build Alternative 3B, adding one track in the existing alignment through the city, because it remains primarily within the existing CSXT right-of-way and minimizes overall impacts and costs while still providing improved operations for the DC2RVA corridor. Table 2-2 summarizes the performance of the Fredericksburg area Build Alternatives against the Purpose and Need evaluation criteria and their impact on the human and natural environment.

Table 2-2: Evaluation of Fredericksburg Area Alternatives Against the Purpose and Need and their Impact on the Human and Natural Environment

Purpose and Need Elements & Summary of Factors Considered[1]	Build Alternatives		
	3A. Maintain Two Tracks Through Town	3B. Add One Track East of Existing	3C. Add Two-Track Bypass East
Provide an efficient and reliable multimodal rail corridor			
Impacts to human and natural resources:			
Wetland impacts	5.24 acres	**5.29 acres**	23.82 acres
Section 4(f) park impacts	0	**0**	0
Historic properties impacts (parks and historic properties)[2]	1 property	**5 properties**	1 property
Right-of-way acquisition	2.2 acres	**19.8 acres**	140.5 acres
Residential relocations	0	**0**	19 residential relocations
Commercial relocations	0	**1 commercial relocation**	1 commercial relocation
Optimizes cost:			
Construction costs (2025 $) (millions)[3]	$240.2	**$506.9**	$977.5
Increase the capacity of the multimodal rail system through infrastructure improvements			
Increases multimodal rail capacity	No	**Yes**	Yes
Improve the frequency of passenger rail operations *(Refer to Area 6 Richmond for values)*			
Supports ridership demand within the corridor and beyond	Would not support the DC2RVA proposed service plan of 9 additional round trips	**Supports the DC2RVA proposed service plan of 9 additional round trips**	Supports the DC2RVA proposed service plan of 9 additional round trips
Increases passenger train frequency by up to 9 round trips per day	Yes	**Yes**	Yes
Improve the reliability of passenger rail operations *(Refer to Area 6 Richmond for values)*			
Passenger Train On-Time Performance (2045 OTP)	Does not meet DC2RVA service plan objectives for OTP	**Supports the DC2RVA proposed service plan for on-time performance**	Supports the DC2RVA proposed service plan for on-time performance)
Improve the travel time of passenger rail operations *(Refer to Area 6 Richmond for values)*			
Travel time DC-Richmond	Would not support DC2RVA service plan objectives for improved travel time	**Supports the DC2RVA proposed service plan objectives for improved travel time**	Supports the DC2RVA proposed service plan objectives for improved travel time
Accommodate VRE commuter rail service operations			
Accommodates VRE commuter rail service operations	No	**Yes**	Yes
Accommodate freight rail service operations			
Freight time delay (2045)	Increases freight delay	**Meets DC2RVA objectives for freight impacts**	Increases freight traffic travel time and distance
Accommodates rail freight future growth, yard operations, access to local customers, and sidings for crew changes and layovers	No	**Yes**	Yes

▶ *Continued – see end of table for notes.*

Table 2-2: Evaluation of Fredericksburg Area Alternatives Against the Purpose and Need and their Impact on the Human and Natural Environment

Purpose and Need Elements & Summary of Factors Considered[1]	Build Alternatives		
	3A. Maintain Two Tracks Through Town	3B. Add One Track East of Existing	3C. Add Two-Track Bypass East
Improve modal connectivity with other public transportation systems			
Aligns with FRA and Amtrak guidelines for station facilities, and state and local plans	Yes	**Yes**	Yes
At-grade crossing total daily delay (% change from No Build)	6% increase	**60% decrease**	10% decrease
Changes in roadway travel patterns (% change in traffic, adjacent roadways at stations)	7-8%	**7-8%**	7-8%
Improve multimodal rail operations safety			
Grade-separation of public at-grade crossings	0	**1**	0
Closure of public at-grade crossings	0	**0**	0
Safety improvements of public at-grade crossings (four quadrant gates and/or median treatment)	4	**3**	9
New grade-separated public crossings	0	**0**	5
Provides platform and station improvements	Yes	**Yes**	Yes
Provides upgrades to signals and communication systems	Yes	**Yes**	Yes
Improve Air Quality & Reduce Greenhouse Gas Emissions *(Refer to Area 6 Richmond for values)*			
Supports reduction of CO2 emissions	Yes	**Yes**	Yes
Supports decreases in energy consumption	Yes	**Yes**	Yes

Notes: 1) Refer to Chapters 2 and 4 of the Draft EIS for complete list of factors evaluated and the evaluation results for each Build Alternative. 2) Other avoidance alternatives do not exist that would meet the Purpose and Need for the DC2RVA Project. 3) Does not include rolling stock.

2.6 ALTERNATIVE AREA 4: CENTRAL VIRGINIA CROSSROADS TO DOSWELL—CFP 48 TO CFP 19

DRPT determined that additional rail capacity is required in the Central Virginia area to increase train service and improve reliability. The Draft EIS evaluates the impacts of constructing one additional main line track adjacent to the existing tracks, identified as **Build Alternative 4A: Add One Track/Improve Existing Track** (as shown in Figure 2-5). DRPT prefers this alternative because it would generally be located within the existing CSXT right-of-way, avoids impacts to natural and human resources to the extent practicable, and provides the greatest contiguous section along the DC2RVA corridor with a maximum authorized speed up to 90 mph. All other alternatives were removed from consideration during the screening process due to their higher levels of impacts to the human and natural environment or they did not meet the Purpose and Need of the Project, as described in the Alternatives Technical Report (Appendix A of the Draft EIS).

Table 2-3 summarizes the performance of Build Alternative 4A against the Purpose and Need evaluation criteria and its impact on the human and natural environment.

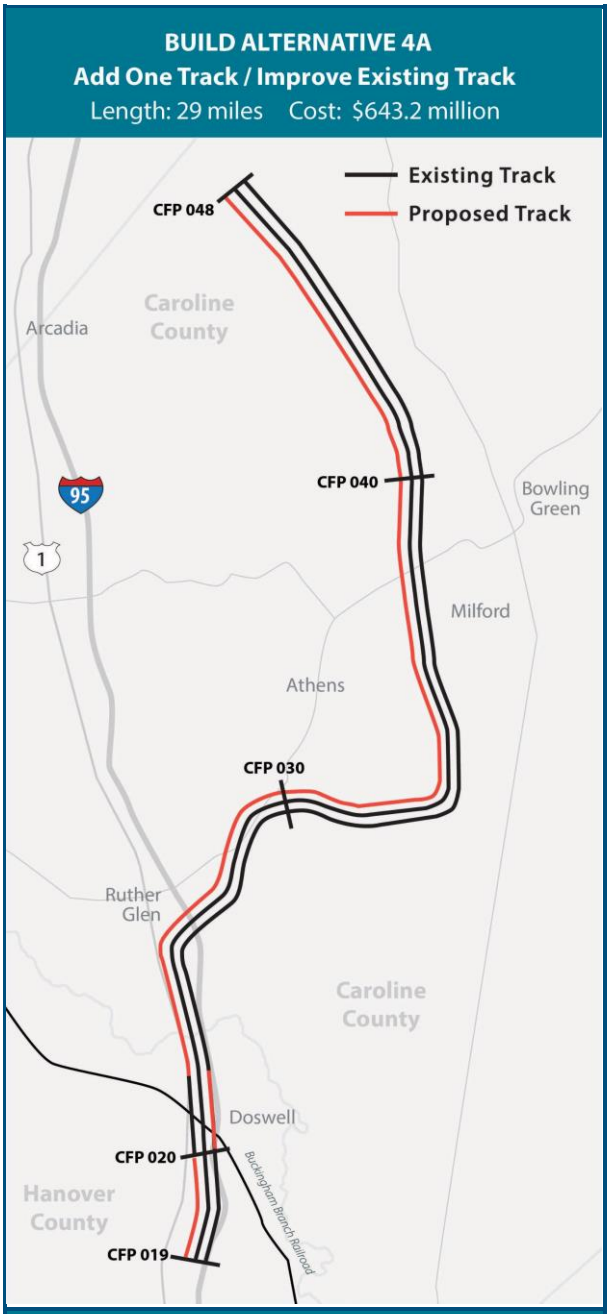


Figure 2-5: DRPT Recommended Preferred Alternative (Central Virginia Area)

Table 2-3: Evaluation of the Central Virginia Area Alternative Against the Purpose and Need and Its Impact on the Human and Natural Environment

Purpose and Need Elements & Summary of Factors Considered[1]	4A. Add One Track/Improve Existing Track
Provide an efficient and reliable multimodal rail corridor	
Impacts to human and natural resources:	
Wetland impacts	**8.39 acres**
Section 4(f) park impacts	**0 acres**
Historic properties impacts (parks and historic properties)[2]	**3 properties**
Right-of-way acquisition	**2.4 acres**
Residential relocations	**0**
Commercial relocations	**0**
Optimizes cost:	
Construction costs (2025 $, millions)[3]	**$643.2 million**
Increase the capacity of the multimodal rail system through infrastructure improvements	
Increases multimodal rail capacity	**Yes**
Improve the frequency of passenger rail operations *(Refer to Area 6 Richmond for values)*	
Supports ridership demand within the corridor and beyond	**Supports the DC2RVA proposed service plan of 9 additional round trips**
Increases passenger train frequency by up to 9 round trips per day	**Yes**
Improve the reliability of passenger rail operations *(Refer to Area 6 Richmond for values)*	
Passenger Train On-Time Performance (2045 OTP)	**Supports the DC2RVA proposed service plan for on-time performance**
Improve the travel time of passenger rail operations *(Refer to Area 6 Richmond for values)*	
Travel time DC-Richmond	**Supports the DC2RVA proposed service plan objectives for improved travel time**
Accommodate VRE commuter rail service operations	
Accommodates VRE commuter rail service operations	**No VRE stations present**
Accommodate freight rail service operations	
Freight time delay (2045)	**Does not increase impacts to freight time delay**
Accommodates rail freight future growth, yard operations, access to local customers, and sidings for crew changes and layovers	**Yes**
Improve modal connectivity with other public transportation systems	
Aligns with FRA and Amtrak guidelines for station facilities, and state and local plans	**No stations in the Central Virginia area**
At-grade crossing total daily delay (% change from No Build)	**6% decrease**
Changes in roadway travel patterns (% change in traffic, adjacent roadways at stations)	**n/a**
Improve multimodal rail operations safety	
Grade-separation of public at-grade crossings	**0**
Closure of public at-grade crossings	**1**
Safety improvements of public at-grade crossings (four quadrant gates and/or median treatment)	**6**
New public crossings	**0**
Provides platform and station improvements	**No stations in the Central Virginia area**
Provides upgrades to signals and communication systems	**Yes**
Improve Air Quality & Reduce Greenhouse Gas Emissions *(Refer to Area 6 Richmond for values)*	
Supports reduction of CO2 emissions	**Yes**
Supports decreases in energy consumption	**Yes**

Notes: 1) Refer to Chapters 2 and 4 of the Draft EIS for complete list of factors evaluated and the evaluation results for each Build Alternative. 2) Other avoidance alternatives do not exist that would meet the Purpose and Need for the DC2RVA Project. 3) Does not include rolling stock.

2.7 ALTERNATIVE AREA 5: ASHLAND DOSWELL TO I-295—CFP 19 TO CFP 9

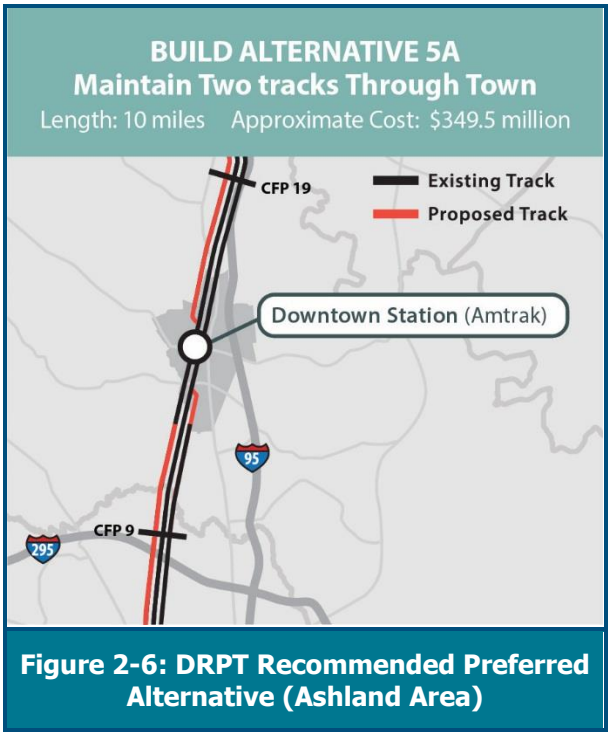


Figure 2-6: DRPT Recommended Preferred Alternative (Ashland Area)

DRPT evaluated seven Build Alternatives in the Ashland/Hanover area in the Draft EIS. As identified in the Draft EIS, DRPT conducted extensive outreach, as discussed in Sections 3.1 and 3.3. The Recommended Preferred Alternative (**Build Alternative 5A: Maintain Two Tracks Through Town** (also known as **"3-2-3"**, as shown in Figure 2-6) would maintain the existing two tracks (i.e., no construction of new track) through Ashland, which would be used by freight and passenger trains similar to current conditions. A station stop in Ashland would remain in town, and two public roadway at-grade crossings in Ashland, West Vaughan Road and Ashcake Road, would be grade separated. All other public roadway and/or pedestrian crossings within town remain at-grade, with safety improvements. One new track would be constructed north and south of town, and there are some shifts of existing tracks to improve speed throughout the area. Rail improvements are generally within existing right-of-way. The maximum authorized speed in this section is designed for 90 mph, where feasible. Existing speed restrictions for all trains operating through the Town of Ashland (35 mph during the day, 45 mph at night) would remain.

Build Alternative 5B and 5B-Ashcake would add a new third main line adjacent to the existing tracks on the east through the Town of Ashland, which generally requires additional railroad right-of-way within the town. Similarly, Build Alternative 5D-Ashcake would require construction of one additional main line track and centering all three main line tracks on the existing alignment through the town, which would require additional right-of-way. In addition, Build Alternatives 5B, 5B-Ashcake and 5D-Ashcake would require closure of a short portion of Railroad Avenue/Center Street, parallel to the railroad corridor. Build Alternative 5C and 5C-Ashcake would construct a two-track bypass to the west of Ashland within Hanover County. While a new bypass would provide the most capacity to support the DC2RVA service plan objectives, DRPT concludes that, compared with adding a new third main line through Ashland, the bypass alternative would have greater cost and greater impacts to natural and human resources and would result in more residential relocations.

Table 2-4 summarizes the performance of the Ashland area Build Alternatives against the Purpose and Need evaluation criteria and their impact on the human and natural environment.

Table 2-4: Evaluation of Ashland Area Alternatives Against the Purpose and Need and Their Impact on the Human and Natural Environment

Purpose and Need Elements & Summary of Factors Considered[1]	Build Alternatives						
	5A. Maintain Two Tracks Through Town	5A–A. Maintain Two Tracks Through Town (Relocate Station to Ashcake)	5B. Add One Track Through Town East of Existing	5B–A. Add One Track Through Town East of Existing (Relocate Station to Ashcake)	5C. Add Two-Track West Bypass	5C–A. Add Two-Track West Bypass (Relocate Station to Ashcake)	5D–A. Three Tracks Centered Through Town (Add One Track, Relocate Station to Ashcake)
Provide an efficient and reliable multimodal rail corridor							
Impacts to human and natural resources:							
Wetland impacts	**0.41 acres**	0.41 acres	0.41 acres	0.45 acres	8.44 acres	8.48 acres	0.45 acres
Section 4(f) park impacts[2]	**0 acres**	0.01 acres	0.03 acres	0.04 acres	0 acres	0.01 acres	0.01 acres
Historic properties impacts[2]	**0 properties**	0 properties	7 properties	7 properties	1 property	1 property	7 properties
Right-of-way acquisition	**21.9 acres**	20.5 acres	29.4 acres	29.9 acres	147.8 acres	146.4 acres	36.4 acres
Residential relocations	**0 residential relocations**	0 residential relocations	0 residential relocations	0 residential relocations	21 residential relocations	21 residential relocations	0 residential relocations
Commercial relocations	**1 Commercial relocation**	1 Commercial relocation	1 Commercial relocation	1 Commercial relocation	1 Commercial relocation	1 Commercial relocation	1 Commercial relocation
Optimizes cost:							
Construction costs (2025)[3] (millions)	**$349.5**	$350.3	$388.3	$388.8	$599.2	$600.0	$398.8
Increase the capacity of the multimodal rail system through infrastructure improvements							
Increases multimodal rail capacity	**Yes**	Yes	Yes	Yes	Yes	Yes	Yes
Improve the frequency of passenger rail operations *(Refer to Area 6 Richmond for values)*							
Supports ridership demand within the corridor and beyond	**Supports the DC2RVA proposed service plan of 9 additional round trips**	Supports the DC2RVA proposed service plan of 9 additional round trips	Supports the DC2RVA proposed service plan of 9 additional round trips	Supports the DC2RVA proposed service plan of 9 additional round trips	Supports the DC2RVA proposed service plan of 9 additional round trips	Supports the DC2RVA proposed service plan of 9 additional round trips	Supports the DC2RVA proposed service plan of 9 additional round trips
Increases passenger train frequency by up to 9 round trips per day	**Yes**	Yes	Yes	Yes	Yes	Yes	Yes

▶ *Continued – see end of table for notes.*

Purpose and Need Elements & Summary of Factors Considered[1]	Build Alternatives						
	5A. Maintain Two Tracks Through Town	5A–A. Maintain Two Tracks Through Town (Relocate Station to Ashcake)	5B. Add One Track Through Town East of Existing	5B–A. Add One Track Through Town East of Existing (Relocate Station to Ashcake)	5C. Add Two-Track West Bypass	5C–A. Add Two-Track West Bypass (Relocate Station to Ashcake)	5D–A. Three Tracks Centered Through Town (Add One Track, Relocate Station to Ashcake)
Improve the reliability of passenger rail operations *(Refer to Area 6 Richmond for values)*							
Passenger Train On-Time Performance (2025 OTP): Meets DC2RVA proposed service plan for on-time performance)	**Yes**	Yes	Yes	Yes	Yes	Yes	Yes
Improve the travel time of passenger rail operations *(Refer to Area 6 Richmond for values)*							
Supports the DC2RVA Proposed Service Plan Objectives for Improved Travel Time	**Yes**	Yes	Yes	Yes	Yes	Yes	Yes
Accommodate VRE commuter rail service operations by incorporating planned infrastructure and operational improvements							
Accommodates VRE commuter rail service operations	N/A (No VRE Stations Present in Ashland Area 5)						
Accommodate freight rail service operations							
Freight time delay (2025): Meets DC2RVA objectives for freight impacts	**Yes**	Yes	Yes	Yes	Yes	Yes	Yes
Accommodates rail freight future growth, yard operations, access to local customers, and sidings for crew changes and layovers	**Yes**	Yes	Yes	Yes	Yes	Yes	Yes

▶ *Continued – see end of table for notes.*

Improve modal connectivity with other public transportation systems							
Aligns with FRA and Amtrak guidelines for station facilities, and state and local	**Yes**	Yes	Yes	Yes	Yes	Yes	Yes

Purpose and Need Elements & Summary of Factors Considered[1]	Build Alternatives						
	5A. Maintain Two Tracks Through Town	5A–A. Maintain Two Tracks Through Town (Relocate Station to Ashcake)	5B. Add One Track Through Town East of Existing	5B–A. Add One Track Through Town East of Existing (Relocate Station to Ashcake)	5C. Add Two-Track West Bypass	5C–A. Add Two-Track West Bypass (Relocate Station to Ashcake)	5D–A. Three Tracks Centered Through Town (Add One Track, Relocate Station to Ashcake)
plans							
At-grade crossing total daily delay (% change from No Build)	**24% decrease**	24% decrease	26% decrease	26% decrease	87% decrease	87% decrease	26% decrease
Changes in roadway travel patterns (% change in traffic, adjacent roadways at stations)	**<1%**	<1%	<1%	<1%	<1%	<1%	<1%
Improve multimodal rail operations safety							
Grade-separation of existing public at-grade crossings	**2**	2	2	2	0	0	2
Closure of existing public at-grade crossings	**1**	0	1	0	1	0	0
Safety improvements of existing public at-grade crossings (four quadrant gates and/or median treatment)	**8**	9	8	9	10	11	9
New public at-grade crossings	**0**	0	0	0	8	8	0
Provides platform and station improvements	**Yes**	Yes	Yes	Yes	Yes	Yes	Yes
Provides upgrades to signals and communication systems	**Yes**	Yes	Yes	Yes	Yes	Yes	Yes
Improve Air Quality & Reduce Greenhouse Gas Emissions *(Refer to Area 6 Richmond for values)*							
Supports reduction of CO2 emissions	**Yes**	Yes	Yes	Yes	Yes	Yes	Yes
Supports decreases in energy consumption	**Yes**	Yes	Yes	Yes	Yes	Yes	Yes

Notes: 1) Refer to Chapters 2 and 4 of the Draft EIS for complete list of factors evaluated and the evaluation results for each Build Alternative. 2) Alternative 5A is the Preferred Alternative because no other avoidance alternatives exist that meet the Purpose and Need for the DC2RVA Project. 3) Does not include rolling stock. DRPT developed operating and maintenance costs and estimates of revenue, but neither were differentiators between the Build Alternatives and were therefore not used by DRPT in selecting the Recommended Preferred Alternative.

2.8 ALTERNATIVE AREA 6: RICHMOND I-295 TO CENTRALIA—CFP 9 TO A011

DRPT evaluated two primary route alignment alternatives for the Richmond area, with one passing west of downtown on the CSXT A-Line and another passing through downtown via the CSXT S-Line, to determine which route was best capable of providing the capacity required to support the DC2RVA Purpose and Need. In addition to the routing options, DRPT evaluated four unique station locations with eight different station service alternatives in the Richmond area serving multiple route and station combinations. The eight station service alternatives included five single-station alternatives that would consolidate passenger service to one station, and three two-station alternatives that offer combinations of services and rail line routes using Main Street Station and Staples Mill Road Station:

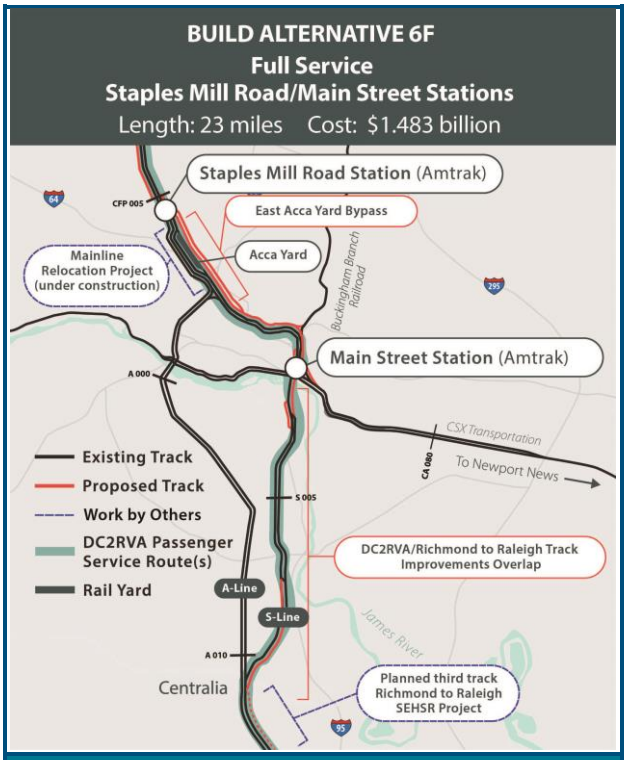


Figure 2-7: DRPT Recommended Preferred Alternative (Richmond Area)

- Single-Station Build Alternatives:
  - 6A: Staples Mill Road Station Only
  - 6B–A-Line: Boulevard Station Only, A-Line
  - 6B–S-Line: Boulevard Station Only, S-Line
  - 6C: Broad Street Station Only
  - 6D Main Street Station Only
- Two-Station Build Alternatives:
  - 6E: Split Service, Staples Mill Road/Main Street Stations
  - 6F: Full Service, Staples Mill Road/Main Street Stations
  - 6G: Shared Service, Staples Mill Road/Main Street Station

To develop the most viable alternatives, DRPT engaged in discussions with CSXT, the City of Richmond, Henrico County, and Chesterfield County, as well as the Richmond Transportation Planning Organization. In addition, DRPT held three public meetings and a formal public hearing in Richmond.

DRPT recognizes that a major advantage of passenger rail is the capability to provide the traveling public with a connection to Richmond's downtown. Both FRA and Amtrak also recognize the importance of a connection to the urban core. FRA's Corridor Planning Guidance Manual states that "(each) city should have a station located in or near the central business district." DRPT is committed to maximizing the value of intercity passenger rail by connecting the DC2RVA corridor to the governmental, commercial, and residential population in downtown Richmond. However, DRPT also recognizes that Richmond's Staples Mill Road

Station currently has the highest ridership volumes of any passenger rail station in Virginia, in part due to the higher level of train service at the station. DRPT reviewed the cost estimates, level of impacts, and ridership projections, and determined that having both a downtown station and a suburban station would best meet the Purpose and Need. DRPT determined that **Build Alternative 6F: Full Service, Staples Mill Road/Main Street Stations** provides the most optimal solution for providing downtown Richmond rail service at Main Street Station and convenient connections to Richmond's transit system, including multiple bus routes and the new Bus Rapid Transit (BRT) system under construction along Broad Street. By nature of the respective environments of each location, Main Street Station would provide expanded multimodal connectivity, while Staples Mills Road Station could continue to accommodate the parking needs of regional rail passengers who are not located in the downtown Richmond area (see Figure 2-7). The two-station service in Build Alternative 6F also reflects FRA's Guidance Manual for Railroad Corridor Transportation Plans (2005), which states that "each city should have a station located in or near the central business district," but also that "one or more suburban stations need to be provided in the larger metropolitan areas."[1]

In this alternative, all Long-Distance, Interstate Corridor, and Northeast Regional passenger trains moving north-south through Richmond would be routed through Staples Mill Road Station to the west side of Main Street Station and then to Centralia using the S-Line. The Northeast Regional service to Newport News would continue to use the east side of Main Street Station on the Peninsula Subdivision line. This alternative includes improvements between Greendale and Centralia along the S-Line and includes station and service improvements at Main Street Station, an additional bridge crossing of the James River, an east bypass of Acca Yard, and station and service improvements at Staples Mill Road Station. With all intercity passenger trains (with the exception of Amtrak's Auto Train) serving Downtown Richmond via the CSXT S-Line, the CSXT A-Line will become a primarily freight route bypassing downtown and reducing delays for both services. Therefore, DRPT has determined that Build Alternative 6F is the Recommended Preferred Alternative for the Richmond area.

Table 2-5 summarizes the performance of the Richmond Area Build Alternatives against the Purpose and Need evaluation criteria and their impact on the human and natural environment.

1 FRA Railroad Corridor Transportation Plans, https://www.fra.dot.gov/eLib/Details/L04161

Table 2-5: Evaluation of Richmond Area Alternatives Against the Purpose and Need and Their Impact on the Human and Natural Environment

Purpose and Need Elements & Summary of Factors Considered[1]	Build Alternatives							
	Richmond Single-Station Options					Richmond Two-Station Options		
	6A. Staples Mill Road Station Only	6B–A-Line. Boulevard Station Only A-Line	6B–S-Line. Boulevard Station Only S-Line	6C. Broad Street Station Only A-Line	6D. Main Street Station Only S-Line	6E. Split Service–Staples Mill Road/Main Street Stations	6F. Full Service–Staples Mill Road/Main Street Stations	6G. Shared Service–Staples Mill Road/Main Street Stations
Provide an efficient and reliable multimodal rail corridor								
Impacts to human and natural resources:								
Wetland impacts	3.21 acres	2.91 acres	3.47 acres	2.99 acres	3.47 acres	3.31 acres	**3.52 acres**	3.74 acres
Section 4(f) park impacts[2]	0.19 acres	0.19 acres	0.17 acres	0.19 acres	0.17 acres	0.19 acres	**0.17 acres**	0.17 acres
Historic properties impacts[2]	8 properties	16 properties	16 properties	16 properties	10 properties	7 properties	**10 properties**	13 properties
Right-of-way acquisition	76.0 acres	101.0 acres	78.7 acres	128.1 acres	73.7 acres	89.1 acres	**83.0 acres**	81.0 acres
Residential relocations	12 residential relocations	12 residential relocations	7 residential relocations	112 residential relocations	7 residential relocations	12 residential relocations	**7 residential relocations**	7 residential relocations
Commercial relocations	10 Commercial relocations	18 Commercial relocations	10 Commercial relocations	15 Commercial relocations	10 Commercial relocations	10 Commercial relocations	**10 Commercial relocations**	10 Commercial relocations
Optimizes cost:								
Construction costs (2025)[3] (millions)	$1,087.7	$1,524.1	$1,451.2	$1,488.7	$1,323.5	$1,266.5	**$1,482.9**	$1,599.1
Increase the capacity of the multimodal rail system through infrastructure improvements								
Increases multimodal rail capacity	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**	Yes
Improve the frequency of passenger rail operations								
Annual Ridership, DC-Richmond (2025) (millions)	2.579	2.509	2.509	2.474	2.521	2.519	**2.553**	2.556
Annual Ridership, DC-Richmond (2045) (millions)	3.295	3.203	3.203	3.160	3.213	3.218	**3.258**	3.261

▶ *Continued – see end of table for notes.*

Increases passenger train frequency	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**	Yes

Purpose and Need Elements & Summary of Factors Considered[1]	Build Alternatives							
	Richmond Single-Station Options					Richmond Two-Station Options		
	6A. Staples Mill Road Station Only	6B–A-Line. Boulevard Station Only A-Line	6B–S-Line. Boulevard Station Only S-Line	6C. Broad Street Station Only A-Line	6D. Main Street Station Only S-Line	6E. Split Service–Staples Mill Road/Main Street Stations	6F. Full Service–Staples Mill Road/ Main Street Stations	6G. Shared Service–Staples Mill Road/ Main Street Stations
by up to 9 round trips per day								
Supports ridership demand within the corridor and beyond	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**	Yes
Improve the reliability of passenger rail operations								
Passenger Train On-Time Performance (2045 OTP): Meets DC2RVA proposed service plan for on-time performance[4,5]	No	No	Yes	No	No	No	**Yes**	No
Operational Impacts (passenger train delay and freight conflicts) [3,4]	High	Low	Low	Moderate	Moderate	Low	**Low**	Moderate
Improve the travel time of passenger rail operations								
Travel time DC–Richmond (hour:minute)[6]	1:50	1:56	1:56	2:01	2:06	1:50	**2:15**	2:15
Reduces current passenger train trip time DC-Richmond?	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**	Yes
Accommodate VRE commuter rail service operations by incorporating planned infrastructure and operational improvements								
Accommodates VRE commuter rail service operations	N/A (No VRE Stations Present in Richmond Area 6)							
Accommodate freight rail service operations								
Freight time delay (2045) (minutes of delay per 100 train-miles) [4,5]	11.5	12	9	12	11	12	**9**	12
Accommodates rail freight future growth, yard operations, access to local customers, and sidings for crew changes and layovers	No	No	Yes	No	Yes	No	**Yes**	No

▶ *Continued – see end of table for notes.*

Purpose and Need Elements & Summary of Factors Considered[1]	Build Alternatives							
	Richmond Single-Station Options					Richmond Two-Station Options		
	6A. Staples Mill Road Station Only	6B–A-Line. Boulevard Station Only A-Line	6B–S-Line. Boulevard Station Only S-Line	6C. Broad Street Station Only A-Line	6D. Main Street Station Only S-Line	6E. Split Service–Staples Mill Road/Main Street Stations	6F. Full Service–Staples Mill Road/ Main Street Stations	6G. Shared Service–Staples Mill Road/ Main Street Stations
Improve modal connectivity with other public transportation systems								
Aligns with FRA and Amtrak guidelines for station facilities, and state and local plans	No. Does not meet FRA downtown station guidelines.	No. Does not meet FRA downtown station guidelines.	No. Does not meet FRA downtown station guidelines.	No. Does not meet FRA downtown station guidelines.	Yes	Yes	**Yes**	Yes
At-grade crossing total daily delay (% change from No Build)	66% decrease	66% decrease	76% decrease	38% decrease	59% decrease	66% decrease	**59% decrease**	60% decrease
Changes in roadway travel patterns (% change in traffic, adjacent roadways at stations)	2%	5%	5%	5%	4%	1 to 2%	**1 to 2%**	1 to 2%
Improve multimodal rail operations safety								
Grade-separation of public at-grade crossings	3	3	4	3	3	3	**3**	3
Closure of public at-grade crossings	4	4	5	4	5	4	**5**	5
Safety improvements of public at-grade crossings (four quadrant gates and/or median treatment)	3	3	7	4	8	3	**8**	8
New public at-grade crossings[7]	0	0	0	2	0	0	**0**	0
Provides platform and station improvements	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**	Yes
Provides upgrades to signals and communication systems	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**	Yes

▶ *Continued – see end of table for notes.*

Purpose and Need Elements & Summary of Factors Considered[1]	Build Alternatives							
	Richmond Single-Station Options					Richmond Two-Station Options		
	6A. Staples Mill Road Station Only	6B–A-Line. Boulevard Station Only A-Line	6B–S-Line. Boulevard Station Only S-Line	6C. Broad Street Station Only A-Line	6D. Main Street Station Only S-Line	6E. Split Service–Staples Mill Road/Main Street Stations	6F. Full Service–Staples Mill Road/ Main Street Stations	6G. Shared Service–Staples Mill Road/ Main Street Stations
Improve Air Quality & Reduce Greenhouse Gas Emissions								
CO_2 Emissions, Change Compared to No Build (tons per year, 2025)	-6,696	-6,003	-6,003	-5,663	-5,947	-6,051	**-6,518**	-6,869
Energy Consumption, Change Compared to No Build (Billions of BTUs, 2025)	-307	-277	-277	-265	-280	-286	**-293**	-299

Notes: 1) Refer to Chapter 2 and Chapter 4 of the Draft EIS for complete list of factors evaluated and the evaluation results for each Build Alternative. 2) Other avoidance alternatives do not exist that would meet the Purpose and Need for the DC2RVA Project. 3) Does not include rolling stock. 4) Fredericksburg and Ashland operations data assumes use of Richmond Alternative 6F. 5) Richmond operations data assumes construction of the recommended alternatives for each of the sections and additional third main track capacity through Ashland. A Boulevard Station S-Line option (all trains via S-Line and East Acca bypass) was not modeled, but is assumed by DRPT to have similar operating parameters as Alternative 6D Main Street Station. 6) Travel times are for limited stop southbound Interstate Corridor (SEHSR) trains only from Washington Union Station to the station closest to downtown Richmond. Northbound Interstate Corridor trains are about 2 minutes longer. Regional trains, which make more stops, operate 6 to 8 minutes longer. 7) New at-grade crossings would require a variance of Virginia State Code and/or coordination with VDOT.

DRPT developed operating and maintenance costs and estimates of revenue, but neither were differentiators between the Build Alternatives and were therefore not used by DRPT in selecting the Recommended Preferred Alternative.

3 REFINED OPERATIONS ANALYSIS MODELING

3.1 OPERATIONS MODELING OVERVIEW

3.1.1 Background and Federal Requirements of Operations Simulations in Passenger Projects

DRPT conducted computer-based operations simulations (also known as operations modeling) to estimate rail performance in the corridor, in order to estimate if alternatives defined in the Draft EIS might be anticipated to provide the infrastructure capacity and service performance necessary to meet the Purpose and Need of the DC2RVA Project. This work was conducted using Rail Traffic Controller (RTC) simulation software.

Operations modeling is conducted to compare rail performance under different scenarios to simulate existing and future railroad operations. The rail performance results generated from the simulations are estimates, not guarantees, and U.S. railroad companies use the performance estimates that are generated as a tool to determine trends in operational performance between different infrastructure alternatives, rather than focusing on the exact performance estimate generated by the software.

The goals of the operations modeling conducted by DRPT for the DC2RVA Project were to:

- Estimate the operating performance of:
  - Existing and proposed intercity passenger service,
  - Existing and planned VRE commuter rail service, and
  - Existing and forecasted CSXT freight service.
- Estimate the ability of infrastructure proposed for the DC2RVA Corridor to provide the capacity and service performance necessary for intercity passenger trains identified in the Purpose and Need for the Project while not unduly or unreasonably interfering with the performance of freight and commuter rail passenger trains.

DRPT used the intercity passenger and freight train performance goals established under Section 207 of the Passenger Rail Investment and Improvement Act of 2008 (PRIIA) and published in the Federal Register as the Metrics and Standards for Intercity Passenger Rail Service as base guidelines for the performance thresholds in DRPT's operations modeling. Under PRIIA, intercity passenger rail projects must provide for a sufficient level of infrastructure that will:

- Enable the existing and proposed passenger rail service to run on time; i.e., achieve 90 percent or better on-time performance for all NEC Regional and state-supported passenger trains and 85 percent for Long Distance trains operating outside the NEC.

- Accommodate and allow for the future growth of existing and projected intercity, commuter, and freight rail service.
- Not unreasonably delay the freight operations of the host railroad on account of the proposed additional passenger train frequencies.

DRPT applied a threshold of 90 percent on-time performance for all existing and proposed passenger and commuter trains in the DC2RVA corridor. In addition, the DC2RVA Project Purpose and Need specifically includes a goal of being able to reliably accommodate 18 additional intercity passenger trains (nine round-trips), as well as reduce travel time and accommodate freight growth.

3.1.2 Passenger and Freight Train Performance Goals

PRIIA's performance goals for intercity passenger trains are for all passenger trains, except Long Distance trains, to arrive on-time at each station ("all-stations" performance) and at corridor endpoints ("endpoint" performance) at least 90 percent of the time. On-time, as defined by PRIIA, means arrival at a station at the scheduled time or within a set "late tolerance" period following the scheduled time. The length of the late tolerance period varies by the type of intercity passenger service and the total distance between the train's scheduled endpoints. For most intercity passenger trains operating on the DC2RVA corridor, the PRIIA standard is for the train to arrive at its end-point station within 10 minutes of its published schedule. In this analysis, DRPT defined the end-point stations as follows: Washington, D.C. for all northbound trains; Petersburg, VA (Ettrick) for all trains operating south of Richmond, VA; and Richmond Main Street Station for all trains terminating in Richmond or extending east to Newport News.

PRIIA's performance goal for freight service is for intercity passenger rail service to not unduly or unreasonably delay the movement of freight. The performance of freight trains is compared for different alternatives by estimating future freight train delay under the 2045 Build Alternatives with the 2045 No-Build Alternative. Freight train delay is measured as minutes of delay per train, per 100 train-miles. This metric compares the simulated time a freight train took to cover its route inclusive of interactions with other trains, passenger and freight, compared to the time the freight train would have taken to cover its route had it encountered no delays en-route.

3.2 OPERATIONS MODELING CONDUCTED FOR DC2RVA

3.2.1 Purpose and Phases of Operations Modeling Conducted for DC2RVA Project

The purpose of the operations analysis undertaken by DRPT for the DC2RVA Project was to use computer-based operations simulations to estimate the operational performance of intercity passenger, freight, and commuter trains under four different "build case" operations simulations that were identified by DRPT, as well as a "No Build case" to which the four build case simulations were compared.

Preliminary Operations Modeling to Compare Local Alternatives. During the preparation of the Draft EIS, DRPT conducted several preliminary operations simulations that evaluated multiple infrastructure alternatives in the Ashland area, including alternatives with two tracks

and three tracks. DRPT evaluated these preliminary operations simulations against the Project's need to accommodate an additional 18 intercity passenger trains per day (nine round-trips), accommodate projected CSXT freight growth, and meet PRIIA's passenger and freight train on-time performance targets through 2045. The train performance estimates derived by DRPT from this preliminary work suggested that either a third main track through Ashland or a two-track bypass around Ashland would provide the highest likelihood that trains throughout the Project corridor would meet their performance goals under the service level and schedule projected. FRA staff also expressed concern regarding the incorporation of a modeling assumption that enabled commuter and passenger trains to use any available mainline track and station platform when operating within the corridor, rather than applying an operating protocol that directed passenger and commuter trains to use specific tracks and station platforms in a consistent operating pattern when traveling within the corridor. DRPT therefore determined that other rail infrastructure and service scenarios should be considered, perhaps in concert with schedule modifications, which could also achieve the Project's Purpose and Need goals.

Service Assumptions. The following service assumptions for intercity passenger, commuter, and freight trains were used for scenarios modeled as part of the Phase 1 "Refined Operations Analysis" and Phase 2 "Network-Wide Analysis) simulations conducted for the DC2RVA Project in 2017.

- Future Amtrak intercity passenger services were modeled based on the following assumptions of increased service frequencies:
  - Eighteen additional intercity passenger trains per day (nine new round trips) between Washington, D.C. and Richmond, which is the service increase proposed by the DC2RVA Project.
  - Two additional intercity passenger trains between Washington, D.C. and Lynchburg. South of Washington, D.C. these trains exit the DC2RVA Corridor south of Alexandria station. These trains are included in the No-Build Alternative as they are fully-funded and presumed to be introduced regardless of whether or not the DC2RVA Project is implemented.
  - An increase in Cardinal long-distance service between Washington, D.C. and Chicago from three times per week in each direction to once per day in each direction. South of Washington, D.C., these trains exit the DC2RVA Corridor at Alexandria. This service is included in the No-Build Alternative as the increase is presumed to occur regardless of whether or not the DC2RVA Project is implemented.
  - No additional changes in intercity passenger trains would occur between the DC2RVA Project's proposed implementation year of 2025 and the horizon year of 2045.
- All intercity passenger trains in Richmond (Alternative Area 6) used the "Full Service, Staples Mill Road/Main Street Stations" infrastructure and service alternative.
- All existing and new Virginia-supported Northeast Regional passenger trains made a station stop at each Amtrak station in the corridor, including Ashland, and excluding the Lorton Auto Train station.
- Future VRE commuter train services were modeled based on the following assumptions:
  - VRE commuter train frequencies were assumed to increase from 34 weekday trains in 2015 to a projected 38 weekday trains for the years 2025 through 2045. These trains

are included in the No-Build Alternative as they are fully-funded and presumed to be introduced regardless of whether or not the DC2RVA Project is implemented.

- Future increases in CSXT freight train services were modeled based on the following assumptions of forecasted freight growth:
  - To forecast freight train growth from existing (2015) levels, DRPT solicited input from CSXT about future increases in freight traffic in the corridor for the future years 2025 and 2045. DRPT used the U.S. Department of Transportation's Freight Analysis Framework to forecast how rail freight traffic in the corridor would increase and change in 2025 and 2045.
  - CSXT freight growth is independent of the DC2RVA Project and is presumed to occur by itself regardless of whether or not the DC2RVA Project is implemented. These trains are included in the No-Build Alternative as they reflect the DRPT forecast estimates and presumed to be introduced regardless of whether or not the DC2RVA Project is implemented.
    CSXT actual freight growth will be driven by market forces and may be greater or less than the projected growth rates.

Phase 1: "Refined Operations Analysis." The purpose of the refined operations analysis was to improve the performance results of all trains operating on the corridor by applying modifications to the proposed infrastructure and operating plan based on assessments of the preliminary operations modeling assumptions and results. The Refined Operations Analysis simulations had the following objectives and characteristics:

- Measurement of passenger and freight train performance focused on performance within the DC2RVA Corridor, rather than the entire DC2RVA Modeling Limits, which included contiguous sections of shared-use track north and south of the corridor.
- Review and revise the configuration of the proposed infrastructure to improve operational consistency and performance along the corridor:
  - Changes to the Project's proposed track infrastructure, in particular reconfigured crossovers, sidings, and station platforms.
- Review and revise the operating characteristics and assumptions applied to the model to reduce delays associated with schedule conflicts:
  - Incorporation of a platform assignment plan for intercity passenger and commuter trains operating within the corridor.
  - Revise intercity passenger train schedules between Washington and Richmond, where feasible, to capture changes in passenger train running times and recovery times made to enable trains to achieve PRIIA-mandated on-time performance goals in normal real-world operation under the revised corridor infrastructure and platform assignment plan described above.

Phase 2: "Network-Wide Analysis." The work in this phase consisted of running operations simulations to estimate potential effects to passenger, freight, and commuter train performance within a larger territory of shared-use track in the Northeastern United States, to estimate the potential effects of the Project on rail operations in territory adjacent to the DC2RVA corridor. The Network-Wide Analysis simulations had the following characteristics:

- The revised infrastructure, operating, and train schedule modifications made for the Phase 1 modeling were applied in the Phase 2 modeling.
- Passenger and freight train performance were measured across a larger portion of the shared-use rail network, which included contiguous sections of track in the Northeastern United States programmed into the simulation software that constituted the DC2RVA Modeling Limits.
  - Performance was measured on a shared-use network of track stretching from Philadelphia, PA, and Cumberland, MD, to Newport News, VA, and Rocky Mount, NC.
- Additional freight train performance outputs were generated.

3.2.2 Modeling Scenarios for Phases 1 and 2

The modeling scenarios simulated by DRPT were identical for Phases 1 and 2 and consisted of the following four build cases and one No Build case. In all cases described below, the infrastructure alternatives were tested for proposed operations in the year 2045, which represents the concluding year of a 20-year horizon for the Project, based on the Project's proposed implementation year of 2025.

1. **DC2RVA 2045 No Build:** This case measured performance on the DC2RVA corridor with the No Build infrastructure and no-build train operations (without adding 18 new intercity passenger trains) identified in the DC2RVA Draft EIS.
2. **DC2RVA 2045 Build:** This Build case measured performance on the DC2RVA corridor with infrastructure that reflects the Commonwealth's Recommended Preferred Alternative for the full length of the DC2RVA corridor with three main tracks from Alexandria to Richmond Staples Mill Road, with a test of the three-track alternatives in Area 5 (Alternatives 5B, 5B-Ashcake, and 5D-Ashcake) through Ashland. This case included 18 new intercity passenger trains (nine round-trip) in addition to the no-build train operations.
3. **DC2RVA 2045 Build, 2 tracks Ashland:** This Build case measured performance on the DC2RVA corridor with infrastructure that reflects the Commonwealth's Recommended Preferred Alternative for the full length of the DC2RVA corridor with three main tracks from Alexandria to Richmond Staples Mill Road, with a test of the two-track alternative in Area 5 (Alternative 5A, also known as "3-2-3"). This case includes a reduction to two main tracks for two miles through the Town of Ashland. This case included 18 new intercity passenger trains (nine round-trip) in addition to the no-build train operations.
4. **DC2RVA 2045 Build, 2 tracks Ashland + Track Out of Service North (MOW Outage):** This Build case measured performance on the DC2RVA corridor with infrastructure that reflects the Commonwealth's Recommended Preferred Alternative for the full length of the DC2RVA corridor with three main tracks from Alexandria to Richmond Staples Mill Road, with a test of the two-track alternative in Area 5 (Alternative 5A, also known as "3-2-3"). This case included a reduction to two main tracks for two miles through the Town of Ashland as well as an additional segment of track taken out of service for maintenance north of Crossroads. This case included a randomly selected segment of approximately 10 miles in length between Alexandria and Crossroads that would be

taken out of service in order to test the response of the network to a daytime maintenance-of-way (*i.e.*, rail upkeep and repair) outage. In this case, the 10-mile section would have two main tracks during the maintenance-of-way outage and three main tracks at other times. This case included 18 new intercity passenger trains (nine round-trip) in addition to the no-build train operations.

5. **DC2RVA 2045 Build, 2 tracks south of Crossroads:** This Build case measured performance on the DC2RVA corridor with infrastructure that reflects a modification to the Commonwealth's Recommended Preferred Alternative with three main tracks from Alexandria to Crossroads, and reduced to two main tracks from Crossroads to Richmond Staples Mill Road. This case included 18 new intercity passenger trains (nine round-trip) in addition to the no-build train operations.

3.2.3 Results of Phase 1 and Phase 2 Modeling

Table 3-1 summarizes the modeling results from the "Phase 1 Refined Operations Analysis" simulations undertaken by DRPT. In the Build Case of Alternative 5A, with three main tracks from Alexandria to Richmond Staples Mill Road and with a constrained two-track alignment in Area 5 through Ashland (the middle column of the five-case result columns), the model estimated that Regional and Interstate Corridor passenger trains in this case cumulatively met the PRIIA passenger train endpoint on-time performance target of 90 percent and the passenger train all-stations on-time performance target of 90 percent, and cumulative freight train performance, measured in delay minutes per 100 train-miles, had a decrease of 2.4 minutes from the No Build case performance estimate.

Table 3-1: Summary of Phase 1 Refined Operations Analysis Modeling Results (Averaged Results from 5 Randomized Cases)

Case	DC2RVA 2045 No Build	DC2RVA 2045 Build	DC2RVA 2045 Build 2 Tracks in Ashland	DC2RVA 2045 Build 2 Tracks in Ashland + Track out-of-Service	DC2RVA 2045 Build with 2 Tracks South of Crossroads
Infrastructure Tested	No Build	3 Tracks south of Alexandria	3 Tracks south of Alexandria, except 2 tracks through Ashland	3 Tracks south of Alexandria, except 2 tracks through Ashland, with 1 track out of service north of Fredericksburg	3 Tracks south of Alexandria, and 2 tracks south of Crossroads
Passenger Train End-Point On-Time Performance (OTP), Petersburg to Washington Union Station					
Amtrak Long-Distance Intercity Passenger Train OTP	69.6%	95.8%	97.2%	96.9%	97.1%

▶ *Continued*

Table 3-1: Summary of Phase 1 Refined Operations Analysis Modeling Results (Averaged Results from 5 Randomized Cases)

Case	DC2RVA 2045 No Build	DC2RVA 2045 Build	DC2RVA 2045 Build 2 Tracks in Ashland	DC2RVA 2045 Build 2 Tracks in Ashland + Track out-of-Service	DC2RVA 2045 Build with 2 Tracks South of Crossroads
Amtrak Regional and Interstate Corridor Intercity Passenger Train OTP	76.9%	93.0%	93.0%	93.2%	92.6%
All Amtrak Intercity Passenger Trains Aggregated OTP	73.3%	93.8%	94.2%	94.3%	93.9%
Virginia Railway Express Commuter Train OTP	97.0%	98.5%	98.7%	94.1%	97.9%
Passenger Train All-Stations On-Time Performance (OTP), Petersburg to Washington Union Station					
Amtrak Long-Distance Intercity Passenger Train OTP	72.3%	94.9%	95.5%	96.1%	95.0%
Amtrak Regional and Interstate Corridor Intercity Passenger Train OTP	82.3%	96.7%	96.8%	96.7%	96.2%
All Amtrak Intercity Passenger Trains Aggregated OTP	78.7%	96.3%	96.5%	96.6%	95.9%
Virginia Railway Express Commuter Train OTP	99.7%	99.7%	99.9%	98.9%	99.5%
Freight Train Minutes of Delay per 100 Train-Miles					
All Freight Trains	30.8	24.8	28.4	31.2	42.2

Table 3-2 summarizes the modeling results from the "Phase 2 Network-Wide Analysis" operations simulations undertaken by DRPT. In the Build Case of Alternative 5A, with three main tracks from Alexandria to Richmond Staples Mill Road and with a constrained two-track alignment in Area 5 through Ashland (the middle column of the five-case result columns), the model estimated that Northeast Regional and Interstate Corridor passenger trains in this case cumulatively met the PRIIA passenger train endpoint on-time performance target of 90 percent, and cumulative freight train performance, measured in delay minutes per 100 train-miles, had an increase of 2.6 minutes from the No Build case performance estimate.

Table 3-2: Summary of Phase 2 Network-Wide Analysis Modeling Results (Averaged Results from 5 Randomized Cases)

Case	DC2RVA 2045 No Build	DC2RVA 2045 Build	DC2RVA 2045 Build 2 Tracks in Ashland	DC2RVA 2045 Build 2 Tracks in Ashland + Track out-of-Service	DC2RVA 2045 Build with 2 Tracks South of Crossroads

Table 3-2: Summary of Phase 2 Network-Wide Analysis Modeling Results (Averaged Results from 5 Randomized Cases)

Case	DC2RVA 2045 No Build	DC2RVA 2045 Build	DC2RVA 2045 Build 2 Tracks in Ashland	DC2RVA 2045 Build 2 Tracks in Ashland + Track out-of-Service	DC2RVA 2045 Build with 2 Tracks South of Crossroads
Infrastructure Tested	No Build	3 Tracks south of Alexandria	3 Tracks south of Alexandria, except 2 tracks through Ashland	3 Tracks south of Alexandria, except 2 tracks through Ashland, and with 1 track out of service north of Fredericksburg	3 Tracks south of Alexandria, and 2 tracks south of Crossroads
Passenger Train End-Point On-Time Performance (OTP), Petersburg to Washington Union Station					
Amtrak Long-Distance Intercity Passenger Train OTP	71.32%	96.64%	95.77%	95.49%	95.57%
Amtrak Regional and Interstate Corridor Intercity Passenger Train OTP	77.87%	91.41%	91.90%	90.88%	90.58%
Virginia Railway Express Commuter Train OTP	96.97%	97.82%	98.88%	96.39%	98.60%
Freight Train Delay Minutes per 100 Train-Miles, Network-Wide, by Train Type					
All Freight Trains (cumulative)	42.9	43.4	45.5	46.2	48.0
Expedited Intermodal Freight Trains	16.8	31.3	34.3	33.8	37.0
Intermodal (non-expedited) Freight Trains	21.3	32.0	32.4	35.1	36.5
Merchandise Freight Trains	48.0	38.6	40.7	41.1	42.9
All Other Freight Train Types	65.1	64.6	67.5	68.1	69.0
Number of Freight Trains Delayed per Day, by Number of Hours, Network-Wide					
1 Hour	38.3	43.3	43.7	44.0	44.8
2 Hours	21.7	23.9	25.4	25.8	26.9
3 Hours	13.1	13.1	13.9	14.3	15.4
4 Hours	8.3	7.2	8.2	7.9	9.0
5 Hours	5.3	4.2	4.9	4.9	5.4
6 Hours	3.6	2.4	3.1	3.2	3.5
7 Hours	2.4	1.5	2.0	2.4	1.9
8 Hours	1.7	1.0	1.3	1.7	1.3
9 Hours	1.1	0.7	0.9	1.1	1.0
10 Hours	0.8	0.5	0.5	0.8	0.7
Cumulative Freight Train Hours of Delay, Over 12 Days, Network-Wide					
Cumulative Hours of Delay	1,532.9	1,550.6	1,631.0	1,655.0	1,711.1
Number of Trains Recrewed per Day, Network-Wide					
Number of Trains Recrewed per Day	19.4	13.8	13.4	21.6	18.3

3.2.4 Phase 1 and Phase 2 Modeling Summary

The operations analysis performed as part of the EIS for the DC2RVA Project provided the basis to estimate the infrastructure required to deliver the operational improvements defined in the Purpose and Need for the DC2RVA Project. DRPT performed the operations analysis using RTC software with sample data from actual CSXT freight operations from 2014. The analysis included DRPT-forecasted freight growth through 2045 and a proposed future intercity passenger rail and VRE commuter operating schedule for 2025 and 2045 (prepared in 2015 and revised through 2017). The results of this analysis represent estimates of future operations and are not intended to predict actual performance, operating conditions, or train schedules. DRPT, CSXT, and the project stakeholders will continue to review and update the operations analysis for the DC2RVA corridor through the life of the Project to help assess whether the infrastructure proposed in the EIS meets the Purpose and Need for the DC2RVA Project.

The purpose of the No-Build alternative is to estimate the future condition of the railroad operating environment due to forecasted freight growth and planned, programmed, or funded passenger and commuter rail increases without the construction of the improvements or implementation of the intercity passenger rail service (nine new round-trip trains) proposed in the DC2RVA Project. Note: the No-Build analysis did not include consideration of maintenance-of-way outages, which could be anticipated to increase estimated freight, passenger, and commuter train delays above the 2045 No-Build Alternatives results shown in Section 3.2.3. [A comparison of modeling results between the 2045 Build, 2 Tracks Ashland case with the 2045 Build, 2 Tracks Ashland + Track Out of Service North (MOW Outage) provides an example of how passenger and freight train performance can be affected by maintenance outages.]

Figure 3-1 provides an illustrative summary of the modeling results from the "Phase 1 Refined Operations Analysis" simulations undertaken by DRPT. The figure shows the on-time performance for passenger trains and VRE commuter trains estimated in the 2045 No-Build case as well as all four 2045 Build cases, and also shows the freight train delay per 100 train-miles estimated in the 2045 No-Build case as well as all four 2045 Build cases. The figure shows that, in the modeling case testing the Commonwealth's Recommended Preferred Alternative for the full length of the DC2RVA corridor with three main tracks from Alexandria to Richmond Staples Mill Road and with a constrained two-track alignment in Area 5 through Ashland (Alternative 5A, also known as "3-2-3"), both intercity passenger trains and VRE commuter trains exceeded their performance goal of 90 percent on-time performance and freight train performance, measured in delay minutes per 100 train-miles, improved from the No-Build performance results. The modeling case depicting Alternative 5A is identified in Figure 3-1 as "DC2RVA 2045 BUILD 2ASH."

Figure 3-1: Passenger and Freight Train Performance Modeling Results From Phase 1 Refined Operations Analysis Simulations (Averaged Results from 5 Randomized Cases)

Figure 3-2 provides an illustrative summary of the modeling results from the "Phase 2 Network-Wide Analysis" operations simulations undertaken by DRPT. The figure shows the on-time performance for passenger trains and VRE commuter trains estimated in the 2045 No-Build case as well as all four 2045 Build cases, and also shows the freight train delay per 100 train-miles estimated in the 2045 No-Build case as well as all four 2045 Build cases. The figure shows that, in the modeling case testing the Commonwealth's Recommended Preferred Alternative for the full length of the DC2RVA corridor with three main tracks from Alexandria to Richmond Staples Mill Road and with a constrained two-track alignment in Area 5 through Ashland (Alternative 5A, also known as "3-2-3"), both passenger trains and VRE commuter trains exceeded their performance goal of 90 percent on-time performance. Freight train performance, measured in delay minutes per 100 train-miles, did not improve from the No-Build performance results. The modeling case depicting Alternative 5A is identified in Figure 3-2 as "DC2RVA 2045 BUILD 2ASH."

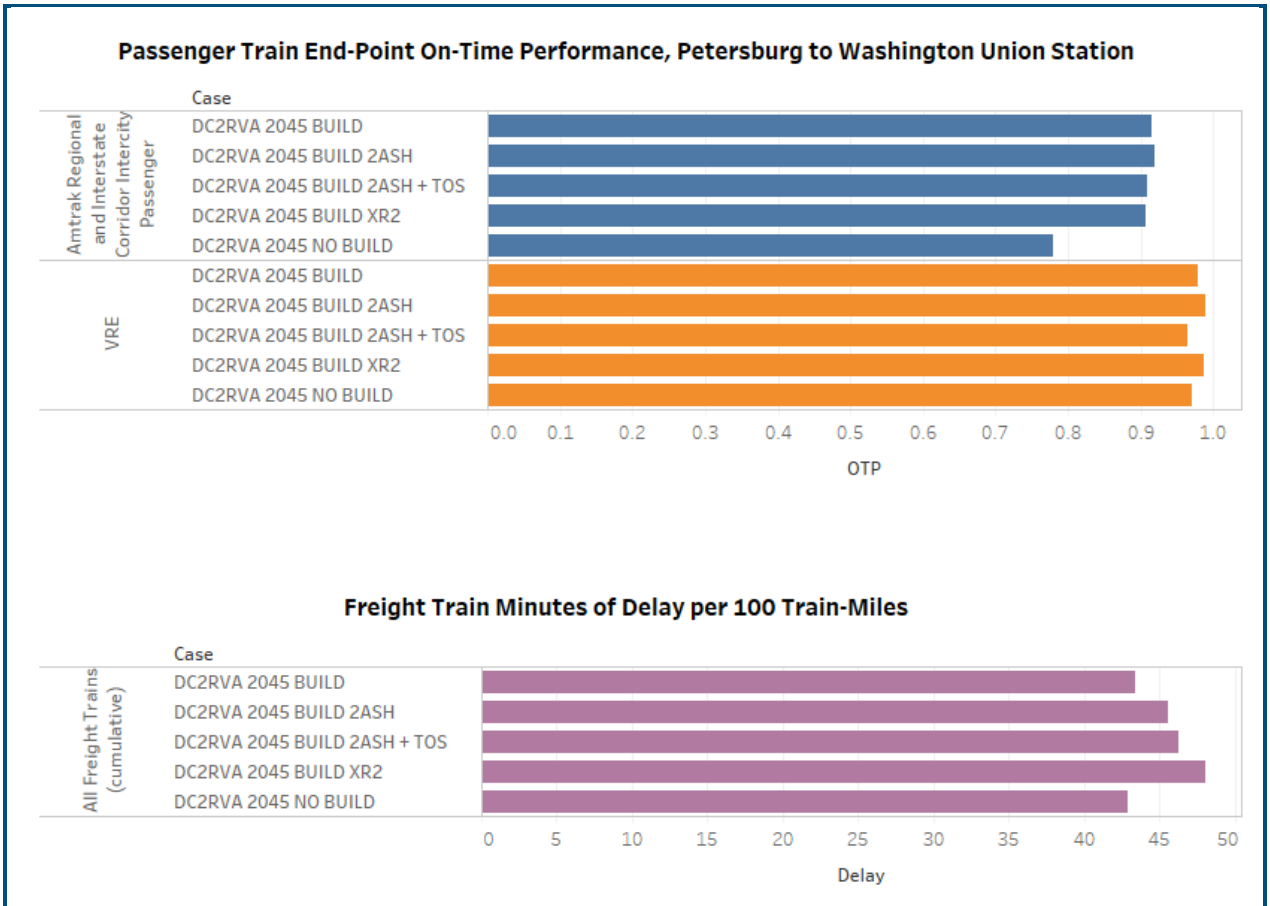


Figure 3-2: Passenger and Freight Train Performance Modeling Results From Phase 2 Network-Wide Analysis Simulations (Averaged Results from 5 Randomized Cases)

As presented in the tables in Section 3.2.3 and Figures 3-1 and 3-2, all four of the DC2RVA 2045 Build cases delivered improved on-time performance for intercity passenger and VRE commuter trains compared to the 2045 No-Build case. In both the Phase 1 Refined Operations Analysis, which was constrained to the DC2RVA Corridor, and the Phase 2 Network-Wide Analysis, the on-time performance for intercity passenger and VRE commuter services exceeded the 90 percent goal. Generally, the higher performing cases corresponded to those with the most additional infrastructure (tracks); however, both the Phase 1 and Phase 2 analyses estimated that the two track cases provided sufficient capacity to deliver the intercity passenger and VRE performance goals for the DC2RVA Project. (Prior to the Refined Operations Analysis modeling work, preliminary operations modeling was conducted that also included a case estimating existing passenger train performance, based on 2014 data, where intercity passenger on-time performance averaged between 70 and 80 percent and VRE commuter service performed near 95 percent in 2014. Although results from that preliminary operations modeling are not directly comparable, since infrastructure and passenger train operating characteristics and assumptions were modified for the Refined Operations Analysis modeling, the results from the Phase 1 Refined Operations Analysis and Phase 2 Network-Wide Analysis estimated that the DC2RVA 2045 Build Alternatives would achieve improved intercity passenger on-time performance from the existing levels, based on 2014 data.)

For the freight operations, the cases with the most additional infrastructure also produced the most favorable results. The baseline to compare the effect on freight delays in the 2045 No-Build alternative estimated approximately 30 minutes of delay (per 100 train-miles) within the DC2RVA Corridor and 40 minutes of delay network-wide. For the Phase 1 Refined Operations Analysis, which was constrained to the DC2RVA Corridor, the DC2RVA 2045 Build case with three tracks south of Alexandria estimated an improvement of 6.0 minutes of freight train delay compared to the DC2RVA 2045 No-Build alternative, and the DC2RVA 2045 Build case with two tracks through Ashland estimated an improvement of 2.4 minutes of freight train delay compared to the DC2RVA 2045 No-Build alternative. When continuing the analysis to take one track out of service north of Crossroads for maintenance-of-way, the freight delays begin to exceed that of the 2045 No-Build alternative. For the Phase-2 Network-Wide Analysis, which estimated train performance across the entire modeled territory, the freight performance in the DC2RVA 2045 Build cases with either three or two tracks fell below that of the DC2RVA 2045 No-Build case, estimating the potential need for additional capacity either within or outside of the DC2RVA Corridor to accommodate the intercity passenger rail service proposed by the DC2RVA Project as well as forecasted CSXT traffic levels for 2045. CSXT has reviewed the results of the Phase 1 Refined Operations Analysis for the DC2RVA Corridor and Phase 2 Network-Wide Analysis and has expressed concern that the DC2RVA Project with a constrained two-track alignment through Ashland (Alternative 5A and 5A-Ashcake) will negatively impact the freight network performance in 2045. DRPT and FRA have reviewed the modeling results with consideration for CSXT's concern and have determined that the potential impacts imposed by constraining the corridor to two tracks through Ashland at forecasted 2045 traffic levels are negligible and can be mitigated through continued analysis of the intercity passenger, VRE commuter, and freight operating plan or potential capital improvements on the CSXT freight network either within or outside the limits of the DC2RVA Project.

Table 3-3 compares the modeling results from the Phase 1 and Phase 2 operations simulations with the passenger and freight train performance goals established for the Project. The modeling case depicting Alternative 5A with a constrained two-track alignment through

Ashland (also known as "3-2-3") is identified in Table 3-3 as "DC2RVA 2045 BUILD 2ASH". The table shows that, in the modeling case testing the Commonwealth's Recommended Preferred Alternative for the full length of the DC2RVA corridor with three main tracks from Alexandria to Richmond Staples Mill Road with a test of the two-track alternative in Area 5 (Alternative 5A), both passenger trains and VRE commuter trains exceeded their performance goal of 90 percent on-time performance, and freight train delay was reduced from the No-Build results in the Phase 1 modeling but was not reduced from the No-Build results in the Phase 2 modeling.

Table 3-3: Phase 1 and 2 Modeling Results Compared with Performance Goals

Case	DC2RVA 2045 NO BUILD	DC2RVA 2045 BUILD	DC2RVA 2045 BUILD 2ASH	DC2RVA 2045 BUILD 2ASH + TOS	DC2RVA 2045 BUILD XR2
Passenger Train On-Time Performance of 90% or Higher Achieved	NO	YES	YES	YES	YEs
VRE Commuter On-Time Performance of 90% or Higher Achieved	YES	YES	YES	YES	YES
Freight Train Delay Reduced from No-Build		YES (Phase 1) NO (Phase 2)	YES (Phase 1) NO (Phase 2)	NO	NO

DRPT intends to prepare a Service Development Plan (SDP) to incrementally implement the service improvements planned in the DC2RVA Project. As part of this SDP effort, DRPT will prepare additional operations analysis to help define the infrastructure required to deliver phased intercity passenger rail service growth through the 2045 Build Alternative. These operations analyses will be based on the 2014 data provided by CSXT and the project stakeholders and will continue to estimate the same infrastructure and operating characteristics presented in the EIS for the DC2RVA Project. DRPT and FRA recognize that future operations analysis may suggest modifications to the infrastructure or the proposed operating plan beyond that presented in the EIS. Should potential modifications include a significant increase in environmental impacts or a reduction in the benefits presented in the EIS, a supplemental NEPA analysis may be required, as applicable under current or future NEPA regulations.

Separate from the Purpose and Need of the DC2RVA Project, DRPT and FRA also recognize that CSXT, VRE, or other project stakeholders may pursue additional capital improvements along the DC2RVA Corridor between Centralia and Washington, D.C., or on the adjacent railroad network. Additional operations analysis performed as part of the SDP, or in subsequent iterations through the life of the DC2RVA Project, will need to include the modifications to the railroad network constructed by others to continue to estimate that the infrastructure defined in the EIS for the DC2RVA Project remains effective to meet the Purpose and Need of the Project.

4 PUBLIC INVOLVEMENT

4.1 PUBLIC INVOLVEMENT AND OUTREACH

The DC2RVA Project has followed an extensive public participation process that began in 2014 with FRA's publication of a Notice of Intent in the Federal Register and continues today. The outreach plan was developed to comply with the requirements, as well as to solicit public input and promote informed decision-making by federal, state, and local agencies.

The overall goal of the public involvement program is to provide an open, dynamic process that includes as many residents, businesses, agencies, stakeholders, and community groups within the project area as possible. DRPT has used a variety of outreach tools including public meetings, online meetings, mailings and emails, newspaper and social media postings, workshops and informational sessions, and an interactive project website to document all Project-related materials. DRPT is committed to involving stakeholders and the public early and often and sharing information as it becomes available.

4.1.1 Notice of Availability (NOA)

On October 6, 2014, 30 days in advance of the first Scoping public meeting, DRPT initiated the Project's public outreach to alert the public, agencies, and media of the Project's inception. The Project launch included formal publication by FRA of a Notice of Intent (NOI) for the Project in the Federal Register on October 23, 2014.

On September 8, 2017, the DC2RVA Tier II Draft EIS Notice of Availability (NOA) was published in the Federal Register[2] in accordance with NEPA, and a 60-day comment period extending through November 7, 2017, was opened. Also on September 8, 2017, the FRA posted information about the Draft EIS on their website[3] including links to the full Draft EIS and Appendices, which were posted on the DC2RVA website maintained by DRPT. A printed copy of the Draft EIS Executive Summary accompanied by a digital copy of the entire Draft EIS was made available in nearly 80 locations along the corridor, including libraries and State offices.

DRPT developed and implemented an extensive outreach campaign to ensure stakeholders and the interested public were aware of the opportunity to offer public comments on the project,

2 https://www.federalregister.gov/documents/2017/09/08/2017-19059/environmental-impact-statements-notice-of-availability

3 https://www.fra.dot.gov/Page/P0729

alternatives evaluated in the Draft EIS, and DRPT's recommended preferred alternative during the Draft EIS comment period.

4.1.2 Project Website

DRPT maintains and updates the Project website to include the most current information about the DC2RVA Project. In preparation for the public comment period, the Draft EIS, including all appendices were posted to the website in advance of the NOA. DRPT also updated the Project website with the following:

- Hearing location details
- How to request special accommodations to attend the hearing
- A list of locations where hard copies of the Draft EIS were available
- Instructions on how to provide comments
- An interactive map showing the DRPT Recommended Preferred Alternative conceptual build components overlaid with parcel information
- Project flyers and press releases

The electronic comment form was maintained on the "Contact Us" page of the Project website.

4.1.3 Postcard Mailing

Property owners within a 500-foot distance from the centerline of the Project study area received a postcard notice of the Draft EIS and an invitation to the public hearings. DRPT mailed a total of 9,057 postcards.

Additional postcards were packaged in bundles of 100 and distributed to the following for further distribution:

- Lincoln Housing (USMC Base Quantico)
- Town of Ashland
- Fredericksburg Area Metropolitan Planning Organization (FAMPO)
- Crater Planning District Commission
- Richmond Regional Planning District Commission

4.1.4 Email

The Project team sent several emails to the Project distribution list, as well as to elected officials and to Title VI advocacy groups, to notify them of the Draft EIS comment period and in-person and online meetings.

The email distribution lists included the following groups:

- Individuals who requested to be included on the Project mailing list
- State, Regional, and Local Agencies
- State, Regional, and Local Elected Officials

- Public involvement offices
- Transit/transportation organizations and advocacy groups
- Business/institutional communities
- Community organizations & special interest groups
- Title VI Organizations (*i.e.*, Seniors, Low Income, Persons with Disabilities, Ethnic, Minorities, Religious)
- Environmental Justice populations and Low English Proficiency (translated to Spanish)

4.1.5 Social Media

The DC2RVA Facebook and Twitter accounts announced the upcoming comment period and hearings and directed viewers to the Project website for more information.

Social Media Profiles:

- Twitter: @dc2rvarail
- Facebook: dc2rvarail

4.1.6 Static Displays, Fliers, and Rack Cards

Large display boards, fliers, and rack cards were developed, printed, and posted throughout the Project corridor, particularly in areas identified as having greater environmental justice and limited English proficiency populations. The display boards provided information about the Project and details about the public hearings. In addition, Virginia Railway Express (VRE) placed posters in their stations.

Flyers produced in English and Spanish were hand-delivered and mailed to 44 locations along the Project corridor and in the areas surrounding potential rail stations. PDF versions of the flyers were provided to Public Information Officers via email and also were made available for download on the Project website.

4.1.7 Media Relations

To facilitate media, coverage, DRPT sent English and Spanish press releases and media advisories to members of the press. On September 8, 2017, DRPT distributed a press release notifying interested parties of the opening of the Draft EIS comment period, and a press release was distributed on September 25, 2017, providing information on the public hearing locations.

In addition to press releases, DRPT distributed Media Advisories to the media during the weeks of the hearings to remind them of the hearing dates and to encourage their attendance at the hearings. Advertisements with information on the public hearings and the Draft EIS comment period were also published in eleven local papers along the Project corridor.

Key media outlets were called and/or emailed to follow up on their receipt of the releases and to offer interviews. As a result, approximately 25 mentions/news stories appeared between September 8 and November 7, 2017. VRE included an article on the Project in their October 2017 issue of RIDE Magazine, and Richmond Magazine published an article on October 11, 2017.

4.1.8 Public Information Officer/Communication Manager Outreach Coordination

To broaden the reach and diversity of the public outreach efforts, DRPT communicated with 377 public information officers and community outreach managers for key agencies and organizations in the Project area (*i.e.*, planning districts, transportation organizations, Title VI organizations, City Council and Board of Supervisor liaisons and clerks) and asked for their assistance in the notification effort. They were encouraged to send emails to their groups, post information on their websites, post information on community bulletin boards, and more. DRPT sent these groups an initial email message that offered them various outreach tools (*i.e.*, flyer, news release, and community calendar graphic) to distribute to citizens and stakeholders. Follow up phone calls and emails were made in advance of the public hearings.

4.1.9 Environmental Justice and Other Special Targeted Outreach

DRPT conducted special targeted outreach to ensure that diverse segments of the population were given the opportunity to become involved with the Project at an early stage. Targeted outreach included identifying contacts representing low income, minority, seniors, disabled, human service groups and organizations that advocate and/or provide services on their behalf. All groups and individuals identified through this process were provided information regarding the Project and the public meetings and were asked for detailed contact information so that they could be included in future communications. Social Services, Disabilities Boards, the Area Agency on Aging, Hispanic business and advocacy groups, and the NAACP were included in addition to community centers, universities, neighborhood associations, and businesses.

4.1.10 Title VI and Limited English Proficiency

The Project team ensured that all federal Title VI requirements were met in the distribution and notification of project materials to populations along the study corridor with limited proficiency in English.

- Spanish statements were included on outreach materials describing how to request assistance/translation for meetings.
- By advance request (48 hours), foreign language translators and American Sign Language (ASL) interpreters were provided at in-person meetings. For the public hearings, there were two requests for ASL and no requests for Spanish translation.
- Flyers and static displays were distributed to libraries in areas with higher populations of Title VI communities and Limited English communities.
- Public hearing locations were ADA accessible.
- TDD and TYY numbers were included in outreach materials.
- Ads translated to Spanish for Spanish newspapers were placed in the following:
  - *Las Nuevas Raices*
  - *El Tiempo Latino*
- Press releases were translated to Spanish for Spanish media outlets.

- 98 Title VI groups were included on the Project distribution list to receive email updates and information.
- Emails were translated to Spanish for more than 20 Hispanic organizations and advocacy groups and sent on the same dates as the English versions. Hispanic community leaders were asked to forward and share the information.
- Rack card sized brochures were distributed with English content on one side and Spanish content on the other.
- The team connected with past meeting participants who had required special assistance to attend and again provided the assistance for the hearings.
- The statewide chapter of the NAACP was contacted and sent information to forward.
- A website translation tool and font enlargement tool were provided.

4.2 DRAFT EIS PUBLIC HEARINGS AND PUBLIC COMMENT PERIOD

FRA and DRPT held five formal public hearings between Washington, D.C., and Richmond to solicit public comments on the Draft EIS. The dates, locations, and attendance at each public hearing are included in Table 4-1.

Table 4-1: Public Hearings

Richmond	Ashland	Alexandria	Fredericksburg	Quantico
Tuesday, October 10, 2017 6-9 p.m.	Wednesday, October 11, 2017 6-9 p.m.	Tuesday, October 17, 2017 7-10 p.m.	Wednesday, October 18, 2017 7-10 p.m.	Thursday, October 19, 2017 7-10 p.m.
Main Street Station 1500 East Main St., Richmond	**Patrick Henry High School** 12449 W. Patrick Henry, Ashland	**Hilton Alexandria Old Town** 1767 King St., Alexandria	**James Monroe High School** 2300 Washington Ave., Fredericksburg	**National Museum of the Marine Corps** 18900 Jefferson Davis Hwy., Triangle
94 attendees	169 attendees	77 attendees	43 attendees	27 attendees

An open house was held from 6 p.m. to 9 p.m. in Richmond and Ashland, and 7 p.m. to 10 p.m. in Alexandria, Fredericksburg, and Quantico. The open house included 19 informational boards as well as detailed maps and mapbooks. Project team members were available during the open house to answer questions. The open house remained open during the public hearing portion of the meetings. The public hearings were held in a separate space and began at 6:30 p.m. in Richmond and Ashland, and 7:30 p.m. in Alexandria, Fredericksburg, and Quantico. Attendees of the open house and public hearings were invited to submit a written comment during the meeting, by mail, or online to be included in the record. Attendees were also invited to provide verbal comments of up to three minutes per person during the public hearings; all such verbal comments were recorded by a stenographer. A self-guided online meeting was also made available on the Project website. In total, 410 attendees signed in at the public hearings, and 118 users participated in the online meeting, with an average duration of 4:08 minutes on the site per session.

Comment submissions were accepted during the comment period, which opened on September 8, 2017, and closed on November 7, 2017, by the following methods:

- Complete the electronic form: www.DC2RVArail.com/contact-us
- Provide verbal or written comments at the public hearing
- Provide comments to the court reporter at the public hearing or leave comments on the toll-free project hotline: 888-832-0900 or TDD 711
- Mail written comments to Emily Stock, DRPT, 600 East Main Street, Suite 2102, Richmond, VA 23219

A total of 76 comments were provided verbally during the public hearings, and 37 written comments were placed in the comment box at the meetings. A summary of all comments received during the DC2RVA Draft EIS comment period will be available in the DC2RVA Final EIS.

4.3 OVERVIEW OF DRAFT EIS COMMENTS

During the 60-day Draft EIS public comment period, 4,234 comments were submitted to DRPT. For this comment period, a comment was defined as a single verbal or written communication (such as email or web-based comment form). One comment may have included multiple specific issues. DRPT read and reviewed all of the comments submitted, and DRPT individually identified and coded the specific issues in each comment. Comments frequently contained multiple issues. At the conclusion of the public comment period, 14,098 separate primary issues were identified and coded from the 4,234 comments submitted. In addition, there were 8,903 secondary issues coded. A secondary issue is a more specific topic or preference within a primary issue. For example, a commenter might have called out Ashland alignments as a primary issue and a preference for a western bypass as a secondary issue.

Comments were received through each of the channels provided by DRPT as discussed in Section 4.2. Email was the preferred method for submission, with over 2,500 emailed comments received. During the series of Draft EIS Public Hearings in October, 70 comments were provided verbally and transcribed by a stenographer for the record. Other methods are listed in Table 4-2.

Table 4-2: Comments Received

Method	Number Received
CAC Ashland/Hanover Comments (received during the official Draft EIS public comment period)	5
Agency Letter/Email	43
Email	2,564
Letter	72
Phone Call	2
Stenographer Transcript—Alexandria	10
Stenographer Transcript—Ashland	40

Table 4-2: Comments Received

Method	Number Received
Stenographer Transcript—Fredericksburg	6
Stenographer Transcript—Quantico	2
Stenographer Transcript—Richmond	12
▶ *Continued*	
Hotline Voicemail Transcript	12
Petition	3
Web Comment Form	1,463
Total	**4,234**

Petitions that were sent in as form letters were captured as separate comments for the purposes of the count in Table 4-2. For example, the Virginians for High Speed Rail form letters received in support of increased passenger rail service at Main Street Station were counted as separate comments and included in the "Alignments-Richmond" category. Each petition sent in as one letter with an attached table of signatures was captured as one comment. Form letters were coded with the same issues for each letter sent because the body text was identical across all letters.

4.3.1 Comment Trends

DRPT analyzed comment trends by grouping and comparing the frequency of primary and secondary issues. DRPT identified 14,098 primary issue topics as it coded the contents of all comments received during the Draft EIS public comment period. Primary issue topics are shown in Figure 4-1 and Table 4-3 below.

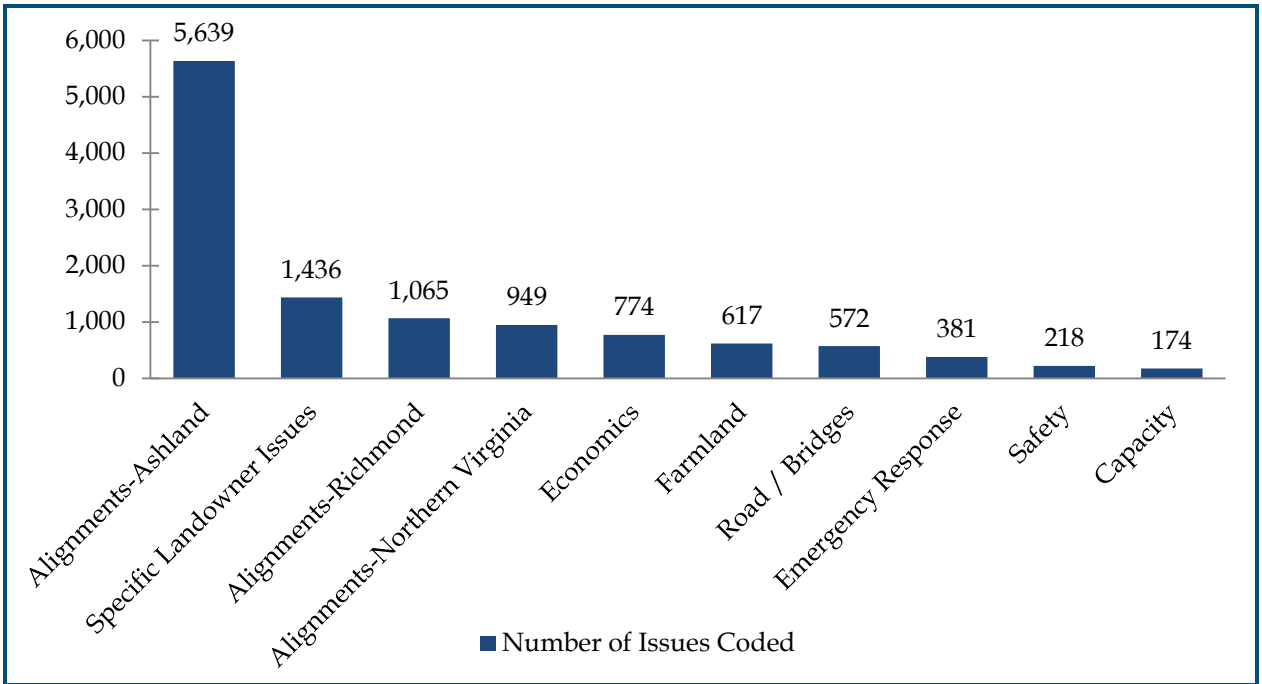


Figure 4-1: Top Primary Issues Coded

Table 4-3: Other Primary Issues Coded

Bicycle and Pedestrian	Technology	Community Facilities and Services	Historic and Cultural Resources
Stations	General Opposition*	Noise and Vibration	Construction
Water Resources	General Support*	Mitigation	Information Request
Parks and Recreation	Fredericksburg Alignments	Biological Resources	Parking
Mailing List Request	Visual/Viewshed	Alternatives	Right-of-Way (ROW)
EIS Process	Agency Coordination	Public Involvement	Compatibility Projects/Plans
Other	Hazardous Materials Transport	Purpose and Need	EJ/Social/Title VI
Land Use	ADA Accommodations	Section 4(f)	Health Impacts
Mobility	Project Schedule	Cumulative Impacts	Errata
Ownership/Operations	Energy	Air Quality	

* General Opposition issues comprised 0.5% of total primary issues coded, while General Support issues comprised 7.4% of total primary issues coded.

4.3.2 Ashland/Hanover County Area (Alternatives Area 5) Alignments

In light of the public concerns over Project alternatives in the Ashland/Hanover area expressed during the alternatives development process, and the expressed desire of the community to be more engaged, DRPT established the Town of Ashland/Hanover County CAC. This forum provided more opportunity for the community to review and consider all of the alternatives. The Town of Ashland/Hanover County CAC was active as the Draft EIS was released, and DRPT did not recommend an alternative for Area 5 within the Draft EIS. Ashland/Hanover area alignment issues dominated the Draft EIS public comments, representing approximately 40 percent of the primary DC2RVA issues coded. Of the Ashland/Hanover area issues, 42 percent of the secondary issues coded indicated support for one or more of the alternatives in the Ashland/Hanover area, while 58 percent indicated opposition to one or more of the alternatives.

Among issues coded that indicated support for an alternative in the Ashland/Hanover area, 29 percent supported a below-grade alternative (a below-grade version of Alternatives 5B-Ashcake or 5D-Ashcake), which had the highest level of stated support for a capacity-increasing alternative in this area. 27 percent stated support for a 3-2-3 alternative (reflective of Alternatives 5A and 5A-Ashcake), 22 percent indicated support for a western bypass (reflective of Alternatives 5C and 5C-Ashcake), and 16 percent supported adding a third track through town (reflective of Alternatives 5B, 5B-Ashcake, and 5D-Ashcake). Additionally, less than 5 percent of the comments received stated support for other alternatives that were evaluated during the screening phase of the DC2RVA Project but were not advanced as alternatives in the Draft EIS, including: either an eastern bypass, I-95 alignment, and/or a Buckingham Branch alignment. DRPT coded the comments that mentioned any of these options favorably as "support" issues.

The spread of the Ashland alignment issues coded indicating opposition to an alternative tended to call out specific capacity-increasing alternatives, with approximately 42 percent indicating opposition to a western bypass option (reflective of Alternatives 5C and 5C-Ashcake), 27 percent indicating opposition to a third track through town (reflective of Alternatives 5B and 5B-Ashcake or 5D-Ashcake), and 27 percent indicating opposition to a below-grade through town alternative (a below-grade version of Alternatives 5B-Ashcake or 5D-Ashcake). Of all the Ashland/Hanover alignment opposition issues coded, less than 2 percent specifically expressed opposition to a 3-2-3 alternative (reflective of Alternatives 5A and 5A-Ashcake). Comment trends indicated that reaction was strongest to alternatives that created the greatest disruption to personal property and the environment.

4.3.3 Richmond Area (Alternatives Area 6) Alignments

DRPT received 1,034 comments with Richmond area alignments coded as the primary issue. Among those comments, close to 950 (92 percent) were form letters in support of DRPT's recommendations, including the recommendation for increased passenger rail service at Main Street Station (which is included in Alternatives 6D, 6E, 6F, and 6G). Among the Richmond alignment primary issues coded, 96 percent mention Main Street Station. Less than 5 percent mention Staples Mill Road Station (which is included in Alternatives 6A, 6E, 6F, and 6G), Boulevard Station (which is included in Alternatives 6B-A and 6B-S), or Broad Street Station (which is included in Alternative 6C). Verbal comments from the Draft EIS Public Hearing in Richmond on October 10, 2017, generally supported the DC2RVA Project, but expressed

concern that the Project needed to demonstrate more sensitivity to cultural resources related to the slave trade in the Shockoe Bottom area surrounding Main Street Station.

4.3.4 Secondary Issue Trends

DRPT found that comments tended to contain common primary and secondary issue pairs, which indicated trends shown in the list below:

- The majority of economics comments related to construction costs (84 percent)
- The majority of roads/bridges comments related to vehicular traffic (97 percent)
- The majority of landowner-specific comments related to potential displacements (67.4 percent)
- Almost a third of the landowner-specific comments related to potential project effects on property access (29 percent)

These secondary issues represented the largest groups of recurring topics found in the Draft EIS comments and were consistent with the level of interest and outreach for these issues throughout the Draft EIS process.

4.3.5 Agency Comments

Of the 4,234 comments received, approximately 33 were from federal, state, or local agencies, organizations, or elected officials. Attachment B contains a broad summary of the comments received from these agencies, organizations, and elected officials. Note that all comments from all individuals and groups will be documented and addressed in the Final EIS; the description in Attachment B is a high-level summary only.

4.4 TOWN OF ASHLAND/HANOVER COUNTY AREA CAC PROCESS

The DC2RVA Draft EIS includes DRPT recommendations for a preferred alternative for most of the 123-mile DC2RVA rail corridor with the exception of Areas 1 and 5. Through the scoping, screening and alternatives analysis phases of the DC2RVA Project, DRPT considered nearly 30 different options and alternatives for adding rail capacity in Ashland and advanced seven Build Alternatives for evaluation in the Draft EIS. During the course of preparing the Draft EIS, DRPT met with the Town of Ashland, Hanover County, the public, and other stakeholders, and conducted a tour of the Ashland area with the CTB. In addition, DRPT received numerous comments and input from stakeholders in the Town of Ashland and Hanover County communities, as well as Randolph-Macon College. DRPT recognized that many of the alternatives for greater rail capacity in the Town of Ashland and Hanover County area generated community concerns.

DRPT recognized that each of the proposed Build Alternatives in Area 5 would have adverse consequences on the citizens and resources of the Town of Ashland or Hanover County, and there was no local consensus or preference for a Build Alternative. DRPT determined that expanded community involvement would inform decision-making. DRPT therefore did not identify a Recommended Preferred Alternative for the Ashland area in the Draft EIS. Within the Draft EIS, DRPT concluded the following:

- The existing railroad ROW through Ashland is limited and any alternative which adds a new track or new infrastructure will require additional ROW.
- The Town of Ashland, Hanover County, and other community stakeholders requested additional opportunities to be engaged in evaluating alternatives and developing possible mitigation strategies for the Ashland/Hanover County area.
- The seven Build Alternatives evaluated in the Draft EIS provide a reasonable range of alternatives that meet the Purpose and Need of the Project.
- Additional stakeholder input would benefit DRPT's analysis and inform the identification of the Commonwealth's Recommended Preferred Alternative through the Ashland area, while meeting the Purpose and Need for the full DC2RVA Project.
- The Commonwealth's Recommended Preferred Alternative for the Central Virginia and Richmond Areas (Areas 4 and 6, respectively) are neither contingent on nor do they limit any one specific alternative for the Ashland area (Area 5).

DRPT recommended a community-based effort to FRA to supplement DC2RVA public involvement activities and help inform selection of a Preferred Alternative that meets the Purpose and Need for the full DC2RVA Project with consideration for the potential impacts through the Ashland/Hanover County area.

4.4.1 Purpose of the CAC

DRPT convened the Town of Ashland/Hanover County CAC to review all previously considered options for greater rail capacity in the Ashland/Hanover County area, and to identify potential options that could meet the Purpose and Need of the full DC2RVA Project, while also minimizing or avoiding potential impacts to the community. The CAC was specifically requested to:

- Review all alternatives studied to date in the Draft EIS, including those presented in the Draft EIS or considered during the scoping and screening phases of the DC2RVA Project.
- Recommend alternative(s), including new alternatives or modifications to alternatives, to meet the Purpose and Need of the full DC2RVA Project. Should an alternative emerge that was not considered in the Draft EIS or was a modification to those presented, DRPT and FRA would define such an alternative in the Final EIS.
- Identify and represent the concerns of members' communities.
- Apply a structured and transparent approach seeking consensus.

4.4.2 CAC Approach

The CAC, composed of locally-appointed members of Hanover County, the Town of Ashland, Randolph-Macon College, the Richmond Regional Transportation Planning Organization, and CSXT, met five times in the Ashland/Hanover area between May and September of 2017.

- All meetings were open to the public.
- Meetings were video recorded and posted to the project website, www.dc2rvarail.com.

- Meeting materials were posted to the project website.
- Committee members were requested to share comments directed to them individually with other CAC members and the project team.

DRPT Director Jennifer Mitchell acted as chairperson for the meetings. DRPT staff and members of the DC2RVA consultant team provided the CAC with technical information and presentations on:

- Project background and regulatory requirements;
- Rail operations, modeling, and engineering;
- Potential effects of different alternatives; and
- Addressed questions posed by the CAC members and the public.

4.4.3 CAC Meetings

The CAC met monthly from May through September 2017, as follows:

- CAC Meeting #1: May 22, 2017
- CAC Meeting #2: June 26, 2017
- CAC Meeting #3: July 24, 2017
- CAC Meeting #4: August 28, 2017
- CAC Meeting #5: September 11, 2017

At the third CAC meeting, DRPT included in their presentation an overview of the refined operations modeling to validate the appropriateness of the infrastructure proposed by the Project. DRPT noted that a two-track alternative in Ashland was tested as part of the modeling (reflective of Alternatives 5A and 5A-Ashcake), and that the scenario met DC2RVA performance targets.

In addition to the five CAC meetings, the Town of Ashland hosted a meeting on September 6, 2017, to solicit public input regarding the through-town three-track trench option (a below-grade version of Alternatives 5B-Ashcake or 5D-Ashcake). DRPT attended the Town's meeting and presented information on the trench option including construction sequencing and potential effects. This meeting was open to the public.

DRPT staff and members of the DC2RVA consultant team also met individually with members of the CAC upon request to discuss members' technical questions. A summary of these questions, DRPT responses, and any materials generated were then shared with the rest of the CAC and posted to the project website.

4.4.4 Build Alternatives Considered by the CAC

The following list includes all of the alternatives that were considered by the CAC. Unless otherwise noted, alternatives listed were reviewed by DRPT in the Alternatives Technical Report (Appendix A of the Draft EIS), but not carried forward for detailed review in the Draft EIS.

Through-Town Alignments:

- At-Grade Options:
  - Minor Improvements in Ashland ("3-2-3" Option, with no additional track downtown)
    (Alternative 5A or 5A-Ashcake)
  - Add one track on the west of existing tracks
  - Add one track on the east of existing tracks (Alternative 5B or 5B-Ashcake)
  - Add one track and shift existing two tracks to center the three tracks (Alternative 5D-Ashcake)
  - Add one track and shift existing two tracks to center the three tracks AND remove station
- Elevated Options:
  - Elevate 1 track above existing two tracks
  - Elevate 2 tracks above existing two tracks
  - Elevate 3 tracks above existing right-of-way and remove at-grade tracks
- Below-Grade Options:
  - 1-track tunnel – Cut and cover tunnel east of existing two tracks
  - 1-track tunnel – Bore tunnel
  - 1-track tunnel – Deep bore tunnel
  - 2-track tunnel – One east and one centered
  - 3-track tunnel – Cut and cover continuous cover below existing right-of-way and remove at-grade tracks
  - Shallow bore 1-track tunnel for passenger trains only (proposed through CAC process)
  - 3-track trench (proposed through CAC process)

Eastern Bypass Alignments:

- Ashland East Bypass (AEB 1)
- Ashland East Bypass to BBRR (AEB 2)
- Ashland East Bypass That Does Not Cross I-95 (AEB 3)
- Ashland East Bypass in the I-95 Median (AEB 4)
- Ashland East Bypass White Paper Route (AEB 5)
- Buckingham Branch (BBRR):
  - Freight Diversion onto BBRR
  - Passenger Diversion onto BBRR
- Doswell Area Connections to Buckingham Branch Railroad:
  - Wye Options #1 - #5

Western Bypass Alignments:

- Ashland West Bypass (AWB 1)
- Ashland West Bypass Revision #1 (AWB 2)
- Ashland West Bypass Revision #2 (AWB 3)
- Ashland West Bypass Revision #3 (AWB 4) (Alternatives 5C and 5C-Ashcake)

4.4.5 Public Comments

All CAC meetings were open to the public, and a majority of Meeting #3 was set aside specifically for verbal public comment. In addition, the public was provided with several opportunities to participate and comment as described below:

- Public comment cards that were available at each meeting.
- Online comment submittals to www.dc2rvarail.com at any time.
- Post-meeting review of all meeting materials and presentations made available for public review on www.dc2rvarail.com.
- Public comments submitted to the project team and/or individual CAC members that were shared with the CAC.
- All public comments and questions were reviewed by the DRPT staff, and, as appropriate, responses were prepared and shared with the CAC.

It is important to note that the CAC process was not meant to replace the Draft EIS public hearings and public comment period. Members of the public were encouraged to also provide comments on the Draft EIS once the document was made publicly available on September 8, 2017.

4.4.6 Least Objectionable Alternatives

Over the course of five months, the CAC reviewed and fully evaluated over 30 different alternatives for the Town of Ashland/Hanover County area, including the seven alternatives for Area 5 that were included in the Draft EIS and new or modified alternatives suggested by the public or developed by the CAC. The CAC also considered hundreds of comments and questions provided by the public. The CAC determined that many of the alternatives were not practical, primarily due to cost or diminished ability to meet the Purpose and Need of the DC2RVA Project, including use of the Buckingham Branch Railroad, a deep bore tunnel, and adding tracks to the median of I-95. The CAC also unanimously rejected any option with three tracks at-grade through Ashland (reflective of Alternatives 5B, 5B-Ashcake or 5D-Ashcake) due to the perceived impacts to the residences, businesses, and Randolph-Macon College in downtown Ashland from Project construction and future rail operations. The committee recognized that all of the alternatives would have substantial adverse impacts to residents, commercial interests, and communities, and would be objectionable to one or more groups of stakeholders.

The CAC chose not to endorse any specific alternative. Instead, as documented in DRPT's September 19, 2017, memorandum to the CTB, the CAC identified three "least objectionable" alternatives, outlined below:

- **Least Objectionable Through-Town Alternative —"3-2-3" Option (Alternative 5A in the Draft EIS):** A third track would be added to the existing CSXT right-of-way north and south of the Town of Ashland, while the existing two tracks would remain in service through Ashland. Road overpasses would be added at Vaughan Road and Ashcake Road. The crossing at England Street would remain at-grade.
- **Least Objectionable Below-Grade Alternative—Three-Track Trench (modified below-grade version of Alternatives 5B-Ashcake and 5D-Ashcake):** A trench would be

constructed through Ashland approximately 50 feet wide and 33 feet deep, extending from north of Vaughan Road to south of Ashcake Road. The two existing tracks through the Town of Ashland, along with a third new track, would pass through Ashland within the trench. The trench would be provided with strategically placed covers interspersed with open areas, allowing motor vehicle and pedestrian crossings, landscaping, and other amenities. Details associated with the placement and length of covered spaces would be determined in final design. The downtown Ashland station would be closed.

- **Least Objectionable Bypass Alternative—Western Bypass Alignment "AWB 1" (modified version of Alternatives 5C and 5C-Ashcake):** In this option, a two-track bypass approximately seven miles long would extend around the Town of Ashland to the west. Roads bisecting the new bypass would be modified to avoid creating any new at-grade road/rail crossings. The two tracks through town would remain in service. This alternative includes the provision that the alignment would be adjusted to avoid directly impacting a commercial facility, and to minimize impacts to residential properties.

The CAC's review of alternatives and identification of a range of least objectionable alternatives was intended to inform the final determination of a Preferred Alternative for the Ashland/Hanover County area. The Commonwealth's Recommended Preferred Alternative for Area 5 is Alternative 5A, which meets the Purpose and Need for the DC2RVA Project with the least amount of impacts. Alternative 5A will have no Section 106 or 4(f) impacts, where all other alternatives considered or developed by the CAC include at least some impacts to cultural or historic resources.

4.5 COMMONWEALTH TRANSPORTATION BOARD ENGAGEMENT

Because of the scale of the DC2RVA Project area and budget, DRPT began briefing the CTB on DC2RVA in advance of procurement to prepare the EIS for the Project at the CTB Workshop on July 16, 2014. DRPT updated the Rail Committee informally through the scoping and alternatives development process as the Draft EIS was developed. DRPT provided a formal update at the September 20, 2016, Rail Committee and Workshop.

DRPT presented its preliminary recommendations for DC2RVA at the CTB Workshop on December 6, 2016, at the completion of the Administrative Draft EIS while it was in review by FRA. The recommendations presented in December 2016 were identical to those documented in this Recommendation Report, with deferral of a recommendation of a Preferred Alternative for Area 5 in the Town of Ashland/Hanover County Area.

As described in Section 3.4, Town of Ashland/Hanover County CAC Process, comments from local officials and citizens of this area requested that DRPT review its alternatives development process with greater public involvement. DRPT and community members engaged the CTB through updates and public comments at CTB workshops and Rail Committee meetings, as well as a CTB tour of the Town of Ashland and Hanover County on November 1, 2016. The tour served as a fact-finding mission for the CTB so that they could view the scale of potential rail alignments in relation to the existing landscape and receive an update on the overall Project. Local officials from the Town of Ashland, Hanover County, and Randolph-Macon College made welcoming remarks. These officials, along with citizen representatives from the community and representatives from CSXT, made up the CAC, which convened the following year.

DRPT made formal presentations to the full CTB and CTB Rail Committee throughout 2017:

- **February 15, 2017 CTB Rail Committee**
  - Reported on status of FRA's Draft EIS review, and DRPT's request to conduct a separate NEPA effort for the Ashland/Hanover area due to unique land use conditions and longer-range need.
- **April 18, 2017 CTB Rail Committee**
  - Reported that DRPT was preparing refined operations analysis to estimate that the infrastructure proposed in the Draft EIS will meet the Purpose and Need of the full DC2RVA Project, particularly with regard to the proposal to retain a two-track railroad through the Town of Ashland.
  - Reported that FRA could not separate the section for Area 5 through Ashland from the DC2RVA Project for further analysis in a separate NEPA effort, since the EIS for the DC2RVA Project provides an FRA Record of Decision for a contiguous corridor-wide service improvement from Washington, D.C., through Richmond, VA.
  - Conveyed that the CAC will be convened for the Ashland/Hanover area, and FRA supports the CAC process as additional community involvement to inform the development of the alternatives presented in the EIS.
  - Reviewed DRPT recommendations for Areas 1–6 and reported that the Draft EIS would not contain a DRPT recommendation of a preferred alternative for Arlington (Area 1) and Ashland/Hanover (Area 5).
- **September 19, 2017 CTB Rail Committee and CTB Workshop**
  - Presented results of the Town of Ashland/Hanover County Area CAC, in collaboration with CAC Member Barbara Nelson of the Richmond Regional Transportation Planning Organization.
  - CSXT expressed its concern that the DC2RVA Project with a constrained two-track alignment through Ashland (Alternative 5A and 5A-Ashcake) will negatively impact the freight network performance in 2045.
- **October 23, 2017 CTB Rail Committee**
  - Reported results of refined operations analysis validation modeling, which estimated that most freight delays outside of the Project corridor are caused by forecasted freight growth through 2045 and are not attributable infrastructure constructed or service improvements implemented under the DC2RVA Project, particularly with a two-track railroad through Ashland in Alternative 5A.
  - Recommended phased implementation and coordination with the railroads/operators to address potential future delays both inside and outside the corridor.
- **October 23, 2017 CTB Workshop**
  - Reviewed previous DRPT recommendations for each area of the DC2RVA corridor from north to south.
  - Reported on the Draft EIS Public Hearings and presented an interim comment summary.
- **November 9, 2017 CTB Rail Committee**

  - Held in Ashland. The Virginia Secretary of Transportation encouraged participation by all CTB members, not just CTB Rail Committee Members. 10 out of 17 CTB Members attended.
  - Presented results of the DC2RVA Public Hearing process and Draft EIS comment period.
  - Announced DRPT's Recommended Preferred Alternative as Alternative 5A, as defined in the Draft EIS, also known as "3-2-3", for the Town of Ashland/Hanover County area (Area 5).
  - Reviewed DRPT's rationale for both the Ashland/Hanover area and Richmond area recommendations.
  - Presented Draft CTB Resolution for the December CTB action.

- **December 6, 2017 CTB Action Meeting**
  - CTB voted to adopt a resolution with DRPT's Recommended Preferred Alternative for DC2RVA (Attachment A), defined as the Commonwealth's Recommended Preferred Alternative.

In addition to DRPT's presentations, members of the CTB had the opportunity to discuss issues and ask questions. Public comment periods were provided at each CTB Rail Committee and each CTB Action Meeting. Meeting minutes and video recordings of these meetings are available online at www.ctb.virginia.gov/public_meetings.

ATTACHMENT A: CTB RESOLUTION

Agenda item #14

RESOLUTION
OF THE
COMMONWEALTH TRANSPORTATION BOARD

December 6, 2017

MOTION

Made by: Mr. Brown, Seconded by: Ms. Valentine
Action: Motion Carried, Unanimously

Title: Recommendation of a Preferred Alternative for the Washington, D.C. to Richmond Southeast High Speed Rail Tier II Environmental Impact Statement

WHEREAS, the Commonwealth Transportation Board adopted Recommended Alternative A-Plus (see Attachment A), as set forth in the *Study Area Alternatives Recommendation Report for the Southeast High Speed Rail Tier I Draft Environmental Impact Statement*, dated March 5, 2002 which was subsequently adopted by the Federal Railroad Administration in the Tier I Final Environmental Impact Statement and Record of Decision; and,

WHEREAS, the Virginia Department of Rail and Public Transportation (DRPT), in conjunction with the Federal Railroad Administration, have continued to further the effort of implementing higher speed passenger rail service within the Southeast Rail Corridor by developing the Washington, D.C. to Richmond Southeast High Speed Rail (DC2RVA) project, a Tier II Environmental Impact Statement to identify a preferred alternative within the selected 123- mile corridor between Washington, D.C. and Richmond; and,

WHEREAS, DRPT conducted significant public and stakeholder involvement for the DC2RVA project including direct mail, newspaper advertisements, project website and social media campaigns, ten public meetings, five formal public hearings, and multiple local meetings and workshops; and,

WHEREAS, the DC2RVA Tier II Draft Environmental Impact Statement that evaluated multiple alternatives in six Alternative Areas along the CSX Transportation corridor between Washington, D.C. and Richmond was published on September 8, 2017 and was followed by a 60-day public comment period; and,

WHEREAS, DRPT included in the Draft Environmental Impact Statement a recommended preferred alternative for Alternative Areas 1, 2, 3, 4, and 6 of the DC2RVA study corridor as shown in Attachment B; and,

WHEREAS, DRPT limited the footprint of potential construction activities for DC2RVA project alternatives at Main Street Station, located in the Shockoe Bottom area of Richmond, in order to avoid and/or limit any potential impacts after evaluating, in a manner consistent with the Virginia Department of Historic Resources guidelines, and per the process set forth in Section 106 of the National Historic Preservation Act of 1966, the cultural resources in the Shockoe Bottom area of Richmond; and,

WHEREAS, DRPT has relied on a broad array of historical research to inform its layout of the DC2RVA improvements and to summarize available historical research and assets associated with the Shockoe Bottom slave trade, including areas for future slavery museums and memorials, five known archaeological sites, scholarly research on the Shockoe Bottom slave trade, current public commentary, and possible locations for additional historical and archaeological research and preservation, all to be summarized in a separate chapter of the Final Environmental Impact Statement as supplemental information that may be beneficial to future public and private decisions and actions in the Shockoe Bottom area; and,

WHEREAS, recognizing the unique nature of the region and concerns from the community over Draft EIS alternatives in Alternative Area 5 as shown in Attachment B, DRPT convened the Town of Ashland/Hanover County Community Advisory Committee, to take a more intensive look at all rail options that could meet the purpose and need of the DC2RVA project, while also minimizing or avoiding any potential impacts of those options; and,

WHEREAS, DRPT briefed the Commonwealth Transportation Board on DRPT's recommendation at its October 23, 2017 Workshop meeting and at its November 9, 2017 Rail Committee meeting on the outcome of the CAC process, being the following three least-objectionable alternatives for Alternative Area 5: maintain two tracks through the town of Ashland (5A), add a two-track west bypass (AWB1, previously screened out), and add a three-track trench through the Town of Ashland (variation of tunnel option previously screened out).

NOW, THEREFORE, BE IT RESOLVED, that the Commonwealth Transportation Board recommends to Federal Railroad Administration the following preferred alternative for inclusion in the forthcoming Rail Alignment Recommendation Report, Final Environmental Impact Statement and Record of Decision, in concurrence with DRPT's recommendation, in the following areas of the DC2RVA study corridor, as shown in Attachment B: Alternative Area 1-1A, 1B, or 1C; Alternative Area 2-2A; Alternative Area 3-3B; Alternative Area 4-4A; Alternative Area 5-5A; Alternative Area 6-6F.

BE IT FURTHER RESOLVED that the recommended preferred alternative for Alternative Area 1 (Arlington) will include the retention of all three alternatives 1A, 1B and 1C until after completion of the Long Bridge Tier II Environmental Impact Statement, whereby one of the three retained alternatives will be selected as the recommended preferred alternative based on compatibility with the Long Bridge Tier II Environmental Impact Statement preferred alternative.

BE IT FURTHER RESOLVED that if the Commonwealth Transportation Board on the recommendation of DRPT determines that additional rail capacity is needed in Alternative Area 5 to meet the performance standards required for additional passenger trains, DRPT shall conduct a new study based on updated information, including but not limited to future freight volumes, land uses, and capacity needs within the overall rail network.

BE IT FURTHER RESOLVED that the Commonwealth Transportation Board hereby directs DRPT to avoid and/or minimize any permanent property acquisitions, to the extent practicable, in areas where only two mainline tracks on the current alignment are recommended, and to avoid any permanent property acquisitions related to the DC2RVA project that would affect the operations of Randolph-Macon College.

BE IT FINALLY RESOLVED that the Commonwealth Transportation Board hereby directs DRPT to explore the need for other potential improvements in downtown Ashland (Alternative Area 5) that will help protect the safety of motorized and non-motorized roadway users, and to facilitate emergency access.

# # #

Attachment A

Excerpt from Record of Decision for the Tier I Southeast High Speed Rail Project November 20, 2002

DECISION

The FRA and the FHWA working closely with NCDOT and VDRPT have selected the following build alternative for the SEHSR project for further Tier II environmental studies:

The preferred alternative consists of Alternative A (utilizing the S-line and the NCRR rights-of-ways) modified to include passenger connectivity to Winston-Salem, NC (Alternative B via the Winston Salem South Bound –WSSB and the K-line railroad rights-of-ways). The combination of Alternatives A and B best meets the project's purpose and need, while minimizing environmental impacts and has the highest level of public and agency support. VDRPT and NCDOT recommend that the Alternative A portion be developed first and that the Alternative B portion be developed in conjunction with the efforts of the Piedmont Authority for Regional Transportation (PART), as appropriate. PART is responsible for coordinating the regional transportation system in the counties around the Winston-Salem connection. The combination of Alternative A and Alternative B has:

- Minimized potential impacts to wetlands and threatened and endangered species;
- Moderate levels of potential environmental complexity;
- Strongest agency support;
- Highest level of service;
- Highest projected annual ridership;
- Largest combined trip diversions from auto and air to rail, with competitive total travel time;
- Second best net reduction in NO_x emissions and overall net energy use reduction;
- Best potential operating cost recovery; and
- Highest level of public support.

As identified in the FEIS, the preferred alternative is also the environmentally preferred alternative.

Figure 1
Preferred Alternative
Alt. A + Alt. B

Attachment B

Description of DRPT's Recommended Preferred Alternative for DC2RVA

ALTERNATIVE AREA 1:
ARLINGTON (LONG BRIDGE APPROACH)
Location: CFP 110 - CFP 109.3
Recommendation: Retain Alternative 1A, 1B, and 1C to support a deferred selection until after completion of Long Bridge Study
Approximate Length: 1 Mile

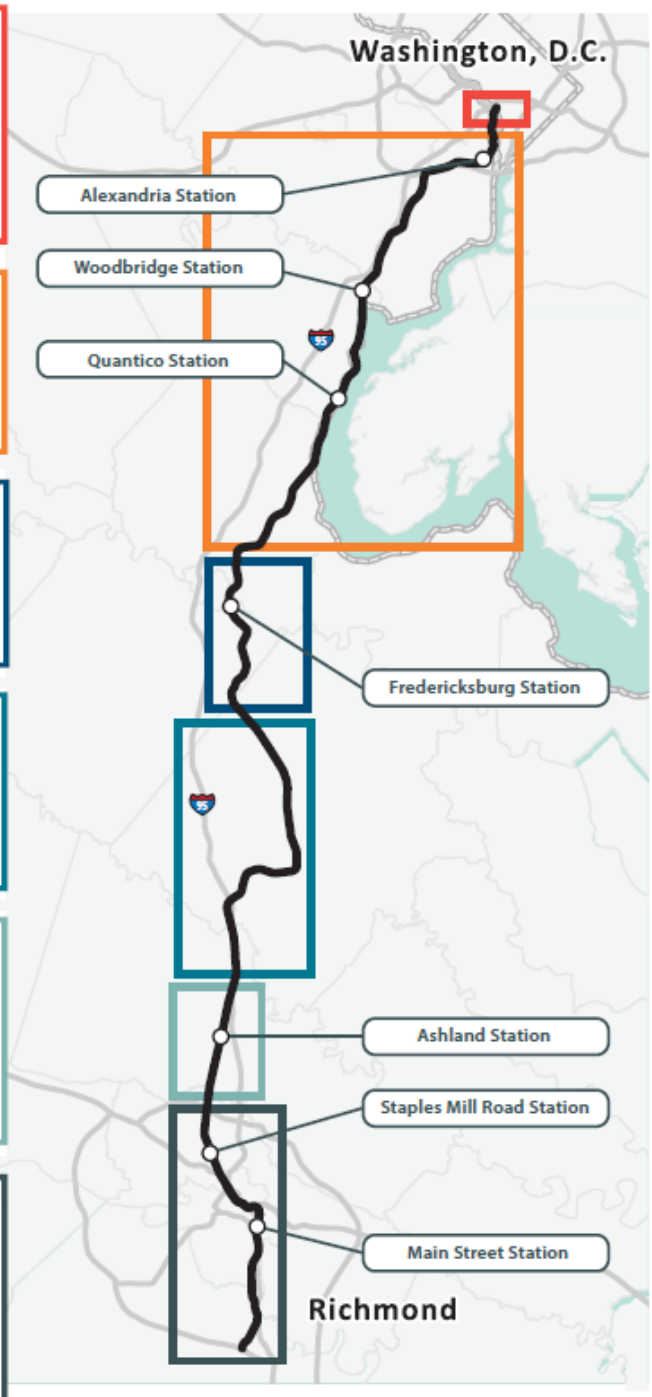
ALTERNATIVE AREA 2: NORTHERN VIRGINIA
Location: CFP 109.3 - CFP 062
Recommendation: Alternative 2A
Add a Third or Fourth Track
Approximate Length: 47.3 Miles

ALTERNATIVE AREA 3: FREDERICKSBURG
Location: CFP 062 - CFP 048
Recommendation: Alternative 3B
Add a Third Main Track through City
Approximate Length: 14 Miles

ALTERNATIVE AREA 4: CENTRAL VIRGINIA
Location: CFP 048 - CFP 019
Recommendation: Alternative 4A
Add a Third Main Track
Approximate Length: 29 Miles

ALTERNATIVE AREA 5: ASHLAND
Location: CFP 019 - CFP 009
Recommendation: Alternative 5A Maintain Two Tracks Through Town, Add a Third Main Track north and south of Town
Approximate Length: 10 Miles

ALTERNATIVE AREA 6: RICHMOND
Location: CFP 009 - A011 Centralia
Recommendation: Alternative 6F
Main Street Station
and Staples Mill Road Station
Full Service with S-Line Improvements
Approximate Length: 23 Miles



ATTACHMENT B: SUMMARY OF MAJOR COMMENTS

B.1 FEDERAL

Advisory Council on Historic Preservation (ACHP)

The ACHP requested clarification on the Federal Rail Administration (FRA) and Virginia Department of Rail and Public Transportation (DRPT)'s coordination process with ACHP with regard to the Process Programmatic Agreement[4] and Memorandum of Agreement[5] for Section 106 of the National Historic Preservation Act, and indicated a need for continued coordination in the future.

American Battlefield Protection Program (ABPP), National Park Service (NPS)

The ABPP reviewed battlefield resources included in the archaeological and architectural Area of Potential Effect (APE) and expressed concern about the proposed project alignment and potential impacts to Civil War battlefield sites. ABPP requested that project reports be submitted as they are completed rather than as a group, and that they show actual Limits of Disturbance for proposed alignments instead of the buffers from the alignment centerline. The ABPP determined that the project APE intersects 11 priority battlefields identified by the Civil War Sites Advisory Commission in 1993 and again in 2011 by the ABPP. The ABPP recommended a "Key Terrain Observation and Fields of Fire, Cover and Concealment, Obstacles, Avenues of Approach" (KOCOA) analysis be completed for the battlefields identified and recommended that rail lines be evaluated for their connections to the battlefields.

Department of the Interior (DOI)

The DOI encouraged continued outreach and coordination with relevant agencies on the Section 4(f) Evaluation and identified the George Washington Memorial Parkway and the Potomac Heritage National Scenic Trail as potential additional targets of outreach and inclusion in an agreement to be drafted with affected agencies determining the effects on NPS and other Section 4(f) properties. The DOI stated that it was unable to provide concurrence until a formal determination is provided in the Final Environmental Impact Statement (EIS) and the Final Section 4(f) Evaluation. The DOI expressed concern regarding some "de minimis" impact determinations made at NPS sites, citing that impacts should be assessed on the smaller,

4 "Programmatic Agreement Among the Federal Railroad Administration, the Virginia State Historic Preservation Officer, the North Carolina State Historic Preservation Officer, the Virginia Department of Rail and Public Transportation, the North Carolina Department of Transportation, Rail Division, and the Advisory Council on Historic Preservation Regarding Compliance with Section 106 of the National Historic Preservation Act for the Proposed Southeast High-Speed Rail Project," April 12, 2016.

5 "Memorandum of Agreement Among the Virginia Historic Preservation Office, the Federal Railroad Administration, and the Virginia Department of Rail and Public Transportation Regarding the Southeast High Speed Rail Project, Richmond, Virginia to the North Carolina State Line," January 11, 2017.

individual units of which some of the sites are comprised, and that the historic nature of some of the resources may require Section 106 review. DOI also indicated that removal and replacement of vegetation along the corridor should be a consideration in impact determinations.

Environmental Protection Agency (EPA)

The EPA requested that the Project team work in cooperation with EPA, the United States Army Corps of Engineers (USACE), and other federal agencies throughout the EIS process, noting that additional analysis may be necessary if new alternatives develop. EPA assigned a rating of the Preferred Alternative as Environmental Concerns- Insufficient Information (EC-2) and Arlington section as Lack of Objections (LO).

EPA requested clarification on why accommodation of freight traffic is a project purpose and need, but not mentioned as a need for the larger Southeast High Speed Rail (SEHSR) program, and suggests identification of hazardous materials being moved in the corridor and addressing how an accidental release would be managed. EPA requested clarification on whether impacts from construction and operations are considered in the limits of disturbance. EPA suggested clarification of assessment methodologies used for aquatic impacts and continued coordination with the USACE. The EPA also suggested that potentially unmitigable habitats be identified, and that assessment of potential for drinking water contamination and efforts to minimize risk to drinking water be clearly described in the document.

EPA requested coordination with the United States Fish and Wildlife Service (USFWS) and other state and federal agencies to identify and protect rare and endangered species, and that infrastructure resiliency to extreme weather events be discussed. EPA recommended that stormwater management facilities utilize green infrastructure where appropriate and that facilities not be placed in wetlands or aquatic habitats. Clarification was sought by EPA on noise analysis in the corridor and suggested adding future commuter/freight rail to the project analysis. EPA stressed the importance of fully considering impacts to Environmental Justice communities, and asked that aquatic habitats, environmental fragmentation, and noise be addressed as indirect and cumulative impacts.

Federal Aviation Administration (FAA)

The FAA voiced support for the project and determined that it presently had no federal action or approval on the effort. The FAA did stress that rail improvements in the project corridor were just one part of a solution to aviation congestion at the national level.

National Park Service (NPS)

The National Capital Region of the NPS commented that the Draft EIS did not specify any actions such as access permits, special use permits, or land exchanges that might require a federal decision from NPS, nor did it indicate areas where NPS would be directly impacted. NPS commented that the Purpose and Need should recognize multimodal connections and identify connections to outdoor recreational activities, and should include a thorough description of mitigation opportunities. The NPS requested that the George Washington Memorial Parkway (GWMP) be added as a Section 106 Consulting Party, and requested that the GWMP be added as a cooperating agency if it is anticipated that the Parkway would be approached for any type of permit.

NPS indicated that the boundaries shown in the Draft EIS for Roaches Run were not consistent with NPS records. NPS requested that the Parkways of the National Capital Region and the

Green Scenic Easement Area be included, and that the NPS be mentioned in the "Parklands, Recreational Areas, and Refuges" section. They asked for clarification of noise and vibration impacts, as well as the potential impacts of permanent or temporary vegetation removal, and suggested that connections between stations for cyclists and pedestrians should be included in project design. NPS asked for further clarification/information on stormwater management and the possible effects of the project on runoff.

The NPS submitted comments on behalf of the Captain John Smith Chesapeake National Historic Trail. Concerns included the misidentification of the trail and recognition solely for the portion in the Richmond section (trail extends throughout the Chesapeake Bay and its major tributaries). The NPS indicated that many of the water crossings within the project area are either on or within the viewshed of the trail and that a new crossing of the Rappahannock or the James rivers should be evaluated for visual impacts and that navigational/construction impacts of other bridges along the trail should be minimized for recreational users.

The NPS submitted comments on behalf of Fredericksburg & Spotsylvania National Military Park (FRSP) and Richmond National Battlefield Park (RICH). NPS indicated that the boundary of the railroad right-of-way through the FRSP shown in the Draft EIS does not agree with park records and that NPS permission must be sought for construction on park property. NPS raised concerns over trains potentially queueing along rail right-of-way in the parks due to timetable changes and the associated scenic impacts. NPS did voice appreciation over DRPT coordination over the Richmond National Battlefield Park and Maggie Walker National Historic Site.

NPS also submitted comments on behalf of the ABPP. These comments included a recommendation for a KOCOA analysis to be performed for the battlefields that intersect with the project APE. The NPS voiced support for alternative 3A (maintain two tracks through town) and alternative 3C (East Bypass) through the Fredericksburg area due to fewer impacts to battlefield resources. NPS offered ABPP staff resources to provide technical assistance and materials for identifying battlefield resources near Richmond, and asked for clarification on how increases in visits to battlefields in the corridor were considered in assessing impacts.

U.S. Army Corps of Engineers

The USACE recommended continued coordination on the Preferred Alternative. USACE will consider the Preferred Alternative with regard to aquatic resource impacts and practicability. USACE noted a shift to greater emphasis on freight rail in the Draft EIS as compared with the SEHSR Tier I Purpose and Need. The USACE requested an analysis of the practicability of continuing to accommodate freight and passenger rail traffic on existing rail facilities, which could have bearing on relative impacts to aquatic resources.

B.2 STATE

Virginia Department of Environmental Quality (DEQ)

DEQ noted several state permits related to wastewater and streams, and directed DRPT to coordinate with the USACE on any proposed wetlands impacts. DEQ recommended specific construction techniques for repairing and replacing wetlands post-construction. In addition, DEQ asked DRPT to consider using sustainable and context-sensitive construction techniques such as permeable parking lots and consideration of low-emissions construction equipment use in areas with pollutants at non-attainment levels. DEQ also recommended that DRPT take care

in disposal of hazardous waste from railroad sites along the corridor and dispose of all waste in accordance with federal and state laws and guidelines.

Virginia Department of Historic Resources (DHR)

DHR requested that DRPT continue its consultation with DHR on issues related to the Section 106 process.

B.3 LOCAL

Arlington County

Arlington County requested that DRPT verify that any proposed infrastructure south of Long Bridge (Area 1) would not impact plans for an expanded aquatics center at Long Bridge Park to the west of the tracks. In addition, the County had concerns about potential impacts to Roaches Run Waterfowl Park on the east side of the tracks in Area 1 of the study. Habitat protection and control of invasive plants in these sections of the corridor were the County's highest concerns, as well as preservation of open space around Long Bridge Park and the planned extension of the pedestrian esplanade at the park.

City of Alexandria

Alexandria expressed concerns about potential private property impacts within the City and possible impacts on future planned development. Alexandria sought clarification on the impacts and scheduling of construction activities and the potential impacts of these activities on adjacent improvement projects. The City expressed particular concern about the potential for increased noise and vibration from increased train traffic in the corridor and from associated construction impacts. The City requested more information on potential impacts on existing bridges and on maintenance of rail operations during construction, as well as traffic impacts generated by increased ridership. The City had numerous questions and corrections relating to parks and recreational resources including potential impacts and resources that had not been identified in the document. The City also voiced concerns about potential impacts to wetlands and impacts to water quality.

Fairfax County

Fairfax County voiced support for the project and for increased rail capacity in the corridor. The County expressed concerns about potential impacts to water quality in the Pohick Seeps conservation area and requested continuing consultation with County staff. The County identified a number of potential impacts to parklands, with particular concern for Old Colchester and Mason Neck West parks.

Prince William County

Prince William County requested that DRPT plan for at least one of the highest speed trains (the County used the term "ACELA") to stop at the Woodbridge Station. The County indicated that a stop at Woodbridge would better serve the surrounding community than a stop at Franconia-Springfield. The County requested that the Firestone Road crossing be planned for grade-separation to enable better emergency response to the neighborhoods on the east side of the tracks. The County shared several requested text changes to the body of the Draft EIS. Prince William requested that DRPT coordinate with the County on construction of a new Occoquan River bridge, as it would be a highly visible gateway landmark into the north portion of the County from Route 1. The County was concerned about visual impacts to the viewshed to

Neabsco Creek from Rippon Lodge and requested that potential impacts to Rippon Lodge be included in the Final EIS and any future Section 106 Memoranda of Agreements. The County expressed concern about potential impacts to Cockpit Point Civil War Park, as the eastern side of the park is not currently accessible over the railroad tracks today. Future increases in train traffic could eliminate the potential for creating a public crossing. The County requested that such a crossing be considered during mitigation.

Spotsylvania County

Spotsylvania County asked about the presence of an alternative to the main DC2RVA corridor in the event of a natural or man-made disaster, and questioned if three tracks in one location for the entire length of the corridor would be "putting all eggs in one basket." The County mentioned proposed greenways and pedestrian paths planned in the corridor and stressed that bike/pedestrian-friendly crossings should be taken into consideration. The County corrected the spelling of a roadway and raised issues with flow/tone of certain sections of the Draft EIS. The County also suggested to DRPT to consider the Spotsylvania County Comprehensive Plan to widen Lansdowne Road in the design for a road bridge at this location. Finally, Spotsylvania pointed to an unsafe situation at the intersection of Mine and Benchmark Roads, and called on the study to indicate an upgraded quad-gate configuration at this location.

City of Fredericksburg

The City of Fredericksburg's comment identified planned railroad crossings that the City would like to see widened from their current size to accommodate future roadway capacity. The City also asked that DPRT work with the City to ensure any new passenger station elements are constructed in keeping with the architectural and historical nature of the City, including any parking facilities. They also asked that DRPT consider constructing two separate sound walls in areas of the City where the third track will come close to structures. The structural integrity of the existing rail viaduct was a major concern for the City and will require further coordination to improve pedestrian crossings under the railroad tracks when improvements are made.

Hanover County

The comments received from Hanover County focused on the bypass and through-town alignment alternatives examined by the project for the Ashland/Hanover area. The County commented that Alternative 5A (Maintain Two Tracks Through Town)—also known as "3-2-3"—is the sole alternative that warrants further consideration. The County pointed to potential impacts of 5C (Add Two Track West Bypass) related to wetlands, water quality, property, noise and vibration, aesthetics, cultural resources, wildlife habitat, and transportation. The County also included a resolution of the Hanover County Board of Supervisors dated October 11, 2017 stating the County's opposition to a Western Bypass alternative and to the addition of a third track at-grade through the Town of Ashland.

Town of Ashland

The Town of Ashland sent a letter with a link to a video produced by Kathy Abbot, a member of the Ashland Town Council. The video described how a trench would be detrimental to the town during both construction and post-construction periods. The video urged citizens of Ashland to support the 3-2-3 alternative, rather than a trench through town. The Town also provided comments supporting a deep bore trench beneath the Town as a preferred alternative.

Henrico County

Henrico County was supportive of the recommended preferred alternative in the Richmond area (Alternative 6F). The County recognized revitalization and reinvestment opportunities possible around Staples Mill Road Station. The station and the adjacent Staples Mill Road corridor were included in the Henrico County Vision 2026 Comprehensive Plan, with the station as the focal point of redevelopment. The County also indicated that additional mitigation measures might be necessary for residential parcels affected by construction noise and loss of vegetation along the railroad tracks when an additional rail is built north of Staples Mill Road Station.

B.4 TRANSPORTATION STAKEHOLDERS

CSX Transportation (CSXT)

CSXT submitted comments accompanied by a report performed by Cambridge Systematics that analyzed results of operations modeling performed by DRPT. CSXT commented that infrastructure improvements proposed in the Draft EIS are insufficient to support contemplated increases in passenger traffic. The following themes were prevalent throughout CSXT comments:

- Draft EIS is consistent with FRA requirements, however, there are weaknesses in DRPT's capacity analysis, including:
  - Proposed infrastructure improvements are not sufficient to enable reliable operations of projected train schedules
  - The burden of extended running times and freight delays fall on CSXT's freight traffic
  - Modeling does not "follow best practices"
- Passenger trains will hinder CSXT's future use of any available capacity
- "3-2-3" Alternative in Ashland will be a major bottleneck for freight operations
- Recommended preferred alternative does not have significant freight benefits
- Projected freight delays were expected to be much higher than base case delays
- None of the original 2045 modeling cases "dispatched" to completion—the second round of revised modeling did better, but not overall satisfactorily
- Consider alternative capacity configurations, including:
  - Four tracks in parts of the corridor
  - Use of the Buckingham Branch for some through-traffic and integrating the Buckingham Branch into full modeling, not just as a stand-alone analysis

Norfolk Southern (NS)

Norfolk Southern indicated that they were concerned with the Draft EIS proposing operational changes to Amtrak trains outside the immediate corridor of study. Specifically, NS cites the assumption to add three daily round-trip frequencies to the Norfolk service as problematic. NS claimed that the three additional trains could not be added to service without an agreement from them, which has not been negotiated at this point. In addition, NS took issue with the No Build scenario containing mention of the Amtrak Cardinal long distance train being made a daily service, from its current three-times-weekly frequency. NS also took issue with the

assumption of a second round-trip frequency to Lynchburg in the no-build scenario. For these additional trains to be added, NS claimed that additional environmental review, as well as an operating agreement, would need to be signed.

Virginia Railway Express (VRE)

VRE expressed appreciation for the Draft EIS effort by DRPT and its collaboration. VRE supported the conclusions of the Draft EIS that improvements to railroad capacity will bring benefits to both VRE and other rail users. VRE expressed issues with design details of proposed additional tracks through VRE stations, however, were eager to help resolve these issues. In addition, VRE had questions about noise and vibration analyses, but was confident that the Final EIS will resolve these issues. VRE supported the goals of DC2RVA and welcomed the opportunity to work with DRPT on capital and operating plans that will meet the intercity and commuter train needs of the corridor.

Washington Metropolitan Area Transit Authority (WMATA)

WMATA commented that it has a "zone of influence" policy for all construction projects adjacent to its right-of-way. All construction actions taking place within this zone (a zone boundary that often falls outside of WMATA's right-of-way) must be coordinated with WMATA's Joint Development and Adjacent Construction (JDAC) Office and approved by WMATA. WMATA also drew attention to the construction of the Potomac Yard metro station as a project that requires coordination between DC2RVA and WMATA. Additionally, WMATA urged DRPT to verify ownership of parcels in the Potomac Yards area, especially the parcels that contain CSXT's right-of-way. WMATA also indicated that the construction of a retaining wall in the Alexandria area proposed by DC2RVA would create a reflective surface for WMATA train noise to the detriment of those who live on the side of the tracks. WMATA urged DPRT to include this additional impact in the EIS.

B.5 OTHER ORGANIZATIONS

Randolph-Macon College

Randolph-Macon College was adamant in its opposition to a third rail through Ashland and proposed parking facilities on campus land at the Ashland station. The College commented that a 3-2-3 option will have negative impacts in the long term on the ability for students to safely cross the tracks to access both sides of campus. The College requested that DRPT consider pedestrian under/overpasses at more than one location to accommodate this passage. The College supported the western bypass option AWB 1 as its preferred alternative in the Ashland/Hanover area.

Hampton Roads Chamber of Commerce

The Hampton Roads Chamber expressed their concern that proposed infrastructure in the Draft EIS should be sufficient to accommodate present and future freight demands to the Port of Virginia, a major economic driver in the region. The Chamber generally supported increased passenger rail service to Hampton Roads, but without limiting the value of freight service to the region.

Historic Richmond

Historic Richmond supports DRPT's recommended preferred alternative 6F in the Richmond area. The group expressed their desire to see Main Street Station as the "gateway to the city" like it was years ago. Historic Richmond mentioned that Main Street Station provides the traveling public with: a connection to downtown, expanded multimodal connectivity, a connection to Richmond's vibrant historic urban core, and a competitive transportation choice for intercity travelers. Historic Richmond warned that extra care should be taken to preserve historic structures in Shockoe Bottom, including the Loving's Produce Company building. In addition, the group asked DRPT to do the following things: commission a thorough archeological, historic, and cultural resources study in Shockoe Bottom, conduct a comprehensive archeological survey, create a Devil's Half Acre Memorial Park through donated funds, encourage the City to adopt a form-based code or design overlay district in Shockoe Bottom, conduct research on nearby named resources, and coordinate with other projects in the area. Finally, Historic Richmond stated that if alternative 6F were not selected, the group would support either a single station location at the Boulevard or Broad Street.

National Trust for Historic Preservation (NTHP)

The NTHP asserts that potential impacts to Shockoe Bottom have not been adequately addressed in the study. They point to the history of the slave trade and the efforts to build a nine-acre memorial park to memorialize the activities that occurred at the site. The NTHP recommends that the Area of Potential Effect be expanded to include two additional sites, pointing out that they have "in-place" significance for their association with historical events. The NHTP states that the Draft EIS does not fully consider potential indirect and cumulative impacts in Shockoe Bottom and recommends they be studied fully and mitigation efforts considered. They further state that the project will result in a Constructive Use of the resources under Section 4(f) within Shockoe Bottom and that avoidance or mitigation of the potential impacts must be considered.

Preservation Virginia

Preservation Virginia noted that Shockoe Bottom has important archaeological, cultural, and historic resources, much of which has been paved over, and the Devil's Half Acre is the only portion of Shockoe Bottom that has been evaluated. They recommended that prior to finalization of the study, a comprehensive analysis for those resources located in Shockoe Bottom be conducted, that the area should be evaluated for listing on the National Register of Historic Places, and that the Area of Potential Effects for the study be expanded to include those resources identified by the comprehensive analysis. Preservation Virginia also requested that direct and cumulative impacts to the resources in Shockoe Bottom be considered, and noted that they have worked with the NTHP on a conceptual plan for a memorial park in that location.

Sierra Club

The Sierra Club (Falls of the James section) expressed support for the project and advocated that toll money from HOT lanes in the corridor should be available for rail projects. The Club also supports a station location at Main Street, and indicates that a new station in a new location would be wasteful of investment already made in Main Street Station. The Club indicated that construction should meet high standards for sediment and erosion control and promoted a proposed north-south bikeway along the rail corridor. The Sierra Club also expressed its preference for solar powered facilities in future rail projects.

Southern Environmental Law Center (SELC)

The SELC expressed strong support for the project and efforts to provide improved passenger rail service in the corridor. The SELC recommended that the final set of recommendations for the corridor identify specific near- and intermediate-term projects and the anticipated costs and benefits of each project, to reduce the resistance to cost of the total package of recommendations. SELC urged DRPT to continue efforts in the spirit of the Tier I EIS by advancing projects incrementally and within the existing right-of-way wherever possible to minimize harm to the natural and physical environments. In addition, the SELC expressed concern for the western bypass in Hanover, and recommended that the trench option in Ashland be considered due to potential impacts of the western bypass. The Fredericksburg east bypass should also be removed from consideration due to potential adverse impacts. The SELC supported a two-station option in Richmond, with Staples Mill and Main Street stations serving as the suburban and urban stations, respectively. The A-Line passenger train rights should not be ceded to CSXT, and Virginia should be very careful about giving up any capacity or access that may be needed later. The SELC is aware of DRPT's cooperation with the City of Richmond and stakeholder groups on preserving and protecting the integrity of the Devil's Half-Acre slave site, however, the SELC requested that these resources be cited in the Final EIS. Finally, the SELC expressed its concern with the project's relationship with the host railroad CSXT and the practicalities of various potential improvements given this relationship.

The Civil War Trust

The Civil War Trust commended DRPT for carefully studying and identifying potential impacts to all battlefield sites in the corridor. The Trust indicated that it has an interest in continuing to monitor the DC2VA effort and requested that DRPT provide the Trust the opportunity to consult with the DC2RVA team at the earliest time. Furthermore, the Trust encouraged DRPT to continue coordination with NPS's American Battlefield Protection Program, especially with any future KOCOA analyses required.

Virginians for High Speed Rail

VHSR urged DRPT to complete the DC2RVA study in a timely manner and pointed to congestion on I-95 and population growth projections as reasons not to delay the study. VHSR endorsed further study of a trench option in Ashland to provide future capacity. The 3-2-3 option, according to VHSR, would create a bottleneck later in time that has the potential to negatively affect passenger rail service on the entire east coast. In Richmond, VHSR asked that rail service be high-performance, if not high-speed—competing with highway travel for multiple types of users. The state should not cede access to the A-Line for passenger rail, as retention of the A-Line allows for a redundant rail system in the event of a system disruption on the S-Line. Retention of the A- Line also prevents a situation where CSXT no longer has the obligation to maintain the line to passenger rail standards. In addition, VHSR questioned whether all trains would need to stop at Main Street Station as service is added incrementally. VHSR recommended that DRPT show cost projections that reflect incremental implementation with focus on near-term projects with realistic opportunities for funding. In addition, VHSR enumerated several text errors found in the body of the Draft EIS.

Virginia Chamber of Commerce

The Virginia Chamber indicated its support for the goal of additional passenger service between Richmond and Washington, D.C., but urged DRPT to attain this goal without negatively influencing Virginia's freight rail network. The Chamber indicated that without the

necessary capacity, bottlenecks will delay passenger and freight trains and negatively affect state and regional economies.

Virginia Maritime Association (VMA)

VMA encouraged a comprehensive assessment of impacts to freight rail and steps to ensure efficiencies in the freight rail system that will meet the current and future needs of Virginia businesses and a growing Port of Virginia.

B.6 ELECTED OFFICIALS

Spotsylvania County Supervisor Greg Cebula

Mr. Cebula commented that there is no support for Alternative 3C (Fredericksburg East Bypass) and stated that he supported DRPT's recommended preferred alternative in Area 3: one additional track built to the east of the existing two tracks through Fredericksburg.

Virginia Delegate Buddy Fowler Jr.

Delegate Fowler pointed to the data in the Draft EIS that indicates that two tracks through Ashland would have far fewer impacts on environmental resources, farmland, and commercial properties than any other alternative. The 3-2-3 is consistent with the Tier I EIS's Record of Decision, which calls for an incremental approach to building the corridor. He mentioned that any changes in technology in the future might make current predictions uncertain. Furthermore, the Delegate mentioned that it would be impossible to predict federal funding levels for projects such as these 25 years in to the future.

Hanover County Supervisor Wayne Hazzard

Mr. Hazzard commented that two tracks in Ashland will be sufficient to handle the traffic projected in the future. He asked that the community support the 3-2-3 option in Ashland and that DRPT endorse that alternative. The 3-2-3, according to Supervisor Hazzard, would eliminate a cloud of uncertainty that is hanging over Ashland's business community and western Hanover's residents.

Hanover County Supervisor Aubrey Stanley

Mr. Stanley indicated his support for a 3-2-3 option in Ashland and pointed to a Hanover County resolution that the Hanover County Board passed recently that urges DPRT to endorse the same. He mentioned the prospect of future transportation technology that may change transportation operations and/or needs in the corridor. He mentioned the possibility of using the Buckingham Branch for some freight diversion and indicated that overpasses at Vaughan and Ashcake Roads are much less expensive to construct than a bypass or third track though town, and are needed in the community today to address safety access and traffic backups.

Town of Ashland Mayor James Foley

Mayor Foley stated that he supported the 3-2-3 option, however, recognized that it would be a short-term solution to a longer-term issue. He stated that a third track through town in any form, be it a trench or an at-grade solution, would irreparably harm the Town of Ashland. The Mayor understood that the western bypass opponents who were advocating for a trench in Ashland were not necessarily advocating for the destruction of the town, rather that they did not want a railroad where there was not already one.

City of Richmond Mayor Levar Stoney

Mayor Stoney applauded DRPT for selection of an alternative in Richmond that preserves and enhances Main Street station as a rail gateway. He commented that he expected DRPT will correct minor copy errors in the text of the Draft EIS that omitted certain trains from the list of trains planned to stop at Main Street Station. Additionally, Mayor Stoney requested that DRPT consider 1200-foot platforms and full checked baggage service at Main Street Station in the Service Development Plan and included in 30 percent Preliminary Engineering. In addition, Mayor Stoney requested that safe crossings for pedestrians and cyclists be maintained at all grade crossings in the City, and to verify that plans for grade crossings are up-to-date with City plans for pedestrian and cyclist facilities at these crossings. The mayor's comments indicated that care should be taken when considering land disturbing activities within the Shockoe Valley and Tobacco Row historic districts. The Cultural Context and Thematic Study for the Proposed Revitalize RVA Project prepared by Dutton + Associates LLC in 2013 identified a number of areas with potential for significant archaeological deposits within the Area of Potential Effects (APE) on the east side of the train shed extending from Main Street to the I-95 interchange. The DC2RVA Project should be coordinated with the VDOT I-95/Broad Street interchange upgrades project to assess the combined impact on historic resources in the Shockoe Valley historic district.

City of Richmond Councilwoman Kimberly Gray

Ms. Gray indicated her support for a single rail stop in Richmond at the Boulevard. She mentioned that the two-station stop is costly and does not save enough rail travel time. She expressed concern about the potential for traffic caused by a busier Main Street Station. In addition, Ms. Gray commented that the Devil's Half-Acre slave jail site is the greatest asset near Main Street Station and needs to be memorialized with a site and museum.