



Fredericksburg Extension of the I-95 HOV/HOT Lanes Project

Initial Financial Plan

April 30, 2019

State Project Number(s): 0095-089-739,P101, B656-662, D644-653

UPCs:

- 110527 Fred Ex – I95 Express lanes Extension Exit 143 to Exit 133
- 114620 Fred Ex – I95 Express lanes Extension Exit 143 to Exit 133

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1. PROJECT DESCRIPTION

1.1. SCOPE OF PROJECT

The Project is a 10-mile extension of the 95 Express Lanes in Stafford County, Virginia. As shown in Figure 1.1 below, the Project will extend along Interstate 95 (I-95) from the current southern terminus of the 95 Express Lanes near Route 610 (Exit 143 - Garrisonville Road) in the north, to the vicinity of Route 17 (Exit 133 - Warrenton Road) in the south. I-95 currently operates with three general-purpose lanes in each direction along the Project corridor with a wide center median.

The typical section will consist of two 12-foot wide travel lanes with full shoulders. Disabled vehicles and emergency responders will be able to use either shoulder during emergency situations.

The proposed project also includes modifications to the existing I-95 Express Lanes by adding access points both northbound and southbound to Marine Corps Base Quantico with construction of two new flyover ramps that will provide access to the main gate via Exit 148 (Russell Road).

The following are key features of the project:

- Ten miles of new two-lane reversible Express Lanes (with full shoulders) from the existing southern terminus at Route 610 to Route 17 North (Exit 143 to Exit 133) and approximately 1.5 miles of an additional reversible Express Lane within the existing 95 Express Lanes south of Garrisonville Road (Route 610) New Express Lanes access points, including flyover ramps at the Route 17 terminus and Quantico area and a direct, reversible ramp connection at (Old) Courthouse Road
- Seven new bridge structures:
 - Express Lanes mainline across Potomac Creek
 - Northbound general purpose (GP) lanes flyover entrance to Express Lanes north of Route 17
 - Northbound Express Lanes flyover exit to GP lanes and Russell Road
 - Southbound GP lanes flyover entrance to Express Lanes south of Russell Road
 - Southbound Express Lanes flyover to GP lanes and Route 17 at Southern Terminus
 - American Legion Road overpass (demolish and rebuild existing structure)
 - Truslow Road overpass (demolish and rebuild existing structure)
- Interface and direct connection with the Virginia Department of Transportation's Rappahannock River Crossing – Southbound Project, including a new general-purpose lane exit ramp at Route 17
- All-electronic tolling with same rules as 95 Express Lanes

The primary objective of the Project is to extend the High Occupancy Toll (HOT) lanes (Express Lanes) on I-95 further south to provide additional capacity in the corridor, which will be available at no charge to HOV 3+ vehicles, and open to other permitted vehicles for a user fee (toll). The future Fredericksburg Extension Express Lanes will be subject to the same operating rules and regulations as the existing 95 Express Lanes, and when complete will operate together with the future 395 Express Lanes as a single, fully-integrated 95 Express Lanes facility between the Potomac and Rappahannock Rivers.

The Project is being developed as a Concessionaire Project Enhancement under the *Amended and Restated Comprehensive Agreement Relating to the I-95/395 HOV/HOT Lanes Project* (the “First ARCA”). 95 Express Lanes LLC (the “Concessionaire”) will be responsible for the design, construction and ongoing operations and maintenance of the Project in accordance with the terms of a pending amendment to the First ARCA.

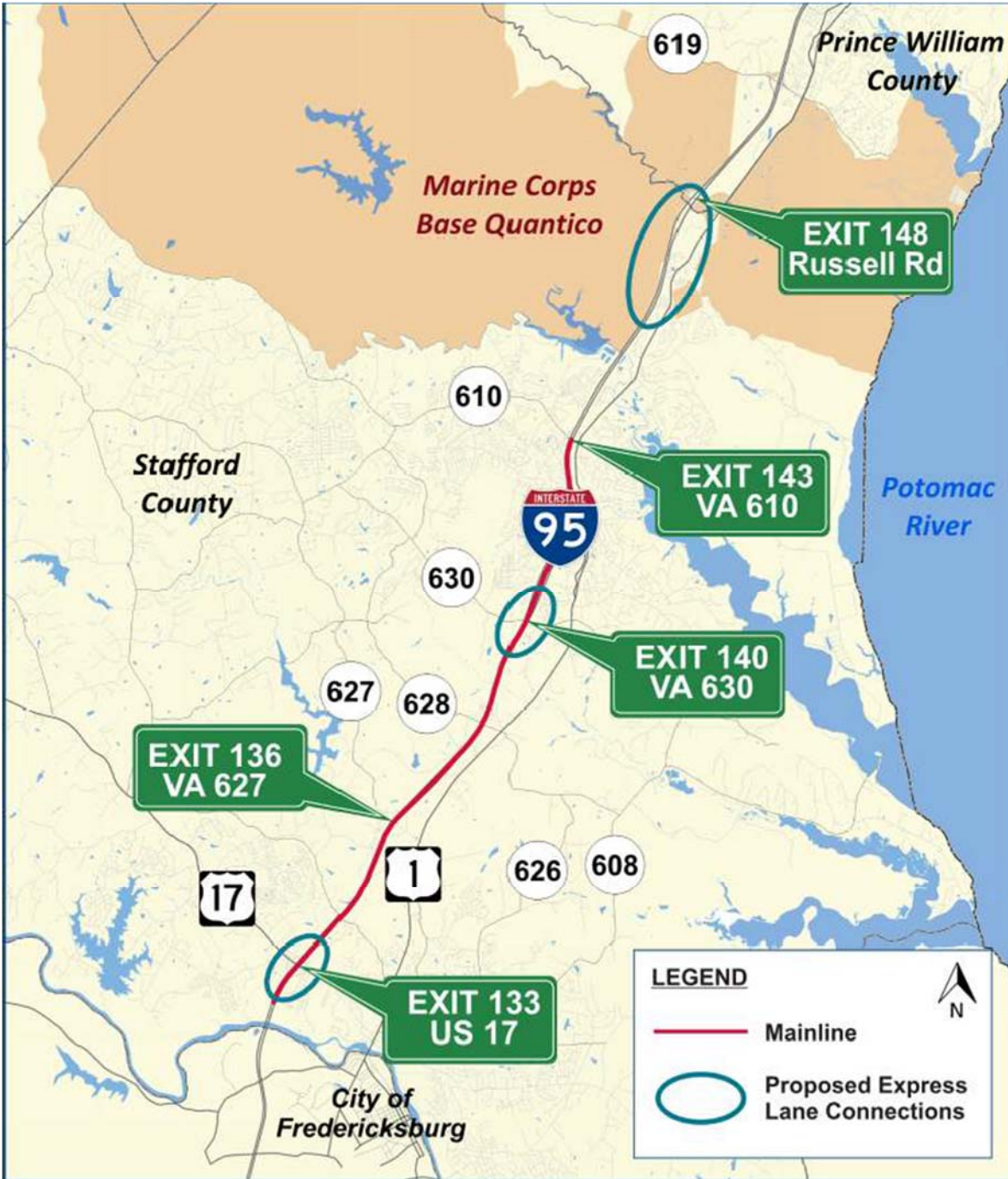


Figure 1.1 Project Map

1.2. NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) DECISION DOCUMENTS

Environmental Assessment (EA) and Finding of No Significant Impact (FONSI): VDOT and FHWA studied the environmental consequences of improvements to I-95 through the City of Fredericksburg and the Counties of Spotsylvania, Stafford, Prince William, and Fairfax in the 2011 Environmental Assessment (EA). Following issuance of a Finding of No Significant Impact (FONSI) in 2011, VDOT completed conversion of the HOV lanes to Express Lanes from Dumfries to the Capital Beltway. In addition, in 2014, VDOT completed construction of the first portion of Express Lanes approved with the 2011 FONSI, extending from Dumfries to near VA 610/Garrisonville Road (Exit 143) in Stafford County.

On August 31, 2017, VDOT in cooperation with FHWA completed the I-95 HOT Lanes Project Revised Environmental Assessment (EA) and issued the document for public availability. NEPA Public Information Meetings were held on March 21 and 22, 2017. The Location and Design Public Meeting was held on September 25, 2017. A Finding of No Significant Impact (FONSI) was signed on March 19, 2018.

1.3. PROJECT WEBSITE

- The Department’s Project website: http://www.virginiadot.org/projects/fredericksburg/i-95_express_lanes_fredericksburg_extension.asp
- VDOT P3 Office Project website: <http://www.p3virginia.org/projects/i-95-express-lanes-extension-atlantic-gateway/>
- The Concessionaire’s Project website: <https://www.expresslanes.com/projects/fredericksburg-extension>

2. SCHEDULE

The initial baseline schedule reflects a commitment to a Service Commencement Date based on anticipated Design-Build (DB) Notice to Proceed (NTP), and the Final Completion Date no later than 180 days following the Service Commencement Date.

Figure 2.1 shows general schedule duration.

Figure 2.1 Schedule Overview

Task	Start	Finish	Year 1 2019	Year 2 2020	Year 3 2021	Year 4 2022	Year5 2023
Notice to Proceed	04/19	04/19	◆				
Design	04/19	03/20					
RW/Utilities	04/19	12/19					
Construction	06/19	03/23					
Service Commencement	October 2022						
Final Completion	March 2023						

3. PROJECT COST

The current base cost of the Project is \$491.1 million in year-of-expenditure dollars. This cost includes all costs necessary to perform the preliminary engineering (including the cost of NEPA and other environmental documentation), traffic analysis (IMR), right-of-way, environmental mitigation, construction, project management, public outreach, traffic management system improvements, congestion management plans, and costs of external third party work.

Table 3.1 details the Concessionaire’s contribution of \$488.2 million which does not include financing costs and payments to the Department. Table 3.2 details the Department’s development and oversight costs of \$40 million associated with the Project.

Table 3.1 Concessionaire’s Capital Expenditures

UPC No.	Phase	Estimate	Current Expenditures as of April 30, 2019	Balance to Complete
114620	RW	\$2,500,000	\$0	\$2,500,000
	CN	\$485,700,000	\$0	\$485,700,000
Total		\$488,200,000	\$0	\$488,200,000

Table 3.2 Department’s Capital Expenditures

UPC No.	Phase	Estimate	Current Expenditures as of April 30, 2019	Balance to Complete
110527	PE	\$7,000,000	\$5,019,629	\$1,980,371
	RW	\$500,000	\$0	\$500,000
	CN	\$32,500,000	\$0	\$32,500,000
Total		\$40,000,000	\$5,019,629	\$34,980,371

4. PROJECT FUNDS

4.1 DEPARTMENT PROJECT FUNDING SOURCES

Table 4.1 reflects the summary of funding by sources of the project.

Table 4.1 Summary of Project Funding by Source

UPCs	Funding Sources	Previous (for initial financial plan)
	<i>Federal Funds</i>	
110527	Fast Lanes Grant	\$40,000,000
	Total	\$40,000,000

Table 4.2 lists the associated Federal Projects that make up the Project contract.

Table 4.2 Summary of Project Authorizations (as of March 28, 2017)

Federal Project No.	UPC	Phase	Cost	Federal Funds	Advance Construction
000S(345)	110527	PE	\$12,000,000	\$0	\$12,000,000
Total			\$12,000,000	\$0	\$12,000,000

Project funding is demonstrated in the Fredericksburg Area Metropolitan Planning Organization’s (FAMPO) Long Range Transportation Plan and Transportation Improvement Program (TIP), as well as the Commonwealth’s Statewide Transportation Program (STIP).

4.2. CONCESSIONAIRE PROJECT FUNDING SOURCES

Table 4.3 reflects the Concessionaire’s funding sources.

Table 4.3 Summary of Project Financing by Source during Construction (as of April 30, 2019)

Type of Financing	Nominal (\$ million)	% of Total	Benchmark Interest Rate if applicable
TIFIA	-	0.0%	State and Local Government Series Rate
Private Activity Bonds (PABs)	-	0.0%	UST
Equity	\$746.9	97.2%	N/A
Concessionaire Committed Contingency	\$21.3	2.8%	N/A
Total Sources	\$768.1	100.0%	

5. FINANCING ISSUES

Financing for the Concessionaire’s contribution to the total costs are the responsibility of the Concessionaire. Assumed financing sources are listed in Table 5.1.

Table 5.1 Cost of Financing (as of April 30, 2019)

Type of Financing	Nominal (\$million)
Equity Commitment Fee	\$25.1
TTMS LC Fee	\$0.8
DB LC Fee	\$1.4
Financial Close LC Fee	\$0.1
Total	\$27.5

6. CASH FLOW

Table 6.1 shows the Department project funding per year.

7. P3 ASSESSMENT

In 1995, the Public-Private Transportation Act (PPTA) was signed into law, and was amended and re-enacted in 2005. PPTA allows for private entities to solicit VDOT to develop and/or operate and maintain transportation facilities in which VDOT determines a demonstrated need. In November 2005, the conceptual proposal submitted by Fluor and Transurban was selected by the PPTA Advisory Panel. As proposed at that time, the proposed improvements would expand the HOV system in the I-95/I-395 corridor and apply the High Occupancy Toll (HOT) concept. As a result of this action, VDOT, in cooperation with FHWA, initiated an environmental analysis to convert the existing HOV facility to a HOT lanes facility.

VDOT and FHWA studied the environmental consequences of improvements to I-95 through the City of Fredericksburg and the Counties of Spotsylvania, Stafford, Prince William, and Fairfax in the 2011 Environmental Assessment (EA). Following issuance of a Finding of No Significant Impact (FONSI) in December 2011, VDOT completed conversion of the HOV lanes to Express Lanes from Dumfries to the Capital Beltway.

In 2012, VDOT and the Concessionaire entered into a Comprehensive Agreement for the development of the I-95 Express Lanes. The I-95 Express Lanes project was opened to traffic in December 2014. The Comprehensive Agreement allows for the future development of the extension of the I-95 Express Lanes along the I-395 corridor similar to the limits originally proposed in 2005. In 2015, VDOT signed a Development Framework Agreement with 95 Express to extend the I-395 Express Lanes as a Concessionaire's Enhancement under the Comprehensive Agreement. The Framework Agreement stipulated the general scope of work for the I-395 Express Lanes Northern Extension project, and specified that a long-term transit investment with annual transit payments by the Concessionaire would be required.

In June 2017, VDOT and the Concessionaire entered into the *Amended and Restated Comprehensive Agreement Relating to the I-95/395 HOV/HOT Lanes Project* (the "First ARCA"). The First ARCA defines "Southern HOT Lanes" as any toll lanes in the median of Interstate 95 general purpose lanes (in either or both directions) and not specifically part of the general purpose lanes. The First ARCA categorizes the Southern HOT Lanes as an Alternative Facility that can be developed and constructed by the Concessionaire as a Concessionaire Project Enhancement.

On June 29, 2017, the parties entered into the *Advanced Development Framework Agreement for the Fredericksburg Extension of the I-95 HOV/HOT Lanes*, as amended, establishing a process for the Concessionaire to submit to the Department a proposal (the "Binding Proposal") to develop the Fred Ex Project as a Concessionaire Project Enhancement under the First ARCA.

On January 11, 2018, the Department accepted the Binding Proposal submitted on November 30, 2017, as supplemented on December 22, 2017 and on January 9, 2018, for the purpose of proceeding to memorialize the details of the Fred Ex Project within the *Second Amended and Restated Comprehensive Agreement Relating to the I-95/395 HOV/HOT Lanes Project* (the "Second ARCA").

Risk allocation analysis was conducted in parallel with project development and procurement activities, and the Department in coordination with stakeholder groups conducted risk workshops in multiple stages to identify and allocate risks to the party that can best manage them. The first risk workshop was conducted on February 9-10, 2017 to identify risks that could potentially impact the project costs and

schedule, as well as whether the risks were associated with specific project components. Risks were also evaluated per the different delivery options in consideration. The second workshop was conducted February 22, 2018, to update the draft risk register created during the first risk workshop given the project scope refinements over the past 12 months, and determination of design, build, finance, operate, and maintain delivery method for the project. Mitigation strategies were reevaluated, discussed, and documented for each risk event.

Table 7.1 shows the P3 Key Milestones.

Table 7.1 P3 Key Milestones

Key Milestones	Date
Advanced Development Framework Agreement	October 26, 2017
DB Request for Qualifications (RFQ)	January 17, 2018
Final Interchange Justification Report (IJR)	March 2018
EA FONSI Approval	March 19, 2018
DB Request for Proposal (RFP)	March 27, 2018
Notice of Award Letter to successful DB Offeror	November 2018
Commercial Close	April 18, 2019
DB Notice to Proceed (NTP)	April 30, 2019
Financial Close	April 30, 2019
Construction NTP	July 2019
Service Commencement	October 2022
Final Completion	March 2023

8. RISK AND RESPONSE STRATEGIES

A Cost Estimate Review (CER) was performed by FHWA on November 7-8, 2018 to review the cost and schedule estimates for the completion of the Project. The most significant cost threats for the project were identified and are reflected in Table 8.1.

Table 8.1 Department’s Risk Factors

Risk Description	Cost (\$millions) ¹	Probability
Change order during construction	\$3.0	100%
Scope validation	\$2.0	90%
Large scope change	\$15.0	15%
Overlap with the southbound collector-distributor project	\$1.5	33%
Truslow Road Bridge (ATC)	\$2.0	50%
Route 17 Exit Ramp (ATC)	\$0.8	33%

During the CER, uncertainties in the project estimates such as base variability, inflation, market conditions, and risk events were modeled by the review team to reflect the opinions of the subject matter experts interviewed. Then a Monte-Carlo simulation was used to incorporate the uncertainties into project cost forecast curves that represent a range of costs and completion dates for the project. The Monte-Carlo

¹ Cost associated with each risk represents the likeliest cost.

simulation resulting 70% confidence level was \$438 million, below the adjusted project base cost of \$449.8 million in CER. This indicates that the remaining project contingency is reasonable to fund to the 70% confidence level.

9. ANNUAL UPDATE CYCLE

The Annual Update Cycle will represent work status through April 30th of each calendar year. The Annual Update will be presented on or before the deadline of July 31th of each calendar year.

10. SUMMARY OF COST CHANGES SINCE LAST YEAR'S FINANCIAL PLAN

This section will be updated during the Annual Update. This section will include the changes that have reduced or increased the cost of the Project since last year's financial plan.

11. COST AND FUNDING TRENDS SINCE INITIAL FINANCIAL PLAN

This section will be updated during the Annual Update. This section will identify the trends that have impacted project costs and funding since the initial financial plan.

12. SUMMARY OF SCHEDULE CHANGES SINCE LAST YEAR'S FINANCIAL PLAN

This section will be updated during the Annual Update. This section will include list of changes that have caused the completion date for the project to change since the last financial plan.

13. SCHEDULE TRENDS SINCE INITIAL FINANCIAL PLAN

This section will be updated during the Annual Update. This section will identify the trends that have impacted project schedule since the initial financial plan.