APPENDIX B5
RESPONSES TO OPERATOR COMMENTS

D.C. TO RICHMOND SOUTHEAST HIGH SPEED RAIL

Appendix B5
RESPONSES TO OPERATOR COMMENTS

This Appendix Section B5 provides detailed responses to Operator letters, presented in the below order:

CSX

Quintin C. Kendall
Vice President
State Relations & Public Funding

500 Water Street
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November 7, 2017

Via e-mail to emily.stock@drpt.virginia.gov

Ms. Emily Stock
Manager of Rail Planning
Virginia Department of Rail and
Public Transportation
DC2RVA Project Office
801 East Main Street, Suite 1000
Richmond, VA 23219

Dear Ms. Stock:

Please find enclosed CSX Transportation's comments on the DC-to-Richmond Southeast High Speed Rail Tier II Draft Environmental Impact Study. We appreciate the opportunity to support this study and work with you and the Project Office.

Sincerely,

Quintin Kendall

CSXT

(No comments on this page)

DC-TO-RICHMOND SOUTHEAST HIGH SPEED RAIL
TIER II DRAFT ENVIRONMENTAL IMPACT STUDY

COMMENTS OF CSX TRANSPORTATION, INC.

NOVEMBER 7, 2017

CSXT (continued)

(No comments on this page)

INTRODUCTION

CSX Transportation, Inc. ("CSXT") is pleased to comment on the Tier II Draft Environmental Impact Statement for the DC-to-Richmond Southeast High Speed Rail project (the "DEIS"). CSXT has long hosted passenger rail on this corridor, and looks forward to continuing its partnership with Virginia and the Federal Railroad Administration to ensure both freight and passenger rail service in the Commonwealth are operated to maximize efficiency.

The proposed project will be built on CSXT property. CSXT owns the entire 125-mile "DC2RVA" rail corridor that runs from Washington, D.C. to Richmond, Virginia. The project cannot move forward without CSXT's approval, and while CSXT is supportive of appropriate rail capacity to efficiently handle freight and passenger service, it will not further consent to additional passenger service on its tracks that does not ensure CSXT maintains sufficient capacity to handle current and future levels of freight traffic. 1

The DEIS embraces the universal consensus that the DC2RVA corridor has been congested for many years. The Commonwealth committed, decades ago, to construct a third main line track to accommodate additional VRE service on the corridor. It explained in 1995 that because "finite capacity … presents a challenge to the ontime operation of freight, intercity passenger, and commuter service," "good public policy would require that as additional VRE service is warranted … that a third mainline must be built" in VRE-served territory. Letter from Virginia Secretary of Transportation Robert E. Martinez to CSX CEO John W. Snow (Jan. 10, 1995) (attached as Ex. A). Yet that commitment has only been half fulfilled. In the meantime, passenger service has increased year after year. While the DEIS proposes to largely complete the long-needed third main for the entire corridor, all should understand that the full third main is necessary to handle the **current** volume of passenger trains effectively. Instead, the DEIS 2 3

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CSXT (continued)

Note that the response numbering corresponds to the DRPT-numbered statements (as indicated by the numbered black bars on the right side of the CSXT letter), and is not intended to align with the section numbering within the CSXT letter.

1. The Department of Rail and Public Transportation (DRPT) acknowledges that CSXT owns the entire 123-mile DC2RVA rail corridor. DRPT looks forward to continuing close cooperation with CSXT on projects in the rail corridor that increase rail capacity to efficiently handle freight and passenger service.

   DRPT notes that, in addition to the responses provided to CSXT's letter dated November 7, 2017, much of the content of these responses to CSXT's comments are contained within the DC2RVA Project Recommendation Report for the Preferred Alternative, which is Appendix I of the Final EIS.

2. DRPT has been working in partnership with CSXT on several projects to construct a third main line track to accommodate additional VRE service on the corridor, such as the Crossroads to Hamilton third track project completed in May 2016, and the Atlantic Gateway project to add a third main line track between Franconia and Occoquan, which is currently in the initial phases of design. In addition, DRPT is working with CSXT and the Federal Railroad Administration (FRA) to add a third main line track in the corridor between Powells Creek and Arkendale. Both of these separate projects are referenced in Chapter 4 of the Final EIS.

3. The Preferred Alternative, as defined in Chapter 4 of the Final EIS, proposes to construct a third main line track for the entire corridor, including the portion of the corridor south of the Virginia Railway Express (VRE) commuter-served territory not covered under existing commitments, except where limited by existing physical, environmental or historic conditions, such as in Area 5 through downtown Ashland.

proposes using the third main to **increase** the volume of passenger trains. As the DEIS modeling shows, that will unacceptably degrade the performance of the entire network. 3

In the past, when CSXT was presented with a specific request to add passenger service on the corridor, it would evaluate it in light of its four core principles: 4

- **Capacity.** Any addition or expansion of passenger rail service on the CSXT network must ensure that the capacity used by the new service is fully replaced at no cost to CSXT, and before the initiation of new service, such that CSXT has sufficient capacity to handle current and future freight volumes without any degradation of service.
- **Safety.** All passenger rail service must meet CSXT's guidelines for safe operations, with facilities serving both passenger and freight traffic engineered to CSXT standards and limited to 90-mph service.
- **Compensation.** CSXT must receive adequate compensation to host passenger service. The compensation must be sufficient to cover CSXT's costs and support reinvestments in infrastructure necessary to continue providing safe, efficient, and environmentally-friendly freight service. The compensation must also take into consideration the value of CSXT real estate and rail infrastructure used, as well as incremental maintenance costs caused by higher speed passenger trains. CSXT and its freight rail customers (and ultimately, consumers of its customers' products) should not be asked to subsidize passenger service.
- **Liability.** CSXT must be fully protected from any liability arising from the presence of passenger rail service on its right-of-way. This includes the requirement that the operator and/or appropriate public agency provide evidence of mutually acceptable, adequate insurance.

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CSXT (continued)

(Response to comment 3 on previous page)

4. DRPT acknowledges CSXT's statement of its four core principles for permitting new passenger rail services on its lines.

BACKGROUND

1. Freight Rail Is A Driver Of Economic Activity And Provides Environmental Benefits In Virginia And Across The Nation.

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The DEIS recognizes the many benefits of a robust freight rail system—and that increased capacity is necessary to maintain that vitality. It explains that the corridor "is nearing capacity" at the same time that "demand for freight movement" in the area is "growing" due to population increases and the "ongoing expansion of Virginia's deep water ports, rail-dependent industries, and intermodal facilities." DEIS ES-4; *see also id.* at 1-9 (finding that the regional economy must have "reliable and convenient movement of goods … to remain strong and grow"). As described in the 2013 state rail plan, freight rail is a significant driver of economic growth in Virginia, particularly due to its integral role at the Port of Virginia. The Port is ranked second on the east coast and fifth nationwide in infrastructure. *See* Robert McCabe, Port of Virginia Now Ranks Among Top 5 Biggest Ports in North America, *Virginian-Pilot* (Sept. 30, 2017), https://pilotonline.com/business/ports-rail/port-of-virginia-now-ranks-among-top-biggest-ports-in/article_03bcd78a-f714-5249-867d-4e5c226ba93d.html. It supports over 240,000 jobs, and generates $13.5 billion in wages and $41.1 billion in tax revenues annually. *Virginia Statewide Rail Plan* 2-12 (2013); *see also* DEIS 1-11 ("[T]he port is a major source of economic growth."). According to the *Rail Plan*, the "robust rail network" connecting the Port of Virginia to interior markets is a "key component" of that success. *Id.* at 2-12 to 2-13. In fact, the "port has the strongest rail integration in North America," with 38% of its cargo handled by rail. CBRE, *2017 North America Seaports & Logistics Annual Report* 17 (Sept. 2017), http://bit.ly/2kOw9OL. These Virginia statistics are reflective of the railroad industry's broader economic impact: Nationally, CSXT and the other Class I railroads support approximately 1.5 million jobs, $273.6 billion in economic output, $88.4 billion in wages, and $32.8 billion in tax

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CSXT (continued)

5. DRPT concurs that freight rail is a driver of economic activity and provides environmental benefits in Virginia and across the nation.

revenue annually. *See* Towson University, Regional Economic Studies Institute, *Economic and Fiscal Impact Analysis of Class I Railroads* 13 (2016).

The DEIS also recognizes the environmental benefits of freight rail, noting that "every ton-mile of freight moved by rail instead of truck emits 67 percent less greenhouse gas emissions," and that even a 5% diversion of truck-carried freight to rail would save 800 million gallons of fuel and reduce greenhouse gas emissions by 9 million tons—annually. DEIS 1-26. That is the same impact as "taking 1.8 million cars off the road." *Id.*; *see also id.* at 1-7 (defining improved air quality and reduced greenhouse gas emissions as a purpose of the DC2RVA project).

In light of the many economic and environmental benefits of freight rail, the DEIS correctly concludes that the project must "accommodate growth of freight rail service in an efficient and reliable multimodal rail corridor" and that "the proposed improvements [must] enhance the efficiency of freight rail movements within the corridor." DEIS ES-1, ES-3; *see also id.* at 1-7 (project purposes include "diverting … movement of freight by trucks" to rail).

2. The DC2RVA Corridor Is A Critical Component Of CSXT's Network.

The DC2RVA corridor is approximately 125 miles long, consisting entirely of CSXT-owned tracks and right-of-way. The vast majority of the route is on CSXT's RF&P Subdivision, which runs south from the Long Bridge in Arlington, through Fredericksburg, Doswell, and Ashland, and to Acca Yard, a major rail hub on the northern side of Richmond. The RF&P is generally double-tracked; some portions north of Fredericksburg are triple-tracked. From Acca, the corridor continues south through the Richmond area to the end of the DC2RVA study area, in Centralia, on two parallel lines: the North End Subdivision (known as the A-Line, west of downtown), and the Bellwood Subdivision (the S-Line, through downtown). The study also

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CSXT (continued)

(Response to comment 5 on previous page)

6. DRPT concurs that the DC2RVA corridor is a critical component of CSXT's rail network.

includes CSXT's Peninsula Subdivision which heads east from Richmond, and the Buckingham Branch Railroad (BBRR), a parallel north-south route connecting to the main line in Doswell and Richmond.

These lines, part of CSXT's I-95 Corridor and National Gateway, are a "critical" part of the broader CSXT network, which encompasses 21,000 miles of track across 23 states and the District of Columbia. DEIS App. A 3-9. To the south, the network continues on to southern Florida, along the way serving local industry as well as major ports in, among other cities, Hampton Roads; Wilmington, North Carolina; Charleston, South Carolina; Savannah, Georgia; Jacksonville, Florida; and Miami. To the north, the I-95 Corridor continues through Pennsylvania, New Jersey, New York and New England. That north-south route plays a "vital role in moving … rail freight for shippers in Virginia and along the entire eastern seaboard." DEIS 1-19.

The north-south lines also feed the east-west routes of the National Gateway, which provides the connection between the mid-Atlantic ports and Midwest consumption markets, serving customers throughout Ohio, Indiana, West Virginia, Kentucky and Tennessee. And with connections to other carriers in Chicago and other rail destinations, the network provides service to the west coast ports. The result is "the primary intermodal train corridor for CSXT connecting the Port of Virginia" and other mid-Atlantic ports "to national markets." DEIS 1-19; *see also id.* at 1-3 to 1-10.

The Commonwealth and CSXT are also jointly investing in a bypass of the Acca Yard in Richmond—an upgrade that will benefit both passenger and freight service. In another joint project with the Commonwealth, CSXT has enhanced service to Virginia industry with a new two-mile siding in Branchville, which supports expansion of the Chesapeake, VA Perdue facility

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CSXT (continued)

(For response to comment 6, refer to page B-332)

by allowing longer trains between the grain elevators and the Port of Virginia. The DEIS's prioritization of passenger service would undercut these public and private investments.

Speed and reliability have always been important to successful freight rail service. But they have become increasingly important as freight rail traffic grows and shifts to more time-sensitive services such as intermodal. Customers recognize that rail can provide greater speed and reliability than shipping by trucks, which depend on increasingly congested highways. *See generally* Association of American Railroads, *Rail Intermodal Keeps America Moving* (Apr. 2017). Consequently, this year CSXT has implemented a "Precision Scheduled Railroading" operating plan, which emphasizes regularly scheduled service and tight tolerances for on-time arrival of customer shipments. CSXT needs to maintain sufficient capacity on this key corridor in order to accommodate these current needs, as well as to ensure flexibility to meet future needs as they arise. Yet in the DEIS, the proposed passenger service consumes all the added capacity—and more—limiting future operational flexibility to better serve freight customers and grow their business.

3. Stakeholders Have Long Agreed That Additional Capacity Is Needed On The Corridor.

Numerous studies and agreements have recognized that additional infrastructure is desperately needed on parts of the corridor to address capacity shortages caused by the increased number of passenger trains. The growing challenge is illustrated by the major increase in passenger traffic on the corridor in the last 25 years. In 1991, it hosted approximately 22 passenger trips a day—all Amtrak service, a number that had remained roughly steady for many years. Once VRE initiated service in 1992, the passenger train count rapidly increased to 38. Now the corridor handles 59 passenger trains on an average weekday: 25 Amtrak trains and 34

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CSXT (continued)

(For response to comment 6, refer to page B-332)

7. DRPT agrees that additional rail capacity is needed on the corridor to accommodate proposed increases in passenger service, and through the years DRPT has worked closely with CSXT and VRE to construct additional track capacity in the corridor. DRPT looks forward to continuing close cooperation with CSXT on the DC2RVA Project and other projects in the rail corridor that may increase rail capacity to accommodate increased freight, passenger, and commuter rail service.

VRE trains.[1] That is a 170% increase in passenger traffic. But there has not been an equivalent increase in capacity. Rather, there has been an addition of approximately 28 miles of main line track (a roughly 11% increase), along with targeted reconfigurations and upgrades at selected locations.

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The resulting capacity challenges have become increasingly acute as the demand for freight rail service—particularly time-sensitive cargo—rises. Moreover, VRE has planned for further growth, above and beyond the intercity passenger service that is the focus of the DEIS. Significant upgrades are needed to accommodate these trends.

There has been a long-standing consensus that a third main track was needed to handle what are now current levels of traffic: VRE's popularity became clear shortly after its 1992 launch. As the service quickly grew, the Commonwealth recognized in 1995 that because "finite capacity … presents a challenge to the ontime operation of freight, intercity passenger, and commuter service," "good public policy would require that as additional VRE service is warranted … that a third mainline must be built" on the northern part of the corridor. Letter from Virginia Secretary of Transportation Robert E. Martinez to CSX CEO John W. Snow (Jan. 10, 1995) (attached as Ex. A); *see also* VRE Operating Agreement at 7, 8, 27 (Jan. 1995) (attached as Ex. B). The need for a third main line track to accommodate this growth in passenger service was recognized repeatedly over the following two decades, documented in numerous agreements with VRE and the Commonwealth. For example, a 2002 Memorandum of Understanding between the Commonwealth, VRE, and CSXT recognized the prior commitment that there would be "no further expansion" of VRE service "prior to the completion of a third

[1] Eighteen of the VRE trains serve its Manassas line, and diverge west from the CSXT main line in Alexandria. The remainder of the VRE trains run to Fredericksburg, and the Amtrak trains continue the full length of the corridor to Richmond.

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CSXT (continued)

(For response to comment 7, refer to page B-334)

mainline." MOU at 2 (Jan. 2002) (attached as Ex. C). The same document also set up a process by which to determine if and when smaller upgrades would allow the expansion of either VRE or certain Amtrak service "without impairment of existing and future freight and Amtrak inter-city passenger service reliability, safety or growth." *Id.* at 6.

Similarly, a 2009 Framework Agreement with the Commonwealth recognized that "any" expansion of "passenger rail operations conducted over CSXT's lines … without infrastructure improvements," could "reduce CSXT's capacity to operate freight rail transportation service in the Commonwealth," and in turn, increase the burden on Virginia's road network. Framework Agreement By and Between VDRPT and CSXT at 2 (Mar. 19, 2009) (attached as Ex. D). And most recently, a 2016 Term Sheet Agreement recognized the importance of maintaining "the capacity and utility of this irreplaceable CSXT corridor in the national rail network," as well as the "guiding principle … that new passenger rail service [is] not started before the infrastructure required to support [it] [i]s constructed." Non-Binding Term Sheet Between VDRPT and CSXT at 1, 4 (Apr. 11, 2016) (attached as Ex. E).

Numerous government studies have also highlighted the need for at least three main line tracks on the corridor in order to accommodate passenger service growth without impairing critical freight capacity. *See, e.g.*, Amtrak, *Report to Congress: Potential Improvements to the Washington—Richmond Railroad Corridor* at ES-18 (1999); VDRPT, *Washington, DC to Richmond Third Track Feasibility Study* at i (2006) ("There is no doubt that this is a high priority freight and passenger rail corridor that will require significant investment in order to maintain and improve mobility for people and goods.").

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CSXT (continued)

(For response to comment 7, refer to page B-334)

DISCUSSION

CSXT generally believes that the infrastructure improvements proposed in the DEIS are the correct ones in order to meet the goal of adding a third main line to the RF&P. But these improvements will **not** allow for the proposed increase in the volume of passenger traffic—a conclusion that is evident from the DEIS's own modeling. In the context of the principles of capacity, safety, compensation, and liability set forth above, CSXT offers the following comments on the DEIS. 8

First, even with the benefit of unrealistic assumptions and methodological flaws, the DEIS's operations modeling demonstrates that the proposed level of traffic cannot be accommodated by the proposed infrastructure. 9

As a starting point, the validity of the model is questionable. It "assumed ideal operating conditions: that all tracks are fully operational, with no outages for maintenance, repairs, or other restrictions on operations." DEIS App. L 4-2. That, of course, does not represent the reality of operating a railroad. For example, required maintenance, both routine and unplanned, regularly requires shutting down sections of tracks and slowing adjacent traffic. Additionally, weather conditions such as high summer heat and heavy precipitation also require reducing train speeds. *See generally* VRE, "Train Delays," https://www.vre.org/about/blog/train-delays. The DEIS modeling assumes none of these restrictions will occur. Moreover, it assumes that Amtrak trains always enter the corridor on time, a premise not borne out in reality but which makes it easier for the model to reflect "on-time" passenger service. Conversely, the modeling holds freight trains outside the corridor until a relatively clear path is available, artificially decreasing congestion and inflating freight performance. Another problem is that the DEIS relies on only five successful runs (or "seeds") of each specific case tested to conclude the case is viable, without 10 11 12 13 14

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CSXT (continued)

8. Comment noted.

9. and 10. DRPT conducted additional modeling in coordination with FRA that included cases that simulated maintenance-of-way outages, which is summarized in Section 3.2 of the Final EIS and fully discussed in Appendix F of the Final EIS. DRPT is conducting additional Project modeling as part of the Corridor Service Development Plan (SDP) phase of the DC2RVA Project, which would include a review of modeling assumptions, cases, and inputs, as well as additional simulation with maintenance-of-way outages; refer to Section 7.3 of the Final EIS for description of the SDP.

11. See response to DRPT-numbered statement #9 and 10.

12. See response to DRPT-numbered statement #9 and 10.

13. See response to DRPT-numbered statement #9 and 10.

14. Comment noted.

regard to how many runs of the case resulted in failure. Valid models test the robustness of planned infrastructure under real-world conditions by including randomized inputs which vary with each run. Five successful seeds do not test a wide enough range of real-world scenarios. In contrast, CSXT generally requires at least 30 successful runs of a given model to be confident of its accuracy."

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Even with this unrealistic methodology, the modeling shows the proposed infrastructure cannot actually accommodate the planned levels of passenger service. On the most successful cases tested in the DEIS, the model "fail[ed] to dispatch" in several runs (seeds)—meaning "the operations simulation concluded that the infrastructure had insufficient capacity." DEIS 2-117. In short, gridlock. Of the remaining seeds in each of those cases, the simulation ran to completion, but the prioritization of passenger service led to commercially unacceptable delays in freight service. Time-sensitive intermodal service was particularly degraded.[2]

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Second, the DEIS fails to adequately address the Ashland area (Alternative Area 5), long recognized as a bottleneck on the corridor. In 2006, at the request of the Virginia General Assembly, VDRPT issued the *Washington, DC to Richmond Third Track Feasibility Study*, which estimated the cost of a third main line at $684 million in 2006 dollars, not including right-of-way acquisition and utility relocation. The study states:

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> The improvements included in this estimate do not include the construction of a third track in several key areas, including Ashland, Fredericksburg and the Long Bridge across the Potomac River. These three sections will require very expensive solutions to provide additional rail capacity while minimizing the impact on surrounding communities. Improved passenger rail service can be provided in this corridor without a third track in these locations, but *these areas will become bottlenecks that will limit reliability and the capacity for additional future service growth*.

[2] Additional analysis of the DEIS modeling is included in the attached Appendix.

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CSXT (continued)

(Response to comment 14 on previous page)

15. Comment noted.

16. Comment noted.

VDRPT, *Washington, DC to Richmond Third Track Feasibility Study* ES-2 (emphasis added). 16

For two of the three bottlenecks identified by the VDRPT study, the DEIS makes an effort to propose options that will presumably accommodate at least present levels of service without complete gridlock. Specifically, it proposes a third main through Fredericksburg and contemplates expanding capacity at the Long Bridge, the subject of a separate NEPA process. But, regrettably, after intensive study, the DEIS does not recommend a proposed alternative with regard to Ashland. Instead, it continues to consider an unworkable "3-2-3" configuration—i.e., one that provides for only two tracks through or around Ashland. Even under the optimistic conditions assumed by the DEIS modeling, the model often "fails to dispatch." DEIS 2-117. The modeling showed that "either a third main track through Ashland or a two-track bypass around Ashland would provide *the highest likelihood* that trains would meet their performance goals." DEIS 2-118 (emphasis added). If those options have at best a marginal chance of working, it is indisputable that having only *two* tracks through the Ashland area with the proposed volume of service will cause unresolvable bottlenecks, as predicted over a decade ago. Indeed, the FRA conducted subsequent modeling using *only* two tracks through the Ashland area—a project not acknowledged in the DEIS—and the results confirmed that such an approach is simply unworkable. *See* Appendix at 8-11. 17 18

The FEIS must select an alternative that includes at least three tracks for Alternative Area 5 in order to support the proposed increases in passenger traffic. Yet, the DEIS gives inadequate consideration to one viable approach for achieving just that: using the Buckingham Branch Railroad (BBRR) as an eastern bypass for passenger traffic. The BBRR meets the CSXT main line at Doswell (north of Ashland) and reconnects to the S-Line just north of Main Street Station 19

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CSXT (continued)

(Response to comment 16 on previous page)

17. Comment noted.

18. As described in statements #9 and #10 above, DRPT conducted refined modeling that used only two tracks through the Ashland area subsequent to the Draft EIS preliminary simulation modeling; the findings of this effort are summarized in Section 3.2 of the Final EIS and fully discussed in Appendix I of the Final EIS. This additional operations analysis modeling confirmed that the range of alternatives evaluated in the Draft EIS, and selected as the Preferred Alternative in the Final EIS, were appropriate to accommodate the level of service proposed. DRPT and FRA note that the section of the Project in Area 5 through downtown Ashland is limited by existing physical, environmental, and historic conditions, which cannot be overcome without increased cost and impact to the community and environment. As services in the DC2RVA corridor are developed and implemented incrementally, DRPT looks forward to working with CSXT on future phases of the Project.

19. Comment noted. Analysis on the use of the Buckingham Branch as a freight bypass around Ashland is included in Appendix A of the Draft EIS. In addition, analysis of the use of the Buckingham Branch as a freight and passenger bypass around Ashland is included in Appendix G of the Final EIS, as part of the summary of the Town of Ashland / Hanover County Community Advisory Committee (CAC) activities. Routing certain passenger trains via the existing Buckingham Branch line from Richmond to Doswell would require skipping both the Staples Mill Road and Ashland stations, which would not meet the intercity passenger rail demand in the Project and thus would not meet the Purpose and Need of the Project.

in Richmond. Almost a decade ago, the FRA considered and dismissed one plan to use the BBRR as a bypass for passenger traffic. *See* DEIS App. A 5-89. More recently, the agencies dismissed several other proposals to use the BBRR to provide additional capacity through the Ashland area. *See id.* at 5-64 to 5-71, 5-81 to 5-89. These options should be more fully studied and modeled. For example, not every intercity passenger train needs to serve Ashland, and upgrades to the existing BBRR right-of-way are at least as feasible as constructing a new bypass in a new right-of-way to the west of Ashland, an alternative that remains under consideration. The FEIS should more seriously evaluate whether the BBRR can provide the necessary third track through the Ashland area. 19

Third, the DEIS appears to rely on an On-Time Performance standard that has been nullified by the federal courts. *See* DEIS 1-21 & n.17, 2-116, App. I 2-7. That standard was promulgated by Amtrak and the FRA under Section 207 of the Passenger Rail Investment and Improvement Act of 2008, but was struck down as unconstitutional by the U.S. Court of Appeals for the D.C. Circuit. *See Ass'n of Am. R.R.s v. Dep't of Transp.,* 821 F.3d 19 (D.C. Cir. 2016). The U.S. Court of Appeals for the Eighth Circuit subsequently struck down the Surface Transportation Board's effort to implement its own On-Time Performance standard. *See Union Pac. R.R. v. STB*, 863 F.3d 816, 826 (8th Cir. 2017). In light of these developments, on-time performance remains a matter of contract between Amtrak and CSXT, taking into account reasonable service schedules and real-world conditions. 20

Fourth, the FEIS must adequately address the issue of compensation, and acknowledge that CSXT will not be responsible for the true incremental cost of accommodating the proposed passenger service on its tracks. That means the FEIS should accurately reflect both the project's true infrastructure costs and the additional operating expenses involved in operating the proposed 21

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CSXT (continued)

(Response to comment 19 on previous page)

20. Comment noted.

21. The capital infrastructure cost estimates of the Preferred Alternative are summarized in Section 4.5 of the Final EIS. The estimates are based on conceptual engineering at an approximately 10% level of design using available desktop data. The purpose of the capital cost estimates is to provide a comparative cost between alternatives to assist environmental decisions to be made. Railroad signals and communications systems are estimated based on compared system costs from the California High Speed Rail project as part of the 10% conceptual engineering that was performed in support of the environmental documentation for this Project. Comparable cost information for railroad signals and communications systems was not available for inclusion in the Draft EIS due level of design at that phase. Appropriate order of magnitude cost estimates of the system were included in the capital costs estimates for comparative purposes only. These costs do not reflect refined actual costs based on a more detailed level of design, as noted by CSXT Engineering in their acknowledgement of the statement in Draft EIS Appendix K and in their assessment of crossing gate system costs.

3-track Class V railroad rather than the current 2-track Class IV railroad. Notably, the estimated annual operations and maintenance costs are only briefly discussed in the DEIS (with no supporting details or methodology). *See* DEIS 2-123 to 2-124. Similarly, the DEIS acknowledges that its capital cost estimates are incomplete. *See* DEIS App. K 1-1 ("The conceptual costs DO NOT represent the total Project cost, which will be highly dependent on schedules, construction phasing, and numerous other factors that have not been defined at this stage of Project development."). And even some of those costs that are included appear to be inaccurate. For example, CSXT Engineering believes the DEIS significantly understates the cost of installing complex 4-quad crossing gate systems. *See id.* at 7-3 (estimate of $542,996 per crossing). Similarly, the DEIS does not appear to reasonably estimate the cost of replacing the entire signal system on all tracks along the entire length of the 125-mile DC2RVA corridor to accommodate the DEIS's proposed speed increases. 21

Finally, the FEIS should address questions of safety and liability. Specifically, it should acknowledge that CSXT, as the property owner, has total plenary authority to determine what constitutes safe passenger operations on its own tracks. The FEIS must also acknowledge that, prior to the commencement of any new passenger service, CSXT must be fully protected from any liability arising from passenger operations on its property. 22

CONCLUSION

CSXT generally believes that the infrastructure improvements proposed in the DEIS are the correct ones in order to meet the goal of adding a third main line to the RF&P. However, the proposed improvements are insufficient to support the contemplated increases in passenger traffic. 23

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CSXT (continued)

(Response to comment 21 on previous page)

22. DRPT acknowledges that CSXT, as the property owner of the DC2RVA corridor, has total plenary authority to determine what constitutes safe passenger operations on its own tracks in accordance with safety regulations governing passenger operations enacted by FRA.

23. As services in the DC2RVA corridor are developed and implemented incrementally, DRPT looks forward to working with CSXT on future phases of the Project, which includes a Corridor Service Development Plan (SDP) to incrementally implement the service improvements planned in the DC2RVA Project. As part of the SDP effort (see Section 7.3 of the Final EIS), 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. 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.

    Exhibit A: *Letter from Robert E. Martinez, Secretary of Transportation, Commonwealth of Virginia, to John W. Snow, Chairman & Chief Executive Officer, CSX Corporation, dated January 10, 1995.*

(Responses are continued on next page)

3-track Class V railroad rather than the current 2-track Class IV railroad. Notably, the estimated annual operations and maintenance costs are only briefly discussed in the DEIS (with no supporting details or methodology). *See* DEIS 2-123 to 2-124. Similarly, the DEIS acknowledges that its capital cost estimates are incomplete. *See* DEIS App. K 1-1 ("The conceptual costs DO NOT represent the total Project cost, which will be highly dependent on schedules, construction phasing, and numerous other factors that have not been defined at this stage of Project development."). And even some of those costs that are included appear to be inaccurate. For example, CSXT Engineering believes the DEIS significantly understates the cost of installing complex 4-quad crossing gate systems. *See id.* at 7-3 (estimate of $542,996 per crossing). Similarly, the DEIS does not appear to reasonably estimate the cost of replacing the entire signal system on all tracks along the entire length of the 125-mile DC2RVA corridor to accommodate the DEIS's proposed speed increases. 21

Finally, the FEIS should address questions of safety and liability. Specifically, it should acknowledge that CSXT, as the property owner, has total plenary authority to determine what constitutes safe passenger operations on its own tracks. The FEIS must also acknowledge that, prior to the commencement of any new passenger service, CSXT must be fully protected from any liability arising from passenger operations on its property. 22

CONCLUSION

CSXT generally believes that the infrastructure improvements proposed in the DEIS are the correct ones in order to meet the goal of adding a third main line to the RF&P. However, the proposed improvements are insufficient to support the contemplated increases in passenger traffic. 23

13

CSXT (continued)

Exhibit B: *Operating/Access Agreement between CSX Transportation, Inc. and Northern Virginia Transportation Commission and Potomac and Rappahannock Transportation Commission, Concerning Commuter Rail Service, dated January 10, 1995.*

DRPT acknowledges the exhibit and does not have any comment responses to this content.

Exhibit C: *Memorandum of Understanding effective the 31st day of January 2001, by and among CSX Transportation, Inc., the Northern Virginia Transportation Commission and the Potomac and Rappahannock Transportation Commission, and the Commonwealth of Virginia's Department of Rail and Public Transportation.*

DRPT acknowledges the exhibit and does not have any comment responses to this content.

Exhibit D: *Framework Agreement by and between the Virginia Department of Rail and Public Transportation and CSX Transportation, Inc., dated March 19, 2009.*

DRPT acknowledges the exhibit and does not have any comment responses to this content.

Exhibit E: *Non-Binding Term Sheet between Virginia Department of Rail and Public Transportation and CSX Transportation, Inc., dated April 11, 2016.*

DRPT acknowledges the exhibit and does not have any comment responses to this content.

Separate Attachment: *DC2RVA Southeast High Speed Rail Technical Review of Draft Environmental Impact Statement (Draft EIS), prepared for CSXT, prepared by Cambridge Systematics, Inc. with Willard Keeney, dated November 6, 2017.*

DRPT acknowledges the exhibit and does not have any comment responses to this content. Many of the comments about operations modeling work conducted by DRPT for the DC2RVA Project that appear in this attachment also appear as comments in the overall letter from CSXT, for which DRPT has prepared responses (see above).

(Responses are continued on next page)

3-track Class V railroad rather than the current 2-track Class IV railroad. Notably, the estimated annual operations and maintenance costs are only briefly discussed in the DEIS (with no supporting details or methodology). *See* DEIS 2-123 to 2-124. Similarly, the DEIS acknowledges that its capital cost estimates are incomplete. *See* DEIS App. K 1-1 ("The conceptual costs DO NOT represent the total Project cost, which will be highly dependent on schedules, construction phasing, and numerous other factors that have not been defined at this stage of Project development."). And even some of those costs that are included appear to be inaccurate. For example, CSXT Engineering believes the DEIS significantly understates the cost of installing complex 4-quad crossing gate systems. *See id.* at 7-3 (estimate of $542,996 per crossing). Similarly, the DEIS does not appear to reasonably estimate the cost of replacing the entire signal system on all tracks along the entire length of the 125-mile DC2RVA corridor to accommodate the DEIS's proposed speed increases. 21

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CONCLUSION

CSXT generally believes that the infrastructure improvements proposed in the DEIS are the correct ones in order to meet the goal of adding a third main line to the RF&P. However, the proposed improvements are insufficient to support the contemplated increases in passenger traffic. 23

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CSXT (continued)

As summarized in Section 3.2 of the Final EIS, DRPT conducted refined operations analysis both within the DC2RVA corridor as well as in the larger CSXT network, to inform the selection of a Preferred Alternative. It builds on previous operations simulation modeling conducted during preparation of the Draft EIS and incorporates subsequent revisions to the infrastructure and operating plans presented in the Draft EIS that were developed to improve operational consistency and reduce delays associated with schedule conflicts within the DC2RVA corridor. Full details of the refined operations analysis modeling are provided in the technical memos in Appendix F of the Final EIS; description of how the refined operations analysis modeling led to the selection of a Preferred Alternative is provided in the DC2RVA Recommendation Report, which is Appendix I of the Final EIS. DRPT has presented this and related service planning information to CSX on June 5 and 9, 2017; June 27 and 28, 2017; July 7 and 12, 2017; August 16, 2017; and September 18, 2017.

CSXT (continued)

EXHIBIT A

CSXT (continued)

Copy Jim Derwin
Andy Fogarty - J-120

1-19-95

CSX CORPORATION
JAN 16 1995
CHAIRMAN, PRESIDENT & CI

COMMONWEALTH of VIRGINIA

George Allen
Governor

Office of the Governor

Robert E. Martinez
Secretary of Transportation

ANN PURDUE:
FOR YOUR
VRE FILE.
cc RCC
Jim Derwin
01/19

January 10, 1995

MLA
AEF

Mr. John W. Snow
Chairman & Chief Executive Officer
CSX Corporation
One James Center
901 East Cary Street
Richmond, Virginia 23219

CSX FAX Transmission
To: Randy Evans — FAX #:
Phone #: — # of Pages:
From: Rob Stiles — FAX #:
Phone #: — Verify (Y/N):
Comments:

Dear Mr. Snow:

The Virginia Railway Express and CSXT will soon sign an agreement extending commuter rail service in Northern Virginia for four and a half more years. The Commonwealth of Virginia is committed to support of passenger rail transportation as detailed in this letter. First and foremost, the Commonwealth respects the rights of CSX Corporation to operate its facilities for the benefit of its stockholders. The freight transportation services provided in the Commonwealth are critical to Virginia's economy and are a contributor to our continued economic growth. Our support of passenger rail service is in no way intended to disrupt the ability of CSXT to operate an efficient freight rail service. I believe you appreciate the position I held regarding this matter throughout the period of the CSX/VRE discussions.

In support of the current contract, the Commonwealth Transportation Board, for the current year, has appropriated capital funds necessary to pay the capital lease payments due to CSXT for the use of its transportation corridor and for construction of certain improvements necessary to accommodate increased VRE service. The Board is unable to appropriate subsequent years' funding due to legal restrictions. However, the Board did pass a resolution expressing its intent to continue funding VRE for the full term of its contract with CSXT. As Chairman, it is my intent to see that this commitment is met.

The finite capacity of the current track system in the Washington to Fredericksburg corridor presents a challenge to the ontime operation of freight, intercity passenger, and commuter service. We certainly recognize that additional capacity will be needed to accommodate future growth , and think good public policy would require that as additional VRE service is warranted by the market that a third mainline must be built between Washington and Fredericksburg. Towards that end, this administration will work diligently and cooperatively with CSX Corporation and the Virginia Railway Express first to ascertain market need and assess this approach and then seek to secure federal and state funding. We look forward to working with you.

P.O. Box 1475 • Richmond, Virginia 23212 • (804) 786-8032 • TDD (804) 786-7765

CSXT (continued)

Mr. John W. Snow
January 10, 1995
Page Two

CSX Corporation has a responsibility to its shareholders, customers, and employees to create value through providing freight transportation services. We recognize the importance of this service to the economic vitality of the Commonwealth. Similarly there is a public need to increase rail passenger service. We appreciate the accommodations CSXT has made to serve this public purpose by accommodating VRE's service. I pledge to work with you to make sure the future rail passenger service will not disrupt the operation of the rail freight network.

Sincerely,

Robert E. Martínez

REM/cmg

cc: Mr. Leo J. Bevon

CSXT (continued)

EXHIBIT B

CSXT (continued)

OPERATING/ACCESS AGREEMENT

Between

CSX TRANSPORTATION, INC.

and

NORTHERN VIRGINIA TRANSPORTATION COMMISSION AND POTOMAC AND RAPPAHANNOCK TRANSPORTATION COMMISSION

CONCERNING COMMUTER RAIL SERVICE

CSXT (continued)

THIS AGREEMENT, made and entered into this 10th day of January, 1995, is by and between CSX TRANSPORTATION, INC., a corporation organized and existing under the laws of the Commonwealth of Virginia, with a principal place of business at 500 Water Street, Jacksonville, Florida 32202 (hereafter the "Railroad"), and the NORTHERN VIRGINIA TRANSPORTATION COMMISSION and the POTOMAC AND RAPPAHANNOCK TRANSPORTATION COMMISSION, bodies politic and corporate and political subdivisions of the Commonwealth of Virginia, established under the provisions of the Transportation District Act of 1964, as amended, and having principal places of business at 4350 N. Fairfax Drive, Suite 720, Arlington, Virginia 22203, and 1549 Old Bridge Road, Suite 209, Woodbridge, Virginia 22192, respectively (hereinafter, individually, a "Commission" and, collectively, the "Commissions");

EXPLANATORY STATEMENT

A. The Railroad is engaged in the business of providing efficient, reliable freight rail transportation services to industrial and commercial enterprises. The Railroad has obligations and its key constituents: (i) to its shippers: to provide high quality, reliable service; (ii) to its employees: to provide a safe place to work where their skills and talents

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CSXT (continued)

can be fairly and productively utilized; and (iii) to its shareholders: to engage in efficient operations that will assure superior returns.

B. The Railroad is the owner of a system of railroad lines, including the railroad line between Richmond, Virginia and Arlington, Virginia (the "RF&P Subdivision"). The RF&P Subdivision is a fully integrated component of the Railroad's system and serves as a primary link between its operation in the North and South.

C. The Railroad's freight rail operations also promote significant economic interests within the Commonwealth of Virginia and thereby enhance the welfare of its citizens. Within the RF&P Subdivision, the Railroad currently serves substantial utilities and business enterprises, annually transporting over 72,000 carloads of coal, nonmetallic mineral, paper and food and consumer commodities in a safe and environmentally superior manner. It is the Railroad's intention to attract more traffic off the already overburdened highway system, thus helping to ease congestion and reduce pollution. In addition to the jobs created and sustained by these business enterprises, the Railroad currently employs at least 1,600 of its work force directly in the support and operation of freight rail services to these enterprises.

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CSXT (continued)

D. The National Rail Passenger Corporation ("NRPC" or "AMTRAK") also utilizes the RF&P Subdivision to provide intercity passenger rail services, pursuant to its mandate and authority under Federal Law.

E. The Commissions are engaged in planning and operating a high quality, world-class public transportation rail system, known as the Virginia Railway Express ("VRE"), that is reliable, safe and economical, with financial assistance from the Commonwealth of Virginia (the "Commonwealth"). The Commissions have become leaders in providing an efficient and environmentally sound alternative to single occupant automobile travel on the overcrowded highway network at significantly lower cost. By foregoing automobile travel, the Commissions' commuters make a significant contribution in reducing automobile generated pollution, which is responsible for nearly two-thirds of all air pollution in Northern Virginia. The Commissions' commuter rail service is an important component of the region's approach to meeting the air quality standards set by the Federal Government in the Clean Air Act Amendments of 1990. In addition to the mobility provided to the daily commuters and reduction in air pollution, the Commissions' commuter service provides significant meaningful employment. Energy conservation from this mass transit service reduces dependence on foreign oil.

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CSXT (continued)

F. In view of potential benefits of commuter rail services to the Commonwealth, the Railroad and the Commissions undertook cooperative efforts to initiate certain commuter rail services, within that portion of the RF&P Subdivision between MP 110.0 (RO Interlocking) and MP 53.2 (Olive) (the "Corridor"), pursuant to an Operating/Access Agreement dated December 1, 1989 between Richmond, Fredericksburg and Potomac Railroad Company (the "Original Agreement"). The Original Agreement was to expire on November 30, 1994, but was extended for an additional period ending January 10, 1995, pursuant to a Forty Day Extension Agreement dated November 30, 1994, and a Second Extension Agreement dated January 9, 1995 (collectively, the "Extension Agreement").

G. During the initial term of the Original Agreement, the Commissions' commuter rail service has been well-received by the citizens of the Commonwealth and the Commissions now seek to renew the term of the Original Agreement and to expand its existing commuter service.

H. However, all parties acknowledge that the finite capacity of the Railroad's RF&P Subdivision (particularly within the Corridor) presents a challenge to the concurrent operation of freight, commuter, and intercity passenger rail services. The Railroad has informed the Commissions that, in the

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CSXT (continued)

Railroad's judgment, Railroad's ability to operate its freight service on its railroad lines is constrained by existing passenger rail service within the Corridor, and that the ability of the Commissions to provide reliable, on-time service within the Corridor is impaired by the finite capacity of the Railroad's RF&P Subdivision. In essence, the Railroad believes that it will not be possible to accommodate future growth of passenger service on its existing system and that a new course must be chartered.

I. It is clearly in the best interests of Commonwealth and its citizens, and crucial to the Commissions and its commuters, the Railroad and its shippers, employees and shareholders, to maintain the highest standards of service on the RF&P Subdivision. To do otherwise would result in the increase of freight and commuter traffic on the already overburdened highway system. Maintenance of those standards requires that capital improvements be made to increase the capacity of the Corridor.

J. In view of its freight and intercity passenger rail service commitments and the capacity constraints of its RF&P Subdivision, the Railroad has determined that it can allow the expansion of the Commissions' commuter service only upon obtaining assurances from the Commissions, working with the

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CSXT (continued)

Commonwealth, that the capacity of the RF&P Subdivision must be expanded to accommodate the contemplated commuter traffic within this vital and growing corridor in the manner described below. Accordingly, it is the intention of the Commissions and the Railroad to work cooperatively to seek long-term solutions that will accommodate the growing freight and intercity passenger operations and further expansion of commuter rail services in the Corridor. It is believed that such a long-term solution will require the construction of a third parallel mainline to be operated in coordination with the Railroad's existing double track mainline system.

K. By letter dated January 10, 1995, from Robert Martinez, the Secretary of the Commonwealth's Department of Transportation, to John Snow, the Chairman and President of CSX Corporation, the Commonwealth has acknowledged the need for capital improvements to allow the operation of the Railroad's freight service and NRPC's intercity passenger service without interference from the Commissions' commuter service, and the Commonwealth's willingness to provide financial assistance to the Commissions to enable them to fund such improvements as well as a portion of the fees payable to the Railroad under this Agreement. While the Railroad understands that such acknowledgment does not constitute a legally binding commitment,

CSXT (continued)

the Railroad has relied upon such acknowledgment in the formulation and its acceptance of the terms and conditions of this Agreement.

L. In view of the foregoing, the Commissions acknowledge and agree that: (i) the Commissions' service may be modified as identified on the annexed Exhibit A-1, subject to the construction of certain capital improvements, pursuant to Section 2.9(b) of this Agreement, at the Commissions' sole cost and expense; (ii) the Commissions have expressed their desire to expand commuter services even further, but acknowledge that no further expansions be allowed within the Corridor, unless and until the Commissions have committed to undertake, with the financial assistance of the Commonwealth and at no expense to the Railroad, pursuant to Section 2.9(c) of the Agreement, the construction of a third parallel mainline to be operated in coordination with the Railroad's existing double-track mainline system and such other improvements and conditions as the Railroad may require, to ensure that commuter operations will not interfere with the operations of the Railroad or NRPC; (iii) the Commissions will undertake in good faith to obtain the public funding necessary, with the financial assistance of the Commonwealth, to so construct such aforesaid improvements which the Railroad requires; (iv) for the purpose of facilitating

CSXT (continued)

discussions, representative of the Railroad and the Commissions will meet regularly (no less than four times a year) to consider issues and to make non-binding recommendations to the Railroad and the Commissions pertinent to safe and economical operations within the Corridor; (v) the Railroad will cooperate with the Commissions in obtaining the agreement of NRPC to allow holders of commuter service tickets to use those tickets on NRPC intercity passenger trains within the Corridor, but such cooperation shall not entail the expansion of the existing intercity passenger service; and (vi) to induce Railroad to strive toward on-time performance for the Service, the Commissions will provide Railroad with economic incentives, but in no event will Railroad suffer any penalty or incur any damage claim for or arising from delays or disruptions in the Service for any reason, including maintenance or conflicting freight and intercity passenger service operations.

M. In view of the forgoing, the parties agree to continuation of the Commissions' existing commuter rail service and the terms on which such service might be expanded, all as more particularly set for in this Agreement.

NOW, THEREFORE, in consideration of the mutual covenants and promises herein contained, the parties hereto agree as follows:

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CSXT (continued)

ARTICLE ONE

DEFINITIONS

1.1 The following terms (except as otherwise expressly provided or unless the context otherwise requires) for all purposes of this Agreement shall have the meanings hereafter specified:

Contract Fee: The monthly payment to be made by the Commissions to the Railroad pursuant to Article Five hereof as compensation for the privilege of operating the Service.

Corridor: The Railroad's railroad line between MP 110.0 (RO Interlocking) and MP 53.2 (Olive), it being understood and agreed that this Agreement does not have address or contemplate operation of the Service beyond the limits of such railroad line.

Equipment: The locomotives and cars complying with Section 2.4 of this Agreement which are at any time used by the Commissions, or either of them, or by an agent or Operator, to provide rail commuter Service over Railroad's tracks.

Joint Operations Committee: The committee described pursuant to Section 2.6(c) of this Agreement.

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CSXT (continued)

Operator: Shall mean any person, firm, corporation or other legal entity contracting with or utilized by the Commissions to operate all or any part of the Service or to be responsible for providing and supervising on-train personnel for operation of the Equipment and Trains. The term may include one or both of the Commissions. An Operator must be approved by and remain subject to the continuing approval of the Railroad.

RF&P Subdivision or Subdivision: The RF&P Subdivision consists of the Railroad's railroad line between Richmond, Virginia and Arlington, Virginia.

Rush-Hour Periods: The Rush-Hour Periods shall consist of those periods of time established by the Railroad, from time to time, and shall consist initially of the hours between 5:00 a.m. and 9:02 a.m. and between 3:30 p.m. and 7:54 p.m. on weekdays. The establishment of Rush-Hour Periods shall not affect, by itself or in conjunction with other provisions of this Agreement, the relative priorities of freight, intercity passenger, and commuter rail operations.

Service: The Service shall consist of the Trains, whether occupied or empty, which are used to provide commuter rail service pursuant to the authority granted by this Agreement. Service includes the movement of Trains operated at the times,

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CSXT (continued)

between the mile posts, with the frequencies, and Equipment specified in Exhibit A, attached hereto, and the movement of Special Trains allowed pursuant to Section 3.1. Service, as specified in Exhibit A, may be amended at any time by written agreement of the parties with an appropriate adjustment to the Contract Fee, if any.

Station Leases: The Station Leases shall consist of the separate Lease Agreements between the Commissions and Railroad, for the leasing of certain real property for the operation of commuter rail passenger service stations, including those stations enumerating on the annexed Exhibit F, as amended from time to time.

Tracks: The Tracks subject to this Agreement shall be the railroad operating facilities shown or described in the attached Exhibit B, including but not limited to signaling facilities. The Tracks shall include such other parallel or related railroad operating facilities of Railroad as may at the instruction of Railroad from time to time be temporarily used for the operation of the Service. The rail facilities within the definition of Tracks shall include the Improvements to such rail facilities identified by Exhibit E hereto, and may be further changed at any time by written agreement of the parties.

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CSXT (continued)

Train: A Train subject to this Agreement shall consist of a locomotive unit, or more than one unit coupled, with or without cards, whether or not carrying passengers, having not less than 4.0 horsepower per trailing ton, displaying markers or carrying an end of train device, and capable of adhering to the schedule standards specified for the Service.

Improvements: Shall mean changes in, additions and betterments to, or retirements from, made pursuant to Section 2.9 of the Agreement, the Tracks, facilities (including, without limitation, signal and communication systems) or freight locomotives, cars or other equipment of the Railroad, its affiliates or any other railroad companies entitled to use the Tracks.

Special Train: specified in Exhibit A or Exhibit A-1, as may be allowed pursuant to Section 3.1 of this Agreement.

ARTICLE TWO

CONDITIONS

2.1 This Agreement shall supersede and replace the Original Agreement (as extended by the Extension Agreement) and shall be effective retroactively as of December 1, 1994, for the

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CSXT (continued)

term hereof. The Commissions acknowledge that they have executed separate agreements with Consolidated Rail Corporation, Norfolk Southern Railway and NRPC, which are comparable to this Agreement, and that, upon the expiration of such agreements, the Commissions anticipate the execution of new agreement with such railroads, which agreements grant (or will grant) the Commissions the right to operate commuter rail service over the lines of each of those railroads. The Commissions shall promptly provide Railroad with current copies of such agreements and any subsequent amendments thereto, upon the execution of such agreements or amendments.

2.2 In the event that the terms and provisions of any agreement described in Section 2.1 shall at any time be interpreted, modified or amended so as to become more favorable to another railroad contracting with the Commissions than the terms and provisions of this Agreement are to Railroad, Railroad may (but need not) require the Commissions to modify this Agreement so as to incorporate such interpretation, modification or amendment, in whole or in part; such modifications shall become effective retroactively as of December 1, 1994, except that modifications affecting compensation due to Railroad shall become effective as the date of Railroad delivers notice to the Commissions.

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CSXT (continued)

2.3 The Commissions have informed Railroad that they may desire to operate the Service through an agent. Any person, firm, corporation or other legal entity contracting with or utilized by the Commissions to operate all or any part of the Service shall be an Operator within the meaning of this Agreement, must be approved in advance by Railroad, which approval shall not be unreasonably withheld, and must at all times during the term of this Agreement remain acceptable to Railroad. If at any time an Operator becomes unacceptable to Railroad, Railroad shall notify the Commissions of such unacceptability and the Commissions shall promptly select a new Operator acceptable to Railroad. An Operator must comply at all times with all applicable provisions of this Agreement. The Commissions shall not have the right to assign this Agreement or any portion hereof to any other person or entity, or to permit any person or entity other than Operator acceptable to Railroad to exercise such rights or enter upon the property of Railroad without the written consent of Railroad. The retention of an Operator by the Commissions shall not relieve the Commissions of any of their obligations under this Agreement.

2.4 (a) Railroad shall have no responsibility, but shall have the right, to inspect any Equipment of the Commissions. Railroad shall have no responsibility to maintain, service or

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CSXT (continued)

repair any of the Equipment of the Commissions, but all such Equipment shall at all times comply with applicable federal, state and local requirements and with Railroad's standards for locomotives and cars permitted to operate over Railroad's Tracks, which standards, as adopted and revised from time to time by the Railroad in its sole discretion, shall be identified and specified in writing to the Commissions.

(b) All Equipment used in the Service shall comply with the provisions of the federal Locomotive Inspection Act and the Federal Safety Appliance Acts, as amended, and with all regulations adopted pursuant to either Act. The Commissions and any Operator shall also comply with any other applicable laws, regulations or rules, state or federal, covering the operation, condition, inspection or safety of the Equipment.

(c) The Commissions shall defend, indemnify, protect and save wholly harmless Railroad, its corporate affiliates, and its and their respective officers, directors, agents and employees from all fines, penalties, costs, expenses and liabilities imposed upon or asserted against Railroad, its corporate affiliates or any of its or their officers, agents or employees as a result of an alleged violation by the Commissions or an Operator of either (i) any of the laws, rules and

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CSXT (continued)

regulations to which reference is made in Subsection 2.4(b) or (ii) any of the terms of this Agreement.

2.5 (a) Operation of the Service shall at all times comply with the Railroad's operating rules, safety rules, instructions (including verbal or written directive of the Railroad's operating officers) and other regulations. The Commissions, an Operator and all personnel of either and of the Railroad who are present on the Equipment at any time shall comply fully with the applicable laws, regulations or rules, whether federal, state or local, covering the operation, maintenance, condition, inspection, testing or safety of personnel or Equipment employed in the maintenance and operation of any of the Train.

(b) The Commissions shall defend, indemnify, protect and save wholly harmless Railroad, its corporate affiliates and its and their respective officers, director, agents and employees from all fines, penalties, costs, expenses and liabilities imposed upon or asserted against Railroad, its corporate affiliates, or its or their respective officers, directors, agents or employees as the result of alleged violation by the Commissions or an Operator of any of the laws, rules and regulations to which referenced is made in Subsection 2.5(a).

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CSXT (continued)

(c) Commissions shall make such arrangements with Railroad as may be required to ensure that all persons operating Equipment or Trains over the Tracks must be fully competent, trained and qualified for the tasks they are performing. All persons operating Equipment or Trains must be approved by and remain subject to approval by the Railroad. Upon the request of the Commissions, Railroad shall provide training appropriate to qualify the Operator's crew in accordance with then current Federal certification procedures and operating rules of Railroad, and shall conduct periodic orientation sessions with the participation of Railroad's dispatchers (including the chief dispatcher for the territory) and the Operator's personnel. The Commissions shall pay to Railroad, promptly upon receipt of bills therefore, all expenses incurred by Railroad for qualifying, testing, and maintaining the qualifications of the Operator's personnel and conducting the orientation sessions, pursuant to this Section 2.5(c). In addition, the Commissions shall pay to Railroad promptly upon receipt of bills all expenses incurred by Railroad for training Railroad personnel as a result of the Service. Reimbursable costs shall include the costs of all labor furnished by Railroad, including pilots, if any.

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CSXT (continued)

(d) Whenever the Service shall be modified so as by such modification alone to require a change in Railroad's Timetables, Railroad will furnish the Commissions or their designee with Timetables, Switch Keys, Operating Rule Books, Safety Rule Books, and any related publications or material deemed necessary by Railroad, and the Commissions shall pay Railroad the cost of such related publications or material, including, but not limited to the actual cost of printing and distributing new Timetables.

(e) The Commissions, at their sole expenses, shall obtain, install and maintain, in all locomotives used with Commission's Trains operating over the Tracks, functioning radios to transmit and receive appropriate Railroad frequencies.

(f) Any investigation or hearing concerning the violation of any operating rule, safety rule or instructions of Railroad by any of the employees of the Commissions or of an Operator may be attended by any official of the Commissions or of the Operator designated by the Commissions, and any such investigation or hearing shall be conducted in accordance with any applicable collective bargaining agreements.

(g) Railroad shall have the right to exclude from the Tracks or Railroad property any employee of the Commissions or an Operator determined by Railroad to be in violation of

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CSXT (continued)

Railroad's rules, regulations, orders or instructions, whether issued by Timetable, bulletin or otherwise. The Commissions shall indemnify, defend and save wholly harmless Railroad, its corporate affiliates and its and their respective officers, agents and employees from and against any and all claims, liabilities and expenses resulting from such exclusion or from performance by an employee who has been so excluded.

2.6 (a) The Commissions acknowledge that their right to use of the Tracks is subject to the paramount right of Railroad to use its own tracks, and that the right of Railroad to use the Tracks shall not be diminished by this Agreement. The Commissions understand that Railroad heretofore granted rights to use of the Tracks to other railroad companies, to NRPC, and to MCI, Plantation Pipeline, and WilTel, and that the rights herein granted are subject to such prior rights of others and to such rights as the Railroad has granted or may elect, in its sole discretion (subject to the terms of any then existing Station Lease), to grant in the future to other persons or corporations. Commissions hereby agree that they will not assert, directly or through any Operator, that the Trains or the Service is entitled to preference over the Railroad's freight operations, or over the freight operation of another railroad company entitled to use the Tracks, or over the intercity

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CSXT (continued)

passenger trains of NRPC, in the use of any part of the Tracks. Railroad hereby agrees that it will make reasonable efforts to secure adherence to the Service specifications set out in Exhibit A, and as it may be amended, on the Tracks subject to this Agreement. To induce Railroad to strive toward adherence to such Service specifications, the Commissions shall make incentive compensation payments to Railroad in accordance with Section 5.2 and Exhibit C-2, but in no event shall Railroad suffer any penalty or incur any damage claim for or arising from delays or disruptions in Service for any reason, including, but not limited to, basic or restorative maintenance or improvements undertaken within the Corridor or conflicting freight or intercity passenger services.

(b) Railroad retains exclusive authority to approve or reject, in its sole discretion, any proposed modification of the Service or of its scheduled operations, and the right to require the construction of Improvements pursuant to Section 2.9 of this Agreement and modifications to the Service or to its scheduled operations (with appropriate modification to the Contract Fee) whenever, in its exclusive good faith discretion, the Service or its schedule of operations should be changed or modified or such improvements should be made. Railroad shall endeavor, when operationally practicable in the judgment of

21

CSXT (continued)

Railroad, to give the Commissions prior notice of modifications to the Service or its scheduled operations which Railroad intends to initiate.

(c) The parties hereby agree to maintain the existing operating committee (the "Joint Operations Committee"), which shall consist of such representatives or Railroad and the Commissions as they each shall designate from time to time. The Joint Operations Committee shall meet at least quarterly, at a time and place to be determined by the parties (but shall alternate between Northern Virginia and Jacksonville, Florida), to discuss issues pertinent to the safe and efficient operation of rail services within the Corridor, to review service and performance, and to make findings and to formulate recommendations for the consideration of the Railroad and the Commissions, concerning the operation of the Service, including Improvements which may enhance the operation of the Service. Notwithstanding the foregoing, the findings and recommendations of the Committee or its member are advisory only and shall not be binding upon either the Commissions or Railroad. Railroad reserves the right to make its own determinations, which shall be binding and conclusive, as to all matters which, by the terms and conditions of this Agreement, are subject to judgment, discretion, control, approval or consent of the Railroad.

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CSXT (continued)

2.7 In the event that operation of the Service requires the prior approval of or exemption from regulations by the Interstate Commerce Commission or any other governmental agency, securing such approval or exemptions shall be the exclusive responsibility of the Commissions. The Commissions shall not commence the Service, either in their own behalf or by means of any third party Operator, until any such approval or exemptions becomes effective. To the extent Railroad deems appropriate, Railroad will make reasonable efforts to support the actions which the Commission may initiate pursuant to this Section.

2.8 Railroad shall at all times have exclusive control of the management of all operations over the Tracks. The Commissions recognize that delays or cancellations of the Service due to conflicts with Railroad's freight service, NRPC's intercity passenger service, weather, labor difficulties, track or equipment failure, conflicting schedules or missed connections of NRPC trains, or of trains of Railroad, or trains of other railroads entitled to use of the Tracks, or from other causes, are probable. Although Railroad will make reasonable efforts to avoid such delays or cancellations, Railroad shall in no event be responsible for or liable to the Commissions, an Operator, or any passenger for the consequences of any such delay or cancellation, but such delays or cancellations will be

CSXT (continued)

taken into an account in the calculation of incentive compensation to the extent provided by Exhibit C-2 hereto.

2.9 (a) Ongoing Operation: Improvements may be made when, in the judgment of Railroad, they are necessary or desirable for the safe or economical operation of the RF&P Subdivision, or if required by any law, rule, order, regulation or ordinance promulgated by any governmental body having jurisdiction. To the extent such Improvements are occasioned or required by the operation of the Service: (i) the Railroad shall review the proposed Improvements with the Joint Operations Committee; (ii), if the Joint Operations Committee is unable to timely reach an agreement as to the necessary Improvement, the issue may be referred to the Railroad's Chief Operating Office and the Commissions' Chairmen for the review and recommendations; (iii) after such consultation and review, the Railroad shall determine, in its sole discretion, the Improvements which are to be constructed; (iv) Railroad shall construct or make, or cause to be constructed or made, such Improvements, subject to: (1) the Commissions' binding agreement to fund, at no cost to Railroad, the entire cost of such Improvements; and (2)the appropriation of funds sufficient to reimburse Railroad for such costs; (v) in the event that the Commissions fail to so agree or to obtain the necessary

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appropriation, as required by (iv) above, or Railroad is unable to construct or make such Improvements for any other reason, in the manner or time required, in the Railroad's sole judgment, to permit the safe, economical or lawful operation of the RF&P Subdivision, Railroad shall be entitled to suspend all or part of the Service; and (vi) the Contract Fee shall be amended to include the expense of maintaining, repairing and renewing such Improvements. Upon the request of the Commissions, Railroad will consider financing the cost of the Improvements undertaken pursuant to this Section 2.9(a) (other than the maintenance and repair of such Improvements), upon terms and conditions mutually acceptable to Railroad and the Commissions. All Improvements (and all replacements thereof) shall become part of the Tracks and property of Railroad, and retirements of such shall be excluded from the Tracks when effected, except to the extent otherwise provided by Section 2.9 (e).

(b) Proposed Expansion of Service: The Commissions wish to expand the existing Service, as more particularly described in the Operating Plan for Commuter Rail Service which is annexed to this Agreement as Exhibit A-1. Railroad agrees to allow only such expansions of the Service (and, except as otherwise provided by Section 2.9(c), no further expansion or modification); provided that prior to initiation or that

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expansion: (i) the Commissions shall have provided such evidence, as Railroad may require in its sole discretion, of the Commissions' commitment and ability to diligently proceed with and timely complete the construction of those Improvements at Lorton, Virginia, and Virginia Avenue, Washington, DC, all as more particularly described by the annexed Exhibit E, at no expense to Railroad (including, without limitation, the execution by the Commissions of a binding agreement with Railroad for the construction of Improvements at Lorton, Virginia, subject to a resolution of the manner in which the existing Lorton tube is to be altered or extended); and (ii) the Commissions have agreed to fund, and have obtained all necessary governmental commitments to fund the entire cost and expense of such Improvements. In the event that the Improvements are not substantially completed by the dates set forth on the annexed Exhibit E, or Railroad determines that the Commissions are not diligently proceeding with the prosecution of such Improvements, Railroad shall have, in addition to all other available rights or remedies, the right to limit the Service to those trains and operations described by Exhibit A.

2.9 (c) Additional Expansion of Service.

(i) The Commissions have expressed a desire to expand the Service beyond the level called for in Section 2.9(b), but

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acknowledge that the Railroad retains the right, in its sole discretion, to reject any proposal for expansion of the Service. Further expansion of the Service beyond the expansion contemplated by Section 2.9(b) shall not be allowed, unless and until the Commissions have committed to undertake, at no cost to Railroad, the construction of a third parallel mainline in the Corridor to be operated in coordination with the Railroad's existing double-track mainline system and such other improvement and as Railroad determines, in its sole judgment, to be necessary to ensure that commuter operations will not interfere with the freight operations or intercity passenger service. It is contemplated that the new mainline will be primarily utilized for commuter operations that that Railroad will be appropriately compensated for that portion of its right of way which is dedicated to such new mainline.

(ii) Accordingly, the Commissions may request further expansion of the Service beyond the level called for in Section 2.9(b) by presenting to Railroad evidence of the Commissions' commitment to implement and to fund, at no expense to Railroad, al or a significant portion of the aforesaid third mainline and such other Improvements as Railroad deems necessary to ensure that commuter operations will not interfere with freight and intercity passenger service operations. Upon such request,

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Railroad shall enter into discussions with the Commissions regarding the expansion of the Service, including the size of and effective date for the expansion, the timing of Improvements, the compensation due to Railroad for that portion of its right of way which is dedicated to such Improvements and other appropriate charges and the like, and the parties' respective rights, title and interest in such Improvements (including, without limitation, the removal of such Improvements upon termination of this Agreement). If Railroad decides, in its sole discretion, to allow the expansion on terms and conditions acceptable to the Commissions, the parties shall execute definitive agreements to proceed with such expansion on such terms and conditions.

(iii) Railroad agrees to cooperate with the Commissions in obtaining the agreement of NRPC to allow holders of the Commissions' commuter service tickets to use those tickets on NRPC passenger trains, within the Corridor, but such cooperation shall not entail the addition of, or changes in the scheduling of NRPC trains, or any other expansion of NRPC service.

(d) The Commissions agree to make good faith efforts to obtain the public funding necessary to undertake, and shall pay when due to Railroad the cost of, the construction and installation of the Improvements as outlined in Subsections

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2.9(a), (b) and (c) which are undertaken by Railroad. All such Improvements which are made on or to property of the Railroad shall become part of the tracks and property of the Railroad, except to the extent otherwise agreed by the parties to accommodate the terms and conditions of federal agencies which furnish financial assistance for such Improvements. It is understood and agreed that the construction of Improvements pursuant to Subsections 2.9 (a) or (b) or, except as otherwise expressly agreed by the parties, Section 2.9 (c) shall not affect the priority of freight and intercity passenger operations over commuter operations or otherwise limit the Railroad in the exercise of its rights, discretion or judgment pursuant to this Agreement.

(e) At the termination of this Agreement, the Railroad shall have the option of retaining or, at the entire cost of the Commissions, of removing, or requiring the removal of, all or any portion of any Improvement made on or to the property of Railroad pursuant to the provisions of subsections (a) and (b) of the Section 2.9, and of restoring Tracks, facilities, or freight equipment, to their original condition (ordinary wear and tear expected), following such removal. If the Railroad elects to retain all or any portion of the Improvements for continued rail service, then, the Railroad

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shall pay to the Commissions the amount by which the then net salvage value of such Improvements exceeds the removal and restoration costs otherwise to be incurred by the Commissions.

(f) In the event of the replacement of any Improvements, the parties' respective rights and obligations with respect to such Improvements shall extend to replacements thereof, and Railroad shall be entitled to use and dispose of replaced materials as it determines, except to the extent the cost of such Improvement and replacement is borne by the Commissions.

2.10 Performance by Railroad of its maintenance obligations, including (but not limited to) those in Article Six hereof, will occasionally result in delays or cancellations of operations of the commuter rail passenger service. Delays or cancellations so occasioned will not relieve the Commissions of any obligations herein set forth, or give rise to any rights in the Commissions not otherwise set forth, but shall affect incentive compensation to the extent provided by Exhibit C-2 hereto.

2.11 (a) If, by any reason of mechanical failure or for any other cause, Equipment or a Train of the Commissions becomes stalled or disabled and is unable to proceed, or fails to maintain the speed required of Trains in order to meet normal

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schedules, or if in emergencies crippled or otherwise defective Equipment is set out of the Commissions' Trains on the Tracks, Railroad may at its option furnish motive power or such other assistance as may be necessary to haul, help or push such Equipment or Trains, or to properly move the disabled Equipment, and the Commissions shall reimburse Railroad for the cost of rendering any such assistance in lieu of payment of the variable portion of the Contract Free otherwise applicable to movement of such Trains or Equipment.

(b) If it becomes necessary to make repairs to, or to transfer the passengers on, crippled or defective Equipment in order to move it, such work may be done by Railroad, and the Commissions shall reimburse Railroad for the cost thereof in accordance with the then current Code of Rules of the Association of American Railroad, or in the absence of such rules, in an amount mutually agreed upon or in the absence of such agreement, in an amount determined by arbitration conducted in accordance with Article Eleven hereof.

(c) Whenever the Commissions' Equipment on the Tracks requires re-railing, wrecking service or wrecking train service, Railroad will perform such service, including the repair and restoration of roadbed, track and structure. The cost and expense of such service shall be paid by the Commissions to

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Railroad. The Commissions shall also hold the Railroad harmless under the provisions of Article Nine hereof, from and against all liability for loss of, damage to and destruction of any property whatsoever and injury to or death of any person or persons whomsoever resulting from services provided by Railroad under this Section. All Equipment and salvage from the same shall be promptly moved by the Commissions or the Operator or delivered to the Commissions and all cost and expense therefore incurred by Railroad shall likewise be paid by the Commissions to the Railroad. The movement of damaged or disabled Equipment by the Railroad shall not be taken into account for the purpose of determining the variable portion of the Contract Fee. If the incident requiring cleanup involves hazardous materials, Railroad shall be responsible for filing reports required by governmental authorities and shall advise the Commissions of the nature of the hazardous material involved.

2.12 If during the term of this Agreement the Tracks should be appropriated or otherwise acquired by a governmental body or agency thereof, or by a quasi-public body, this Agreement shall terminate. If a part only of the Tracks is so acquired, and in the reasonable judgment of the Commissions or Railroad, the balance of the said Tracks is no longer suitable for the maintenance of the Service, or if part of the Tracks (including

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any right to use, access or occupancy of the Tracks) is acquired for the specific purpose of providing passenger or commuter rail service, this Agreement, at the option of the Commissions or Railroad, shall terminate upon delivery of written notice to the other of its exercise of said option to terminate within thirty (30) days of said acquisition, such exercise being within the sole discretion of such party. All awards or compensation for the Tracks, or part thereof, resulting from such appropriation or acquisition shall be paid to Railroad; provided, however, the Commissions shall be entitled to participate in condemnation proceedings to seek recovery of compensation attributable to property which it owns to the extent permissible under applicable law. In the event of a partial appropriation or acquisition as herein contemplated and neither party elects to terminate this Agreement, the parties hereto shall endeavor to reach agreement as to the appropriate adjustment, if any, to the Contract Fee. In the event agreement is not reached, this Agreement shall terminate upon thirty (30) days' notice by either party to the other.

ARTICLE THREE

ACCESS

3.1 Railroad hereby grants to the Commissions, subject to the terms and conditions of this Agreement, the right to use the

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Tracks with the Commissions' Trains in the provision of the Service. With the written consent of the Railroad, and subject to such terms and conditions as the Railroad may prescribe, the Commissions may operate test trains and trains required for employee training. In addition, Railroad may allow, at its sole discretion, the operation of Special Trains by the Commissions upon the Commissions' request, at the rates set forth on the annexed Exhibit G and upon such other terms and conditions (including, without limitation, provisions for and evidence of such indemnification and insurance), as the Railroad may require in its sole discretion.

3.2 The rights granted to the Commissions herein shall relate solely to use of the Tracks of Railroad for the operation of Trains in the provision of the Service. Immediately upon the execution and delivery of this Agreement, the parties will execute and deliver a Station Lease whereby Railroad will lease to the Commissions certain real property for the operation of the station facilities enumerated in the annexed Exhibit F. It is contemplated that an additional agreement or agreements (including Station Leases and amendments thereto) may be entered into between the Commissions and Railroad concerning the construction, maintenance and use, during the term of this Agreement, of certain additional, ancillary facilities,

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including, among others, stations, platforms, canopies, parking areas and depots, for the accommodation of the Commissions' employees and passengers. Such Station Leases and other agreements shall impose no cost or liability on Railroad (or its licenses, its corporate affiliates, or its and their respective officers, agents and employees), shall terminate no later than this Agreement and shall grant Railroad the right, at termination, to require removal from Railroad property at the Commissions' expense of all property of or Improvements effected by the Commissions on Railroad property.

ARTICLE FOUR

TERM

4.1 This Agreement shall become effective retroactively and shall commence as of December 1, 1994, and unless terminated earlier in accordance with its provisions, or with the written consent of both parties, shall terminate on June 30, 1999. At or about six (6) months prior to the expiration of this Agreement, representatives of the Commissions and Railroad shall meet to review operation of this Agreement and discuss extensions and possible modifications thereof. However, it is understood that neither party is obligated to agree to any extension of this Agreement nor that any extension shall be

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conditioned upon payment to the Railroad by the Commissions of such compensation as Railroad may require in its sole discretion.

4.2 The Commissions shall have the right to terminate this Agreement at any time on sixty (60) days written notice to Railroad.

4.3 Termination of this Agreement for any cause shall not relieve any of the parties hereto from any obligations or liabilities accrued under this Agreement as of the time such termination becomes effective. Without limiting the generality of the foregoing, it is specifically recognized that any obligation on the part of a party to assume financial responsibility, to indemnify and insure or to make a payment of money shall survive termination of this Agreement.

ARTICLE FIVE

PAYMENT

5.1 (a) The premise upon which Railroad and the Commissions have agreed to the initiation of the Service pursuant to the Original Agreement and the continuation of the Service pursuant to this Agreement is that Railroad will permit operation of the Service with the following conditions: (1) the Commissions will make payment to Railroad of the Contract Fee

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pursuant to Section 5.1(b); (2) the Railroad (and its licensees, its corporate affiliates and its and their respective officers, agents and employees) will incur no liability or losses from the Service; and (3) if there is interference with the Railroad's ability to provide freight operations as a result of the operation of Trains other than at their regularly scheduled times due to reasons attributable to events or conditions which are enumerated in Section 2 of Exhibit C-2, the Commissions will participate fully in the costs incurred and revenue lost. The Commissions, therefore, hereby undertake to hold harmless Railroad (which term, as used in this Section 5.1, shall include Railroad, its licensees, its corporate affiliates, and its and their respective officers, agents and employees) against all loss, cost, expense, obligations, maintenance or discontinuance of the Service. The enumeration of any such costs or expenses and inclusion of provisions requiring payment to or indemnification of Railroad by the Commissions for such expenses, costs and risks elsewhere in this Agreement shall in no way diminish the liability of the Commissions to compensate or indemnify Railroad for any such costs, liabilities, expenses or obligations as hereafter occur, it being the intent of the parties that Railroad be fully protected, indemnified and made whole by the Commissions against any such costs, expenses,

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liabilities and obligations so caused or so exacerbated, whether or not specifically described in this Agreement.

(b) In addition to such other sums which accrue under other provisions of this Agreement, the Commissions agree to pay Railroad a monthly Contract Fee as follows:

(i) For the period beginning with the initiation of the Service under the Original Agreement and ending January 31, 1995, the Contract Fee shall accrue and be payable monthly in advance, in accordance with the Exhibit C of the Original Agreement.

(ii) On or before January 30, 1995, in consideration of the extension of the Original Agreement pursuant to the Extension Agreement, the Commissions shall pay to Railroad the sum equal to the difference between: (1) the Contract Fee set forth in Exhibit C-1 for the period beginning December 1, 1994 and ending January 31, 1995; and (2) the compensation payable to Railroad pursuant to subparagraph (i) above; and

(iii) For the period commencing February 1, 1995 and continuing through the expiration or termination of this Agreement, the Commission shall pay to Railroad monthly in advance the Contract Fee set forth in Exhibit C-1.

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(c) Upon the Commissions' request, Railroad may agree to accept an annual payment of the Contract Fee with an appropriate discount and such other terms which are mutually acceptable to the parties.

(d) On and after December 1, 1994, the Contract Fee (as calculated pursuant to Section 5.1(b) (ii) and (iii)) shall be subject to adjustment during the term of this Agreement only with respect to: (i) the amount specified for Station Leases, upon the expiration, termination or grant of leases by Railroad to the Commissions, from time to time, to reflect the amounts due and payable by the Commissions under such leases; (ii) adjustments contemplated by Section 2.9; and (iii) adjustments for the variable component of the Contract Fee, which adjustments shall be made within 180 days of the first day of the month for which such Contract Fee accrues.

(e) Payment of the Contract Fee shall be made no less than five days prior to the first day of each month by wire transfer to such account as Railroad designates in writing to the Commissions.

(f) The amounts payable to the Railroad under this Agreement shall be subject to audit or review for up to three years following payment thereof. Notwithstanding the foregoing, the Contract Fee shall be subject to audit and review only to

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the extent necessary to verify the number of train miles for the purpose of its variable component.

5.2 In addition to the Contract Fee, the Commissions shall pay Railroad incentive compensation, as determined in accordance with Exhibit C-2 annexed to this Agreement.

5.3 In addition to the payments specified hereinabove, the Commissions shall also pay to Railroad monthly, within thirty (30) days of demand when supported by appropriate document, any amounts which Railroad shall have failed to earn from NRPC pursuant to Appendix V (as it may from time to time be amended) of the Basic Agreement between Railroad and NRPC governing the operation of intercity passenger service over lines of Railroad and Railroad attributes to the presence of Equipment, personnel, passengers or property of the Commissions or of an Operator or to the normal or abnormal operation or to the malfunction of the Service.

5.4 In addition to the payments specified elsewhere in this Article Five, the Commissions shall also pay to Railroad, within thirty (30) days of demand, when supported by appropriate documentation, any amounts which become due to be so paid pursuant to the provisions of Article Two, Article Seven, Article Eight and Article Nine. Railroad's reimbursable labor

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costs shall include the overhead percentage agreed upon by Railroad and the Commonwealth's Department of Transportation.

5.5 Invoices for amounts due to Railroad under this Agreement shall be prepared substantially in accordance with the format annexed to this Agreement as Exhibit C-3, as it may be changed from time to time by Railroad.

5.6 If Railroad is at any time required by law, rule, regulation or ordinance or by order of a court or of any administrative agency to give the commuter rail service priority over Railroad's freight operations or NRPC's intercity passenger service, the Railroad shall be entitled to terminate this Agreement immediately upon delivery of written notice to the Commissions, unless the Commissions provide Railroad with a legally binding and effective waiver of all such priority as it may relate to the Service and indemnification against all liability attributable to or arising from the Commissions' waiver of, and Railroad's failure to comply within the otherwise applicable priority requirements, which waiver and indemnification shall be in form and substance acceptable to Railroad in Railroad's sole judgment.

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ARTICLE SIX

MAITENANCE

6.1 Subject to the provisions of Section 2.7, 2.8 and 2.9 hereof, and excepting force majeure, Railroad shall, during the term of this Agreement, keep and maintain the Tracks in a condition which will permit the operation of the Service. Railroad does not guarantee the condition of the Tracks or that the Service will not be delayed or interrupted. Failure on the part of the Railroad to maintain the Tracks as required in this Article Six shall in no event impose any liability on the Railroad (or its licensees, its corporate affiliates, or its or their respective officers, agents or employees), nor shall any such failure absolve the Commissions of any of the obligations imposed upon them by Article Nine hereof.

ARTICLE SEVEN

CLAIMS SERVICE

7.1 The provision of claims handling service in connection with any aspect of the commuter rail service shall be the exclusive responsibility of the Commissions, and in no event shall the Commissions or any Operator assert any right to require provision of such service from the Railroad or any affiliate thereof, the terms of any pre-existing agreement

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between any Operator and Railroad to the contrary notwithstanding. The Commissions hereby agree to indemnify, protect and save Railroad (and its licensees, its corporate affiliates, and their respective officers, agents or employees) harmless against any cost or expense for the provision of claims handling service which is attributable to the existence of the Service and which is sought to be imposed on Railroad under the terms of such a pre-existing agreement.

ARTICLE EIGHT

RAILROAD POLICE

8.1 The provision of the services of railroad police or law enforcement personnel in connection with any aspect of the commuter rail service shall be the exclusive responsibility of the Commissions, and in no event shall the Commissions or any Operator assert any right to require provision of the services of such railroad police or law enforcement personnel from the Railroad of any affiliate thereof, the terms of any pre-existing agreement between any Operator and Railroad to the contrary notwithstanding. The Commissions hereby agree to indemnify, protect and save Railroad, its licensees, its affiliates, and its and their respective officers, agents and employees harmless against any liability, cost or expense arising from or related

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to the failure to provide the services of railroad police or law enforcement personnel which is attributable to the existence of the Service and is sought to be imposed under the terms of such a pre-existing agreement.

ARTICLE NINE

RISK OF LIABILITY

9.1 (a) The Commissions shall protect, defend, indemnify and save harmless Railroad from any loss, cost or expense incurred by Railroad (including, but not limited to, lost incentives, penalties, detour and rerouting expenses), and all liability for death, personal injury or property damage, (including, but not limited to the property and employees of Railroad, which is attributable in any way to, or which is exacerbated by, the operation of the Service over the Tracks or Railroad, or to the presence of cars, equipment, personnel, contractors, agents or passengers of the Commissions or an Operator on or about the property of Railroad. The Commissions shall indemnify and save Railroad harmless under this Article Nine whether or not such death, injury or damage is caused, in whole or in part, by the negligence, regardless of its character or degree, of Railroad, and whether the damages are compensatory, punitive or exemplary, provided, that the

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liability of the Commissions under this Article Nine shall not exceed Two Hundred Million Dollars ($200,000,000.00) (or such greater sum as may be required by the provisions of Section 9.2 hereof) in any one calendar year.

(b) To guarantee payment of their obligations under this Article Nine, the Commissions shall, subject to the approval and continuing supervision of the Division of Risk Management of the Commonwealth of Virginia (the "Division"), procure and at all times maintain a policy or policies of liability insurance, with annual aggregate limits of at least Two Hundred Million Dollars ($200,000,000.00) (or with such additional limits as may be required by the provisions of Section 9.2 hereof) covering the liability assumed by the Commissions under this Article Nine. Such insurance may consist of a program of self-insurance approved and administered by the Division for up to Five Million Dollars ($5,000,000.00), with the balance of the coverage (at least $195 million in excess of the $5 million self-insured retention) to be obtained through commercial insurance. All insurance policies shall name Railroad as an insured, shall provide liability insurance covering the liabilities assumed by the Commissions under this Agreement, and shall be endorsed to provide that the insurance company will give Railroad thirty (30) days prior written notice

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if the policies are to be terminated or modified during the term of this Agreement. The Commissions shall provide Railroad with copies of all commercial insurance policies, including all current endorsements, carried by the Commissions pursuant to this Section 9.1, and a copy of all agreements, including amendments thereto, between the Commissions and the Division of Risk Management of the Commonwealth of Virginia relating to the coverage, structure, administration or funding of the Commissions' insurance program.

(c) In accordance with Section 2.1-526.8:1 of the Code of Virginia, the Division has established the Northern Virginia and Potomac Rappahannock Transportation Commissions Commuter Rail Operations Liability Insurance Plan, a copy of which is annexed as Exhibit D (the "Plan"). The Plan is and shall be maintained by the Commissions and administered by the Division in accordance with Section 15.1-1358 of the Virginia Code and constitutes a "liability policy" for the purposes of that Section and Section 15.1-1364 of the Virginia Code. It is the intention of the parties that the Plan provides coverage for all liability which is or may be imposed upon or assumed by the Commissions under this Article Nine. The parties further agree that, subject to the additional criteria set forth in this Article Nine (including, but not limited to Sections 9.1(b),

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9.1(d) and 9.2), the Plan is sufficient, as of the date hereof, to fulfill the obligations of the Commissions with respect to the procurement and maintenance of liability insurance pursuant to Section 9.1(b).

(d) The Commissions shall provide to Railroad a copy of all reports which AMTRAK submits pursuant to Part B(2)(b) of the Plan. The reports to be made pursuant to Part C(3) of the Plan shall include the balance sheets and income statements of the Trust Fund (as defined by Section 9.1(f)).

(e) If, at any time, the total insurance coverage applicable to the liabilities assumed by the Commissions under this Article Nine falls below Two Hundred Million Dollars ($200,000,000.00) or, because of pending claims, is reasonably expected to fall below Two Hundred Million Dollars ($200,000,000.00) (or, in each case, such greater coverage as may be required by the provisions of Section 9.2), or such coverage is otherwise subject to challenge or diminution for any reason (including, without limitation, court decisions or applicable laws or regulations affecting the validity or enforceability of the Plan or this Article Nine), notice of such fact shall be given promptly by the Division to the Commissions, the Railroad and the Operator. If the Commissions fail to immediately (i.e., the day of such notice) restore the available

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insurance coverage to Two Hundred Million Dollars ($200,000,000.00) (or such higher level as may be required by the provisions of Section 9.2), or to otherwise obtain relief from any other causes which may diminish such coverage for any reason, the Service and all rights granted the Commissions under Article Three of this Agreement shall immediately cease and shall not be resumed until the full Two Hundred Million Dollars ($200,000,000.00) in insurance coverage (or such higher levels as may be required by the provisions of Section 9.2) has been obtained; provided, however, the cessation of passenger service shall not occur until after the Railroad has consulted with the Commissions and determined, in its sole judgment, that the coverage specified herein will not be promptly restored; and provided further that the Service and all rights granted the Commissions under Article Three of this Agreement shall immediately cease at any time the total insurance coverage falls below $150,000,000.00. Any determination by Railroad under this subparagraph (e) shall be conclusive and not subject to challenge by the Commissions.

(f) Pursuant to the Plan, the Division administers the Commuter Rail Operations Liability Insurance Trust Fund (the "Trust Fund") for the purposes of implementing and funding the Commissions' obligations under the Plan and this

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Article Nine. The Commissions shall ensure that, at all times, the Trust fund is solvent and adequately funded for the purposes contemplated by this Article Nine, and shall arrange for a review by the Division of the financial condition of such Trust Fund and the commercial insurance and self-insurance maintained under the Plan, from time to time, as requested by Railroad. Such review shall include a written certification to Railroad that the Trust Fund is solvent, and that the Plan's insurance program fails to comply with the requirements of this Article Nine, or that the Trust Fund is not adequately funded, the Division shall promptly give notice of such fact to Railroad, the Commissions and the Operator. If Railroad determines that the Trust Fund is not adequately funded, Railroad may give notice of such fact to the Commissions. If the Commissions fails to immediately (i.e., the day of such notice by the Division or Railroad) provide funding in amounts determined by the Division or by Railroad to be adequate or obtain the required insurance, the Service and all rights of the Commissions under Article Tree of this Agreement shall immediately cease until such funding and/or insurance is provided; provided, however, the cessation of passenger service shall not occur until after the Railroad has consulted with the Commissions and determined, in its sole judgment, that adequate

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funding and/or insurance will not be promptly restored. Any determination by Railroad under this subparagraph (f) shall be conclusive and not subject to challenge by the Commissions.

(g) In the event that Railroad determines, in its sole judgment, that either this Article Nine or the Plan (or the insurance coverage provided thereunder) is invalid or unenforceable for any reason, or that the Commissions have otherwise failed to comply with its obligations under this Article Nine, such determination shall constitute a default pursuant to Section 12.2 of this Agreement. Any determination by railroad under this subparagraph (g) shall be conclusive and not subject to challenge by the Commissions.

(h) The term "Railroad," as used in this Article Nine, shall include not only CSX Transportation, Inc., but also its licensees, corporate affiliates and its and their respective officers, directors, agents and employees.

9.2 (a) If, as a result of any statute enacted by the Commonwealth of Virginia or the Federal Government, the minimum liability limitation of Commissions is increased to an amount in excess of $200,000,000.00, the amount of liability insurance that Commissions are required to procure and maintain in order to guarantee its obligations under this Article or to the general public, is increased to an amount in excess of

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$200,000,000.00, then the minimum liability limit of $200,000,000.00 (or higher amount if increased pursuant to subparagraph 9.2(b) below) set forth in Section 9.1 of this Article shall be automatically increased and the liability insurance shall be amended to reflect such higher amount. In the event the Commissions fail to obtain and maintain the insurance required by this Section for any reason (including the unavailability of such insurance), then either party shall have the right to terminate this Agreement by delivery of written notice to the other.

(b) On September 1, 1996, and every two years thereafter during the term of this Agreement, as provided herein or as extended, the parties hereto will review and evaluate the number and cost of claims which have been made against the insurance carried by the Commissions, the actual and potential liabilities incurred by the Commissions for death, personal injury or property damage, any relevant judicial decisions, inflation and current trends in the cost of tort claims, and the likelihood and potential cost of future claims. Based on this review and evaluation, the parties will determine whether there are reasonable grounds to increase the limit of the Commissions' liability under Subsection 9.1(a) or to increase the limits and expand the coverage of the insurance required to be carried by

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the Commissions under Subsection 9.1(b) and Subsection 9.1(d) hereof. If the parties are unable to agree, the dispute shall be arbitrated pursuant to Article Eleven hereof; provided, however, that in no event shall the liability of the Commissions or the amount of insurance to be carried by the Commissions be reduced below the limits required by Section 9.1 hereof. Any increase in the amount of insurance coverage which results from the application of this Section 9.2 shall automatically cause a proportionate adjustment to the limits specified in Subsection 9.1(d) hereof.

9.3 The rights granted to the Commissions in this Agreement relate to use of the Tracks of Railroad for the operation of Trains. Immediately upon the execution and delivery of this Agreement, the parties shall execute and deliver a Station Lease with respect to the station Facilities enumerated in the annexed Exhibit F. It is contemplated that an additional agreement (including Station Leases and amendments thereto) may be entered into between Commissions and Railroad concerning the construction, maintenance, use and removal of certain ancillary facilities, including, among others, stations, platforms, canopies, parking areas and depots, for the accommodation of the Commissions' employees, and particularly passengers. It is understood that the indemnification and

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insurance provisions of this Article Nine of this Agreement shall apply with respect to such construction, maintenance, use and removal by the Commissions, any Operator, its or their employees, agents, contractors, passengers, invitees and the general public of any such facilities.

9.4 The Commissions expressly understand and agree that their obligations to indemnify Railroad and hold Railroad harmless under the provisions of this Article Nine also extend to and include the obligation to indemnify and hold Railroad harmless from and against any and all damages (including punitive and exemplary damages), penalties, losses, fines, claims, liens, suits, liabilities, costs (including cleanup costs), judgments and expenses (including attorneys, consultants or expert fees and expenses) of every kind and nature suffered by or asserted against Railroad as a direct or indirect result of or due to the presence or escape of any hazardous materials, substances, wastes or other environmentally regulated substances on or from the Tracks, a Train or Equipment which presence or escape is attributable in any way to, or is exacerbated by, the operation of the Service over the Tracks of Railroad or the presence of the Commissions' or any Operator's Equipment, personnel or passengers on or about Railroad's property.

CSXT (continued)

9.5 (a) Railroad shall give notice to the Division of Risk Management and to the Commissions as soon as reasonably practicable whenever the Railroad receives credible notice from any party that it is the intention of such party to hold Railroad responsible for an incident for which the Commissions are potentially liable under Section 9.1 hereof.

(b) Railroad agrees: (1) to cooperate in the defense of claims of which it gives the Division of Risk Management notice hereunder; (2) to allow the Division of Risk Management, within its sole discretion, to settle or defend any such claim; and (3) to execute all documents reasonably required to enable the Division of Risk Management to recover amounts paid by the Division of Risk Management on behalf of the Commissions to persons other than Railroad.

ARTICLE TEN

RISK OF LABOR CLAIMS

10.1 The Commissions will indemnify and hold harmless Railroad, its corporate affiliates, and its and their respective officers, agents and employees against any and all costs and payments, including, but not limited to, awards of benefits, back pay, penalty pay, allowances and awards of damages of any kind, however they may be denominated, and all arbitration,

CSXT (continued)

administrative and litigation expenses, arising out of claims or grievances made by or on behalf of employees of Railroad, or its corporate affiliates in connection with the implementation, operation or termination of this Agreement, whether pursuant to employee protective conditions imposed by a governmental agency as conditions for that agency's approval or exemption of the Service or this Agreement, or pursuant to a collective bargaining agreement.

ARTICLE ELEVEN

DISPUTE RESOLUTION

The parties hereto shall make every reasonable effort to settle any dispute arising out of this Agreement without resorting to arbitration. If the parties so agree, they may retain a disinterested person experienced in railroad operations, or an accountant or attorney if appropriate, to render his or her objective advice and opinions, which shall be advisory only and not binding unless the parties agree in writing to be bound by his or her judgment in a particular instance.

Any claims or controversy between the Commissions and Railroad, except matters which are within the discretion or judgment of the Railroad, which cannot be resolved by the

CSXT (continued)

parties concerning the interpretation, application or implementation of this Agreement, shall be resolved by submitting such claim or controversy to arbitration. Any controversy which is subject to this arbitration provision that cannot be resolved within thirty (30) calendar days of the notice of intent to seek arbitration (unless the parties agree in writing to another time period), shall be submitted to disinterested arbitrators, one of whom shall be appointed by Railroad and the other of whom shall be appointed by the Commissions, and the two arbitrators so chosen shall select a third arbitrator. The decisions of a majority of the arbitrators shall be final and conclusive as to the dispute(s) between the parties hereto. In case either of the said parties shall fail or refuse to appoint an arbitrator as aforesaid for the period of thirty (30) days after written notice given by the other party to make such appointment, then the arbitrator appointed by the party not in default shall appoint like competent and disinterested arbitrator for the defaulting party, and the said two arbitrators, so appointed, shall select a third arbitrator, and the three so chosen shall hear and decide such difference or dispute, and their decision, or that of a majority of the arbitrators, shall be final and conclusive upon the parties hereto. In the event that the two appointed arbitrators

CSXT (continued)

shall be unable to agree upon a third arbitrator within thirty (30) days after the appointment of the second arbitrator, such third arbitrator shall be appointed, upon the application of either party hereto and upon reasonable notice to the other party, by the American Arbitration Association. If any arbitrator shall decline or fail to act, the party or persons by whom said arbitrator was chosen or appointed, as the case may be, shall act to appoint another arbitrator.

During the pendency of such arbitration proceeding, the business, operations to be conducted and compensation for services under this Agreement, to the extent that they are the subject of such controversy, shall continue to be transacted, used and paid in the manner and form existing prior to the arising of such controversy, unless the arbitrators shall make a preliminary ruling to the contrary.

Each party shall bear the costs and expenses incurred by it in connection with arbitration, including the cost of the arbitrator appointed by it, and both parties shall share equally the costs and expenses of the third arbitrator.

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CSXT (continued)

ARTICLE TWELVE

DEFAULT

12.1 Failure on the part of the Commissions or an Operator to comply with the conditions of Article Two related to safety of operations or as provided in Subsection 2.5(a) of Article Two shall result in the immediate termination of the rights of access granted the Commissions in Article Three hereof and failure to comply with any other conditions of Article Two shall give the Railroad the right to terminate such rights of access on ten (10) days prior written notice.

12.2 Failure on the part of the Commissions to comply with any of the provisions of Article Nine hereof or the Plan shall constitute default giving rise to a right in Railroad to immediately terminate this Agreement upon delivery of written notice by Railroad to the Commissions.

12.3 Failure on the part of the Commissions to replace any Operator which becomes unacceptable to Railroad within a reasonable time following notice under Section 2.3 hereof shall constitute a default giving the Railroad the immediate right to terminate this Agreement without further notice.

12.4 Failure of the Commissions timely to make any payment required to be made to Railroad under any provision of this Agreement shall constitute a default giving rise to a right in

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CSXT (continued)

Railroad, on ten days prior written notice, to suspend the rights of access granted to the Commissions in Article Three hereof. If any such default shall persist for 30 days, or if any such default of the sort provided for in Section 12.4, having been previously cured shall recur more than two times during the tern of this Agreement, then Railroad may terminate this Agreement on ten days prior written notice.

12.5 Failure on the part of the Commissions to substantially comply with any of its obligations under this Agreement shall constitute a default giving Railroad the right to terminate this Agreement on ten (10) days prior notice.

12.6 Failure on the part of Railroad to substantially comply with its obligations under Article Six of this Agreement shall constitute a default by Railroad giving the Commission the right to terminate this Agreement on ten (10) days prior written notice.

ARTICLE THIRTEEN

NOTICES

13.1 Any report, notice or other communication required or permitted hereunder shall, unless otherwise specified, be in writing and shall be delivered by hand or

CSXT (continued)

deposited in the United States mail, postage prepaid, addressed as follows:

If to Railroad:

CSX Transportation, Inc.
500 Water Street
Jacksonville, Florida 32202
Attention: Assistant Vice President - Passenger Services

(with a copy to its General Counsel at the same address as set forth above)

If to Commissions:

Director of Operations
Virginia Railway Express
6800 Versar Center, Suite 247
Springfield, Virginia 22152

(With a copy to the
County Attorney of Prince William County
One County Complex Court
Prince William, Virginia 22192-9201)

CSXT (continued)

Either party may change the address at which it shall receive communications and notifications hereunder by notifying the other party in writing of such change.

ARTICLE FOURTEEN

MISCELLANEOUS

14.1 Force Majeure. Each party will be excused from performance of any of its obligations hereunder (except Article Nine), to the other party, where such nonperformance is occasioned by any event beyond its control, which shall include, without limitation, any order, rule or regulations of any federal, state or local government body, agent or instrumentality, work stoppage, accident, natural disaster or civil disorder, provided that the party excused hereunder shall use all reasonable efforts to minimize its nonperformance and to overcome, remedy or remove such event in the shortest practical time. Railroad shall promptly undertake and complete the repair, restoration or replacement of any property which is necessary for the provision of the Service, or for the performance of any of the Railroad's other obligations hereunder which is damaged or destroyed as a result of the force majeure occurrence, subject to the Commissions' agreement to reimburse Railroad for the full cost of such repair, restoration or replacement.

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CSXT (continued)

14.2 The article and section headings herein are for convenience only and shall not affect the construction hereof. Neither this Agreement nor any of the terms hereof may be terminated, amended, supplemented, waived or modified orally, but only by an instrument in writing signed by all of the parties hereto, unless a specific provision hereof expressly permits one party to effect termination, amendment, supplementation, waiver or modification hereunder, in which case such change shall be made in accordance with the terms of such provision. All exhibits attached hereto, and as they may be amended, are integral parts of this Agreement and the provisions set forth in the exhibits shall bind the parties hereto to the same extent as if such provisions had been set forth in their entirety in the main body of this Agreement.

14.3 In the event that any material provisions of this Agreement is found to be invalid or unenforceable in any respect, either party may immediately terminate this Agreement by delivery of written notice to the other party.

14.4 The failure of either party to insist at any time upon the strict observance or performance of any of the provisions of this Agreement, or to exercise any right or remedy in this Agreement, shall not impair any such right or remedy to be construed as a waiver or relinquishment thereof.

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CSXT (continued)

14.5 This Agreement and each and every provision hereof are for the exclusive benefit of the parties hereto and not for the benefit of any third party. Nothing herein contained shall be construed as creating or increasing any right in any third party to recovery by way of damages or otherwise against either of the parties hereto.

14.6 The rights and obligations of the Railroad and the Commissions hereunder may be assigned only with the prior consent of the other party, except in the event of dissolution, merger or other even terminating the existence of either the Railroad as a corporate entity or one or both of the Commissions, as bodies politic, in which case the rights and obligations of either party hereunder shall be assumed by the party's successor and assigns.

14.7 While it is understood and agreed that the Commissions shall act together in all matters affecting the Service, the rights and obligations of the Commissions hereunder shall be shared jointly and severally.

14.8 This Agreement shall be governed by the laws of the Commonwealth of Virginia.

IN WITNESS WHEREOF, the Railroad and Commissions have caused their names to be signed hereto by their officers

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CSXT (continued)

thereunto duly authorized and their seals, duly attested, to be hereunto affixed as of the day and year first above written.

Attest: CSX TRANSPORTATION, INC.

_____ By: _____
Secretary Title:

Attest: NORTHERN VIRGINIA TRANSPORTATION COMMISSION

_____ By: _____
Secretary Title:

Attest: POTOMAC AND RAPPAHANNOCK TRANSPORTATION COMMISSION

_____ By: _____
Secretary Title:

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CSXT (continued)

EXHIBIT C

CSXT (continued)

MEMORANDUM OF UNDERSTANDING

THIS MEMORANDUM OF UNDERSTANDING, effective the 31st day of January, 2002 (this "Memorandum"), by and among CSX TRANSPORTATION, INC. (hereinafter "CSXT"), the NORTHERN VIRGINIA TRANSPORTATION COMMISSION and the POTOMAC AND RAPPAHANNOCK TRANSPORTATION COMMISSION (hereinafter, jointly and severally, the "Commissions"), and the COMMONWEALTH OF VIRGINIA'S DEPARTMENT OF RAIL AND PUBLIC TRANSPORTATION (hereinafter "DRPT").

WITNESSETH:

WHEREAS, CSXT and the Commissions are parties to an Operating/Access Agreement dated January 10, 1995, as amended (the "CSXT Operating Agreement"), and, by reason of CSXT's acquisition of control of certain railroad facilities previously owned by Consolidated Rail Corporation, an Operating Access Agreement dated December 1, 1989, as amended (the "Conrail Operating Agreement", and together with the CSXT Operating Agreement, as amended; and

WHEREAS, CSXT and the Commissions are negotiating the terms and conditions on which the Operating Agreements may be further extended, amended and restated pursuant to one new operating/access agreement (the "New VRE Agreement"); and

WHEREAS, in accordance with the Operating Agreements, the Commissions operate the Virginia Railway Express ("VRE") commuter rail services: (i) between MP 53.2 (Olive) and MP 110.1 (RO Interlocking); and (ii) between MP 110.1 (RO Interlocking) and MP 136. 7 (CP Virginia Interlocking) (the "Corridor"); and

WHEREAS, DRPT wishes to participate in the promotion of the VRE commuter service, as well as the augmentation of inter-city passenger service, particularly between

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CSXT (continued)

Richmond, Virginia and Washington, D.C., [some of which may be] under the auspices of the Commonwealth of Virginia ("DRPT Contracted Inter-City Service") pursuant to a separate operating and access agreement on mutually acceptable terms between CSXT and DRPT (the "DRPT Agreement"); and

WHEREAS, pursuant to the CSXT Operating Agreement, the parties have agreed that there would be no further expansion of the VRE commuter rail service prior to the completion of track, signal and other improvements implementing a third mainline throughout the Corridor (the "Third Mainline Requirements"); and

WHEREAS, CSXT, the Commissions and DRPT, along with other agencies and participants (such as Norfolk Southern Railway ("NS"), National Rail Passenger Corporation ("NRPC" or "Amtrak") and the Federal Railroad Administration ("FRA")), have worked, and continue to work together as a group, described in further detail herein as the "Corridor Task Force," to develop a list of improvements (these improvements being referred to collectively in this Memorandum as the "Corridor Improvement Project") that are intended, among other things, to include improvements that will satisfy the Third Mainline Requirements; and

WHEREAS, the Corridor Task Force has identified substantially all of those improvements constituting the Corridor Improvement Project which will satisfy the Third Mainline Requirements, as more particularly described by Schedule 1 to this Memorandum, subject however, to the understanding and agreement of the parties that the scope, details and effect of all such improvements remain subject to further study; and

WHEREAS, CSXT, the Commissions and DRPT have agreed, by this Memorandum, to more formally establish the Corridor Task Force which shall have as its principal purpose the identification, development and completion of the Corridor

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CSXT (continued)

Improvement Project (as well as the Third Mainline Requirements) for the benefit of the public; and

WHEREAS, CSXT, DRPT and the Commissions have agreed that this Memorandum should establish a process by which the Corridor Task Force will address such issues as: (i) the specific capital improvements comprising the Corridor Improvement Project and their relative priorities; (ii) the sources of public funding for the construction and maintenance of those specific improvements; (iii) the effects on capacity and operations resulting from the specified capital improvements; (iv) the benefits of specified capital improvements derived by freight and passenger rail service; and (v) the extent to which the VRE commuter service and DRPT Contracted Inter-City Service may be expanded, both in terms of number and frequency of trains, upon completion of phases of the Corridor Improvement Project; and

WHEREAS, the Corridor Task Force has already identified certain improvements, as more particularly described by Addendum "A" to this Memorandum, which will permit, subject to the terms of this Memorandum and prior to the completion of the entire Third Mainline Requirements, certain service enhancements, as more particularly described by Addendum "A"; and

WHEREAS, by subsequent addenda to the Memorandum, the parties intend to identify and agree upon the further improvements constituting the Corridor Improvement Project, the schedule and means for the implementation of such improvements and related service enhancements; and

WHEREAS, by this Memorandum, the parties wish to set forth their mutual understandings with respect to the process for consideration and phased implementation of the Corridor Improvement Project, without otherwise abrogating or diminishing the commitment of the Commissions, DRPT and the Commonwealth to the satisfaction of

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CSXT (continued)

the Third Mainline Requirements or CSXT's other rights under the Operating Agreements, the New VRE Agreement or the DRPT Agreement.

NOW, THEREFORE, in consideration of the foregoing (which is hereby incorporated within this Memorandum), and the mutual undertakings of the parties, CSXT, the Commissions and DRPT agree as follows:

1. Continued Negotiations: CSXT and the Commissions agree to continue to negotiate in good faith the terms of the New VRE Agreement. However, it is understood that: (i) neither CSXT nor the Commissions are obligated either by the terms of this Memorandum, the Operating Agreements, or any other existing agreements, understandings or requirements, to further extend the Operating Agreements or to enter into a New VRE Agreement or the DRPT Agreement; (ii) the rights and obligations of CSXT and the Commissions under the Operating Agreements (including such matters as the termination of the Operating Agreements) remain in effect as amended and extended; and (iii) implementation of any VRE service enhancements and DRPT Contracted Inter-City Service (including those identified by Addendum "A") is contingent upon the execution and delivery by the relevant parties of the New VRE Agreement, the DRPT Agreement or appropriate amendments thereto or to the Operating Agreements.

2. New Agreement Parameters:

(a) New VRE Agreement. The parties contemplate that the New VRE Agreement will address long-term occupancy issues (including, but not limited to, the compensation due to CSXT, including reimbursement of its expenses, for the assets and capacity employed by CSXT to provide the VRE commuter service, operating, maintenance and capital requirements necessary or appropriate to the safe and efficient, concurrent utilization of the Corridor by existing and projected freight and passenger services, and appropriate indemnification and insurance programs.

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CSXT (continued)

(b) DRPT Agreement. CSXT and DRPT further contemplate that, in conjunction with the implementation of the DRPT Contracted Inter-City Service, they shall execute and deliver the DRPT Agreement on mutually acceptable terms.

3. Improvement Projects:

(a) Project Scope. The Corridor Improvement Project shall include those capital improvement projects necessary to fulfill the Third Mainline Requirements of the CSXT Operating Agreement (and the New VRE Agreement) within the Corridor as well as improvements to CSXT's railroad line between Olive at Fredericksburg, Virginia, and Staples Mill Road at Richmond, Virginia, to accommodate DRPT Contracted Inter-City Service. It is the express purpose of the Corridor Improvement Project to accommodate the existing and projected freight and intermodal operations of CSXT and NS; Amtrak inter-city passenger service and VRE commuter rail service, and the proposed DRPT Contracted Inter-City Service, for the general benefit of the public.

(b) Study. During the respective terms of the New VRE Agreement and the DRPT Agreement, CSXT, the Commissions and DRPT shall continue to study existing and projected passenger rail and freight traffic, the impact of the commuter and inter-city passenger rail service on CSXT's ability to meet its freight and passenger service reliability and safety goals, and capital improvements and/or operating changes to enhance capacity, so as to further define the scope and timing of the Corridor Improvement Project.

4. Corridor Task Force:

(a) Establishment. In furtherance of this study, CSXT, the Commissions and DRPT have established a working group of individuals (the "Corridor Task Force") authorized to agree upon the following matters, recognizing that the parties may revise such agreements, from time to time, during the development and phased implementation

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CSXT (continued)

of the Corridor Improvement Project: (i) the specific capital improvements which will comprise the Corridor Improvement Project; (ii) the effect of specific improvements on capacity and\or operations; (iii) the priority to be given to specific improvements; (iv) the benefits to passenger and freight rail service to be derived from the improvements; (v) the sources of public funding for the construction and maintenance of specific improvements; and (vi) the extent to which, if any, upon completion of phases of the Corridor Improvement Project, without impairment of existing and future freight and Amtrak inter-city passenger service reliability, safety or growth: (1) the VRE commuter service in the Corridor may be expanded (including increases in frequency of train operations), and (2) DRPT Contracted Inter-City Service between Richmond, Virginia and Washington, D.C. may be established or expanded. However, DRPT Contracted Inter-City Service shall be the only inter-city passenger service subject to the Corridor Task Force process, unless otherwise requested by DRPT.

(b) Representatives and Meetings. The Corridor Task Force shall have six (6) members, consisting of two representatives from each of the following parties: (i) CSXT; (ii) DRPT; and (iii) the Commissions. In addition, representatives of NRPC, FRA, NS and other interested parties may be invited to participate in Corridor Task Force meetings by CSXT, DRPT or the Commissions. CSXT, DRPT and the Commissions shall endeavor to meet monthly at mutually acceptable locations, which shall alternate between Jacksonville, Florida, and Alexandria, Virginia. The consultants and advisors of the members and their invitees shall also be permitted to attend all meetings. For purposes of providing notice of the Corridor Task Force meetings, the Commissions, DRPT and CSXT shall designate by notice to each other the names, titles, addresses and phone numbers of individuals who they wish to attend such meetings.

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CSXT (continued)

(c) Task Force Action. The Corridor Task Force shall act in exploratory and advisory capacities, for the purpose of making recommendations and building consensus among its participating members and, as needed or appropriate, its invitees and other relevant agencies, facilitating, as its primary purpose, the identification, development and completion of improvements comprising the Corridor Improvement Project, for the benefit of the public. In no event shall the Corridor Task Force make or purport to make formal recommendations or reports without the unanimous approval of its members.

5. Implementation of Improvements and Associated Service Enhancements

(a) Identification of Service Enhancements. With the identification by the Corridor Task Force of specific capital improvements comprising all or part of the Corridor Improvement Project, the Corridor Task Force shall identify specific enhancements to railroad operations in the Corridor, if any, which may result from those capital improvement projects.

(b) Addenda. As and when the Corridor Task Force has determined, and the parties have agreed, that the implementation of the certain improvements will permit, upon their completion, VRE commuter service enhancements or DRPT Contracted Inter-City Service, the parties shall execute and deliver an addendum to this Memorandum (an "Addendum") to evidence their understanding so as to facilitate the public funding and the design and construction of the required improvements.

(c) Conditions Precedent to Service Enhancements. Prior to the initiation of any VRE service enhancement or DRPT Contracted Inter-City Service, the following, as more particularly described by the relevant Addendum, shall occur: (i) adequate public funding shall have been secured; (ii) appropriate agreements shall have been executed in order to design, construct and maintain specific capital improvements, as

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CSXT (continued)

described in the Addendum; (iii) the construction of such improvements shall have been completed and placed in service in accordance with the Addendum; (iv) in the case of VRE service enhancements, CSXT and the VRE shall have executed an amendment to the Operating Agreements or the New VRE Agreement to reflect adjustments in the compensation due to CSXT and revisions to the VRE schedules to reflect the agreed upon VRE service enhancements (which revisions may be implemented at such time as the VRE chooses in accordance with the otherwise applicable procedures and processes of the Operating Agreements or the New VRE Operating Agreement); and (v) in the case of DRPT Contracted Inter-City Service, CSXT and DRPT shall have executed an amendment to the DRPT Agreement, on mutually acceptable terms.

(d) Amtrak Service. The initiation of any Amtrak service enhancements which are not under contract with DRPT as DRPT Contracted Inter-City Service shall be subject to satisfaction of all terms and conditions relevant to such service pursuant to agreements between CSXT and NRPC and applicable law, and shall not be subject to the Corridor Task Force process or this Memorandum.

(e) Operating Agreement Obligations. The Commissions and DRPT acknowledge and confirm that nothing contained in this Memorandum (or any Addendum) shall abrogate or diminish the ongoing requirements of the Operating Agreements, the New VRE Agreement or the DRPT Agreement, including, but not limited to, their commitment to the satisfaction of the Third Mainline Requirements.

(f) CSXT's Operational Control. The VRE and DRPT further acknowledge and confirm that CSXT retains the paramount right to control operations within the Corridor. Accordingly, as the improvements are completed pursuant to a given Addendum, CSXT shall permit the initiation and continuation of such portions of service enhancements as contemplated by the Addendum, subject to and in accordance

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CSXT (continued)

with the Operating Agreements and, when executed, the New VRE Agreement and the DRPT Agreement.

(g) Funding. Neither DRPT nor the Commissions shall be required to expend sums in excess of appropriations, and they and CSXT shall retain such rights as they may otherwise have under their other agreements to terminate projects undertaken with government funding.

(h) Design and Construction. The parties agree that the entire cost of the Corridor Improvement Project shall be borne by DRPT and the Commissions, and that CSXT shall undertake the design and construction of the agreed upon improvements at no cost to CSXT, pursuant to separate written agreement(s) between CSXT and DRPT and/or the Commissions.

(i) Ongoing Commitments. The Commissions and DRPT acknowledge and confirm that the implementation of the service enhancements as described by the Addenda to this Memorandum shall not diminish or detract from their commitment to satisfy the Third Mainline Requirements.

6. Ongoing Project: CSXT, DRPT and the Commissions understand and agree that the process outlined above relating to implementation of the Corridor Improvement Project shall continue in ensuing years until the earlier of the completion of all agreed capital improvements or the termination of VRE commuter service and the DRPT Contracted Inter-City Service.

7. Effect of Memorandum: This Memorandum of Understanding shall not affect any existing agreements between the parties or between CSXT and NRPC. It is further understood that this Memorandum does not purport to identify or address all issues, terms and conditions, including, without limitation, CSXT's insurance and indemnification, and compensation requirements, that remain to be negotiated between the parties in

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CSXT (continued)

connection with the proposed New VRE Agreement, the DRPT Agreement, and further agreements related to the engineering, design, construction, operation and maintenance of improvements undertaken by the parties. Except as otherwise expressly provided by this Memorandum, this Memorandum constitutes a non-binding statement of intent, it being understood that the parties shall be bound only by separate written agreements to be executed and delivered by the parties.

IN WITNESS WHEREOF, the parties hereto have executed this Memorandum of Understanding on the date and year aforesaid.

CSX TRANSPORTATION, INC.

Attest:

By:

Name: PAUL H. REISTRUP

Title: SVP

Title: VP Passenger Transportation

NORTHERN VIRGINIA TRANSPORTATION COMMISSION

Attest:

By:

Clerk

Chairman

POTOMAC AND RAPPAHANNOCK TRANSPORTATION COMMISSION

Attest:

By:

Clerk

Chairman

COMMONWEALTH OF VIRGINIA'S DEPARTMENT OF RAIL AND PUBLIC TRANSPORTATION

Attest:

By:

~~Clerk~~

Director

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CSXT (continued)

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ADDENDUM "A"
TO MEMORANDUM OF UNDERSTANDING
GROUP 1 INTERIM IMPROVEMENTS

This ADDENDUM "A" TO MEMORANDUM OF UNDERSTANDING (this "Addendum") is made by and among CSX TRANSPORTATION, INC. ("CSXT"), the NORTHERN VIRGINIA TRANSPORTATION COMMISSION and the POTOMAC AND RAPPAHANNOCK TRANSPORTATION COMMISSION (jointly and severally, the "Commissions"), and the COMMONWEALTH OF VIRGINIA'S DEPARTMENT OF RAIL AND PUBLIC TRANSPORTATION ("DRPT").

Explanatory Statement

This Addendum is executed and delivered by the parties to evidence their understanding, pursuant to Section 5(b) of the Memorandum of Understanding dated as of _____, 2001, as amended from time to time, among the parties (the "Memorandum"), as to the construction of specific improvements, the maintenance and operation of such improvements and the implementation of associated enhancements in rail service, in accordance with the terms and conditions of this Addendum and the Memorandum.

NOW, THEREFORE, in consideration of the foregoing Explanatory Statement and other good and valuable consideration, the receipt and sufficiency of which are acknowledged by the parties, the parties agree as follows:

1. Definitions. All capitalized terms not otherwise defined by this Addendum shall have the meanings ascribed to them by the Memorandum.

2. Improvements. The parties acknowledge that, in accordance with the Memorandum, they have identified and agreed upon the improvements more particularly described by Exhibit A to this Addendum, as constituting some of the improvements encompassed by the Corridor Improvement Project (the "Phase I, II, III and IV Improvements" or, collectively, the "Group 1 Interim Improvements").

3. Construction and Design.

(a) Preliminary Engineering and Design. Pursuant to separate written Preliminary Engineering Agreements between CSXT and DRPT or the Commissions, CSXT shall perform preliminary engineering and design services to better define the Group 1 Interim Improvements (other than the AF Interlocking Project which is currently under construction pursuant to the Railroad Reimbursement Agreement dated August 20, 1999, as amended, between CSXT and the Commissions [the "AF Agreement"]), so as to permit the commencement of the construction of the Group 1 Interim Improvements, all as more particularly described by such Preliminary Engineering Agreements.

(b) Construction. Pursuant to a separate Master Railroad Construction Agreement between CSXT and either the Commissions or DRPT, CSXT shall construct, cause to be constructed, or oversee the final design and construction of the Group 1 Interim Improvements (other than the AF Interlocking Project which is subject to the AF

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CSXT (continued)

Agreement), all as more particularly described by the applicable Master Railroad Construction Agreement.

4. Funding. The Commissions and DRPT represent and warrant to CSXT that funds necessary for the design and construction of the Group 1 Interim Improvements have been secured and appropriated for those purposes. The parties acknowledge and agree that CSXT shall bear no costs or expenses, and that the costs and expenses incurred by CSXT in connection with the design or construction of the Group 1 Interim Improvements shall be advanced or reimbursed to CSXT by DRPT and/or the Commissions pursuant to the Preliminary Engineering Agreements, the Master Railroad Construction Agreements, and the AF Agreements.

5. Applicability of Operating Agreements. Notwithstanding anything to the contrary in this Addendum, the parties' respective rights and obligations with respect to indemnification, insurance, regulation of rail operations, and the ownership, operation, repair, replacement and maintenance of the Group 1 Interim Improvements shall be subject to the provisions of the Operating Agreements and, when executed and delivered by the parties, the New VRE Agreement and the DRPT Agreement.

6. Implementation of Service Enhancements.

(a) Initial Implementation. As each Phase of the Group 1 Interim Improvements is completed, and subject to the satisfaction of the other conditions set forth in the Memorandum, the Operating Agreement and, to the extent applicable, when executed and delivered, the New VRE Agreement and the DRPT Agreement, CSXT shall permit the initiation of the rail service enhancements as described by Exhibit B to this Addendum.

(b) Changes in Service. Notwithstanding the foregoing, in the event that, on or before April 1, 2003, the Commissions and CSXT have failed to execute and deliver the New VRE Agreement on mutually acceptable terms for any reason, then CSXT shall be entitled, by delivery of notice to the Commissions and DRPT, to cease or modify all previously initiated or permitted service enhancements associated with that Phase and all other Phases under this Addendum, and shall not be required to permit initiation of any further service enhancements associated with any Phases otherwise to be constructed or under construction.

(c) Additional Service Enhancements. The parties further acknowledge and agree that neither the Commissions nor DRPT shall seek the initiation of additional commuter or passenger rail service, beyond those specified by Exhibit B, prior to January 1, 2004, and that, thereafter, such additional rail services and capital improvements shall be subject to the consideration of the Corridor Task Force pursuant to the Memorandum. However, the parties further agree that, six (6) months following both the completion of the Group 1 Interim Improvements and the implementation of all train trips contemplated by this Addendum, the Corridor Task Force shall consider, upon the request of the Commissions, whether VRE might initiate an additional round trip commuter train on an experimental basis. Within six (6) months after the Commission's request, the Corridor Task Force shall make a recommendation regarding such additional round trip. In addition, upon the Commissions' request after Phases I, II and III of the

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CSXT (continued)

Group 1 Interim Improvements are completed, CSXT shall consider whether the mid-day train initiated after Phase II of the Group 1 Interim Improvements have been completed may load and unload passengers Northbound as well as Southbound.

(d) Substitution of DRPT Contracted Inter-City Service. The Commissions and DRPT may request, by delivery of notice to CSXT, that the regular VRE train trip between Fredericksburg, Virginia and Washington, D.C. to be initiated upon completion of Phase IV of the Group 1 Interim Improvements as described by Exhibit B be replaced by either: (i) a DRPT Contracted Inter-City Service train between a mutually acceptable location in Richmond, Virginia and Washington, D.C.; or (ii) a DRPT Contracted Inter-City Service train between a mutually acceptable location in Richmond and Fredericksburg, Virginia, then running through as a VRE commuter train between Fredericksburg, Virginia and Washington, D.C. In such case, CSXT may elect, in its sole discretion, to permit such substitution, subject to compliance with the conditions precedent set forth in the Memorandum regarding DRPT Contracted Inter-City Service, the DRPT Agreement, the New VRE Agreement, and such other conditions as CSXT may deem appropriate.

7. Notices. All notices, approvals and consents required or permitted by this Addendum shall be written and shall be deemed delivered upon personal delivery, upon the expiration of three (3) days following mailing by certified mail, or upon the next business day following mailing by a recognized overnight delivery service, to the parties at the addresses set forth below, or such other address as either party may designate by delivery of prior notice to the other party:

If to CSXT:
CSX Transportation, Inc.
Liberty Business Park
4901 Belfort Road
Jacksonville, Florida 32256
Attention: Chief Engineer Design and Construction

If to the Department:
Virginia Department of Rail and Public Transportation
1313 E. Main Street, Suite 300
P.O. Box 590
Richmond, Virginia 23218-0590
Attention: George R. Conner

If to the Commissions:
Chief Operating Officer
Virginia Railway Express
1500 King Street, Suite 202
Alexandria, Virginia 22314

3

CSXT (continued)

IN WITNESS WHEREOF, the parties have executed and delivered this Addendum as of the date set forth above.

CSX TRANSPORTATION, INC.

Attest:

Title: SVP

By:
Name: PAUL H. REISTRUP
Title: VP - Passenger Integration

NORTHERN VIRGINIA TRANSPORTATION COMMISSION

Attest:

Clerk

Anna Gotthardt
NOTARY PUBLIC
Commonwealth of Virginia
My Commission Expires
MAY 31, 2005

By
Chairman

POTOMAC AND RAPPAHANNOCK TRANSPORTATION COMMISSION

Attest:

Clerk

By:
Chairman

COMMONWEALTH OF VIRGINIA'S DEPARTMENT OF RAIL AND PUBLIC TRANSPORTATION

Attest:

~~Clerk~~

By:
Director

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4

CSXT (continued)

DRAFT OF 9/27/01

EXHIBITS TO ADDENDUM "A"

Exhibit A	Group 1 Interim Improvements
Exhibit B	Group 1 Interim Improvements and Service Implementation Schedule

CSXT (continued)

DRAFT OF 9/27/01

EXHIBIT A
GROUP 1 INTERIM IMPROVEMENTS

Phase I

- Completion of AF Interlocking Project

Phase II

- Build siding from L'Enfant Plaza to South End Virginia Avenue Tunnel (about MP 137.5 to 136.1)
- Build #20 universal crossover at Arkendale, CFP 72.2

Phase III

- Build Third Main Track, AF to Ravensworth, CFP 104.3 to 96.7 ("Franconia Third Main")
- Consolidate dispatching function to improve operating efficiency.

Phase IV

- Build Third Main Track, SRO to RO, CFP 109 to 110.1 ("SRO-RO Third Main")
- Upgrade #1 Main from FB to XR, CFP 58.8 to 53.2
- Build #20 universal crossover at Elletts (or South Anna), CFP 17.2
- Completion of Quantico Bridge project

CSXT (continued)

DRAFT OF 9/27/01

EXHIBIT B
GROUP 1 INTERIM IMPROVEMENT AND SERVICE ENHANCEMENT SCHEDULE

PHASE	PROJECTS	TRAINS ADDED	ESTIMATED PROJECT COMPLETION DATE[1]
I	• AF Interlocking (in progress)[2]	• 1 Experimental Special Mid-Day VRE Train - Monday - Thursday Only[3] • 1 Regular Mid-Day VRE Train - Friday Only	4Q '01
II	• L'Enfant 3rd Main • Arkendale Crossovers	• 1 Regular Daily Mid-Day VRE Train - Monday - Friday[4]	1Q '03
III	• Franconia 3rd Main • Consolidation of Dispatch Functions	• 1 Round Trip Fredericksburg VRE Train[5]	4Q '03

[1] Project construction timelines and completion dates will be determined by related preliminary engineering studies and shall be subject to change as provided by the Addendum. Proposed passenger trains will not be added until the related projects are completed.

[2] It is assumed that AF Interlocking will be substantially completed by September, 2001, pursuant to the Railroad Reimbursement Agreement between CSXT and the Commissions dated August 20, 1999, as amended.

[3] This train will run as a Special Train on an experimental basis as provided by the Addendum. On completion of Phase I improvements, this train will be deemed a regular train. See FN 4 below.

[4] After Phase I and Phase II of the Group 1 Interim Improvements are completed, the Phase I VRE trains shall be deemed one regular mid-day train running Monday through Friday. Phase I and II VRE trains will load and unload Southbound only.

[5] This train will run during commuter peak hours.

CSXT (continued)

PHASE	PROJECTS	TRAINS ADDED	ESTIMATED PROJECT COMPLETION DATE[1]
IV	• SRO-RO 3rd Main • Fredericksburg to XR 3rd Main • Ellet Crossovers • Completion of Quantico Bridge project	• 1 Round Trip Manassas VRE Train[6] • 1 Round Trip Fredericksburg VRE Train[7]	4Q '04

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[6] This train will run during commuter peak hours.

[7] This train will run during commuter peak hours.

CSXT (continued)

EXHIBIT D

CSXT (continued)

Framework Agreement
By and Between
the Virginia Department of Rail and Public Transportation
and
CSX Transportation, Inc.

This Framework Agreement dated March 19, 2009 ("Agreement") between the Virginia Department of Rail and Public Transportation (the "Department") and CSX Transportation, Inc. ("CSXT") (collectively "the Parties") sets forth principles of cooperation between the Parties governing the development and funding of certain freight and passenger rail projects.

Recitals

WHEREAS, the Department is an agency of the Commonwealth of Virginia with responsibilities for rail transportation as enunciated in § 33.1-391.5 of the *Code of Virginia*; and

WHEREAS, CSXT is a Virginia corporation that owns rail lines within certain rail corridors throughout the Commonwealth and operates freight rail transportation service on those rail lines; and

WHEREAS, on March 19, 2009 CSXT, the VRE and the Department amended the Memorandum of Understanding ("MOU") dated January 31, 2002 that established the terms and conditions for increased Inter-City and Commuter Passenger Rail Service in the Corridor set forth in the MOU upon the completion of track capacity projects listed in the MOU; and

WHEREAS, track capacity improvements must be made at the Staples Mill Station, Richmond, Virginia for the storage and servicing of the Department contracted Amtrak Inter-City Passenger train prior to the implementation of Inter-City Passenger Rail Service as provided for under the MOU First Amendment; and

WHEREAS, certain projects that support the enhancement of rail infrastructure in the Commonwealth may be deemed by the Commonwealth Transportation Board ("CTB") to create public benefits; and

WHEREAS, in § 33.1- 221.1.1 of the *Code of Virginia*, Rail Enhancement Fund, the General Assembly of Virginia ("General Assembly") declared that railway preservation and development of railway transportation facilities for freight and passengers are in the public interest and are an important element of a balanced transportation system essential for the Commonwealth's continued economic growth, vitality, and competitiveness; and

WHEREAS, it is anticipated that an expansion of CSXT's capacity to operate freight rail transportation service would be beneficial to the public of the Commonwealth by favorably affecting economic growth, vitality, and competitiveness; and

1

CSXT (continued)

WHEREAS, it is also anticipated that an expansion of CSXT's capacity to operate freight rail transportation service would be beneficial to the public of the Commonwealth by reducing the amount of freight carried through the Commonwealth on highways and other road infrastructure; and

WHEREAS, in light of the preceding clauses, expanding the capacity of CSXT to provide freight rail transportation service provides a broad public benefit to the public of the Commonwealth; and

WHEREAS, expanding the capacity of CSXT to provide freight rail transportation service will necessitate certain infrastructure improvements to CSXT's rail lines described on Exhibit A and C hereto; and

WHEREAS, the completion of freight rail improvement infrastructure projects described on Exhibit A and C hereto will provide the benefits to the public of the Commonwealth as described on Exhibit B hereto; and

WHEREAS, CSXT hosts passenger rail operations on its lines within the Commonwealth pursuant to separate agreements with passenger rail operators; and

WHEREAS, the CTB in its meeting on April 16, 2008 indicated that it desires to expand passenger rail service in the Commonwealth by, among other things, improving the frequency and scope of passenger operations conducted by others on CSXT's rail lines; and

WHEREAS, the Parties anticipate that passenger rail operations conducted over CSXT's rail lines may be expanded and that any such expansion could, without infrastructure improvements to CSXT's rail lines, reduce CSXT's capacity to operate freight rail transportation service in the Commonwealth; and

WHEREAS, it is anticipated that a reduction in CSXT's capacity to operate freight rail transportation service would increase the amount of freight carried through the Commonwealth on highways and other road infrastructure, which could be detrimental to the public of the Commonwealth; and

WHEREAS, funding of certain infrastructure improvements to CSXT's rail lines described on Exhibit A hereto will benefit the public by enabling the furnishing of passenger rail service by the National Railroad Passenger Corporation ("Amtrak") or Virginia Railway Express ("VRE") while simultaneously preserving CSXT's ability to provide freight rail transportation service; and

WHEREAS, the completion of passenger rail improvement infrastructure projects described on Exhibit A and C will provide the benefits to the public of the Commonwealth as described on Exhibit B; and

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CSXT (continued)

WHEREAS, certain rail improvement infrastructure projects described on Exhibit A and C will facilitate the operation of intercity passenger rail service as contemplated in Exhibit B for the benefit of the public by Amtrak and operating agreements as amended between CSXT and Amtrak; and

WHEREAS, certain rail improvement infrastructure projects described on Exhibit A and C will facilitate the operation of commuter rail service as contemplated in Exhibit B for the benefit of the public of the Commonwealth by agreement between VRE and CSXT; and

WHEREAS, certain other rail infrastructure projects described on Exhibit C may also be undertaken for the benefit of the public of the Commonwealth to either expand CSXT's capacity to provide freight rail transportation service or preserve freight capacity to enable the furnishing of passenger rail service contemplated in Exhibit B; and

WHEREAS, projects undertaken pursuant to the Rail Enhancement Fund must include a minimum 30 percent cash or in-kind matching contribution from a public and/or private source as defined in 33.1-221.1:1.1(D) of the *Code of Virginia*; and

WHEREAS, pursuant to § 33.1-12 of the *Code of Virginia*, the CTB approves projects to be funded from the Rail Enhancement Fund and such funding is administered by the Department. Such funding approval is based on the determination by the CTB that the projects will result in public benefits to the Commonwealth or to a region of the Commonwealth that are equal to or greater than the investment of Rail Enhancement funds; and

WHEREAS, the CTB must approve all agreements greater than or equal to $2 million. Such agreements include this agreement and other applicable agreements; and

WHEREAS, on September 18, 2008, the CTB allocated Rail Enhancement Funds in the amount of $9,751,000 for preliminary engineering for improvements between Fredericksburg, Richmond and Newport News, and on February 13, 2009, the CTB allocated Rail Enhancement Funds in the amount of $949,900 for Double Stack Clearance improvements and $18,406,100 for the Virginia Avenue Tunnel Clearance, projects which are listed in Exhibit A; and

WHEREAS, on September 30, 2008, the U.S. Transportation Secretary announced award of $2,000,000 to the Department, to be applied in part, for the Preliminary Engineering of improvements to lead to the efficiency of existing intercity passenger train operations and increase the frequency of intercity passenger train operations between South Acca Yard and Richmond Main Street Station, a project which is listed in Exhibit A; and

WHEREAS, some projects under this Agreement will be funded from federal, state and/or local sources other than the Rail Enhancement Fund; and

CSXT (continued)

WHEREAS, the Department's funding is subject to annual appropriation by the General Assembly and allocation by the CTB; and

WHEREAS, the Department's funding may be expended for projects contemplated by this Agreement only after applicable agreement(s) satisfactory to CSXT, the Department and the CTB, if required, are executed; and

WHEREAS, CSXT and the Department have identified the need for capital projects or capital improvements that are required prior to implementing passenger rail service that also may provide benefits for freight rail operations by both preserving and expanding freight rail service capacity; and

WHEREAS, in anticipation of future opportunities for freight rail projects and passenger rail projects that each provide benefits both to the public of the Commonwealth and to CSXT, the Department and CSXT wish to agree upon certain principles of cooperation and procedures to guide the funding and implementation of such projects to improve rail lines for the benefit of the public of the Commonwealth;

NOW THEREFORE, the Parties hereby set forth their mutual understanding of these principles and describe a process for future collaboration and cooperation between the Parties for the advancement of intercity passenger rail service, commuter rail service and the improvement of freight movement:

Section 1. Projects and Funding

(a) Attached to this Agreement as Exhibit A is a list of capital projects and costs associated with each project in order of priority as of the date of this agreement (the first project on the list being the highest priority and the last project on the list being the lowest priority). The Parties intend to enter into an agreement or agreements whereby the projects listed as Phase I in Exhibit A will be funded and implemented through the execution of the applicable Agreement, subject to the approval of the CTB, if necessary. Funding for the Phase I projects will be allocated between the Department and CSXT as specified in Exhibit A. The capacity required for additional trains listed in Exhibit B Phases II-V is approximate and will be updated based upon the completion of the Preliminary Engineering work. The Preliminary Engineering work identified in Phase I Projects will address the capacity requirements, projects, operations, funding, and other considerations.

It is understood that this allocation of Phase I projects is final, but may be modified by mutual agreement of the Parties with approval of the CTB, if required. Should federal or other sources of funding (i.e., other than the Rail Enhancement Fund or CSXT) become available for any project listed in this Agreement, they will be utilized first, if allowable, and the portion of the project not funded by these other sources will be allocated between the Rail Enhancement Fund and CSXT. All Commonwealth of Virginia funding or federal funds which are administered by the Commonwealth of Virginia listed in this

CSXT (continued)

Agreement are subject to appropriation by the General Assembly and appropriation by the CTB.

(b) The Parties will work toward funding the projects listed as Phases II through V once the Phase I projects are underway. Phases II through V are set forth in Exhibit C. Phases II through V in Exhibit C may be modified to add, delete, or modify a project(s) provided that any such modification is in writing, signed by both parties and, if necessary, approved by the CTB and, if required by CSXT. Phases II through V in Exhibit C will undergo further review to satisfy planning, environmental, and engineering requirements, to estimate costs of construction and implementation, to establish a service schedule, to determine project benefits, and to fairly allocate the cost responsibility based upon the benefits to be received by each party. The parties understand that the number of Inter-City Passenger Trains set forth in Exhibit B for Phases II through V is those contemplated by the State Rail Plan, but that adequate capacity for such additional trains does not exist at this time. The studies and analysis under Phase I Preliminary engineering project will address the capacity, maintenance, operations, and funding requirements and other considerations for such additional trains.

(c) The obligations of the Parties for the projects within a Phase listed on Exhibit C are contingent upon (i) the appropriation by the General Assembly and the allocation by the CTB of funding sufficient to cover the Department's share of the projects listed in that Phase, and, (ii) the approval of CSXT. Once these contingencies have been satisfied, the Parties will execute the necessary and agreed upon funding and implementing agreements.

(d) If CSXT begins to fund and/or implement any project within a Phase listed on Exhibit A or C and the Department matching funds are not available because the funding source is deemed unconstitutional or for any other reason beyond the reasonable control of CSXT, then the Department shall with all practical dispatch consistent in all respects with applicable law and its obligations under this Agreement (i) immediately deliver to the Department of Planning and Budget of the Commonwealth of Virginia a provision that there be appropriated such amounts necessary to fund Department's commitments under this Agreement from any legally available funds, (ii) use its best efforts to have (A) the Governor include, in each biennial or any supplemental budget the Governor presents to the General Assembly, the amounts necessary to fund Department's commitments under this Agreement, (B) the General Assembly appropriate and re-appropriate, as applicable, such amounts to or on behalf of the Department for the purpose of funding its commitments under this Agreement, and (C) the CTB allocate such appropriated amounts for the purpose of funding Department's commitments under this Agreement. If these efforts are unsuccessful and Department's funding commitments under this Agreement remain unfulfilled, CSXT reserves the right to seek relief.

Section 2. Additional Agreements

The Department and CSXT will incorporate all of the Phase I through V projects resulting from this Agreement into grant agreements as funding becomes available These

CSXT (continued)

agreements shall be subject to approval by the CTB pursuant to § 33.1-12 of the *Code of Virginia* and, if deemed necessary by CSXT. Phase II through V projects will be advanced based on project readiness, establishment of public benefit, and funding availability.

The agreements contemplated herein may be modified only by written agreement executed by both the Department and CSXT after any necessary CTB approvals are secured.

In the implementation and operation of the expanded intercity service, Phase I will be operated by Amtrak for an initial three (3) year pilot, with continuing capacity beyond that period being provided for in the MOU First Amendment.

Section 3. Capacity Analysis of Phases II through V

The Parties agree that within 30 days of the Department giving CSXT notice of the Commonwealth's desire to implement service extensions, CSXT will cooperate with the Department's performance of a capacity analysis of the right of way on CSXT owned rail lines that include some or all of the former Atlantic Coast Line and Seaboard Air Line rail lines between Centralia in Chesterfield County, VA and Greendale in Henrico County, VA, the former C&O rail line between the City of Newport News and Hospital Street in Richmond, and the former RF&P line between Greendale in Henrico County, VA and CP Interlocking Virginia in Washington, D.C. (the "Right of Way") to ascertain the extent of any capital improvements required for the extension or enhancement of rail passenger service between Washington Union Terminal, Washington, D.C. and Newport News and Centralia including extension or enhancement of passenger service between Washington Union Terminal, Washington, D.C. and AF Interlocking in Alexandria for passenger trains operating onto and from Norfolk Southern trackage (the "Right of Way") on a schedule that is mutually agreeable to the Parties.

Section 4. Legal Effect of Agreement

The Department and CSXT hereby acknowledge and agree upon the overall framework of processes and procedures set forth in this Agreement. It is understood that the projects, costs and allocations set forth in Exhibit A represent the current good faith understandings between the Parties and are subject to the further analysis described in Section 1. It is understood that the Parties shall be bound only by separate written agreement(s) to be executed and delivered by the Parties and approved by the CTB, if necessary. Any such binding written agreement(s) reached in connection with the matters described herein shall be subject to the approval of the Parties' duly authorized representatives, which approval may be withheld or conditioned in their sole discretion. No joint venture, partnership or other undertaking shall be deemed to exist as a result of this Agreement.

This space intentionally left blank

CSXT (continued)

IN WITNESS WHEREOF, the Parties have executed this Framework Agreement on the day and year written above.

COMMONWEALTH OF VIRGINIA
Department of Rail and Public Transportation

WITNESS

BY: _____
Charles M. Badger
Acting Director

CSX Transportation, Inc.

WITNESS

Seal

BY: _____
NAME: JOHN M. GIBSON, JR
TITLE: VP OPERATIONS RESEARCH & PLANNIN

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CSXT (continued)

Exhibit A
Passenger and Freight Rail Improvement Infrastructure Projects
Improvement and Service Enhancement Schedule

CSXT (continued)

Exhibit B
Passenger and Freight Rail Improvement Infrastructure Projects
Improvement and Service Enhancement Schedule

CSXT (continued)

Exhibit C
Passenger and Freight Rail Improvement Infrastructure Projects
Improvement and Service Enhancement Schedule

Phase II:

- Upon completion of the Fredericksburg to Richmond and Newport News capacity study and preliminary engineering projects (funded as part of Phase I), infrastructure projects required to support proposed Amtrak passenger service to Richmond Main Street Station and potentially Newport News and replace freight capacity used by proposed passenger service to Richmond Main Street Station and potentially Newport News will be identified and budget estimates prepared in order to progress projects to a readiness state which identifies costs, funding sources, and project completion timelines.
- Additional infrastructure projects to support proposed I-95 freight service that are in a project readiness state will be identified, including costs, funding sources, and project completion timelines.
- Share of costs will be determined on project benefits. CSX will invest in projects with freight benefits, subject to freight capacity needs and an adequate return on investment for each proposed project. CSX will request Rail Enhancement funding for projects with freight and public benefits.
- Any federal funding received for a specific project will be applied towards the total project cost and remaining costs will be apportioned between CSX and DRPT according to project's percent allocation.

Phase III:

- Upon completion of the Fredericksburg to Washington, D.C. capacity study and preliminary engineering (funded to the Virginia Railway Express (VRE) part of a Commuter Rail project), infrastructure projects required to support proposed VRE commuter service between Washington Union Terminal and AF Interlocking for Manassas and Gainesville or Haymarket service and replace freight capacity used by the proposed VRE service enhancement, will be identified and budget estimates prepared in order to progress projects to a readiness state which identifies costs, funding sources, and project completion timelines.
- Additional infrastructure projects to support proposed I-95/I-64 intercity passenger service that are in a project readiness state will be identified, including costs, funding sources, and project completion timelines.
- Share of costs will be determined on project benefits. CSXT will invest in projects with freight benefits, subject to freight capacity needs and an adequate return on investment for each proposed project. CSXT will request Rail Enhancement funding for projects with freight and public benefits.
- Any federal funding received for a specific project will be applied towards the total project cost and remaining costs will be apportioned between CSXT and DRPT according to project's percent allocation.

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CSXT (continued)

Phase IV:

- Upon completion of the Richmond to Centralia capacity study and preliminary engineering, infrastructure projects required to support proposed Main Street Station service and replace freight capacity used by the proposed Main Street Station service enhancement, will be identified and budget estimates prepared in order to progress projects to a readiness state which identifies costs, funding sources, and project completion timelines.
- All North/South Amtrak Trains except the Auto Train are diverted to serve Main Street Station
- Share of costs will be determined on project benefits. CSX will invest in projects with freight benefits, subject to freight capacity needs and an adequate return on investment for each proposed project. CSX will request Rail Enhancement funding for projects with freight and public benefits.
- Any federal funding received for a specific project will be applied towards the total project cost and remaining costs will be apportioned between CSX and DRPT according to project's percent allocation.

Phase V:

- Upon completion of the Southeast High Speed Rail Corridor EA from Richmond to Doswell, Tier II EIS and final design between Raleigh and Richmond, the Hampton Roads DEIS and Category Exclusions on certain places, infrastructure projects required to support proposed SEHSR high speed rail commuter service between Washington Union Terminal and the North Carolina line and the Tidewater area, will be identified and budget estimates prepared in order to progress projects to a readiness state which identifies costs, funding sources, and project completion timelines.
- Additional infrastructure projects to support proposed high speed I-95/I-64 intercity passenger service that are in a project readiness state will be identified, including costs, funding sources, and project completion timelines.
- Share of costs will be determined on project benefits. CSX will invest in projects with freight benefits, subject to freight capacity needs and an adequate return on investment for each proposed project. CSX will request Rail Enhancement funding for projects with freight and public benefits.
- Any federal funding received for a specific project will be applied towards the total project cost and remaining costs will be apportioned between CSX and DRPT according to project's percent allocation.

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CSXT (continued)

EXHIBIT E

CSXT (continued)

NON-BINDING TERM SHEET

between

VIRGINIA DEPARTMENT OF RAIL AND PUBLIC TRANSPORTATION

and

CSX TRANSPORTATION, INC.

April 11, 2016

This Non-Binding Term Sheet ("Term Sheet") is intended to be an aid to negotiation only with respect to a proposal by the Virginia Department of Rail and Public Transportation ("Department") to provide for certain initial short term fast track infrastructure improvements on the CSX Transportation, Inc. ("CSXT") (each also individually referred to as a "Party" and collectively as the "Parties") rail corridor in Virginia for the purpose of improving the overall fluidity of CSXT's co-mingled freight and passenger rail use network and to enable the extension and commencement of new Virginia Railway Express ("VRE") roundtrip commuter trains over certain rail sections to serve markets on and off of CSXT. Longer term infrastructure improvements on CSXT's Washington, D.C. to Richmond rail corridor, under enhanced capacity development, include CSXT's proposed advancement of Third Main Line project sections (further defined below) between Crossroads (Spotsylvania) and Virginia Avenue Interlocking (Washington, DC) and the transfer of CSXT's S-Line corridor to the Commonwealth. It is not meant to be binding on any party, in whole or in part, now or in the future, except for the Termination provisions, which shall be binding. It is intended as a summary only of the principal elements of the transaction, all of which are subject to the negotiation, execution and delivery of definitive funding and construction agreement(s) (the "Agreement(s)").

Background of Relationship and Partnership	The Parties have a long and successful history of partnership on capital projects that have improved the CSXT rail network in Virginia which has allowed for enhancements to both freight and passenger rail service in Virginia. A guiding principle in previous project efforts has been that new passenger rail service was not started before the infrastructure required to support the increased train counts was constructed.
Project Delivery	The Department shall be entitled to two new VRE roundtrip commuter trains, one on the Manassas line ("New Manassas Train") and one on the Fredericksburg line ("New Fredericksburg Train"). The New Manassas Train and New Fredericksburg Train shall

1

CSXT (continued)

	begin service upon the completion of construction of Parts A and B of the Projects, and completion of Part E of the Projects. Such new service shall be operated under terms and conditions set forth in an operating agreement, including mutually agreeable schedules, between CSXT and the VRE. The Parties will work together to temporarily adjust the schedules to include additional run-time for any existing passenger trains (including Amtrak intercity and VRE commuter trains) which might be impacted by the construction on the Projects. At the conclusion of construction, schedules will revert to pre-construction run-times.
Projects	The infrastructure projects on CSXT's network ("Projects") shall be the design, permitting and construction, including procurement of materials, of the following: 1. 8 miles of third main between CFP 90.0 and CFP 98.0 in Virginia ("Part A"), and 2. 2 universal crossovers between Fredericksburg and Richmond, Virginia, the exact location of which shall be determined by CSXT, with the consultation of the Department ("Part B"), and 3. Preliminary engineering work on Long Bridge, as mutually agreed to by the Parties ("Part C"), and 4. 6 miles of fourth main from AF to RO ("Part D"), and 5. Review and adjustment of Amtrak permanent scheduled run-times ("Part E") CSXT's cost share includes all future maintenance on such new rail infrastructure after construction. Prior to construction, the Parties will review historical run-times and adjust permanent scheduled run-times to seek 85% or better on-time performance with a 95% confidence level among CSXT, VRE, the Department, and the National Railroad Passenger Corporation ("Amtrak") for the state sponsored Amtrak trains operated between Richmond, Virginia and the District of Columbia. After construction is completed, schedules for the state sponsored Amtrak trains will be reviewed and adjusted (Part E) using this same process as the corridor evolves (changes in infrastructure or freight volume) to maintain 85% or better on-time performance with a 95% confidence level.

2

CSXT (continued)

Funding	The Department has committed to contribute up to $251,000,000.00 towards the completion of Parts A and B of the Projects, and up to $15,000,000.00 towards preliminary engineering for Part C of the Projects. For Part D of the Projects, the Department is seeking to contribute up to $211,000,000.00 through a combination of $55,000,000.00 in federal funding (through a FASTLANE application) and up to $156,000,000.00 of state funding. If the federal funding for Part D is not granted, then the Department will contribute up to $156,000,000.00 of state funding towards Part D. If the final cost estimate for Part D exceeds $156,000,000.00, then the scope of Part D will be mutually agreed upon by the Parties to not exceed $156,000,000.00. CSXT has committed to also contribute up to $15,000,000.00 towards preliminary engineering for Part C of the Projects. Additionally, the Department shall be responsible for the modification, construction and maintenance of any passenger or commuter facilities which are solely for the use of rail passengers, including stations, platforms, crosswalks, as well as vehicular or pedestrian crossings of the rail line. Any changes to the scope of the Projects must be approved by CSXT and the Department. The Parties recognize that cost estimates assume all federal, state, and local permits are secured to begin construction within 18 months and are based on 2015 cost estimates. Any significant delay in commencement of construction will result in increased construction costs. The Parties shall continue to refine the exact cost estimates for the Projects.
S-Line Conveyance	CSXT shall convey the deed for its S-Line from Collier Yard in Virginia to the Virginia/North Carolina state line to the Department upon execution of a definitive funding agreement(s) for the funds necessary for the Department's contribution for the Projects.
Long Bridge Corridor Construction	The Department shall be entitled to a minimum of two new VRE roundtrip commuter trains on the Manassas line ("New Manassas Trains"). The New Manassas Trains shall begin service upon the completion of construction of four tracks along the Long Bridge Corridor (AF to CP Virginia).

3

CSXT (continued)

	Such new service shall be operated under terms and conditions set forth in an operating agreement, including mutually agreeable schedules, between CSXT and the VRE.
Preparation of the Agreement(s)	The Parties will use all commercially reasonable efforts to enter into the Agreement(s) for the Projects on or before October 1, 2016.
Third Main Commitment	The Parties will continue discussions about the remaining projects necessary to complete the design and construction of a fully interoperable third mainline track from MP CFP 53.2 (XR) (also referred to as Crossroads) and MP CFP 112.3 (Virginia Avenue Interlocking) (also referred to as CP Virginia). The parties recognize that the completion of the Projects and the Third Main will enhance the capacity and utility of this irreplaceable CSXT corridor in the national rail network. The parties will continue to address the timely completion of all elements of the Third Main; and, following completion, the relative uses by and contributions to the involved CSXT lines for VRE, Amtrak and CSXT purposes into the future.
Maximum Authorized Speeds	The Department agrees that the maximum authorized speed on CSXT's RF&P corridor shall continue to be 70 miles per hour.
Service Outcome Agreement	The Department understands and agrees that CSXT shall not be required or obligated to sign or execute any service outcome agreement, or any similar agreement.
Binding Effect	This Term Sheet shall be effective upon execution by both parties ("Execution Date"). However, nothing in this Term Sheet shall be understood or construed to be binding upon the Parties except for the Termination provision, which shall be binding from the Execution Date and until the date of termination.
Termination	Either Party may in its sole discretion terminate this Term Sheet upon 30 days notice. The Term Sheet may also be terminated at any time by mutual agreement of the Parties. This Termination provision is intended to be binding.
Counterparts	This Term Sheet may be executed in any number of counterparts, including counterparts transmitted by facsimile or electronic transmission, each of which shall be an original as against any party whose signature appears thereon.

[Signatures appear on the following page.]

4

CSXT (continued)

The Parties execute this Term Sheet as of the date set forth below, each by its duly authorized representative.

CSX TRANSPORTATION, INC.	VIRGINIA DEPARTMENT OF RAIL AND PUBLIC TRANSPORTATION
By: Michael Ward	By: Jennifer Mitchell
Title: CHAIRMAN & CEO	Title: Director
Dated: APRIL 12, 2016	Dated: 4/11/16

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CSXT (continued)

CAMBRIDGE SYSTEMATICS

DC2RVA Southeast High Speed Rail

Technical Review of Draft Environmental Impact Statement (DEIS)

report

prepared for

CSXT

prepared by

Cambridge Systematics, Inc.

with

Willard Keeney

November 6, 2017 www.camsys.com

DC TO RICHMOND SOUTHEAST HIGH SPEED RAIL

CSXT (continued)

report

DC2RVA Southeast High Speed Rail

Technical Review of Draft Environmental Impact Statement (DEIS)

prepared for

CSXT

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November 6, 2017

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Executive Summary

Background

Cambridge Systematics, Inc. (CS) and Willard Keeney (the CS team) conducted a technical review and analysis of the Tier II Draft Environmental Impact Statement (DEIS) for the proposed improvements on the 123-mile Washington, DC to Richmond, VA Corridor for Expanded Passenger Rail Service (DC2RVA) in support of the preparation of CSXT's comments. The improvements are intended to accommodate a proposed increase in the volume and speeds of intercity passenger trains operating over the corridor, while insuring an adequate level of service for all corridor users. The purpose of this Technical Review is to examine how impacts to freight and the environment are addressed in the DEIS, whether there is any overstatement and/or understatement of such impacts, and whether there are any technical deficiencies that may materially influence the justifications for the Recommended Preferred Alternative.

This memorandum describes the findings of the CS team's review of two key areas:

1. **Freight traffic forecasts and related matters**, which may impact future use of the DC2RVA corridor, for the full range of freight trains, from through trains to locals serving on-line industries. The capacity needs for through traffic can differ considerably from traffic associated with on-line industry.

2. **Capacity and operations analysis**, or how the Recommended Preferred Alternative is expected to function with the projected freight and passenger train volumes. We examined the capacity modeling that was conducted for the DEIS using Rail Traffic Controller (RTC), including model inputs, assumptions, and the results.

Findings

Overall, we found that the DEIS is consistent with FRA requirements, following current practice in a capable manner. However, we did find major weaknesses with the capacity analysis, and more generally the handling of freight related impacts and issues. Most importantly, the results of the capacity modeling indicate that the proposed infrastructure improvements are not sufficient to ensure reliable operation for the projected train schedules. Extended running times and train delays in excess of current conditions fall on CSXT's freight traffic. Furthermore, the modeling itself does not follow best practices, producing potentially misleading results. Since capacity needs and impacts are central to the proposed rail service program and associated infrastructure investments, it is imperative that this aspect of the DEIS be done in a rigorous and sound manner.

The sections that follow summarize our findings and key areas of concern regarding the freight forecasts and the capacity and operations analysis.

Freight Traffic Projections and Related Matters

Although there are no obvious issues with the material concerning freight traffic projections, there are a number of concerns with the presentation of freight-related information and omissions. These include the following:

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1. Utilization of track capacity. With passenger trains accounting for one-third to one-half of all trains in the corridor, they cannot be considered an incremental user of track capacity. Considering only the marginal changes may be appropriate if the usage by passenger trains is far smaller than freight train usage but that is not the case here, as the high level of capacity consumption by passenger trains clearly limits CSXT's ability to use available capacity in the future.

2. Impacts on CSXT are not limited to increased delays to freight trains. Even if existing freight train delays do not change, the impact of additional passenger trains may inhibit changing freight train schedules for existing CSXT services that would otherwise be undertaken for market and other reasons. This also includes the impacts on line-side industries, which do not appear to have been examined at all. Perhaps there is little or no such business, in which case this is not an issue. If line-side activity is present, absent appropriate infrastructure and operational accommodations, impacts on these industries can be significant, affecting local economic activity and employment.

3. The demand for capacity is stated as trains rather than as "time slots", since the time of day during which a train is operated is important not just for passenger but also freight services.

4. The assertion that there will be reductions in freight train delays is made from a qualitative, rather than a quantitative standpoint.

Operations and Capacity

1. The Recommended Preferred Alternative does not result in any significant freight benefits, assuming the projected volumes of passenger and freight traffic. Delay ratios for the CSXT freight trains by train type are high considering the line miles and number of freight trains measured, with overall delays projected to be at least 58% higher than the 2015 base case. As a result, it is difficult to see how the projected level of performance would be commercially acceptable, as the expected service would be erratic and unreliable – sometimes on-time but often late, and sometimes very late. Even 2045 Full Build fails to meet required freight performance standards because all of the marginal increase in capacity is absorbed by the increase in passenger train service.

2. The initial modeling results do not support the Recommended Preferred Alternative described in the DEIS, as we found that none of the original 2045 cases dispatched to completion. These failures indicate that the proposed infrastructure is not adequate for the projected train volumes and mix, and/or there are issues with model input file configurations. Subsequent model runs undertaken at the direction of the FRA earlier in 2017 (the results of which are not included in the DEIS) performed somewhat better, but with similar or worse estimations of delay.

3. The description of the modeling performed for the project is incomplete and omits key information needed to understand what was done. The number of model runs and dispatching failures, which indicate the robustness and validity of the modeling, are not provided (although these were provided separately to CSXT). Furthermore, the DEIS does not describe assumptions for scheduled and unscheduled maintenance windows, which obviously affect capacity.

4. Ashland is a key bottleneck, and the absence of a Recommended Preferred Alternative for addressing it destabilizes the capacity estimation for the entire corridor.

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5. Given the poor dispatch performance over the proposed infrastructure, it would have been appropriate to consider alternative configurations to those analyzed. Such options include adding a fourth track along some or all sections of the corridor, and potential use of the Buckingham Branch Railroad (BB) between Doswell and Richmond for some through traffic. Although the BB route had previously been examined on stand-alone basis, it was not modeled in the context of the proposed project.

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1.0 Introduction

Cambridge Systematics, Inc. (CS) and Willard Keeney (the CS team) conducted a technical review and analysis of the Tier II Draft Environmental Impact Statement (DEIS) for the proposed improvements on the 123-mile Washington, DC to Richmond, VA Corridor for Expanded Passenger Rail Service (DC2RVA) in support of the preparation of CSXT's comments. The improvements proposed in the DEIS are intended to accommodate a proposed increase in the volume and speeds of intercity passenger trains operating over the corridor, while insuring an adequate level of service for all corridor users. The purpose of this Technical Review is to identify how impacts to freight are addressed in the DEIS, whether there is any overstatement and/or understatement of such impacts, and whether there are any technical deficiencies that may significantly impact justifications for the Recommended Preferred Alternative.

The CS team conducted technical analyses and support the preparation of CSX' comments in a number of areas, of which the most relevant to CSXT's concerns are the following:

1. **Freight traffic forecasts and related matters**, which may impact projected future use of the DC2RVA corridor for the full range of freight trains, from through trains to locals serving on-line industries. The capacity needs for through traffic can differ considerably from traffic associated with on-line industry.
2. **Capacity and operations analysis**, reviews how the Recommended Preferred Alternative is expected to function with the projected rail traffic volumes. We examined the capacity modeling that was conducted for the DEIS using Rail Traffic Controller (RTC), including model inputs, assumptions, and the results.

The CS team began its review in January 2017, when a version of the administrative DEIS was obtained. Subsequently, we reviewed additional materials, including appendixes describing freight traffic forecasts and impacts, and operations modeling, as these became available. In addition, CSXT provided RTC model inputs and outputs, which were utilized for review and testing. Once the DEIS and associated appendixes was released for public comment on September 8, we compared them with materials used for our analysis. Where differences were found, we adjusted our work to reflect the public DEIS.

The sections of the DEIS that were found to be relevant to CS' analysis described in this memorandum were as follows:

- Executive Summary
- Chapter 2 Alternatives
- Chapter 4 Environmental Consequences
- Chapter 7 DRPT Recommended Preferred Alternative
- Appendix I Operations Modeling
- Appendix S Transportation Technical Report

The remaining sections summarize the work conducted and our findings. Also included is an appendix with additional details on the operations and capacity modeling analysis.

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2.0 Freight Forecast and Related Matters

2.1 Background

The freight analysis was based on the review of the DEIS and discussions with CSXT regarding freight data shared with DRPT for the DC2RVA project. The relevant DEIS sections reviewed include:

- Executive Summary
- Chapter 2 Alternatives
- Chapter 7 DRPT Recommended Preferred Alternative
- Appendix I Operations Modeling, Section 2.2.2, which summarizes the freight train growth characteristics
- Appendix S Transportation Technical Report

There is no obvious issue with the material concerning freight data that has been used in the analysis of the DEIS, nor are there any obvious issues with the analysis that was undertaken with respect to freight. The concerns suggested have to do with the presentation of material and omissions, which include the following:

1. Utilization of track capacity. With passenger trains accounting for one-third to one-half of all trains in the corridor, they cannot be considered an incremental user of track capacity. Considering only the marginal changes may be appropriate if the usage by passenger trains is far smaller than freight train usage but that is not the case here, as the high level of capacity consumption by passenger trains clearly limits CSXT's ability to use available capacity in the future.
2. Impacts on CSXT are not limited to increases in delays to freight trains. Even if existing freight train delays do not change, the impact of additional passenger trains may inhibit changes in operating schedules for existing CSXT services that would otherwise be undertaken for market and other reasons. This also includes the impacts on line-side industries, which does not appear to have been examined at all. Perhaps there is little or no such business, in which case this is not an issue. If line-side activity is present, absent appropriate infrastructure and operational accommodations, impacts on these industries can be significant, affecting local economic activity and employment.
3. Stating the demand for that capacity as trains rather than as "time slots", since the time of day during which a train is operated is important not just for passenger but also freight services.
4. Asserting that there will be reductions in freight train delays from a qualitative, rather than a quantitative standpoint. While the preferred alternative may offer capacity benefits to freight trains, the magnitude of those impacts are not reported, and the project need might be construed as being driven by freight traffic, with the benefits accruing mostly to freight trains.

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2.2 Capacity for Future Passenger and Freight Trains

The implicit assumption for the No Build Alternative is continued operation of passenger trains on CSXT owned tracks in both 2025 and 2040. Further it seems to be assumed that the schedule for those passenger trains will be the one that optimally serves passenger needs, and that passenger service will have priority over all freight service in establishing schedules.

The existing passenger trains operate on what is termed "surplus" track capacity, i.e. if only freight were operated on the corridor, the available infrastructure would exceed existing needs. In the future when freight train growth might require this track capacity, this surplus may not exist. Yet passenger service implicitly appears to be entitled to the privately owned tracks. At the same time, the Executive Summary explicitly states that the project is needed to accommodate the projected growth of freight rail traffic. The project's stated objectives are to:

- "Accommodate freight rail service operations
- Reduce freight train delays from passenger and commuter train operations
- Improve average freight train running time based on track design speed
- Accommodate rail freight future growth
- Accommodate yard operations
- Accommodate access to local customers
- Accommodate sidings for crew changes and layovers"

Freight train delay is computed as "*Freight Train Delay per 100 train-miles = 100 x (Total Delay of All Trains/Total Train Miles)".* The delays are identified by the operational analysis, and the growth in freight trains is as provide by CSXT.

2.3 Growth Forecasts

CS reviewed CSXT freight data provided to DRPT for modeling purposes, which was based on U.S. DOT Freight Analysis Framework 3 (FAF3) data. According to the updated DEIS documentation[1], the FAF3 growth rates for rail over the 2015 and 2045 period were used to project freight train growth. This growth in freight trains is simplistically described in the DEIS as applying "a freight growth rate of approximately 2.3 percent for CSXT freight traffic" for an increase in average daily freight trains from 21.6 trains to 27.8 trains and 42.5 trains by 2045.

The DEIS technical appendix is not quite clear in describing how the freight forecasts were utilized. However, if they were in fact applied to the operations simulation, it might be fair to conclude that while the DEIS freight train forecast were correct at the time, there is a potential for increased freight train traffic (intermodal, local customer trains) not reflected in FAF3, but that reflect CSXT's plans for the future.

[1] DC to Richmond Southeast High Speed Rail, Tier II Draft Environmental Impact Statement, v5.0 legal sufficiency, June 2017. Section 2.6: Operations Analysis and Ridership Forecast; Appendix I: Operations Modeling Technical Report.

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In the DEIS, the existing train service is differentiated by train type (e.g. Intermodal, Manifest, Bulk and Local trains); however, the growth is acknowledged only as "The primary difference between the 2015 Base Case and 2025 and 2045 No Build Cases will be the forecasted organic growth in freight service by 2025 and 2045, respectively, as provided by CSXT." It is never acknowledged that this "organic" growth was not merely the simple application of one growth rate to existing train types, but relied on the official forecasts of commodities traffic for this region as reported in FHWA's Freight Analysis Framework, which differentiates by commodity, and applying those forecasts to the type of train associated with that commodity growth. The growth in tons was not merely applied to the existing trains. Growth was first allocated to increase the length of existing trains by adding additional cars before additional trains were added. The term" organic" growth could be described in more detail. While it may not be as complicated as the diversion of passenger trips to rail, it was a rigorous and complex process.

The DEIS notes that freight trains are a substantial part of the train mix along the corridor, now and in the future. Table 2.2-2 from the DEIS (copied below) indicates that approximately 50 percent of traffic beyond VRE's territory between Washington and Fredericksburg consists of freight trains. Substantial growth is projected as well, increasing by approximately 20 percent by 2025, and more than 70 percent through 2045. This is important from the standpoint of understanding future capacity needs, and appropriately allocating the costs of addressing them.

TABLE 2.2-2: EXISTING AND NO BUILD SERVICE ALONG DC2RVA CORRIDOR (DAILY 1-WAY TRIPS)

Service type	Existing Service	2025 No Build	Proposed Change in Service from Existing	2045 No Build	Proposed Change in Service from Existing
Freight	***20-30 trains***	***25-37 trains(est.)***	Increase of 5-7 trains	***40-55 trains (est.)***	Increase of 20-25 trains
Amtrak Long	***11 trains (1 week)***	***12 trains***	Increase of 1 train	***12 trains***	Increase of 1 train
Interstate Corridor (NC)	***2 trains***	***2 trains***	No change	***2 trains***	No change
Northeast Regional (VA)	***12 trains***	***14 trains***	Increase of 2 trains	***14 trains***	Increase of 2 trains
VRE	***34 trains (including non revenue movements)***	***38 trains***	Increase of 4 trains	***38 trains***	Increase of 4 trains
Total Daily	***79-89 trains***	***91-103 trains***	Increase of 12-14 trains	***106-121 trains***	Increase of 27-32 trains

2.4 Capacity

Capacity is discussed in terms of number of trains, rather than time slots. As shown in Table 2.2 in Appendix I of the DEIS, it would appear that in 2015 25% to 33% of the trains in the corridor are freight trains and in 2045 37% to 45% of the trains in the corridor would be handling freight. Elsewhere in the DEIS it is noted that that the average train length of an Amtrak Auto Train is 4,390 feet, an Amtrak Long Distance passenger

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train is 1,075 feet, an Amtrak Interstate Corridor Carolinian is 750 feet, an Interstate Corridor (SEHSR) and Regional (Virginia and SEHSR) is 992 feet, and freight trains are the longest at 7,083 feet.

While the number of trains may be of interest in timetables, and the length of trains may be of interest for trains that are stopped, it is the space required by trains for their safe operation that is the principal determinant of capacity. Space requirements are primarily determined by the difference in speeds and stopping distance required by the various types of trains operating over the corridor. While passenger trains usually require less stopping distance than freight trains, big differences in operating speeds – up to 90 mph for a passenger train versus 50 for freight – can greatly increase capacity requirements. This operating spacing is often expressed as "time slots", which indicates time spacing required by specific train type as well as the time of day during which a particular train is scheduled. Thus, time slots required by passenger trains are sensitive to the hour of the day; for example, commuter trains require time slots during peak commuting hours, and not during late evening hours, even if those time slots are available. Expressing train demand as "time slots" instead of numbers of trains or train lengths may show that passenger trains require a larger proportion of capacity.

2.5 Freight Train Delay Reductions

Freight train delays do not appear to be reported for the Recommended Preferred Alternative. Instead, the change in delays and the ability to accommodate growth is described qualitatively, not quantitatively. For example, Table 7.2-1, *Evaluation of Northern Virginia Area Alternative against the Purpose and Need and Its Impact on the Human and Natural Environment,* states that the Recommended Preferred Alternative "does not increase impacts to freight time delay" in 2045. This claim is made without any supporting analysis.

Further discussion relating to capacity and train performance under the various scenarios is provided in Section 5, Operations and Capacity, of this memorandum.

3.0 Operations and Capacity

3.1 Background

The central element of any proposed service is to confirm that the operating plan can be reliably and consistently executed on the planned infrastructure. The Recommended Preferred Alternative calls for the addition of up to 9 round trips of intercity passenger service, increases in permissible speeds up to 90 mph in some sections, and improvements in operating reliability. These new services are in addition to the existing intercity passenger service, plus projected freight and commuter (VRE) traffic. Working with CSXT operations modeling and planning staff, the CS team undertook a critical examination of the operational analysis and assumptions underlying the proposed capacity investment plan for the Recommended Preferred Alternative. The examination focused on the following central concepts:

- Is the capacity modeling sensible and appropriate? Are the cases properly set up, how well do they dispatch to completion, did a sufficient number of runs dispatch to completion to be statistically robust? Frequent failures of cases to dispatch to completion can indicate insufficient capacity, as well as model configuration issues.
- Does the capacity modeling properly reflect actual operations at present and in the future? Schedule adherence and delays, platform access requirements, along with time required for planned and

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unplanned maintenance, impact actual capacity. Trains using the corridor can be delayed for many reasons in the study corridor as well as beyond it, and capacity analysis should recognize those impacts.

- Are the operating plans viable using the proposed infrastructure? How do each of the services (freight, intercity passenger, and commuter) perform from the standpoint of schedule variability? Are these performance levels acceptable?
- In light of the desired project goals, have the appropriate options been considered? This includes critical bottlenecks such as Ashland, where the DEIS does not indicate a preferred option.

To address these questions, the CS team examined model inputs and outputs as developed by the DEIS consultants using Berkeley Software's Rail Traffic Controller (RTC). The CS team conducted a review of the original 9 cases, which included simulations of No Build and Build scenarios for years 2015, 2025 (Implementation Year) and 2045 (Horizon Year). A second review of RTC output files was conducted on the additional modeling scenarios requested by the FRA, which assume two-tracks only through Ashland.

The relevant DEIS sections and other materials that were reviewed are as follows:

- Executive Summary
- Appendix I: Operations Modeling Technical Report
- Files containing RTC model scenarios, as obtained by CSXT and provided to the CS team

Through our review we identified a number of deficiencies in the capacity analysis that fundamentally impede the operational feasibility of the Recommended Preferred Alternative as described in the DEIS. Our principal findings are as follows:

1. The Recommended Preferred Alternative does not result in any significant freight benefits, assuming the projected volumes of passenger and freight traffic. Delay ratios for the CSXT freight trains by train type are high considering the line miles and number of freight trains measured, with overall delays projected to be at least 58% higher than the 2015 base case. As a result, it is difficult to see how the projected level of performance would be commercially acceptable, as the expected service would be erratic and unreliable – sometimes on time but often late, and sometimes very late. Even 2045 Full Build (FRA supplemental case) fails to meet required freight performance standards because all of the marginal increase in capacity is absorbed by the increase in passenger train service.
2. The initial modeling results do not support the Recommended Preferred Alternative described in the DEIS, as we found that none of the 2045 cases dispatched to completion. These failures indicate that the proposed infrastructure is not adequate for the projected train volumes and mix, and/or there are issues with model input file configurations. Subsequent model runs undertaken at the direction of the FRA earlier in 2017 performed better, but poor projections of train performance.
3. The description of the modeling performed for the project, as described in Appendix I, is incomplete and omits key information needed to understand what was done. The number of model runs and dispatching failures, which indicate the robustness and validity of the modeling, are not provided (although these were provided separately to CSXT). Furthermore, the DEIS does not describe assumptions for scheduled and unscheduled maintenance windows, which obviously affect capacity.

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4. Ashland is a key bottleneck, and the absence of a Recommended Preferred Alternative for addressing it destabilizes the capacity estimation for the entire corridor.

5. Given the poor dispatch performance over the proposed infrastructure, it would have been appropriate to consider alternative configurations to those analyzed. Such options include adding a fourth track along some or all sections of the corridor, and potential use of the Buckingham Branch Railroad (BB) between Doswell and Richmond for some through traffic. Although the BB route had previously been examined on stand-alone basis, it was not modeled in the context of the Build Alternatives included in the DEIS.

The following sections provide further discussion on our review of the capacity modeling.

3.2 Scenario Review

The core of our analysis was an examination of a set of initial and supplemental RTC cases that were produced for the DEIS by VDRPT's consultant HDR. In reviewing the cases, each was examined for their assumptions in terms of the number of freight and passenger trains by type, physical infrastructure, and operating practices. Key outputs included ability to dispatch successfully, and the resulting estimation of delays including passenger train OTP, delay ratios, minutes of delay per 100 train-miles, total train delays, and delay hours.

Two suites of RTC cases were examined by the CS team. The first suite was completed for the Administrative DEIS that was submitted to the FRA for review, while a supplemental set was produced at the request of the FRA in early 2017. The results of this supplemental set were not incorporated into the public DEIS. Some of the assumptions between the two sets differed significantly, and only few cases incorporated the full projected passenger and freight volumes for the 2045 design year.

3.2.1 Original Suite

For the Administrative DEIS, HDR provided results from 9 cases, each reflecting unique physical and operational configurations. The CS team evaluated five of these cases, representing a cross-section of time periods and physical and operational alternatives. These are as follows.

- Base 2015 Slimfast
- 2025 No Build, 4-tracks Long Bridge
- Ashland 2033
- Ashland 2037
- Ashland 2041

No 2045 full build scenarios were examined, as none had dispatched to completion. The three Ashland cases reflect the impacts of traffic growth through the period of evaluation.

We were provided with output files consisting of one run each for each of the 9 cases, and thus do not know how many RTC runs were completed overall. However, the dispatch failure of all 2045 cases suggests that the proposed track plant is not sufficient for the proposed passenger and freight train volumes.

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Upon CSXT's request, we prepared a series of tables that contain counts by train type for both passenger and freight trains. Table 3.1 summarizes the two-week average daily counts for each of the original RTC cases for which we view the results to be valid. Appendix A.2 contains additional detail of train counts by type of trains (Amtrak Regional, VRE, Intermodal, Bulk, etc.). Compared to the 2015 base case, the freight train counts increase for all other scenarios, with the exception of the 2025 No Build. The detailed tables in Appendix A.2 show a decrease in local freight trains compared to all other forecast cases, which appears to be an anomaly. The Ashland cases include 127 average daily trains in 2033, 127 in 2037, and 136 in 2041, as opposed to 146.9 or 147 daily trains in all other 2045 cases. The intermediate year volumes 2033, 2037, and 2041 reflect the projected incremental growth in traffic that would occur with concurrent infrastructure improvements.

Table 3.1 Average Daily Train Counts for Select DC2RVA RTC Runs, Original Suite

RTC Cases	Passenger	Freight	Total
Base 2015 Cases (incl. Slimfast)	53	48	101
2025 No Build, 4 tracks @ Long Bridge	53	48	101
Ashland 2033	61	65	126
Ashland 2037	63	68	131
Ashland 2041	65	71	136
2045 Full Build*	73	74	147

Note: *Results not valid. See text for discussion.

3.2.2 FRA Supplemental Cases

Subsequent to the initial suite of cases, additional RTC cases were developed at the request of the FRA, the results of which were not included in the Public DEIS. The primary purpose of these new cases was to estimate the operational impacts of two tracks through the town of Ashland. The new Ashland cases included infrastructure modifications and operational adjustments (e.g., schedule modification to include additional recovery time at the end points on the DC2RVA corridor). The DEIS consultant provided output files generated by their more successful RTC dispatches for five cases:

- 2045 No Build
- 2045 Build Full
- 2045 Full Build Ashland
- 2045 Build Full 2Ash TOS
- 2045 Build Full 2Ash XR2

The 2045 Build Full 2Ash XR2 case has two tracks south of Crossroads Yard (CFP 53.2 to Staples Mills Station). What also distinguishes the three Ashland cases from the others and from each other is maintenance of way (MOW) time.

Average daily train counts, summarized in Table 3.2, show higher volumes than for the original suite in all but the 2045 No Build, which assumes no change in passenger train volumes at 53, but an increase in freight train volume from 48 to 74, as projected in the freight forecast. These volumes are larger than the original 2045 Full, which includes the loss of an average of 13 coal trains daily.

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Table 3.2 Average Daily Train Counts for DC2RVA RTC Runs, FRA Supplemental

RTC Cases	Passenger	Freight	Total
2045 No Build	53	74	127
2045 Build Full	73	74	147
2045 Full Build Ashland	75	76	151
2045 Build Full 2Ash TOS	75	76	151
2045 Build Full 2Ash XR2	75	76	151

For each case, the CS team was supplied with a complete set of RTC results, including the total number of runs that were dispatched as well as successfully completed:

- 2045 No Build – 5 complete out of 8
- 2045 Full Build Ashland – 4 complete out of 14
- 2045 Build Full 2Ash TOS – 5 complete out of 11
- 2045 Build Full 2Ash XR2 – 5 complete out of 14
- 2045 Build Full TOS XR2 Ashland – 5 complete out of 14

HDR's strategy was to run each case until they achieved five successful dispatches. Failure rates reached as high as 71% for the 2045 Full Build Ashland case, indicating that performance would be extremely poor given the projected train volumes and proposed infrastructure.

To gain further insight into the design of the RTC cases and to corroborate HDR's results, the CS team conducted single run tests of these cases using its own RTC software. Of the five cases that we tested, three ran to completion, with the other two failing for various reasons. As a result, we reviewed HDR's results for the two cases that did not complete, and our results for the other three.

3.3 Examination of RTC Model Results

3.3.1 Delays

Our examination of the model scenarios and their results are summarized in Table 3.3. (Additional information on modeling scenarios and results can be found in Appendix A.1.) Of principal interest is the level of delay to freight and passenger trains that is expected to occur under the various cases.

The table contains several representations of delay, including **delay ratio**, **minutes of delay per 100 train miles**, and **held out of network delay hours**, all normalized to an average day. The delay calculations reflect total delays that are collectively being absorbed by intercity, commuter, and freight operations. RTC holds out trains until it can establish a valid path across the network that is being modeled, which is reported as **held out of network delay hours.** The **delay ratio** compares the average projected running time against the scheduled running time for all trains. For example, if trains are scheduled to take 120 minutes, and congestion-related interference is projected to result in trips averaging 138 minutes, then the delay ratio

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would be 15%. Apart from passenger OTP, separate delay statistics for passenger and freight trains were not available for the evaluated cases.

Table 3.3 Summary of Analyzed RTC Model Cases

	Avg. Daily Freight Trains	Avg. Daily Psgr. Trains	Delay Ratio	Min Delay /100 TM	Delay Hours / Day	Psgr. OTP	Held out of Network Delay Hrs. /Day
Suite Developed for DEIS							
Base 2015 Slimfast	48	53	15.2%	34.5	84.6	84.6%	21.9
2025 No Build, 4 Tracks Long Bridge	41	53	10.8%	27.7	59.7	96.7%	12.0
Ashland 2033	65	61	10.9%	22.7	77.6	95.9%	12.0
Ashland 2037	68	63	11.4%	23.5	85.2	94.9%	12.3
Ashland 2041	71	65	12.9%	26.0	100.0	96.0%	12.3
FRA Supplemental Cases							
2045 No Build	74	53	17.9%	37.3	128.8	87.3%	12.5
2045 Build Full	74	73	15.8%	31.0	133.5	94.7%	10.4
2045 Full Build Ashland	76	75	16.5%	29.4	141.0	96.6%	13.1
2045 Build Full 2Ash TOS	76	75	16.8%	33.1	143.9	95.0%	12.1
2045 Build Full 2Ash XR2	76	75	15.4%	32.8	132.1	96.0%	11.1

From an examination of delay ratio and minutes of delay per 100 train-miles, it is evident that freight trains incur substantial delays across the route, irrespective of train volumes and infrastructure configuration. In part, this a reflection of setting dispatching priority for passenger trains in an effort to achieve an OTP goal of 90%, with the delays thus largely falling on CSXT's freight service.

Delay patterns developed for the DEIS cases are generally lower than those of the FRA supplemental cases. This appears to be a reflection of fewer trains, differing physical configurations, assumptions regarding maintenance of way operations, and whether dispatchers were given flexibility in platform assignment. The delay ratios and delay patterns were fairly consistent across all of the FRA supplemental cases. It also was evident that performance in the 2045 No Build case is worse than in the 2045 Build Full and in the XR2/TOS cases once the difference in train counts is taken into consideration.

Train delays by freight train type (Table 3.4) revealed considerable variation based on train priority. However, it must be understood that all of these ratios are high, considering the line miles (123) and number of freight trains measured. In essence, it means that trains operating on the corridor can expect to incur delays of at least 20% of their scheduled time, with substantial implications for service quality and costs.[2]

[2] An unpublished industry estimate of the hourly cost of operating a freight train, including crew, fuel, and equipment costs amounts to $365.92/hr. Applying this figure to the 2045 Build Full scenario delay hours of 133.5 would produce daily delay-related costs totaling $48,450, or upwards of $17 million annually. Inclusion of shipper impacts of these delays would substantially increase the costs from these delays.

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It is difficult to see how the projected level of performance would be commercially acceptable, as the expected service would be erratic and unreliable – sometimes on-time but often late, and sometimes very late. Even 2045 Build Full fails to meet required freight performance standards because all of the marginal increase in capacity is absorbed by the increase in passenger service of 20 additional daily trains.

Table 3.4 Delay Ratios (minutes per 100-train miles) for CSXT Freight Trains by Train Type, FRA Supplemental Cases

Train Type	Delay Ratio (min per 100 train-miles)
Expedited	29.0 to 32.8
Carload	38.9 to 39.0
Oil & other liquid bulk products	57.7 to 61.6
Industry	97.6 to 113.9
Other	275.2 to 365.7

While it does not seem reasonable to conclude that there is little difference between 2045 No Build and 2045 Build Full (the two cases are not using the same train file), it does seem safe to conclude that none of the supplemental cases yield anything like acceptable freight performance. Although the delays in these scenarios are substantially higher than in the original set, they represent at least a 76% increase over the 2015 base case.

3.3.2 Modeling Methodology & Assumptions

The RTC modeling that was conducted for this study is problematic in several dimensions. These have to do with the establishment of the scenarios, the frequency with which model runs failed to dispatch, the number of runs that were executed, modeling of the network beyond the study area, and consideration of current OTP.

- **RTC model performance**. As noted previously, none of the Full Build 2045 cases developed for the Administrative DEIS dispatched to completion. Among the FRA supplemental cases, 5 out of 8 dispatch attempts succeeded for the 2045 No Build, and 4 out of 14 were successful for the 2045 Build Full. These frequent failures pose two problems: the likelihood that the proposed configuration will be able to handle the projected traffic, and the validity of the results when only very few cases can be dispatched to completion. The very fact that a run fails to dispatch to completion is a likely indication of a problem with the given configuration being able to handle the specified train schedule. Repeated failures to dispatch, as was the situation with most of the cases developed for the DEIS, signify circumstances where the actual performance will likely be poor. This indeed was evident in the results for completed model runs, which showed extensive train delays and out of network holds.

  Evaluating the validity and relevance of RTC model results is a complex issue. RTC modeling practice varies, with some practitioners using repeated model runs to gain insights into the variance of dispatch performance, taking into consideration completed as well as uncompleted runs. Other practitioners will perform only a few model runs, but view even a single dispatching failure for a particular case as an indication of fundamental capacity and/or scheduling problems that must be

CSXT (continued)

resolved. HDR stated that five completed model runs represent a valid suite, irrespective of how many runs were dispatched. We feel that this is a questionable assumption, as considering results only from successful runs may overstate the feasibility of operating the proposed train schedule with the specified infrastructure and other assumptions.

- **Modeling of network beyond the study corridor**. The configuration and traffic on routes feeding the study route should be incorporated into the model to a level that ensures that the modeling properly mimics typical operations. With RTC holding out trains until it can establish a valid path (reported as Out of Network Delay Hours), the locations where trains are being held should reflect actual practice.

  A related issue is that by holding trains out of network until a train path can be dispatched, the simulation process is simplified. While this makes operational sense, it also reduces the complexity of the dispatching challenge, and in effect may underestimate the capacity needs of the network that is being analyzed.

- **Application of typical current train on-time performance (OTP)**. Distributions of passenger and freight trains entering the study area should reflect actual experience, at least for one of the base cases. These can then be changed under alternative scenarios, so that the impacts of the Recommended Preferred Alternative can be properly understood. As modeled, all of the cases assumed that Amtrak passenger trains entering the Washington to Richmond route are no more than 15 minutes late. In reality, it is quite common for trains leaving Washington for Richmond and vice versa to be subject to delays well in excess of 15 minutes.

- **Omission of variation in passenger stop duration resulting from the handling of mobility impaired passengers**. Since stations along the route will not have high level platforms, considerable delays may be incurred whenever disabled passengers must board or alight from a train. These variances were not taken into consideration in the modeling.[3]

- **Flexibility in platform assignment for passenger trains** was an issue raised by CSXT. As modeled, passenger trains were always assumed to utilize a specific platform. If dispatchers are given flexibility in platform assignments, some improvement in OTP may be gained. However, for scheduled passenger service, and commuter trains in particular, standard practice is to consistently use the same platform assignments. This ensures prompt boarding, avoiding confusion and potential safety issues associated with having passengers move to the specified platform at the last minute.

[3] From an examination of delay reports for 2017 year-to-date, we found average daily delays associated with passenger handling across all Amtrak passenger trains (9 round trips between Richmond and Washington, DC) to total 13.6 minutes for ADA-related actions, and 20.65 minutes for other actions. The latter are associated with other passenger issues, such as heavy passenger volume, dealing with baggage, etc. ADA-related delays averaged 2.7 minutes, and other holds averaged 1.9 minutes. More in-depth investigation would be required to verify whether the delay times and attributed causes are indeed reflective of the actual delay time incurred.

CSXT (continued)

Appendix A. Capacity Analysis Supplemental Tables

A.1 Summary of RTC Cases Reviewed and/or Tested By the CS Team

The table on the following page summarizes the cases that were reviewed and/or tested by the CS team. These include six representative cases that were developed for the Administrative DEIS, followed by the supplemental cases that were developed at the behest of the FRA.

Willard Keeney tested five of the supplemental cases using his own RTC software, of which two failed to execute for various reasons. For those two cases, HDR's results are displayed instead in the bottom group.

For their modeling, HDR utilized a 14 day window, using results from the middle 12 days; Willard Keeney utilized a 9 day window, again with a one day startup and shutdown period at either end, thus allowing the modeling to cover a full week of typical operations. It is not clear what the benefits are from using a 14 day window, since the using modeling period would not be a full two weeks, and presumably the same train schedules would be operated on a weekly basis.

CSXT (continued)

Summary of RTC Cases Examined by CS

	Measured Days	Freight Trains	Psgr. Trains	Total Trains	Avg. Daily Freight Trains	Avg. Daily Psgr. Trains	Delay Ratio	Min Delay /100 TM	Total Train Delay	Hours / Day	Psgr OTP	Held out of Network Delay Hrs. /Day
Original Administrative DEIS Suite consisting of 9 cases, with the following reviewed												
Base 2015 Slimfast	12	572	637	1,209	48	53	15.2%	34.5	1,015	84.6	84.6%	21.9
2025 No Build, 4 Tracks												
Long Bridge	12	497	640	1,137	41	53	10.8%	27.7	716	59.7	96.7%	12.0
Ashland 2033	12	785	736	1,521	65	61	10.9%	22.7	931	77.6	95.9%	12.0
Ashland 2037	12	817	760	1,577	68	63	11.4%	23.5	1,023	85.2	94.9%	12.3
Ashland 2041	12	850	784	1,634	71	65	12.9%	26.0	1,202	100	96.0%	12.3
Supplemental Cases Tested by CS/Keeney												
2045 No Build	Case failed 4 days and 320 trains into dispatch											
2045 Build Full	Fatal flaw in Node file											
2045 Full Build Ashland	7	529	526	1,055	76	75	16.5%	29.4	991	141	96.6%	13.1
2045 Build Full 2Ash TOS	7	529	526	1,055	76	75	16.8%	33.1	1,008	143.9	95.0%	12.1
2045 Build Full 2Ash XR2	7	529	526	1,055	76	75	15.4%	32.8	925	132.1	96.0%	11.1
Supplemental Cases with Results from HDR												
2045 No Build	12	883	640	1,523	74	53	17.9%	37.3	1,710	128.8	87.3%	12.5
2045 Build Full	12	883	880	1,763	74	73	15.8%	31.0	1,602	133.5	94.7%	10.4

DC TO RICHMOND SOUTHEAST HIGH SPEED RAIL

CSXT (continued)

A.2 Comparative Train Counts – DC2RVA RTC Train Files, Original 9 Cases

All cases were dispatched for 14 measured days. Only two of the 2045 cases dispatched to completion. Daily counts are rounded to the nearest whole train.

Base 2015 Cases

Passenger	Total	Per Day	Freight	Total	Per day
Regional	140	10	IM	80	6
Long Haul	154	11	Manifest	129	9
DHQ	22	2	Unit	57	4
VRE	256	18	Coal	144	10
			Bulk	31	2
			Grain	13	1
			Local	161	12
			Yard	12	1
			Helper	6	0.4
			Light Engine	4	0.3
TOTAL	**572**			**637**	

2025 No Build, 4 tracks at Long Bridge

Passenger	Total	Per Day	Freight	Total	Per day
Regional	192	14	IM	104	7
Long Haul	144	10	Manifest	160	11
DHQ	0	0	Unit	37	3
VRE	304	22	Coal	127	9
			Bulk	23	2
			Grain	12	1
			Local	22	2
			Yard	12	1
			Helper	0	
			Light Engine	0	
TOTAL	**640**			**497**	

CSXT (continued)

Ashland 2033

Passenger	Total	Per Day	Freight	Total	Per day
Regional	264	19	IM	157	11
Long Haul	144	10	Manifest	199	14
DHQ	24	2	Unit	57	4
VRE	304	22	Coal	146	10
			Bulk	31	2
			Grain	13	1
			Local	161	12
			Yard	12	1
			Helper	5	0.4
			Light Engine	4	0.3
TOTAL	**736**			**785**	

Ashland 2037

Passenger	Total	Per Day	Freight	Total	Per day
Regional	288	21	IM	157	11
Long Haul	144	10	Manifest	212	15
DHQ	24	2	Unit	57	4
VRE	304	22	Coal	147	0
			Bulk	33	2
			Grain	13	1
			Local	161	12
			Yard	12	1
			Helper	5	0.4
			Light Engine	4	0.3
TOTAL	**760**			**817**	

CSXT (continued)

Ashland 2041

Passenger	Total	Per Day	Freight	Total	Per day
Regional	312	22	IM	189	14
Long Haul	144	10	Manifest	229	16
DHQ	24	2	Unit	57	4
VRE	304	22	Coal	147	0
			Bulk	33	2
			Grain	13	1
			Local	161	12
			Yard	12	1
			Helper	5	0.4
			Light Engine	4	0.3
TOTAL	**784**			**850**	

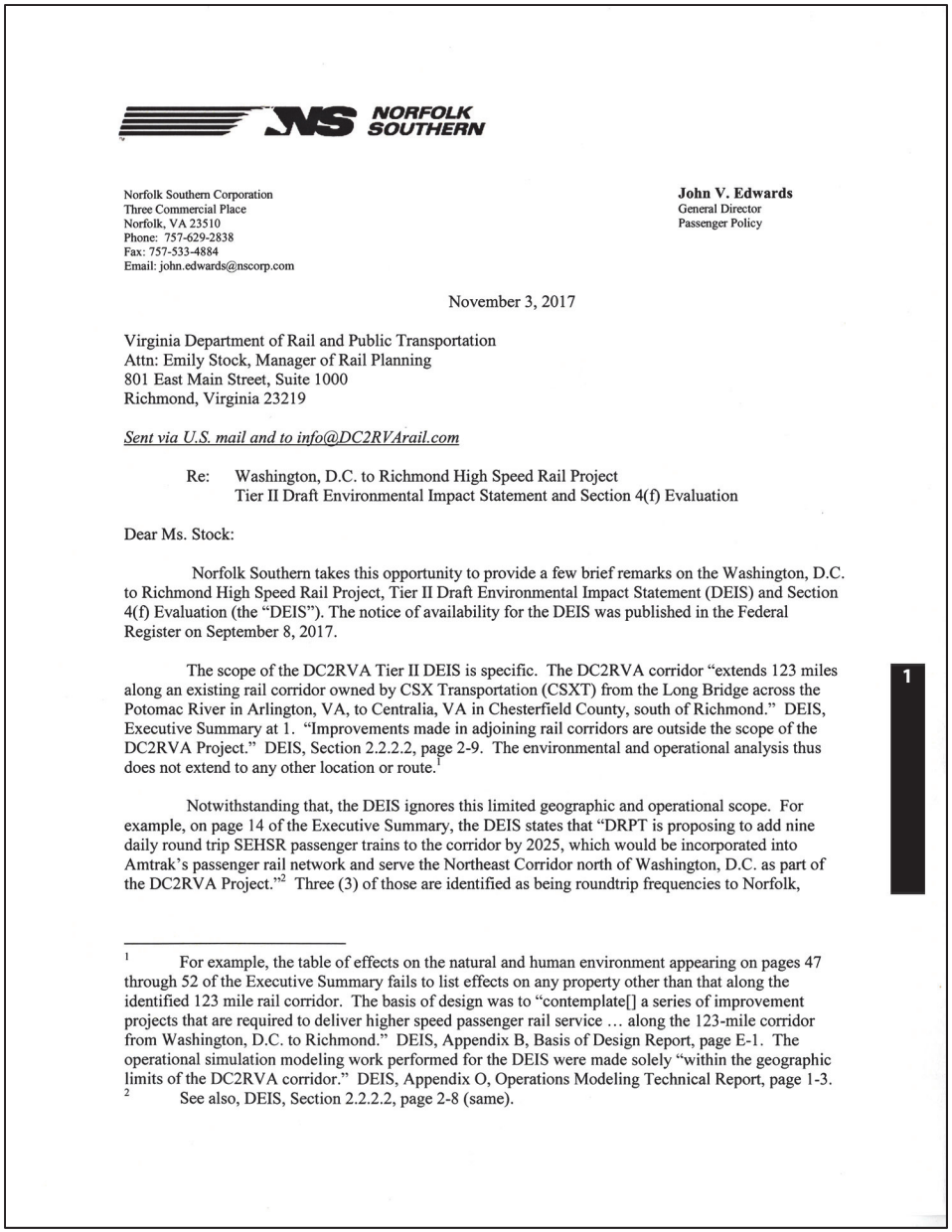
2045 Full (2025 Build MS SM Full)

Passenger	Total	Per Day	Freight	Total	Per day
Regional	408	29	IM	213	15
Long Haul	144	10	Manifest	239	17
DHQ	24	2	Unit	57	4
VRE	304	22	Coal	147	0
			Bulk	33	2
			Grain	13	1
			Local	161	12
			Yard	12	1
			Helper	5	0.4
			Light Engine	4	0.3
TOTAL	**880**			**883**	

CSXT (continued)

Delays to Individual Freight Trains for FRA Supplemental Ashland Cases

Delay	2045 Build Full 2Ash	2045 Build Full 2Ash TOS	2045 Build Full 2Ash XR2
Over 9 hours	2	5	2
8 to 9 hours	3	3	2
7 to 8 hours	5	6	6
6 to 7 hours	9	12	10
5 to 6 hours	6	7	10
4 to 5 hours	29	22	17
3 to 4 hours	54	50	39
Total trains delayed more than 3 hours each	108	105	86



NORFOLK SOUTHERN

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John V. Edwards
General Director
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November 3, 2017

Virginia Department of Rail and Public Transportation
Attn: Emily Stock, Manager of Rail Planning
801 East Main Street, Suite 1000
Richmond, Virginia 23219

Sent via U.S. mail and to info@DC2RVArail.com

Re: Washington, D.C. to Richmond High Speed Rail Project
Tier II Draft Environmental Impact Statement and Section 4(f) Evaluation

Dear Ms. Stock:

Norfolk Southern takes this opportunity to provide a few brief remarks on the Washington, D.C. to Richmond High Speed Rail Project, Tier II Draft Environmental Impact Statement (DEIS) and Section 4(f) Evaluation (the "DEIS"). The notice of availability for the DEIS was published in the Federal Register on September 8, 2017.

The scope of the DC2RVA Tier II DEIS is specific. The DC2RVA corridor "extends 123 miles along an existing rail corridor owned by CSX Transportation (CSXT) from the Long Bridge across the Potomac River in Arlington, VA, to Centralia, VA in Chesterfield County, south of Richmond." DEIS, Executive Summary at 1. "Improvements made in adjoining rail corridors are outside the scope of the DC2RVA Project." DEIS, Section 2.2.2.2, page 2-9. The environmental and operational analysis thus does not extend to any other location or route.[1]

Notwithstanding that, the DEIS ignores this limited geographic and operational scope. For example, on page 14 of the Executive Summary, the DEIS states that "DRPT is proposing to add nine daily round trip SEHSR passenger trains to the corridor by 2025, which would be incorporated into Amtrak's passenger rail network and serve the Northeast Corridor north of Washington, D.C. as part of the DC2RVA Project."[2] Three (3) of those are identified as being roundtrip frequencies to Norfolk,

1

[1] For example, the table of effects on the natural and human environment appearing on pages 47 through 52 of the Executive Summary fails to list effects on any property other than that along the identified 123 mile rail corridor. The basis of design was to "contemplate[] a series of improvement projects that are required to deliver higher speed passenger rail service … along the 123-mile corridor from Washington, D.C. to Richmond." DEIS, Appendix B, Basis of Design Report, page E-1. The operational simulation modeling work performed for the DEIS were made solely "within the geographic limits of the DC2RVA corridor." DEIS, Appendix O, Operations Modeling Technical Report, page 1-3.

[2] See also, DEIS, Section 2.2.2.2, page 2-8 (same).

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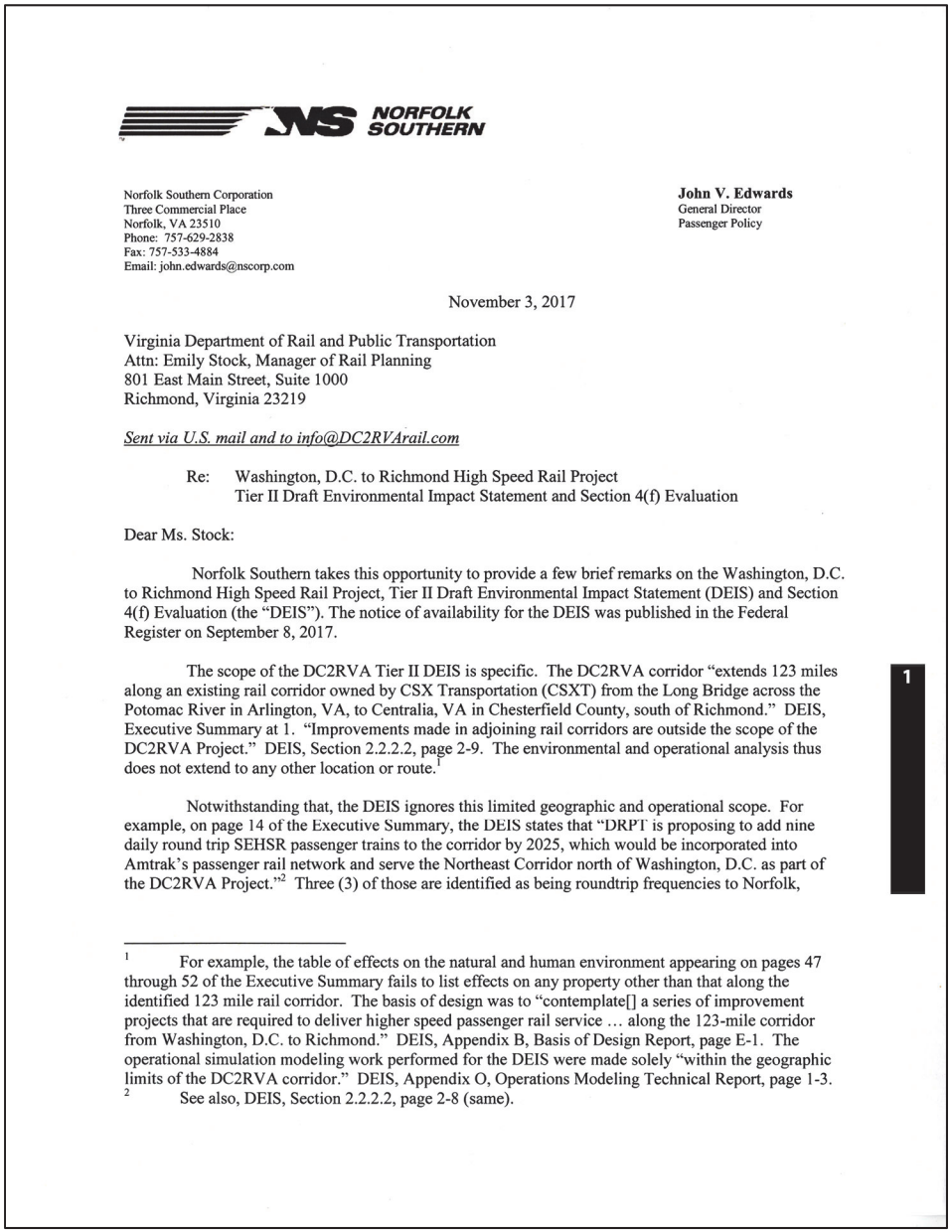
1. The Purpose of the DC2RVA Project is to increase capacity to deliver higher speed passenger rail, expand commuter rail, and accommodate growth of freight rail service in an efficient and reliable multimodal corridor between Washington, D.C. and Richmond, VA. While the Project's capacity-related infrastructure improvements are limited to the 123 miles between Arlington (RO Interlocking) and Centralia, VA, the Project recognizes the reality that many of the proposed train frequencies would not operate solely within the DC2RVA corridor. Thus, while the DC2RVA Draft and Final Environmental Impact Statements (EIS) evaluate the effects of capacity improvements within the corridor, each includes operational analyses of trains moving into, out of, and beyond the limits of the corridor. The DC2RVA Project does not, by itself, ensure that these additional passenger services would occur – rather, the DC2RVA Project ensures that there would be sufficient capacity within the Washington, D.C. to Richmond corridor for these additional passenger services to operate, should they be added incrementally between the current year and the planning horizon for the Project (2045).

   The DC2RVA Project carries forward the purpose of the 2002 Tier I EIS within the Washington, D.C. and Richmond corridor. The Project builds on the 2002 Tier I Final EIS and Record of Decision (ROD), and subsequent related studies (identified in the Final EIS Section 1.2), including the 2017 Richmond to Raleigh Tier II Final EIS and ROD and the 2012 Richmond to Hampton Roads Tier I Final EIS. The DC2RVA Project used these studies and decisions in determining the anticipated frequency of intercity passenger rail service in the DC2RVA corridor, and thereby the specific capacity improvements within the corridor necessary to support the additional passenger trains while accommodating commuter rail and growth of freight service. In keeping with the 2002 Tier I ROD, and the determination of the Federal Railroad Administration (FRA) to develop the program incrementally, the DC2RVA Project is itself just one increment of a larger program. The Department of Rail and Public Transportation (DRPT) recognizes that additional planning, analysis,

(Responses are continued on next page)



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[2] See also, DEIS, Section 2.2.2.2, page 2-8 (same).

NORFOLK SOUTHERN (continued)

engineering and host railroad coordination would need to be completed prior to extending additional Northeast Regional service to Norfolk. Section 7.7 of the Final EIS, which has been added since the Draft EIS, details the coordination with other previous, ongoing, concurrent, and planned studies and projects within or adjacent to the DC2RVA corridor that are critical to the DC2RVA Project; Section 7.7.2 specifically details the coordination with other Southeast High Speed Rail (SEHSR) projects, including trains to Norfolk as part of the Richmond to Hampton Roads study.

Additionally, DRPT conducted refined modeling subsequent to the Draft EIS preliminary simulation modeling; the findings of this effort are summarized in Section 3.2 of the Final EIS and fully discussed in Appendix F.

Ms. Emily Stock
November 3, 2017
Page 2 of 2

Virginia, presumably over the current Amtrak route between Washington, D.C. and Norfolk, Virginia.[3] In fact, the DEIS states, definitively, that "Three proposed new Northeast Regional (SEHSR) daily round trips (six trains) would be added between Washington, D.C. and Norfolk, VA under the DC2RVA project." DEIS, Section 2.2.2.2, page 2-10.[4] Because the environmental and operational scope of the DEIS explicitly does not include major portions of the routes of these three proposed new Northeast Regional daily round trips, they cannot be added "under the DC2RVA project." These three trains could not be added without an agreement with Norfolk Southern, perhaps additional infrastructure and, should Federal funds be involved, further environmental review.

1

In addition to the additional Norfolk service frequencies, two significant changes were integrated into the "no build scenario" of the DC2RVA DEIS that have not been reviewed. First, the DC2RVA Tier II DEIS assumes – in the "no build scenario" – an additional Northeast Regional (Virginia) Washington to Lynchburg round trip via Norfolk Southern. Second, the frequency of an existing long-distance train via Norfolk Southern is expanded from three (3) times per week to daily – again in the "no build scenario". DEIS, Section 2.5.1.2, pages 2-48 and 2-49. See also, DEIS, Figure 2.2-2, page 2-8. Although the DEIS states that "[p]lanned rail infrastructure improvements described in Section 2.5.1.1 above would support the operation" of these trains, even over Norfolk Southern trackage, none of the identified infrastructure improvements would take place on Norfolk Southern. There is no analysis to support the claimed statement. Further, neither of these service expansions is in the works (notwithstanding the statement made in the DEIS that "Amtrak intends to increase the operations of the Cardinal … from three trips per week to one round trip daily"). These service expansions could not be added without an agreement with Norfolk Southern, perhaps additional infrastructure and, should Federal funds be involved, further environmental review.

2

Please let me know if you have any questions concerning these comments.

Sincerely,

John V. Edwards

[3] This is in addition to the three (3) round trips already planned. See also, DEIS, page E-14 (Graphic entitled "Train Service Build Conditions (2025)").

[4] See also, DEIS, Section 2.2.3.1, page 2-11 (same), and Section 2.6.2, page 2-120 (same).

NORFOLK SOUTHERN (continued)

(Response to comment 1 on previous page)

2. The No Build Alternative incorporates existing and future infrastructure and service levels from planned investments in the corridor that are likely to occur independent of the capacity improvements planned by the DC2RVA Project. If a project or additional service level was under construction, fully-funded, or was the focus of advanced collaborative planning, it was assumed to be complete by 2025 for the purposes of the Draft EIS evaluation. An additional Northeast Regional (Virginia-supported) Washington, D.C. to Lynchburg, VA round trip was identified in the 2017 Virginia Statewide Rail Plan as a short-term project that the Commonwealth of Virginia intends to pursue. Daily operation of Amtrak's long-distance Cardinal between New York and Chicago was proposed in Amtrak's Passenger Rail Investment and Improvement Act (PRIIA) Section 210 Performance Improvement Plan for the Cardinal dated September 2010 and reaffirmed by Amtrak as a service increase to include in the No Build assumptions for planning purposes for the DC2RVA Project.

   As stated above, the DC2RVA Project does not, by itself, ensure that these additional passenger services would occur – rather, the DC2RVA Project ensures that there would be sufficient capacity within the Washington, D.C. to Richmond corridor for these additional passenger services to operate. Section 4.2 of the Final EIS presents the service plan of the Preferred Alternative, which will be further refined in the Corridor Service Development Plan (SDP) for the Project, which is summarized in Chapter 7 of the Final EIS.

21249

Amtrak Comments on DC2RVA Draft EIS Recommended Alternatives

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Amtrak supports the stated Purpose and Need of the DC2RVA project to increase track capacity to allow greater passenger train speeds and frequencies to be operated on the Richmond-Washington section of the SEHSR in the state of Virginia, serving a projected service volume of 22 intercity, 17 commuter and between 10 and 20 freight round trips per day along the northernmost segment of this corridor.

Amtrak, as a partner with the State of Virginia, stands ready to expand to these projected levels of high-speed, regional and long-distance intercity passenger rail service south of Washington to the multiple destinations included in the draft service plans in the DC2RVA DEIS, contingent on available equipment and manpower.

Amtrak has been provided the DC2RVA draft service plan train times and frequency and will be evaluating how that can fit into our expansion and reconstruction plans for Washington Union Station along with those of the commuter rail operators. 1

Amtrak also reserves the right to perform its own network modeling to determine impacts to train performance based on the new levels of through DC2RVA service and the expanded VRE service frequency planned into Washington Union Station. 2
However, Amtrak also expresses the following specific concerns on options presented in the DEIS. The first of these concerns relates to the operating and technical performance specifications underlying the improvements proposed.

Recognizing the operating constraints inherent in dense passenger operations on a heavy freight main line owned by a rail freight carrier (such as here on CSX's Richmond Line), Amtrak urges that consideration be made in the FEIS-phase analysis to the feasibility of introducing substantial segments of higher-performance (e.g., 110-mph operating speed design) new trackage, either adjacent or in the general vicinity of the existing CSX corridor south of Fredericksburg (e.g., Alternative Areas 4 and 5 in the DEIS). 3

The opportunity for new right-of-way sections would be particularly beneficial in the Ashland section (Alternative Area 5), where the option for a new bypass segment to the east of the community could overcome the severe constraints to higher-performance rail operations posed by the current street-level downtown alignment that could relieve the burden of heavy freight and passenger rail traffic operations through the center of this historic community. 4

AMTRAK

1. and 2. Comments noted. The Department of Rail and Public Transportation (DRPT) will continue to collaborate with Amtrak as it refines the passenger rail service plan and conceptual schedule for the Preferred Alternative during the preparation of the Corridor Service Development Plan (SDP) for the DC2RVA Project and beyond into final design.

3. The engineering and service plans presented in the DC2RVA Tier II Draft and Final Environmental Impact Statements (EIS) were developed based on the 2002 Tier I Final EIS and Record of Decision (ROD) issued for the Southeast High Speed Rail (SEHSR) corridor between Washington, D.C. and Charlotte, NC, which selected an incremental approach to developing the SEHSR program. Key elements of the selected incremental approach are:

   - Upgrade existing rail corridors (instead of developing new corridors).
   - Utilize fossil-fuel burning equipment rather than electric-powered equipment.
   - Add service as market demand increases and/or when funding is available.

   The incremental approach seeks to minimize cost and potential impacts to the environment by utilizing existing railroad tracks and rail rights-of-way as much as possible. Passenger service and freight service would share the CSXT-owned tracks. The 2002 Tier I EIS assumed a maximum speed of 110 mph, with an average speed of approximately 70 mph along the full length of the SEHSR corridor between Washington, D.C. and Charlotte, NC. Subsequently, in 2009, the Federal Railroad Administration (FRA) released its strategic plan for higher speed rail in America; investment strategies included upgrading reliability and service on conventional intercity rail services (operating speeds up to 79 to 90 mph on shared track) and developing emerging and regional higher-speed corridor services (operating speeds up to 90 to 110 mph on shared track). Also in September 2009,

(Responses are continued on next page)

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The opportunity for new right-of-way sections would be particularly beneficial in the Ashland section (Alternative Area 5), where the option for a new bypass segment to the east of the community could overcome the severe constraints to higher-performance rail operations posed by the current street-level downtown alignment that could relieve the burden of heavy freight and passenger rail traffic operations through the center of this historic community. 4

AMTRAK (continued)

DRPT released its I-95 Southeast High Speed Rail Corridor & Service Plan, which set a goal of increasing passenger rail speed to a 90-mph maximum in the Washington, D.C. to Petersburg, VA corridor. In keeping with DRPT's 2009 Service Plan, the DC2RVA Project was designed to upgrade the reliability and service of conventional intercity rail services at speeds up to 90 mph, where practical, in a corridor shared with commuter and freight services. DRPT determined that a maximum speed of 90 mph, where feasible, for the DC2RVA Project provided the optimal capacity to improve service on the DC2RVA corridor while minimizing environmental impacts and costs. However, DRPT's determination that a maximum authorized speed of 90 mph for the passenger trains in the DC2RVA corridor does not preclude consideration in the future to increase the maximum allowable speed in the corridor. Additional details on the decisions that led to the selection of a maximum authorized speed of 90 mph in the Project corridor are provided in Section 1.2 of the Final EIS.

4. As work on the Tier II Draft EIS for the DC2RVA Project advanced, DRPT recognized that each of the proposed Build Alternatives would have potential adverse consequences on the citizens and resources of the Town of Ashland and/or Hanover County, and there was no local consensus or preference for a Build Alternative in this area. DRPT convened the Town of Ashland/Hanover County Community Advisory Committee (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 DC2RVA Project, while also minimizing or avoiding potential impacts to the community and environment. Ultimately, the CAC identified three "least objectionable" alternatives for through-town, below-grade, and bypass options, which are fully described in Section 3.3 of the Final EIS and its Appendix G, and briefly summarized below:

(Responses are continued on next page)

21249

Amtrak Comments on DC2RVA Draft EIS Recommended Alternatives

The National Railroad Passenger Corporation ("Amtrak") is pleased to submit comments for the administrative record regarding the Federal Railroad Administration's ("FRA") and Virginia Department of Rail and Public Transportation ("DRPT")-sponsored Tier II Draft Environmental Impact Statement ("DEIS") for the Washington, DC to Richmond, VA ("DC2RVA") corridor element of the Washington, DC to Charlotte, NC Southeast High Speed Rail initiative (SEHSR).

Amtrak supports the stated Purpose and Need of the DC2RVA project to increase track capacity to allow greater passenger train speeds and frequencies to be operated on the Richmond-Washington section of the SEHSR in the state of Virginia, serving a projected service volume of 22 intercity, 17 commuter and between 10 and 20 freight round trips per day along the northernmost segment of this corridor.

Amtrak, as a partner with the State of Virginia, stands ready to expand to these projected levels of high-speed, regional and long-distance intercity passenger rail service south of Washington to the multiple destinations included in the draft service plans in the DC2RVA DEIS, contingent on available equipment and manpower.

Amtrak has been provided the DC2RVA draft service plan train times and frequency and will be evaluating how that can fit into our expansion and reconstruction plans for Washington Union Station along with those of the commuter rail operators. 1

Amtrak also reserves the right to perform its own network modeling to determine impacts to train performance based on the new levels of through DC2RVA service and the expanded VRE service frequency planned into Washington Union Station. 2
However, Amtrak also expresses the following specific concerns on options presented in the DEIS. The first of these concerns relates to the operating and technical performance specifications underlying the improvements proposed.

Recognizing the operating constraints inherent in dense passenger operations on a heavy freight main line owned by a rail freight carrier (such as here on CSX's Richmond Line), Amtrak urges that consideration be made in the FEIS-phase analysis to the feasibility of introducing substantial segments of higher-performance (e.g., 110-mph operating speed design) new trackage, either adjacent or in the general vicinity of the existing CSX corridor south of Fredericksburg (e.g., Alternative Areas 4 and 5 in the DEIS). 3

The opportunity for new right-of-way sections would be particularly beneficial in the Ashland section (Alternative Area 5), where the option for a new bypass segment to the east of the community could overcome the severe constraints to higher-performance rail operations posed by the current street-level downtown alignment that could relieve the burden of heavy freight and passenger rail traffic operations through the center of this historic community. 4

AMTRAK (continued)

- "3-2-3" Option (i.e., maintaining two tracks through Town): 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. This option is similar to Build Alternative 5A that was evaluated in the Draft EIS, with further minimization of infrastructure and associated potential impacts within downtown Ashland.
- Three-Track Trench: A trench would be constructed through Ashland approximately 50 feet wide and 33 feet deep. The two existing tracks through the Town of Ashland, along with a new third track, would pass through Ashland within the trench. This below-grade option followed a through-town alignment similar to Build Alternatives 5B and 5D as evaluated in the Draft EIS, but was considered and dismissed in the Draft EIS alternatives development process.
- Western Bypass Alignment: A two-track, grade-separated bypass approximately seven miles long would extend around the Town of Ashland to the west. This bypass alignment is similar to Build Alternative 5C as evaluated in the Draft EIS, but with a modified alignment. The AWB1 alignment was considered and dismissed in the Draft EIS alternatives development process.

The CAC's identification of least objectionable alternatives was intended to inform the final determination of a preferred alternative for the Ashland/Hanover County area by DRPT, the Commonwealth Transportation Board (CTB), and ultimately, FRA. In accordance with the September 2017 recommendation of the Town of Ashland/Hanover County Community Advisory Committee and the December 2017 resolution of the CTB, Alternative 5A was selected as the Preferred Alternative for the Ashland / Hanover area. Refer to Section 4.3.5 of the Final EIS for full description of the alternative and the basis for its selection.

Details of CAC activities are provided in the CAC Summary Report, which is Appendix G of the Final EIS.

Amtrak would welcome the opportunity to provide further clarification of these proposed improvements, and its planning staff can be available to provide follow up as requested by the DC2RVA project team at its convenience.

AMTRAK (continued)

(No comments on this page)

19155

VIRGINIA RAILWAY EXPRESS

November 6, 2017

Via ELECTRONIC MAIL

Ms. Emily Stock
Manager of Rail Planning
Virginia Department of Rail and Public Transportation
600 East Main Street, Suite 2102
Richmond, VA 23219

Re: Washington, D.C. to Richmond High Speed Rail Project
Tier II Draft Environmental Impact Statement and Section 4(f) Evaluation Review

Dear Ms. Stock:

The Virginia Railway Express (VRE) has reviewed the *Southeast High Speed Rail Washington, DC to Richmond, Virginia, Tier II Draft Environmental Impact Statement and Draft Section 4 (f) Evaluation (DEIS)*. The DEIS contemplates improvements to the CSX Transportation (CSXT) RF&P Subdivision, many of which are in the VRE operating territory and would benefit VRE operations. Most notable are adding a fourth track between the Potomac River and Alexandria and completing a third track from Alexandria to north of Fredericksburg. The project also produced concept-level plans for a new third track across the Rappahannock River in the city of Fredericksburg.

As a stakeholder in the "DC2RVA" planning process, VRE staff worked closely with project staff throughout the development of DEIS document to ensure compatibility with VRE operations and designs for station improvements currently underway through the corridor. A Record of Decision from the Federal Railroad Administration for the DC2RVA project based on the DEIS will represent a major step towards additional corridor capacity and fluidity to the benefit of all users of the Subdivision.

In summary:

1. VRE appreciates the overall DEIS effort conducted by the Virginia Department of Rail and Public Transportation (DRPT) and the collaboration with VRE and other stakeholders throughout the process.

2. VRE supports the conclusions of the DEIS that identify significant improvements to the railroad's physical plant that will benefit all users of the corridor—CSXT, Amtrak and VRE.

3. VRE has issues that we are eager to help resolve regarding technical design details of proposed additional tracks through VRE stations. We also have some questions with the noise and vibration impact analyses. These details are being actively addressed as part of the on-going coordination between the project teams, however, and we are confident that they will be resolved prior to the issuing the Final Environmental Statement.

1500 KING STREET • SUITE 202 • ALEXANDRIA, VA 22314 • P 703.684.1001 • F703.684.1313 • WWW.VRE.ORG

VRE

Note DRPT responded to the specific comments in the attachment that are summarized in the first two pages of VREs letter. The response numbering below corresponds to the DRPT-numbered statements as indicated by the numbered black bars on the right side of the attachment to VRE's letter and is not intended to align with the letter summary numbering provided by VRE.

(No comments on this page)

Ms. Emily Stock
November 6, 2017
Page 2

4. VRE supports the goals of DC2RVA to enhance railroad infrastructure for efficient freight and passenger rail services. VRE welcomes the opportunity to work with DRPT capital and operating plans that will cost effectively meet the freight, intercity and commuter train needs in this important corridor.

We have compiled a number of specific comments on various sections of the DEIS that are outlined in the attached enclosure. VRE greatly appreciates the opportunity to participate in this effort and looks forward to continued involvement and collaboration with all stakeholders.

Sincerely,

Doug Allen
Chief Executive Officer

Enclosure

cc: Richard A. Dalton, Deputy CEO/Chief Operating Officer, Virginia Railway Express
Oscar J. Gonzalez, Project Manager, Virginia Railway Express
T. R. Hickey, Chief Development Officer, Virginia Railway Express
Christine M. Hoeffner, Manager of Development, Virginia Railway Express
Dallas R. Richards, Manager of Implementation, Virginia Railway Express

2

VRE (continued)

(No comments on this page)

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Enclosure

General comment: The projected timeline for completion appears inconsistent with level of work required. Consider reevaluating projected timeline for design, permitting, property acquisition, and construction. 1

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p. 2-29 DC2RVA provides sufficient options to connect with potential Long Bridge alternatives. Continue coordination with DC2RVA, DDOT and FRA 3

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Noise and vibration:

- The DEIS Noise Technical Report (page 4-8), Table 4-4 indicates Moderate Noise Impacts at 7 Category 2 sensitive receptors in Arlington. The maps included with the report identify the sensitive receptors. 10
- There is also Table 5-1 Noise Impact Summary by Alternative (page 5-1) that lists 670 Moderate impacts and 99 Severe Impacts in Arlington. It is unclear to VRE the difference between the two tables but the numbers are significantly different. It is unclear the difference between Chapters 4 and 5 of the DC2RVA Noise report.

3

VRE (continued)

1. The Department of Rail and Public Transportation (DRPT) and the Federal Railroad Administration (FRA) acknowledge the implementation process that follows the guidelines of the National Environmental Policy Act (NEPA) and preliminary design can be lengthy, and includes applying for construction permits, equipment selection and manufacturing, ordering materials, and actual construction of the rail corridor improvements. DRPT and FRA have adopted an incremental approach to develop new service and are working with CSXT, the owner of the railroad, to identify key opportunities to construct railroad infrastructure and implement improved service in the corridor as quickly as possible. For planning purposes, DRPT and FRA assumed the earliest the new service could be in operation would be 2025; this assumption is based on a completed NEPA process and full funding being immediately available. The build-out of the corridor and full implementation of the DC2RVA Project is dependent on future state and federal funding. Full details about future steps in the Project process, including funding, implementation and service priorities, final design, permitting, and construction, are included in Chapter 7 of this Final Environmental Impact Statement (EIS), which has been added since the Draft EIS to address these topics.

2. The design criteria for the DC2RVA Project apply to intercity passenger rail stations providing service to Amtrak, and including stations shared by Amtrak and the Virginia Railway Express (VRE). Adjustments to VRE stations are being coordinated between VRE and DRPT, separate from the DC2RVA Project. Application of the design criteria at stations solely serving VRE is limited to the track horizontal offset distance from VRE platforms and to the track elevation relative to the VRE platforms. Additional track or track realignments constructed under the DC2RVA Project will support the planned platform improvements at stations served by VRE. DRPT will continue coordinating with VRE to ensure proposed track improvements under DC2RVA align with VRE's ongoing and planned station expansion projects.

(Responses are continued on next page)

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Page 3

Enclosure

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3

VRE (continued)

3. Comment noted. DRPT will continue to coordinate with FRA, the District Department of Transportation (DDOT), and other stakeholders on the Long Bridge project throughout the DC2RVA design process.

4. Draft EIS Table 2.5-1 has been updated as requested; refer to the errata table for the Draft EIS, which is Appendix A of the Final EIS. Note that the Broad Run expansion is in the Draft EIS Table 2.5-1, so no addition is needed.

5. and 6. DRPT acknowledges that VRE's most recent plans and construction timelines for the two referenced projects have been revised since publication of the Draft EIS. Clarification of any effects from revised plans or construction timelines are addressed in Section 4.4.2 and Section 7.7 of the Final EIS.

7. The text has been corrected to reflect that the proposed new pedestrian tunnel would connect Alexandria Union Station to the King Street Metro Station and provide access to the platforms and station that are compliant with the Americans with Disabilities Act (ADA); refer to the errata table for the Draft EIS, which is Appendix A of the Final EIS.

8. The referenced description has been updated to indicate that it refers to VRE's Crystal City Station. Refer to the errata table for the Draft EIS, which is Appendix A of the Final EIS.

9. See DRPT-numbered statement #2 above for response.

(Responses are continued on next page)

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Page 3

Enclosure

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3

VRE (continued)

10. Table 4-4 in the Noise and Vibration Technical report (Appendix P in the Draft EIS) presents noise analysis results for Build Alternative 2A in the Northern Virginia segment (Area 2) of the DC2RVA corridor. Build Alternative 2A is the only Build Alternative for the Northern Virginia segment. Draft EIS Table 5-1 summarizes noise impacts for all six corridor segments and all of the Project Build Alternatives. The results for Build Alternative 2A are the same in both tables. Draft EIS Table 4-4 identifies noise impacts in each major municipality per Area, whereas Draft EIS Table 5-1 simply presents the total number of projected noise impacts per Area (all municipalities in that segment). Information on potential vibration effects are presented in the same manner.

    There are no changes to the vibration impact contours or noise impact contours since the publication of the Draft EIS, with the exception of two areas for noise only (one location in Crystal City in Arlington and one location in Richmond); these two areas are detailed in Final EIS Section 5.7 and updated maps are provided in Appendix M of the Final EIS.

    The noise analysis tables in Section 5.7 of the Final EIS are presented for only the defined contiguous Preferred Alternative through all six area segments of the Project corridor.

- Similar tables for Vibration analysis (pages 4-20 and 5-2). **10**

Chapter 2: Alternatives

Page 2-49

1. For the daily 1-way trips, VRE is shown as increasing 4 train trips until 2025 and no additional train trips for the next 20 years thereafter. However, freight trains show an increase of 20-25 train trips in that same timeframe of 2025-2045. This is also reiterated in the text on page 2-116. **11**

Page 2-125

1. The text mentions maintaining at least one mainline track for operations during construction. However, it is likely that 2 mainline tracks will need to be in service always where VRE operates, especially north of where the Manassas Line and Fredericksburg merge. In some cases, a shoofly track may be necessary to keep the existing railroad services flowing without unnecessary delays. **12**

2. The ballast depth for rail construction is listed in the text as 8-inches. However, the Basis of Design (BOD) states that not less than 12-inches of ballast material is needed under the ties. Consider removing the specific reference from the general section or ensure it is consistent with the BOD. **13**

Chapter 7: Recommended Preferred Alternative

VRE has review the Recommended Preferred Alternative with particular attention to locations where VRE has planned or proposed projects. In general, we have found the proposed improvements consistent with our preferred designs and ongoing coordination between DRPT and VRE. Here we offer some specific suggestions for your review and consideration as the Agency advance the design and EIS.

Page 7-3

This area considers the northernmost segment of VRE's operations in Virginia and encompasses one of our highest use stations at Crystal City. We recognize the importance of this segment and how it relates to the ongoing Long Bridge Project.

1. **Alternate 1A:** While reviewing Figure 7.1-1 for Alternate 1A, it is not clear that there is a fourth track south of Long Bridge Park from RO to AF. Of note, Alternates 1B and 1C show this fourth track. Please clarify for consistency. **14**

2. **Alternate Decision:** Please clarify the logic of deferring the decision between Alternates 1A, 1B, and 1C until the completion of the Long Bridge study. Such decision along with subsequent design and construction will have direct impacts on VRE's planned improvements at Crystal City Station and has the potential to delay the Atlantic Gateway fourth track project from AF to RO in whole or part. **15**

VRE (continued)

(Response to comment 10 on previous page)

11. No Build assumptions regarding projected increases in freight, intercity passenger, and commuter rail service frequencies were developed in consultation with FRA, CSXT, Amtrak, and VRE. The DC2RVA Project does not preclude the development of additional rail capacity projects to accommodate future increases in rail traffic as future service plans and market conditions change. Separate from the Purpose and Need of the DC2RVA Project, DRPT and FRA also recognize that CSXT, VRE, or other interested parties may pursue additional capital improvements (or service changes) along the DC2RVA corridor between Washington, D.C. and Centralia, VA or on the adjacent railroad network that would affect the operations within the Project corridor. Additional operations analysis performed through the life of the DC2RVA Project will include any modifications to the railroad network constructed (or service changes implemented) by others to continue to validate that the infrastructure defined in the EIS for the DC2RVA Project remains effective to meet the Purpose and Need of Project.

12. The referenced text is part of a general statement about maintaining operations throughout the DC2RVA corridor, and does not preclude the need to maintain more than one track in operation. VRE's description of locations where more than one track would need to remain in service is noted.

13. The referenced text was revised, as requested, to clearly indicate a minimum of 12 inches of ballast would be required under the ties; refer to the errata table for the Draft EIS, which is Appendix A of the Final EIS.

14. Build Alternative 1A, as evaluated in the Draft EIS, proposes four mainline tracks between RO and AF; however, the referenced Draft EIS Figure 7.1-1 was intended as a high-level graphical preview of the Recommended Preferred Alternative at that time, and is not included as part of the Final EIS document. Rather, the Final EIS provides an updated detailed mapbook of the Preferred Alternative in Appendix L. Note that subsequent to the Draft EIS, Alternative 1B was selected as the Preferred Alternative for the Arlington Bridge Approach (refer to Final EIS Section 4.3.1).

(Responses are continued on next page)

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Page 4

- Similar tables for Vibration analysis (pages 4-20 and 5-2). 10

Chapter 2: Alternatives

Page 2-49

1. For the daily 1-way trips, VRE is shown as increasing 4 train trips until 2025 and no additional train trips for the next 20 years thereafter. However, freight trains show an increase of 20-25 train trips in that same timeframe of 2025-2045. This is also reiterated in the text on page 2-116. 11

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2. **Alternate Decision:** Please clarify the logic of deferring the decision between Alternates 1A, 1B, and 1C until the completion of the Long Bridge study. Such decision along with subsequent design and construction will have direct impacts on VRE's planned improvements at Crystal City Station and has the potential to delay the Atlantic Gateway fourth track project from AF to RO in whole or part. 15

4

VRE (continued)

15. In the Draft EIS, to avoid unnecessarily constraining the possible alternatives of the separate Long Bridge project, FRA and DRPT identified and evaluated three possible configurations for the one-mile section of the DC2RVA corridor in Arlington, without recommendation of a preferred alternative between them at that time. Note that there is no requirement for a Draft EIS to recommend a preferred alternative. Subsequently, Alternative 1B: Add Two Tracks on the West was selected as the Preferred Alternative for the DC2RVA Project to align with the two alternatives that were recommended in the Long Bridge Alternatives Report. Refer to Final EIS Section 4.3.1 for details on the selection process and description of Preferred Alternative 1B. DRPT will continue to coordinate with the Long Bridge project to ensure a smooth transition to the proposed new Long Bridge.

    The corridor segment south of the bridge approach will be implemented as part of the Atlantic Gateway project and will include positioning of rail to accommodate appropriate transition to the bridge approach (regardless of location). This will allow VRE's proposed improvements at Crystal City Station to proceed with two tracks in service at all times.

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Page 7-4

This page describes Alternate Area 2: Northern Virginia CFP 109.3 to CFP 62, which is approximately Rosslyn (known as RO) to Dahlgren Junction (DJ) encompassing a majority of the VRE service area. We have reviewed drawings in the appendices, especially at or near planned VRE project locations such as stations.

1. **Track Improvement:** The text refers to "improve existing track". However, it is not clear to context of these improvements. Consider specific distinctions between where new track will be installed versus where improvements or modifications to existing track(s) will be made. 16

2. **Fourth Track at Alexandria:** In the first paragraph, the map shows an additional (fourth) track south of Alexandria Station. However, the text reads "four interoperable main tracks north of Alexandria". This may be an oversite and might should read AF interlocking instead of Alexandria. Consider rewording to specifically mention the terminus or control point of the contemplated fourth track. 17

3. **Major Infrastructure:** Based on recent project experience VRE has found that the complexity of major infrastructure (e.g. bridges, retaining walls, etc.) have significant impacts on project schedules, costs, and related operations. In addition, again based on experience, we have found that allowing for such infrastructure early in the design ultimately improves both constructability and operational redundancy during construction for the project. The last paragraph here mentions several new bridges over waterways, but it is not clear which ones are affected and how many are specifically being rehabilitated, replaced, or constructed. Given the current level of design, we suggest that DRPT consider at this point construction of parallel two-track bridges and / or replacement of all major infrastructure along the corridor. Doing so will likely capture the greatest potential impacts, remove antiquated infrastructure for better long-term service, improve substandard geometry (both roadway and railroad), and present a more constructible alternative to the host railroad. Subscribing to such logic would be similar to the design logic used for Quantico Creek Bridge, now being employed for third track construction on the corridor. 18

   Example: As a specific example, we offer Neabsco Creek Bridge. This location, like many along the corridor, has a two-track bridge over a major water crossing. Constructing a single-track bridge adjacent to the existing would preclude (or prolong) repair or replacement of the existing bridge while maintaining at least two-track operations. Whereas, constructing a two-track bridge adjacent to the existing bridge would allow repair or replacement of the exiting bridge while maintaining two-track operations, thereby ultimately resulting in a safer more cost-effective solution for three (and potential four) track operations.

   This same scenario plays out at many locations along the corridor such as large crossing like Occoquan Creek, Powells Creek, and the Rappahannock River, but also for smaller crossings such as Route 1 and Furnace Road in Fairfax County. VRE recognizes the potential cost implications to such design assumptions but believe it best to recognize and documents potential impacts and costs early in the project as they may become a reality due to constructability and operations.

5

VRE (continued)

16. The referenced Figure 7.2-1 on page 7-4 of the Draft EIS was intended as a high-level graphical preview of the Recommended Preferred Alternative at that time and is not included as part of the Final EIS document. Rather, the Final EIS provides updated detailed descriptions and mapbooks of the Preferred Alternative Refer in Section 4.3 and Appendix L, respectively.

17. The referenced section was reworded for clarity, to read "…with four interoperable main tracks north of AF interlocking and three interoperable main tracks from AF interlocking to Fredericksburg"; refer to the errata table for the Draft EIS, which is Appendix A of the Final EIS.

18. The DC2RVA Project's stated Purpose is to increase railroad capacity between Washington, D.C. and Richmond, VA to deliver higher speed passenger rail service, while also supporting the planned expansion of VRE commuter rail service and accommodating the forecasted growth of freight rail service by developing an efficient and reliable multimodal rail corridor. DRPT and FRA are committed to including sufficient infrastructure improvements in the DC2RVA Project to support the Purpose and Need – however, the goal of the Project is not to re-build the entire CSXT corridor, but to add necessary infrastructure. CSXT has certified that their existing rail bridges meet all necessary engineering and safety standards, and replacement of existing rail bridges is not proposed unless directly necessary to meet the Purpose and Need. The DC2RVA Project's major bridge conceptual designs and environmental impact evaluations address a sub-structure sufficient to support a two-track bridge, although the preliminary Project designs would only show a single-track bridge. This allows for an evaluation of the two-track bridge sub-structure and in-water impacts under NEPA and ensures future design flexibility, while limiting the Project's proposed infrastructure and costs to that necessary to meet Purpose and Need.

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4. **Brooke Station:** At Brooke Station, the report shows an additional mainline track on the east existing corridor. VRE is currently developing station platform plans that have the proposed third track on the west side of the corridor. There are many reasons for this difference, but primarily, we prefer a design that does not require passengers to cross (over or under) a track to reach the first platform or a "three elevator solution". Through ongoing coordination with DRPT we believe we have arrived at a solution that employs the proposed connector road between Mt. Hope Church Road and Andrews Chapel Road. This new alternative places the proposed third track on the west side and is shown below as **Figure 1**. 19

Page 7-6

1. **Rappahannock River Bridge:** Please refer to the section above noted as "Major Infrastructure" for VRE's logic on this matter. In lieu of a new single-track bridge over the Rappahannock River, consider a two-track capable bridge with only one-track in the interim or at least a substructure capable of supporting two-tracks (future). 20

Appendix A:

- In the Alternatives Technical Report, page 4-9 incorrectly lists Quantico as one of the Penta Platform projects. The reference to Quantico should be removed and replaced with Franconia-Springfield. 21
- Consider adding universal crossovers (UXO) between all VRE stations. 22

6

VRE (continued)

19. DRPT remains committed to working with VRE and other stakeholders for the duration of the Project. VRE's proposed solution as shown in Figure 1 in the comments is noted.
20. Refer to DRPT-numbered statement #18 above for response.
21. By way of this response, DRPT acknowledges that the Franconia-Springfield station will replace the Quantico station on page 4-9 of the Alternatives Technical Report (Appendix A of the Draft EIS), under the Penta Platform projects description.
22. DRPT worked with FRA and CSXT to determine reasonable conceptual location of rail crossovers; final determinations will be developed during development of the Corridor Service Development Plan (SDP) for this Project (refer to Section 7.3 of the Final EIS for details) as well as during final design of signals and communication.

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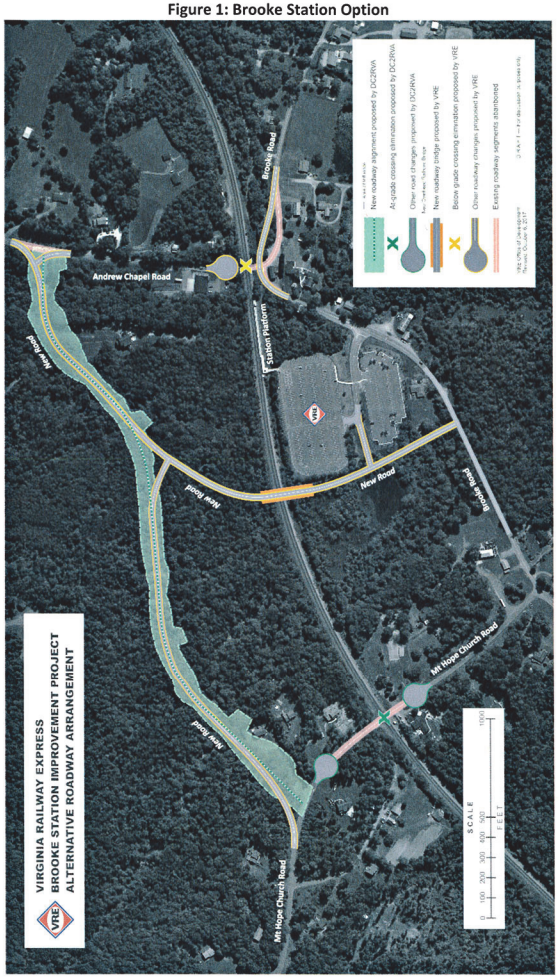
Figure 1: Brooke Station Option

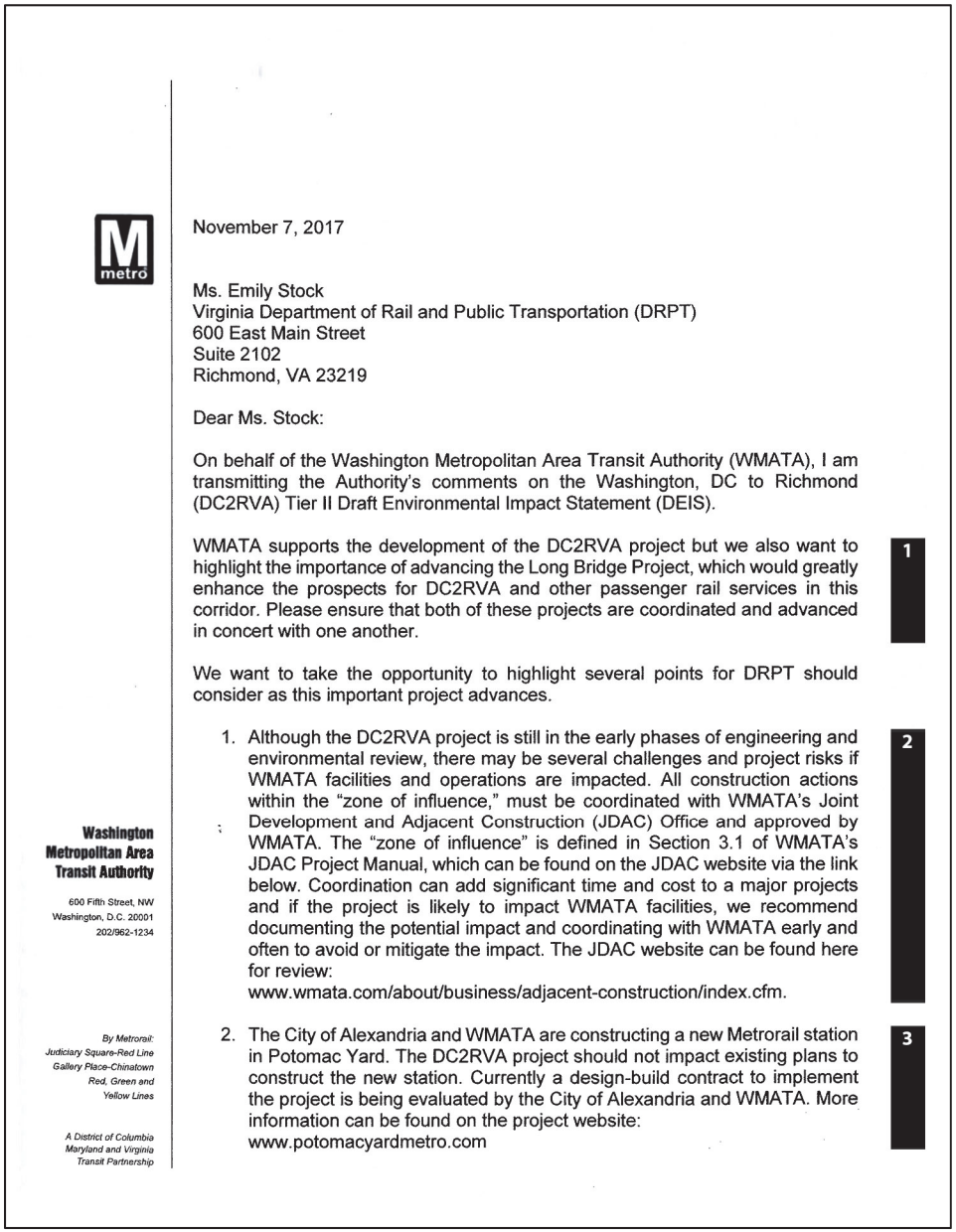


19

7

VRE (continued)

(No comments on this page)



November 7, 2017

Ms. Emily Stock
Virginia Department of Rail and Public Transportation (DRPT)
600 East Main Street
Suite 2102
Richmond, VA 23219

Dear Ms. Stock:

On behalf of the Washington Metropolitan Area Transit Authority (WMATA), I am transmitting the Authority's comments on the Washington, DC to Richmond (DC2RVA) Tier II Draft Environmental Impact Statement (DEIS).

WMATA supports the development of the DC2RVA project but we also want to highlight the importance of advancing the Long Bridge Project, which would greatly enhance the prospects for DC2RVA and other passenger rail services in this corridor. Please ensure that both of these projects are coordinated and advanced in concert with one another. 1

We want to take the opportunity to highlight several points for DRPT should consider as this important project advances.

1. Although the DC2RVA project is still in the early phases of engineering and environmental review, there may be several challenges and project risks if WMATA facilities and operations are impacted. All construction actions within the "zone of influence," must be coordinated with WMATA's Joint Development and Adjacent Construction (JDAC) Office and approved by WMATA. The "zone of influence" is defined in Section 3.1 of WMATA's JDAC Project Manual, which can be found on the JDAC website via the link below. Coordination can add significant time and cost to a major projects and if the project is likely to impact WMATA facilities, we recommend documenting the potential impact and coordinating with WMATA early and often to avoid or mitigate the impact. The JDAC website can be found here for review: www.wmata.com/about/business/adjacent-construction/index.cfm. 2

2. The City of Alexandria and WMATA are constructing a new Metrorail station in Potomac Yard. The DC2RVA project should not impact existing plans to construct the new station. Currently a design-build contract to implement the project is being evaluated by the City of Alexandria and WMATA. More information can be found on the project website: www.potomacyardmetro.com 3

Washington Metropolitan Area Transit Authority
600 Fifth Street, NW
Washington, D.C. 20001
202/962-1234

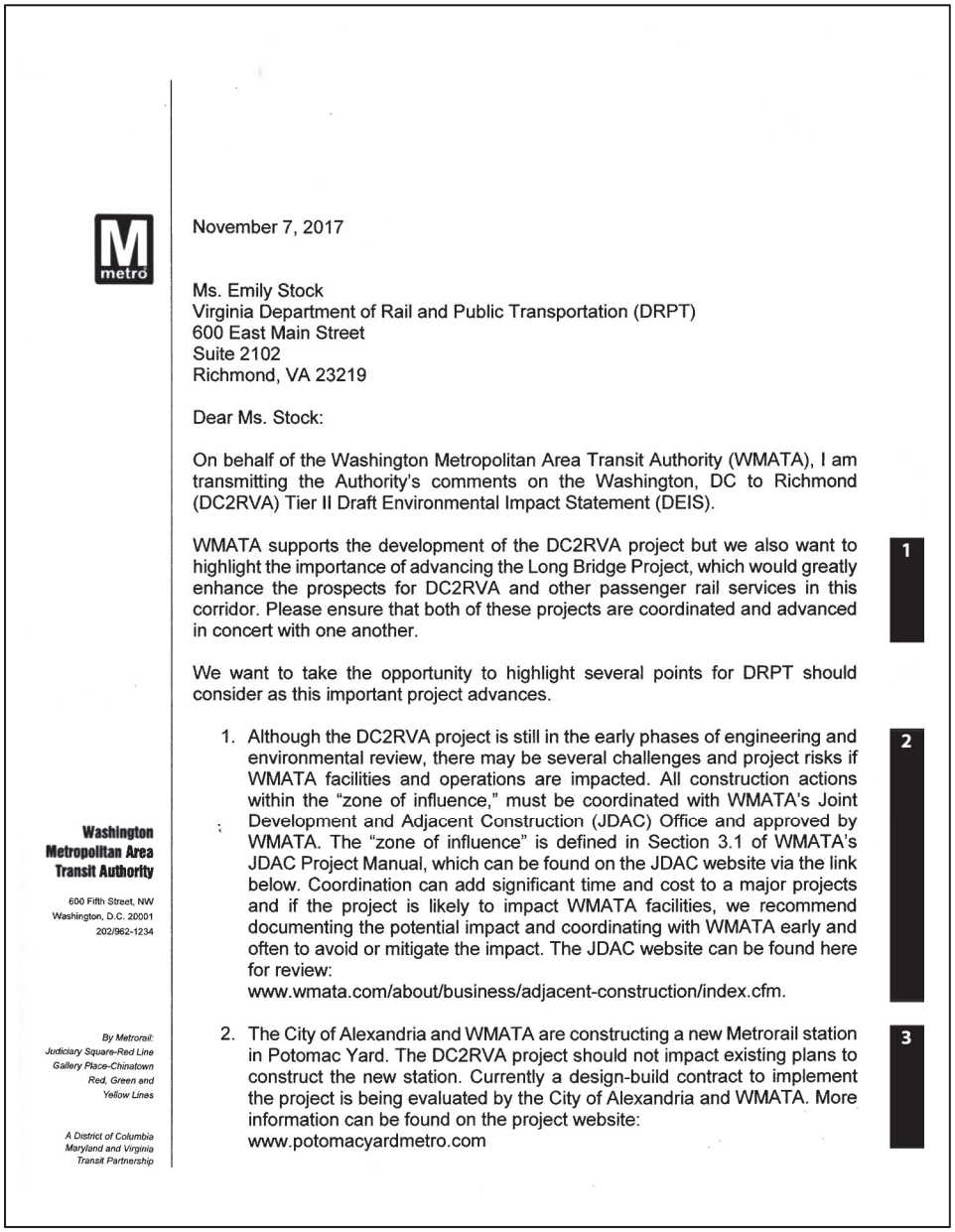
By Metrorail:
Judiciary Square-Red Line
Gallery Place-Chinatown
Red, Green and Yellow Lines

A District of Columbia Maryland and Virginia Transit Partnership

WMATA

1. The Department of Rail and Public Transportation (DRPT) is currently working with the District Department of Transportation (DDOT) and the Federal Railroad Administration (FRA) to evaluate possible alternatives for increasing the rail corridor's capacity across the Potomac River via Long Bridge as part of a separate environmental study (the Long Bridge study), for which DRPT is a cooperating agency. In the Draft Environmental Impact Statement (EIS) for the DC2RVA Project, to avoid unnecessarily constraining the possible alternatives of the separate Long Bridge study, FRA and DRPT identified and evaluated three possible configurations for the one-mile section of the DC2RVA corridor in Arlington, without recommendation of a preferred alternative between them at that time. Subsequently, Alternative 1B: Add Two Tracks on the West was selected as the Preferred Alternative for the DC2RVA Project to align with the two alternatives that were recommended in the Long Bridge Alternatives Report. Refer to Final EIS Section 4.3.1 for details on the selection process and description of Preferred Alternative 1B. DRPT will continue to coordinate with the Long Bridge project to ensure a smooth transition to the proposed new Long Bridge.

(Responses are continued on next page)



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Yellow Lines

A District of Columbia
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Transit Partnership

WMATA (continued)

(Response to comment 1 on previous page)

2. Comment noted. The design of the DC2RVA Project in support of the Draft and Final EIS is at a conceptual level of engineering, as appropriate for decisions to be made as part of the National Environmental Policy Act (NEPA) process. Potential impacts have been identified based on this conceptual engineering, as reported in Chapter 5 of the Final EIS for the Preferred Alternative. No permanent impacts to Washington Metropolitan Area Transit Authority (WMATA) properties or operations have been identified based on the engineering to date, as all proposed track improvements will stay within the existing right-of-way at the King Street Metrorail Station location. However, there may be temporary impacts within the WMATA right-of-way associated with the construction of the proposed fourth track, but these impacts will not affect WMATA operations and may be eliminated in the next phase of design. DRPT is committed to working with WMATA and other stakeholders to further address potential Project effects during final design, after funding becomes available and incremental improvements are scheduled.

3. Based on WMATA information to date, the DC2RVA Project is not anticipated to impact WMATA's proposed Potomac Yard Metrorail Station. The permanent impacts of the DC2RVA Project are planned to remain within CSXT right-of-way at the Potomac Yard Metrorail Station, and the temporary impacts of the DC2RVA Project are planned to remain within City of Alexandria property at this location; the detailed mapbooks of the Preferred Alternative, which are provided as Appendix L of the Final EIS, show both the permanent and temporary limits of disturbance. DRPT will continue to coordinate with WMATA during DC2RVA final design, which would occur as funding becomes available and incremental improvements are scheduled. Further coordination between DRPT, CSXT, Virginia Railway Express (VRE), and WMATA will be required to determine construction sequence and potential infrastructure that could benefit both projects.

Ms. Emily Stock
Page 2

3. The DC2RVA project team should verify ownership of parcels in the Potomac Yard area. The Potomac Yard Metrorail Station EIS provides some information and can be found on the project website. 4

4. The DC2RVA DEIS proposes the construction of retaining walls for a new passenger/freight track in the City of Alexandria. We anticipate that this will create a reflective surface for WMATA train noise, to the detriment of those who live and work along the corridor. This additional impact should be documented in the EIS and mitigated as design work advances, possibly by installing sound absorptive panels on the retaining wall. 5

We appreciate your collaborative efforts and the opportunity to comment on the proposed action. We look forward to continuing to work with DRPT to improve mobility in this important corridor. If you have any questions regarding these comments, please contact Jonathan Parker of my staff at (202) 962-1040 or jhparker@wmata.com.

Sincerely,

Shyam Kannan
Managing Director
Office of Planning

Cc:
John Thomas, Chief Engineer, Design and Construction, WMATA
Nichalos Gardner, Director Engineering and Architecture, WMATA
Tom Robinson, Director, Office of Track, Structures and Facilities, WMATA
Jim Ashe, Manager of Environmental Compliance, WMATA
Allison Davis, Director, Strategic Planning, Office of Planning, WMATA
Jonathan Parker, Senior Planner, WMATA
Greg Potts, Virginia Government Relations Manager, WMATA
Jason Kacamburas, Potomac Yard Metro Project Coordinator, City of Alexandria

WMATA (continued)

4. Right-of-way and relocations for the Preferred Alternative are presented in Section 5.11.4 of the Final EIS. For purposes of the Draft and Final EIS evaluations, ownership of all parcels along the Project corridor was determined from individual jurisdiction databases. DRPT, in coordination with VDOT, made the determinations of potential permanent and temporary property acquisition based on conceptual engineering and parcel boundary data provided by the individual jurisdictions. The right-of-way acquisition process, including property owner notification, appraisal, acquisition, and relocation, would be conducted by VDOT in accordance with Federal and state regulations and would occur during future design stages of the Project

   The right-of-way acquisition process, including property owner notification, appraisal, acquisition, and relocation, will be conducted by the Virginia Department of Transportation (VDOT) in accordance with federal and state regulations following final design of this segment of the corridor. Final design will also include additional survey of parcel boundaries, and greater precision in determining property acquisition needs, if needed. DRPT will continue to coordinate with WMATA during DC2RVA final design, which would occur as funding becomes available and incremental improvements are scheduled in the Potomac Yards area.

(Responses are continued on next page)

Ms. Emily Stock
Page 2

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WMATA (continued)

5. DRPT acknowledges that retaining walls may be constructed in this location, however, the exact size and location will not be developed until final design. As part of the Draft EIS noise assessments, DRPT evaluated the potential effects of the retaining walls on noise and concluded that the retaining walls would not substantively increase noise impacts. If the surface of a retaining wall was perfectly acoustically reflective, the reflection would be a mirror image of the original noise source (the train pass-by). When two identical noise sources are added together, the resulting increase is 3 decibels. In the absence of background noises (i.e., in an ideal, controlled listening environment like an audiology booth), a person with average hearing senses can perceive a change (increase or decrease) of approximately 3 decibels. In outdoor settings where normal background noises are a mixture of transportation noise and noise from other human activities, a 3-decibel change would be less noticeable to a person with average hearing senses. For this reason, DRPT does not believe that absorptive treatments are necessary, but will continue to coordinate with WMATA regarding potential impacts of retaining walls during DC2RVA final design, which would occur as funding becomes available and incremental improvements are scheduled.