



The Downtown Tunnel and Midtown Tunnel Analysis

Item 433(L) of Chapter 854 of the 2019 General Assembly Appropriation Act

December 2021

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1. Introduction

Item 433(L) of Chapter 854 of the 2019 General Assembly Appropriation Act required the Secretary of Transportation to evaluate potential opportunities to mitigate the financial burden on the commuting public at the Downtown Tunnel and Midtown Tunnel in Hampton Roads. The evaluation was to be reported to the Governor, the House and Senate Committees on Transportation, House Committee on Appropriations, and Senate Committee on Finance and Appropriations no later than June 30, 2020. However, the Northam Administration became aware of plans by Macquarie Infrastructure Partners II (MIP II) and Skanska to sell the Elizabeth River Crossings (ERC) concession arrangement as this analysis was underway. Given the opportunities that could be negotiated with a new owner, the decision was made to finalize the report after the sale was completed and a new relationship could be established.

Preceding the requirement for this evaluation, the Hampton Roads Transportation Planning Organization (HRTPO) ERC Task Force was formed in early 2019 and charged with evaluating options to address the impact of the tunnels' tolls, and providing recommendations to the HRTPO Board. While the Task Force's work is ongoing, the Secretary of Transportation's office has coordinated with the Task Force and their efforts.

The Commonwealth has already provided three types of toll mitigation measures, in both the original comprehensive agreement and in subsequent amendments:

1. The Commonwealth spent \$581.6 million in State transportation funds during the rehabilitation of the two tunnels and construction of a second two-lane Midtown Tunnel, with all work completed in 2017. The amount of \$308.6 million was agreed to in the original comprehensive agreement and additional funds were provided in subsequent amendments (This is described further in Section 3.1).
2. Based on the original comprehensive agreement, toll rate escalation is capped at 3.5% or the annual change in CPI, whichever is greater.
3. A Toll Relief Program was established for Portsmouth and Norfolk commuters that represents an annual contribution of \$500,000 per year, or up to \$5,000,000 total. This program was implemented in 2017 and was planned to continue through 2026. This program was subsequently amended and will be discussed further in this report.

Working closely with the Virginia Department of Transportation (the Department), the Secretary of Transportation tasked the Department with evaluating a range of options to further mitigate the financial burden on commuters that travel the Downtown or Midtown Tunnels. The evaluated options were:

- Extend the life of the Toll Relief Program;
- Increase funding of the existing Toll Relief Program;
- Modify future toll rates; and

- Terminate the Department's agreement with ERC.

A key assumption applied to all evaluated options was to preclude any impact to the Commonwealth's general fund. For example, while an income tax credit has been legislatively proposed for various toll facilities in the Commonwealth, the financial impact of the credit reduces general fund revenue and therefore has not been enacted into law by the General Assembly. Likewise, an authorization of debt supported by state taxes would impact the Commonwealth's debt capacity and potentially its credit rating.

While each of the options analyzed in the report would require financial resources to implement, the Northam Administration remains committed to working with the region and the new concessionaire to advance the principles of toll mitigation and reduce the impact of compensation events.

2. Project Background

2.1 Overview of the Downtown and Midtown Tunnels

The Downtown Tunnel was built as a toll facility in 1952 and the Midtown Tunnel followed in 1962. In 1986 the tolls were removed after the public debt used to construct the tunnels was paid in full. By the mid-2000s, traffic analyses performed by the Hampton Roads Metropolitan Planning Organization (now HRTPO) warned that without action to expand capacity, the level of service in each tunnel would soon decline to be rated “F”. Their analysis found that the re-imposition of tolls would improve the level of service to the “B” or “A” range.

In 2008, the Department began the procurement for a design-build-finance-operate-maintain (DBFOM) concessionaire to rehabilitate the existing Downtown and Midtown Tunnels, construct a new Midtown Tunnel to double its capacity, and extend the Martin Luther King Freeway (MLK Freeway), collectively referred to herein as the Project. The Project is located in the cities of Norfolk and Portsmouth (see Figure 1). It included the development of (1) a new two-lane tunnel adjacent to the then existing Midtown Tunnel; (2) rehabilitation of the existing Downtown and Midtown Tunnels; (3) extension of the four-lane MLK Freeway in Portsmouth; and (4) development of an all-electronic tolling system to allow for free-flow conditions. The Public Private Transportation Act of 1995, as amended, governed the procurement, and the DBFOM comprehensive agreement (CA) was signed in 2011 between the Department and Elizabeth River Crossings OpCo, LLC (ERC). The agreement expires in 2070.

Under the 2011 Comprehensive Agreement, the concessionaire financed the majority of the \$2.1 billion Project, and operated and maintained the tunnels. Appendix B includes an overview of the agreement which was presented to the ERC Task Force in June 2019.

In early 2020, the Commonwealth became aware of efforts by the owners of ERC to sell their operating interests in this agreement through an auction.

Prior to the sale of the asset, the Secretary's office in consultation with the ERC Task Force, executed Amendment 8 to the Comprehensive Agreement, in which the Concessionaire agreed to defer its planned 2021 toll increase, expand the Toll Relief Program and continue improved customer service practices implemented in 2017.

In November 2020, it was announced that Elizabeth River Crossings, LLC would be acquired by Abertis Infraestructuras, in consortium with Manulife Investment Management. The acquisition was for 100 percent of the share capital of Elizabeth River Crossings from Macquarie Infrastructure Partners II (MIP II) and Skanska.

2.2 Toll Rates through December 31, 2021

The toll rates vary by time of day, type of vehicle, day of the week, and type of payment. They do not vary by tunnel. Almost all users of the tunnels are classified as passenger vehicles¹. The 2021 toll rates at these two Hampton Roads tunnels are provided in Table 1.

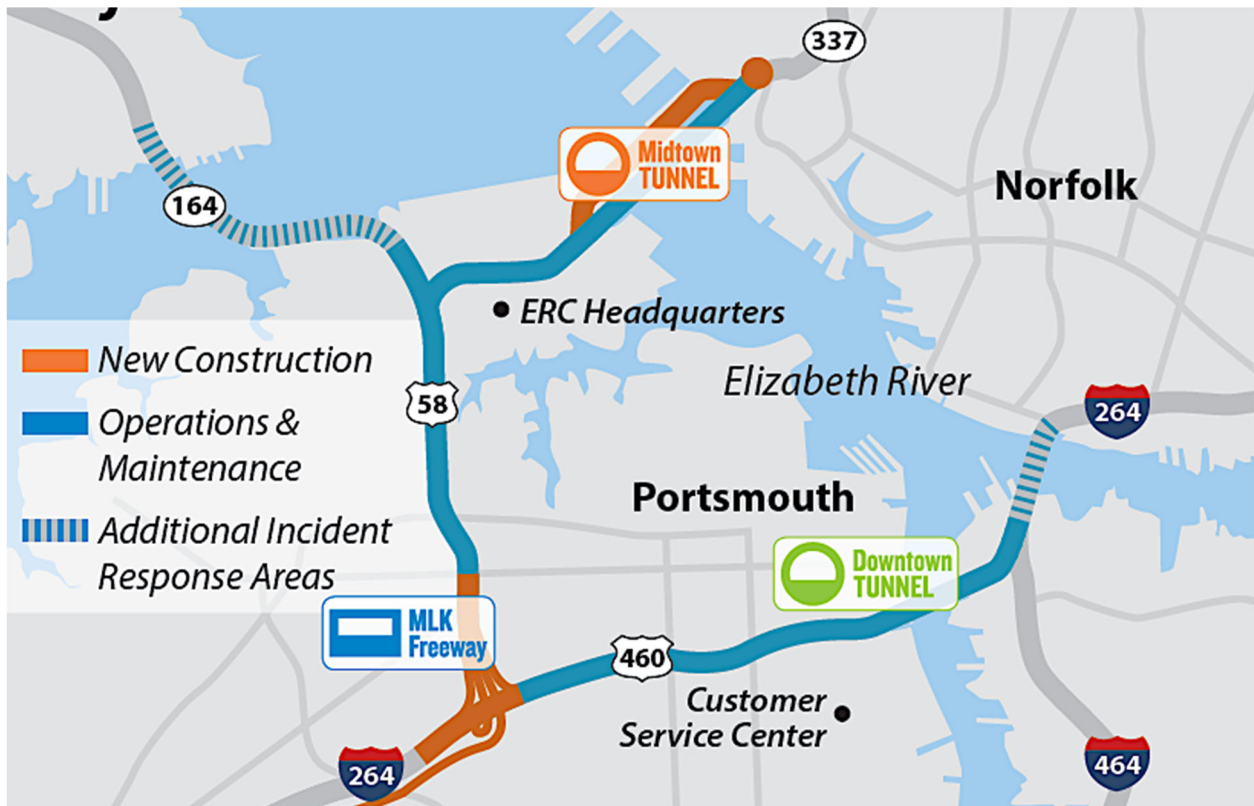


Figure 1. Project Area

¹ Based on 2019 traffic and revenue analysis conducted by C&M Associates on behalf of the Department, approximately 95 percent of total traffic is vehicles with 2-axles or 6 tires. The remaining vehicles are classified as heavy trucks.

Table 1. Downtown and Midtown Tunnel Toll Rates through December 31, 2021²

Toll Rates	Passenger Vehicles (Max 2-axes and 6 tires)		Heavy Vehicles (3 or more axles)	
	E-ZPass	Pay-by-Plate	E-ZPass	Pay-by-Plate
Monday - Friday				
12:00am to 5:30am	\$1.85	\$5.54	\$5.54	\$9.23
5:30am to 9:00am (Peak)	\$2.33	\$6.02	\$9.29	\$12.98
9:00am to 2:30pm	\$1.85	\$5.54	\$5.54	\$9.23
2:30pm to 7:00pm (Peak)	\$2.33	\$6.02	\$9.29	\$12.98
7:00pm to 12:00am	\$1.85	\$5.54	\$5.54	\$9.23

NOTE: Source: <http://www.driveert.com>

² Through Amendment 8 to the Comprehensive Agreement, executed prior to the recent sale of ERC, the Concessionaire agreed to defer its planned 2021 toll increase for all vehicle classifications, tolling periods and payment methods. Calendar year 2020 rates continued through calendar year 2021.

3. Toll Mitigation History

Regional concerns have been expressed since tolling was announced and implemented on the tunnel facilities in. The Department provided a public contribution to the project when it entered into the comprehensive agreement in 2011. This and subsequent financial contributions are detailed in section 3.1. Since the commencement of the Project, the Department has worked toward achieving toll relief and mitigating the financial burden of tolling on the commuting public to the extent possible.

The HRTPO Board appointed the ERC Task Force at its January 17, 2019 meeting. The Task Force was formed to research the ERC agreement and evaluate options for addressing the impact of tolls resulting from the agreement, and provide recommendations to the HRTPO Board. In February 2019, the ERC Task Force held its first meeting. In a subsequent meeting in June 2019, the Secretary's Office and VDOT representatives participated and provided an overview of the agreement and termination options. Please see Appendix A.

The Northam Administration has been consistently focused on finding solutions to deliver three significant policy objectives to the Hampton Roads Region: (i) mitigate the impact of tolls on the commuting public; (ii) build out express lanes without risk of compensation events; and (iii) ensure the highest levels of customer service from the concessionaire.

Prior to the sale of the asset, through the Commonwealth's efforts, ERC agreed to amend the comprehensive agreement (Amendment 8) to (i) delay the scheduled January 2021 toll increases until at least January 2022 in recognition of the COVID-19 economic impacts on the region, (ii) extend the Toll Relief Program by 10 years, providing \$500,000 annually to help offset the toll burden on Norfolk and Portsmouth residents most financially impacted by the tunnel tolls until 2036, and (iii) require the previously implemented billing and customer service practices, which include the monthly billing process and limiting administrative fees to the monthly statement, continue.

Approximately 74 percent of the users of the Downtown and Midtown Tunnels are commuters, traveling on a regular basis for purposes of going to and from a regular place of work. Of that percentage, an estimated 56 percent are residents of Portsmouth and Norfolk.³ Information from the U.S. Census Bureau's American Community Survey in 2018 indicated that close to 82 percent of Portsmouth workers and 74 percent of Norfolk workers commuted alone.

³ Based on the 2019 traffic and revenue analysis conducted by C&M Associates on behalf of the Department.

Three measures to mitigate the financial burden on the commuting public have already been implemented for the Downtown and Midtown Tunnels.

3.1 Commonwealth Contributions to the Project

First, \$581.6 million of Commonwealth transportation funds have been invested during the rehabilitation of the two tunnels and construction of the MLK Freeway extension and a second two-lane Midtown Tunnel, with all work completed in 2017. The \$581.6 million in toll mitigation included:

- As part of the original comprehensive agreement executed in December 2011, with financial close in April 2012, \$308.6 million was committed and provided at financial close to lower the amount to be financed and repaid with tolls;
- In March 2012, an amendment was executed providing \$112.5 million to delay the implementation of tolls from the third quarter of 2012 until February 1, 2014;
- In January 2014, \$82.5 million to reduce the toll rates from February 1, 2014 until December 28, 2016; and
- In September 2015, \$78.0 million for no tolling of the MLK Freeway (as originally planned).

3.2 Toll Rate Escalation is Limited

The second mitigation measure was to cap the annual toll rate escalation in the CA with ERC at 3.5% or the annual change in the CPI, whichever is greater. Capping of toll rate escalation can have a significant impact on the amount of toll revenue available to repay financing costs, as well as pay for ongoing operations and maintenance costs and other expenses. It has historically not been implemented on Commonwealth-owned toll roads because of the fiduciary responsibility for toll revenue to meet all financial obligations of the toll facility.

ERC is required by its lenders to abide by an order of priority in using the toll revenue it collects. As with a publicly-owned toll facility, the toll rates charged must generate sufficient toll revenue so that the facility can meet its financial obligations. Appendix D outlines the order of priority for use of toll revenues by ERC and its payment obligations.

3.3 Toll Relief Program

As a third mitigation measure, a 10-year Toll Relief Program was established in 2017. Amendment 8, executed prior to the sale of ERC, extended this program an additional 10 years. This Program's annual \$500,000 budget is funded by ERC through 2036 through Amendment 8. The Program must be funded before ERC makes any discretionary payments for capital expenses, prepayments or distributions to shareholders.

The Department oversees the Toll Relief Program. Commuters who are residents of Portsmouth and Norfolk with annual incomes of \$30,000 or less are eligible to participate in the Program. These commuters are considered the most economically impacted users. Today, approximately 1,500 commuters take advantage of this toll mitigation program. Few applicants are found to be

outside the Program criteria and the participants compose about two percent of the average daily traffic using the tunnels in passenger vehicles. The program is expected to run through 2036.

The original guidelines required each commuter to apply for the Toll Relief Program and establish an E-ZPass account in order to qualify. For 2020, participants who made eight or more trips through either tunnel in any given month received a 75-cent refund credited to their E-ZPass accounts for each trip, with no limit on the number of discounted trips in a month. This program will be further discussed later in this report.

4. 2021 Accomplishments

The recently completed sale of ERC created another opportunity to build on the work being done in the Commonwealth and the Hampton Roads region. Before and after the completion of the sale, Abertis expressed willingness to discuss options that could achieve the Commonwealth's policy objectives.

Following the sale and once it was declared safe to travel internationally due to COVID-19. José Aljaro, Chief Executive Officer at Abertis Infraestructuras, flew to Richmond from Spain to meet with the Secretary, VDOT Commissioner and leadership team. During this meeting, Mr. Aljaro agreed to explore opportunities that could bring toll relief to this region.

A list of options was developed for evaluation to determine feasibility. They included reducing the toll rates across the board, reducing the annual toll escalation and enhancing the Toll Relief Program. As with previous analysis (Appendix A), providing meaningful toll relief to all ERT users is cost prohibitive, likely requiring the Commonwealth to spend \$500 million or more for a 20% toll reduction. As a result, the effort was focused on how to provide meaningful toll relief to those most impacted by the tolls.

The results of this effort was implemented by Amendment 9 to the Comprehensive Agreement, providing a major enhancement to the Toll Relief Program. The agreement increases the funding available annually from \$500,000 to \$3.2 million through 2036 – a six fold increase – and escalated 3.5% annually. For 2022, the program will provide a 50% reduction on five round trips a week for those citizens in Norfolk and Portsmouth making less than \$30,000 annually. This will allow eligible drivers to go to and from work each day with a half price toll. The requirement to incur a minimum number of trips to qualify for the discounts will be removed and the discounts will be applied to the user's E-ZPass accounts within a day of travel. Currently, the toll relief is provided in the subsequent month. The savings is estimated to be \$650 per participant per year.

The increased funding will enable the teams at the Virginia Department of Transportation and ERC, working with this region, to reshape the program to better support those who use or want to travel these facilities. Over the next year, the Commonwealth and our private and regional partners will be able to examine the program to consider additional enhancements.

While the toll increase for 2021 was deferred due to the pandemic through Amendment 8, ERC is willing to spread that increase over three years saving all who drive during the peak period approximately \$50 in 2022 and \$25 in 2023.

In partnership with the region, the Northam Administration and the new Concessionaire have worked to provide meaningful toll relief to those who need it most. Looking forward, we believe the collaboration that has been established is the foundation for continued efforts and opportunities to serve the Hampton Roads community.

Appendix A

All Options Considered 2019-2021

The Commonwealth's analysis evaluated four options to further mitigate the financial burden on the commuting public. Please note that some analysis was done prior to the onset of the COVID pandemic and the changes made by Amendments 8 and 9 to the Comprehensive Agreement. This appendix addresses the evaluation of each option listed below.

- Extend the Toll Relief Program beyond 2026;
- Increase funding of the existing Toll Relief Program;
- Modify future toll rates; and
- Terminate the Department's agreement with ERC.

The options are listed in order of estimated cost, establishing the cost range from the lowest- to the highest-cost option. Extending the Toll Relief Program results in an estimated cost range of \$500,000 annually, as determined by the Commonwealth and the Department. The highest-cost option, termination of the agreement, would require a potential termination payment of up to \$3.0 billion.

Option 1: Extend the Life of the Toll Relief Program

Prior to Amendment 8 in the fall of 2020, the Toll Relief Program expired in 2026. At an annual cost of \$500,000, consideration could be given to continuing the program beyond 2026. ERC and the Department would need to reach agreement for any extension because the funding would be provided by ERC. As structured, the Department would be unable to directly contribute to the toll relief program.

Option 2: Increase Toll Relief Program Funding

In May 2020, the Toll Relief Program had approximately 2,100 participants. The participants who made eight or more trips a month in either tunnel received a 75-cent per trip refund that would be credited to their E-ZPass accounts. At 75 cents per trip, the program stayed within its \$500,000 funding limit, with any balance carrying over to the next program year. In 2018, the refund was increased to \$1.00 per trip and the program overspent by 18 percent or \$90,000.

Assuming the program continued as then structured and the number of participants remained constant, each 10 percent increase in program funding (\$50,000) would result in a refund increase of 12 to 13 cents per trip. As previously noted, the Department would need to reach agreement with ERC for any additional funding as the Department is unable to directly contribute to the toll relief program.

Option 3: Modify Future Toll Rates

The Department evaluated a number of scenarios for reducing future toll rates through a negotiated payment made to ERC. Any such action would have a significant revenue impact and would require renegotiation of the agreement with ERC, as well as consent from its lenders. For the purposes of this report, 10 and 20 percent reductions in toll rates from 2021 through 2070 were evaluated.

Based on the 2020 rates in the concession agreement, the *hypothetical*⁴ passenger vehicle 2021 toll rates for Downtown and Midtown Tunnel users, assuming a 3.5 percent increase, are shown in Table 2.

Table 2. Hypothetical 2021 Passenger Toll Rates

Toll Rates	2020 Passenger Vehicles (Max 2-axles and 6 tires)		<i>Hypothetical</i> 2021 Passenger Vehicles (Max 2-axles and 6 tires)	
	E-ZPass	Pay-by-Plate	E-ZPass	Pay-by-Plate
Monday - Friday				
12:00am to 5:30am	\$1.85	\$5.54	\$1.91	\$5.74
5:30am to 9:00am (Peak)	\$2.33	\$6.02	\$2.41	\$6.23
9:00am to 2:30pm	\$1.85	\$5.54	\$1.91	\$5.74
2:30pm to 7:00pm (Peak)	\$2.33	\$6.02	\$2.41	\$6.23
7:00pm to 12:00am	\$1.85	\$5.54	\$1.91	\$5.74

The next step in the analysis was to reduce the *hypothetical* 2021 toll rates by 10 percent and 20 percent for the two scenarios evaluated for this report. The resulting tolls for passenger vehicles are shown in Tables 3 and 4, respectively. As presented, the 10 percent change results in a reduction of toll rates varying from 19 cents to 62 cents depending on how the passenger vehicle user pays and the time of day they travel the tunnels. The 20 percent change in toll rates results in a reduction varying from 38 cents to \$1.25.

⁴ For the purposes of this report, a *hypothetical* toll rate is assumed for 2021 based on the provisions of the CA. The 2021 rates shown in Table 2 are for illustration purposes only.

Table 3. Hypothetical 2021 Toll Rates with 10 Percent Reductions

Toll Rates	Hypothetical 2021 Passenger Vehicles (Max 2-axles and 6 tires)		Hypothetical (reduced 10%) 2021 Passenger Vehicles (Max 2-axles and 6 tires)	
	E-ZPass	Pay-by-Plate	E-ZPass	Pay-by-Plate
Monday - Friday				
12:00am to 5:30am	\$1.91	\$5.74	\$1.72 (19¢)	\$5.17 (57¢)
5:30am to 9:00am (Peak)	\$2.41	\$6.23	\$2.17 (24¢)	\$5.61 (62¢)
9:00am to 2:30pm	\$1.91	\$5.74	\$1.72	\$5.17
2:30pm to 7:00pm (Peak)	\$2.41	\$6.23	\$2.17	\$5.61
7:00pm to 12:00am	\$1.91	\$5.74	\$1.72	\$5.17

NOTE: Represents a 10 percent reduction in toll rates based on the 2021 hypothetical toll rates calculated in Table 2. For illustration purposes only.

Table 4. Hypothetical 2021 Toll Rates with 20 Percent Reductions

Toll Rates	Hypothetical 2021 Passenger Vehicles (Max 2-axles and 6 tires)		Hypothetical (reduced 20%) 2021 Passenger Vehicles (Max 2-axles and 6 tires)	
	E-ZPass	Pay-by-Plate	E-ZPass	Pay-by-Plate
Monday - Friday				
12:00am to 5:30am	\$1.91	\$5.74	\$1.53 (38¢)	\$4.59 (\$1.15)
5:30am to 9:00am (Peak)	\$2.41	\$6.23	\$1.93 (48¢)	\$4.98 (\$1.25)
9:00am to 2:30pm	\$1.91	\$5.74	\$1.53	\$4.59
2:30pm to 7:00pm (Peak)	\$2.41	\$6.23	\$1.93	\$4.98
7:00pm to 12:00am	\$1.91	\$5.74	\$1.53	\$4.59

NOTE: Represents a 20 percent reduction in toll rates based on the 2021 hypothetical toll rates calculated in Table 2. For illustration purposes only.

Analysis of implementing 10 percent and 20 percent reduction in toll rates

The analysis considered a variety of options for a 10 percent and 20 percent toll reduction negotiated with the Concessionaire. Each option would require the Department to make payment(s) to the Concessionaire directly for loss of expected revenue due to the negotiated toll reductions. This approach would require both an amendment to the CA and consent from ERC’s lenders. This approach was used by the Department for the previously implemented tolling policy amendments described in this report.

The Department considered a range of scenarios, including both up-front payment and annual payments over the remainder of the Project term, to determine the amount of funding required to deliver significant toll reductions to the commuting public. The analysis did not take into account the impact of an increase in volume of trips that may result from lower prices for users.

The Department's analysis indicated that the cost of a 10 percent reduction in toll rates from 2021 through the end of the concession would either require an up-front payment (calculated on a net present value basis) of approximately \$250 million. The same level of reduction would require an average annual payment of nearly \$30 million, for a total compensation of \$1.7 billion payable to ERC across the remaining life of the Project. Similarly, a 20 percent reduction in toll rates from 2021 onwards in the form of an up-front payment (calculated on a net present value basis) could cost upwards of \$600 million. This 20 percent reduction would require an average annual payment of approximately \$65 million for a total nominal compensation of \$3.3 billion payable to ERC across the remaining life of the Project.

Under both scenarios, a revenue stream to support these payments does not exist.

Option 4: Terminate the Department's Agreement with ERC

The CA allows the Department to terminate the 70-year agreement at any time "for convenience." There would be a significant financial cost to the Commonwealth to do so because ERC's lenders have the contractual right to be repaid and investors have the right to be made whole immediately in this type of termination. The rationale for the "make whole" provision is that the operator has performed in accordance with the contract.

The Department's analysis found that the termination payment would be in an estimated range of \$2.0 to \$3.0 billion. The Department would not be able to make such a payment without special funding and appropriation from the General Assembly.

In addition to this payment, the Department would have to assume the daily operations and maintenance of the Downtown and Midtown Tunnels, the MLK Freeway, and other infrastructure and associated costs. The Department estimates that \$28 million⁵ in additional annual operations and maintenance funding would be required. Additionally, there would be unknown operational and financial risks.

Debt financing options available to the Commonwealth for any termination

Because of the estimated magnitude of the termination for convenience payment, the Department analyzed the option of the Commonwealth authorizing bonds to generate the

⁵ Based on current estimated annual routine and tolling operations cost of the tunnels.

required one-time payment, estimated at \$2.0 to \$3.0 billion. The source of repayment of this new debt was assumed to be ongoing tolling of the tunnels. Three types of debt were explored:

- Commonwealth of Virginia bonds backed by the full faith and credit of the Commonwealth (Article X, Section 9(c) bonds or “9(c) debt”) that would require a two-thirds majority approval of the General Assembly;
- Commonwealth Transportation Board bonds requiring annual General Assembly appropriations (Article X, Section 9(d) bonds or “9(d) debt”) and require a dedicated funding source; and
- Tax-exempt bonds issued by a newly formed 63-20 corporation approved by the Commonwealth Transportation Board that would require a dedicated funding source.

9(c) Debt. For toll road 9(c) debt authorized by the General Assembly, the Governor must determine that toll revenues will be sufficient to cover all costs, including repayment of the debt. The toll revenue must be sufficient to pay all ongoing operations and maintenance costs first, then debt service on the bonds, and finally the costs of major rehabilitation or any new construction.

The Commonwealth Transportation Board would establish the toll rates that are required before the Governor’s determination to increase the rates over time to meet the obligations. This 9(c) debt would have the full faith and credit of the Commonwealth and would directly impact the Commonwealth’s debt capacity.

9(d) Debt. While toll revenue would be used to pay 9(d) debt service, 9(d) debt service payments are subject to appropriation by the General Assembly, there would typically be a form of a secondary payment source. 9(d) debt is not supported by the full faith and credit of the Commonwealth, but would still affect the State’s debt capacity.

63-20 Debt. The Commonwealth Transportation Board could authorize the formation of a Virginia non-stock, not-for-profit corporation (a 63-20 corporation) to operate and maintain the tunnels, establish toll rates, and issue tax-exempt bonds to make the termination payment. A 63-20 was established for financing the Pocahontas Parkway’s initial construction and operation and was created as part of the funding model for Route 460. However, considering the estimated revenues from the tunnels, the 63-20 option would not provide sufficient bonding to deliver the one-time payment.

Appendix B

Elizabeth River Crossing Concession Agreement Presentation, June 2019



HAMPTON ROADS TRANSPORTATION PLANNING ORGANIZATION ERC TASK FORCE ELIZABETH RIVER CROSSING CONCESSION AGREEMENT

Overview of Key Contract Terms

Barbara W. Reese, B Reese Advisory LLC

June 26, 2019

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COMPREHENSIVE AGREEMENT

| KEY CONTRACTUAL TERMS AND PROVISIONS

Comprehensive Agreement and Other Contract Terms

- The ERC contractual arrangement is documented in the CA, the Technical Requirements and Project Financing Documents
- Highlights of the contract:
 - ERC to operate and maintain project over a 58-year concession term – ending in 2070
 - ERC financing (including PABs, TIFIA and Equity) is non-recourse to the Commonwealth and will be repaid over the concession term
 - ERC or its equity investors are not guaranteed any profit or return on investment
 - Toll escalation limited to the greater of 3.5% or changes to CPI
 - VDOT can suspend tolling for emergencies
 - VDOT shares in gross revenues if specified thresholds are met
 - Provides parameters and conditions in which ERC can seek additional compensation
 - Outlines the provisions in which the contract may be terminated

Agreement Articles and Exhibits

CA Article	Description
Articles 1 – 4	Granting of Permit; term of CA
Articles 5 - 6	Tolling Parameters, Disposition of Revenue; Value Pricing Requirements; Base Case Financial Model
Article 7	Project Financing; Project Financing Documents; Refinancing
Articles 8 – 10; 24	Design and Construction; Project Management, O&M; Quality Management and Department Oversight; DBE/SWaM; Discrimination
Articles 11 & 16 - 17	Non-Compliance Points System (Performance); Performance Security; Insurance; Hazardous Substances
Articles 12 – 14; Articles 19 - 20	Project Enhancements; Alternative Facilities; Delay Events; Compensation Events and Department Changes; Defaults and Termination
Articles 15, 21 – 23; 25	Indemnification; Reserved Rights; Reps & Warranties; Dispute Resolution, Misc
Exhibit A	Definitions
Exhibit C, Table 4A	Technical Requirements, including O&M and Tolling Performance Requirements
Exhibit J	Toll Rate Schedule
Exhibit W	Non-Compliance Points Table

Compensation Events

Section 14.01(b) of the CA entitles ERC to Concessionaire Damages under a variety of events defined as “Compensation Events”. In total, there are 15 items listed in Exhibit A (Definitions) as Compensation Events, including:

- Construction or expansion of an Alternative Facility
- Department Change or Department Project Enhancement
- Discriminatory Change in Law
- Injunctions or legal proceedings estopping the Concessionaire from performance of its obligations
- Exercise by the Department of its Reserved Rights within the Project Right of Way, unless permitted in the CA

Concessionaire Damages with respect to any Compensation Event will be determined based on the difference in the projected cost and revenue related to the Project immediately prior to the occurrence of the Compensation Event and the projected cost and revenue related to the Project after taking into account the impact of the Compensation Event, net of all insurance proceeds payable to the Concessionaire.

Section 14.01(b)(i)(B) of the CA outlines the calculation of Concessionaire Damages for each year as the sum of:

- (A) any adverse Net Cost Impact; and
- (B) any adverse Net Revenue Impact;
- (C) Less any Net Cost Savings and positive Net Revenue Impact attributable to the Compensation Event

Alternative Facilities Provision

Sections 12.05 and 14.01 of the CA provide the concessionaire the ability to seek financial damages (“Concessionaire Damages”) resulting from improvements to Alternative Facilities as a Compensation Event. No other transportation improvement outside the right of way is a Compensation Event.

An Alternative Facility is defined in Exhibit A (Definitions) as a facility that is built and opened to traffic during the term of the concession including:

- Construction of any crossing of the James River between the Hampton Roads Bridge Tunnel and Monitor-Merrimac Memorial Bridge-Tunnel
- Construction of additional general-purpose lanes on I-64, between I-464 and Bowers Hill
- Expansion of the Hampton Roads Bridge Tunnel
- Construction or expansion of any other facility owned or operated by VDOT over the Elizabeth River between Norfolk and Portsmouth
- Construction or expansion of any other facility owned or operated by VDOT over the Southern Branch Elizabeth River north of I-64 in the City of Chesapeake

Concessionaire Damages, if found valid, are calculated for each year of the remainder of the term as the sum of:

- (A) any adverse Net Cost Impact; and
- (B) any adverse Net Revenue Impact;
- (C) Less any Net Cost Savings and positive Net Revenue Impact attributable to the Compensation Event

Termination

Article 20 of the CA outlines the process and possible conditions for Termination. Termination can occur for the following: Termination for a Significant Force Majeure Event, Termination for Concessionaire Default, Termination for Department Default, or Termination for Convenience.

Termination for Convenience (CA, Section 20.07)

- VDOT may terminate the Agreement at any time by delivering to the Concessionaire and the Collateral Agent (the entity administering the Project Financing Documents) written notice. Termination will take effect no less than 90 days after the notice has been delivered
- VDOT would pay the “Department Convenience Termination Amount”, subject to General Assembly appropriation and allocation by the Commonwealth Transportation Board

Exhibit A of the CA defines the Department Convenience Amount, following the lock-up period, as the greater of:

- (i) Concessionaire Debt; or
- (ii) Project Value (as determined through appraisal by an independent third-party appraiser, per Section 20.11 of the CA)
 - Fair market value of the projected Distributions for the remainder of the Term
 - Fair market value of the outstanding Concessionaire Debt
 - Concessionaire Damages

| PROJECT FINANCING

Project Financing

Construction commencement occurred in mid-2012 and final completion was reached in September 2017.

- Concessionaire is composed of Skanska Infrastructure Development and Macquarie Group
- USDOT TIFIA credit agreement was executed on April 12, 2012, total loan repayment is expected to occur in 2047
- Required Public Funds contribution from VDOT of \$308.6 million at Financial Close
- With CA Amendments, a total of *\$581.6 million* has been spent by the Commonwealth to mitigate tolls

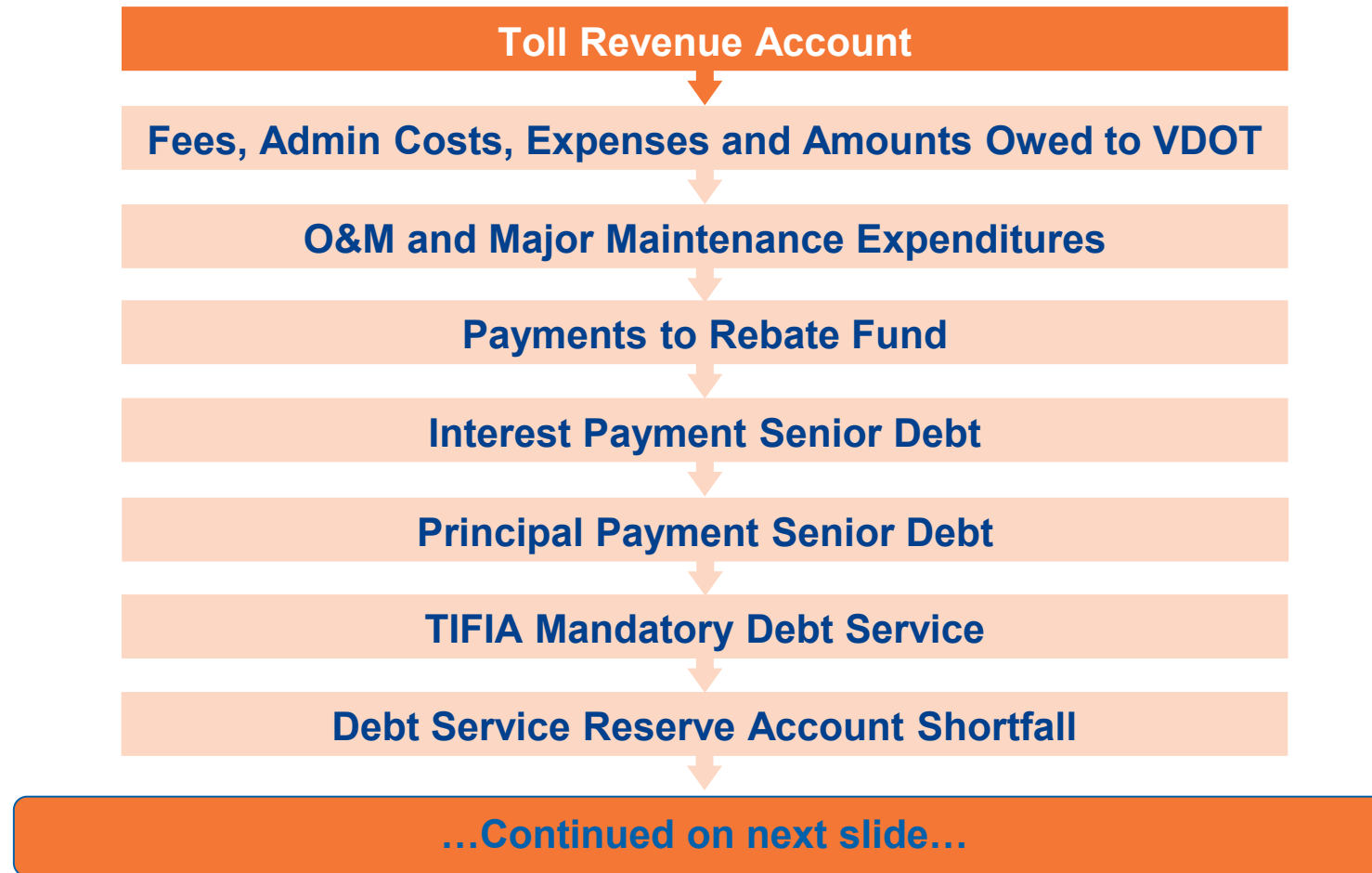
Project Financing Sources (as of Financial Close)	Amount (in millions)
<i>VDOT Public Funds</i>	<i>\$308.6</i>
Senior Debt (PABs)	\$675.0
TIFIA Loan	\$422.0
Equity Contributions	\$272.3
Toll Revenues	\$368.2
TIFIA Capitalized Interest	\$42.6
Total	\$2,088.7

Agreement Amendments	Amount (in millions)
<i>#1 – Delay tolling of existing tunnels until 1/31/2014</i>	<i>\$112.5</i>
<i>#2 – No tolls on High Street Ramps; define local trip; No ETC fees*</i>	-
<i>#3 – Reduce toll rate during remainder of construction</i>	<i>\$ 82.5</i>
<i>#5 – No tolls on the MLK Extension; limit on penalties</i>	<i>\$ 78.0</i>
Total	\$273.0

| FLOW OF FUNDS

Flow of Funds

The Project Financing Documents require the following flow of funds (the waterfall):



Source: Official Statement Virginia Small Business Financing Authority Senior Lien Revenue Bonds Series 2012

Flow of Funds (continued)

...Continued from previous slide...

Major Maintenance Reserve Account Shortfall

TIFIA Scheduled Debt Service

10-Year Toll Relief Program*

Discretionary Capital Expenditures

Volunteer Prepayments / Redemption of Senior Debt

Equity Lock-up Account

TIFIA Sinking Fund / Revenue Share Account

Distribution Account

*CA Amendments #5 and #6 require Toll Relief Program to be funded prior to any Discretionary Capital Expenditures

ROLES AND RESPONSIBILITIES | DURING OPERATING PERIOD

Operating Period Requirements

Both VDOT and the Concessionaire have operations & maintenance responsibilities for the remainder of the term

General O&M Responsibility	Concessionaire	VDOT
Management & control of traffic	Perform	Monitor
Maintain and repair	Perform	Monitor
Continuously open & operational	Perform	Monitor
Inspect	Perform	Monitor/Perform
Provision of police and enforcement services	Toll enforcement	Equivalent w/State highways
Life cycle maintenance plan and other related plans	Develop/Implement	Approve
Major maintenance	Perform	Perform
O&M contractor	Procure	Approve
Insurance	Maintain	Audit
DBE & SWaM Goals	Achieve	Audit

Tunnel Assets are Shared Responsibility

The CA defined “Existing Project Assets” which require life cycle major maintenance throughout the Term

- ERC will perform major maintenance based on an approved plan with Existing Project Assets (the existing Midtown Tunnel and Downtown Tunnel at the time the CA was signed). For example:
 - \$4.5 million every five years beginning in 2020 for structural repair of joints, road slab, and tunnel lining of the existing Downtown Tunnel and Midtown Tunnel
- VDOT assumes the cost of additional major maintenance on the Existing Project Assets under certain conditions

ERC Requirements During Tolling Operations

The Concessionaire has entered into an Electronic Toll Collection Agreement with VDOT – the same agreement used by all toll facilities throughout the Commonwealth

Agreement Requirement	Concessionaire	VDOT
Pay E-Z Pass Transaction and Revenue Fees	Pay*	Establish Fee
Electronic Toll Collection Services	Use	Provide
Maintain Independent ETC System	Maintain	Monitor
Report System Performance Issues	Report	Report
Transaction information for each user	Transmit Info	Bill E-Z Pass and deposit revenue into ERC account

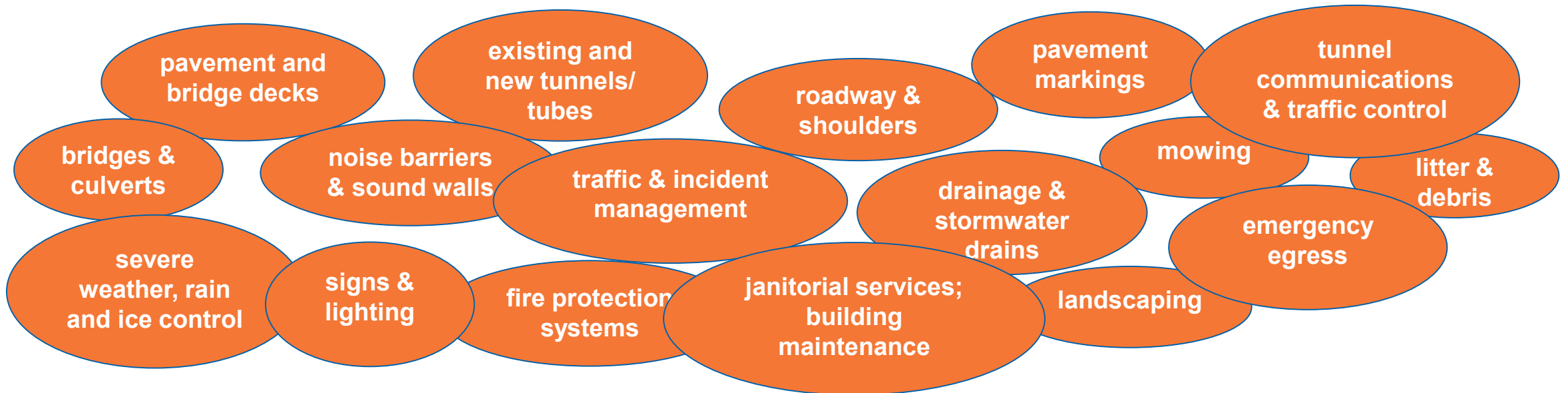
* ERC pays the fees and subsequently seeks certain reimbursement pursuant to CA Amendment #2

Operating Period Performance Requirements

The Technical Requirements (Exhibit C of the CA) include performance requirements that the Concessionaire must achieve. The performance requirements are met when:

- Stated requirement is fulfilled;
- Asset condition and timeliness requirements are met; and
- Outcome is fulfilled

The requirements cover a range of project assets including:



Performance Non-Compliance

Article 11 of the CA outlines the process for monitoring and reporting as well as next steps if concessionaire performance of certain requirements falls short

- Monitoring and reporting for performance shortfalls (non-compliance) will begin in September 2019
- Non-compliance points may be assessed if the Concessionaire does not meet the performance requirements
- The accumulation of non-compliance points and failure to correct the performance shortfalls leads to
 - 1) increased monitoring; then
 - 2) a Performance Improvement Plan; and ultimately
 - 3) Default

| PROJECT TOLLING

Project Tolling

The table below summarizes current toll rates, effective January 1, 2019:

Toll Rates (Effective January 1, 2019)	Passenger Vehicles (Max 2-axles and 6 tires)			Heavy Vehicles (3 or more axles)		
	Monday - Friday	E-Z Pass	Registered Pay- by Plate	Unregistered Pay-by-Plate	E-Z Pass	Registered Pay- by Plate
12:00am to 5:30am	\$1.79	\$3.57	\$5.35	\$5.36	\$7.14	\$8.92
5:30am to 9:00am (Peak)	\$2.20	\$3.98	\$5.76	\$8.80	\$10.58	\$12.36
9:00am to 2:30pm	\$1.79	\$3.57	\$5.35	\$5.36	\$7.14	\$8.92
2:30pm to 7:00pm (Peak)	\$2.20	\$3.98	\$5.76	\$8.80	\$10.58	\$12.36
7:00pm to 12:00am	\$1.79	\$3.57	\$5.35	\$5.36	\$7.14	\$8.92

- ERC sets toll rates per the formula, instructions and tables included in the Toll Rate Schedule (CA Exhibit J as amended).
- ERC is permitted to increase toll rates to compensate for escalation, which is applied as the maximum of:
 - 3.5%; or
 - Consumer Price Index for the given period

Toll Relief Program

The Toll Relief Program is being funded by ERC to help ease the financial burden of tolls on Norfolk and Portsmouth residents hit hardest by the tolls on the Project.

The Toll Relief Program is being funded by ERC in annual payments of \$500,000 for ten years. Unused funds will roll over and be available for use in the following year.

In order to qualify for Toll Relief, users must:

- Reside in Norfolk or Portsmouth;
- Earn \$30,000 or less per year;
- Have a Virginia E-ZPass account; and
- Take eight trips or more during a calendar month through the Downtown or Midtown Tunnels

Due to the number of individuals enrolled in the program, the current rebate is estimated to be \$0.75 per trip.

| BUDGET LANGUAGE (CH 854)

Appropriation Act Lanauge, Item 433(L)

L. The Secretary of Transportation (Secretary) shall evaluate potential opportunities to mitigate the financial burden on the commuting public at the (i) Downtown Tunnel and (ii) Midtown Tunnel. The Secretary shall report to the Governor, the House and Senate Committees on Transportation, the House Committee on Appropriations, and the Senate Committee on Finance on its findings no later than June 30, 2020.

| GROUP DISCUSSION

Appendix C

Elizabeth River Crossing Toll Reduction Announcement

For Immediate Release: November 15, 2021

Governor Northam Announces Major Expansion of Elizabeth River Crossing Toll Reduction

Changes will save up to \$650 a year for eligible Virginians in Hampton Roads

NORFOLK—Governor Ralph Northam today announced a major expansion of the Toll Relief Program in partnership with Elizabeth River Crossings, the owners of the Elizabeth River Tunnels. This program will reduce tolls for those most impacted by the Downtown and Midtown Tunnel tolls.

“This will make it significantly more affordable for working people to use the tunnels in Hampton Roads,” **said Governor Northam**. “The Commonwealth and the Elizabeth River Crossing team are making commuting easier, and that is something we can all be proud of.”

Annual funding will increase six-fold in the program in 2022 to more than \$3.2 million and then grow 3.5 percent annually. The increased funding will allow the region, Elizabeth River Crossings, and the Commonwealth to consider additional improvements for 2023.

The funds will allow for the following changes to be implemented in 2022:

- Provide participants with a 50 percent toll discount on up to five round-trips a week to reduce the cost of commuting to and from work;
- More than double the number of drivers, up to 4,300, eligible for the program;
- Eliminate the minimum number of trips required before discounts become available; and,
- Apply the rebate for the discount on a daily basis instead of monthly.

The 2022 Toll Relief Program is open to Portsmouth and Norfolk residents who earn less than \$30,000 a year. The enrollment period begins December 1, 2021, and closes February 15, 2022. Toll reimbursements for the new program begin on March 1, 2022. Current participants must re-enroll to receive the 2022 Toll Reduction Program benefits.

“Today represents an important step forward for those citizens who rely upon Elizabeth River Crossings and have been impacted the most by tolls at the Downtown and Midtown Tunnels,” **said Secretary of Transportation Shannon Valentine**. “The commitments

announced today are fundamental to building a strong partnership with Elizabeth River Crossings as we work with the region to better serve the Hampton Roads community.”

“Today marks an excellent start to a long-term partnership. Elizabeth River Crossings is our first asset in the United States, and Abertis is very proud to be in Virginia,” **said Jose Aljaro, Chief Executive Officer of Abertis which holds a 55.2 percent stake in Elizabeth River Crossings.** “We are committed to serving the local community of Hampton Roads as we continue to build a constructive and mutually beneficial relationship with the Commonwealth.”

“This is our commitment to easing the financial burden that we know our tolls have on income restrained residents,” **said Elizabeth River Crossings Chief Executive Officer David Sullivan.** “We feel it’s our duty to connect them to relief that they can count on. This \$2.7 million increase in toll reduction funding is the most significant commitment our company has ever made to the community. We’re excited to see how the program will improve and the impact it will have on those who need it most.”

“As the delegate from Virginia’s 80th House of Delegates district in Portsmouth, I am thankful for this needed 3.2 million immediate investment to provide relief for the most vulnerable of all our citizens who are working hard but struggle to pay the tolls,” **said Delegate Don Scott.** “We are delivering on the promise to provide toll reductions.”

“The Governor’s announcement today providing toll reductions on the Midtown and Downtown tunnels is a positive step towards addressing our concerns of the impact to our citizens quality of life and the region’s economic vitality,” **said Norfolk Mayor Kenneth Cooper Alexander.** “I want to thank Governor Northam and Secretary Valentine for this action.”

“As the Chair of the Hampton Roads Transportation Planning Organization, I have tried to stress the importance of our organization using its influence to provide toll relief for the residents of Hampton Roads,” **said Chair of the Hampton Roads Transportation Planning Organization and Mayor of Hampton, Donnie Tuck.** “I am grateful to Governor Northam and to Transportation Secretary Valentine and her team for their determined efforts to develop a plan that will reduce the tolls for Norfolk and Portsmouth residents.”

The toll rate increase that was scheduled for 2021 and suspended due to the COVID-19 pandemic will now be spread out over the next three years, saving drivers up to \$50 in 2022 and up to \$25 in 2023.

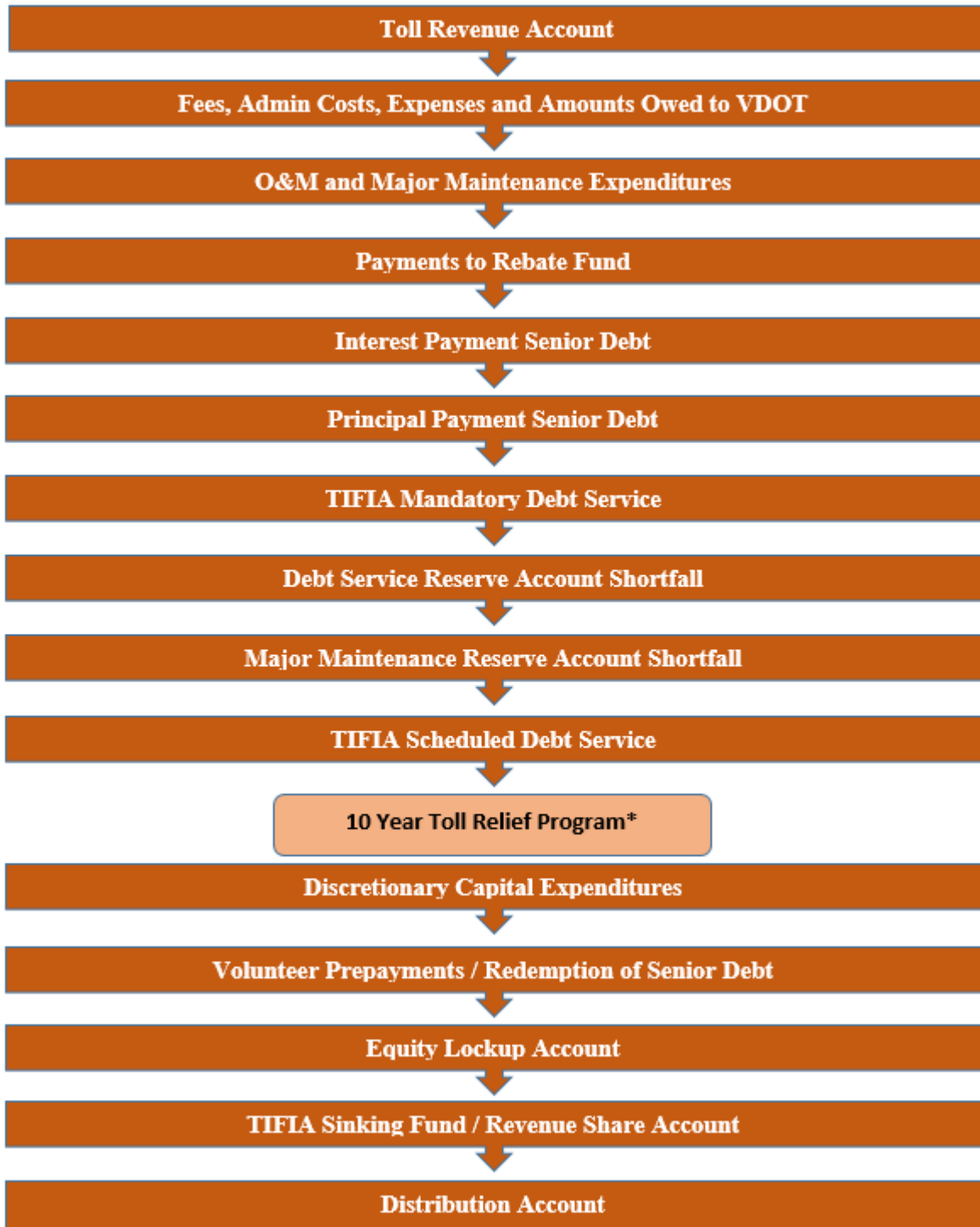
The program was established in 2016 to help reduce the cost of Elizabeth River Tunnel tolls on Norfolk and Portsmouth residents.

For more information on the toll reductions, click [here](#).

#

Appendix D

ERC Flow of Toll Revenue Funds



Source: Series 2012 – Virginia Small Business Financing Authority Senior Lien Revenue Bonds

*NOTE: CA Amendments #5 and #6 require Toll Relief Program to be funded prior to any Discretionary Capital Expenditures

Appendix E

About ERC, Abertis, and Manulife Investment Management

Elizabeth River Crossings (ERC), officially Elizabeth River Crossings OpCo, LLC, is a limited liability company owned by Abertis and Manulife Investment Management. ERC's sole purpose is to finance, deliver, operate and maintain the Elizabeth River Crossings facilities which include the Downtown and Midtown Tunnels and the MLK Freeway extension, as part of a 58-year public-private partnership (PPP or P3) with the Virginia Department of Transportation. ERC also provides incident response for the West Norfolk and Berkley Bridges, although operations of these bridges remain with VDOT.

Abertis is a global leader in toll road management based in Spain, with over 8,600 kilometers of roads in 16 countries in Europe, the Americas, and Asia. Abertis is continually investing in technology and smart engineering to make sure customers have a safe, comfortable, fast experience. Committed to research and innovation, Abertis combines the advances in high capacity roads with new technologies to drive innovative solutions to the challenges of the mobility of the future.

Manulife Investment Management is the global wealth and asset management segment of Manulife Financial Corporation. Headquartered in Toronto, its leading capabilities in public and private markets are strengthened by an investment footprint that spans 17 countries and territories. Manulife Investment Management complements these capabilities by providing access to a network of unaffiliated asset managers from around the world.