I-64 Capacity Improvements – Segment III

Initial Financial Plan

October 30, 2017

State Project # 0064-965-229/0064-099-229 P101, R201, C501, B638, B639, B640, B641, B642, B643, D609, D610, D611
Federal # NHPP-064-3(498)/ MHPP-064-3(498)
UPC 106689/109790

TABLE OF CONTENTS

1. PROJECT DESCRIPTION

I-64 Capacity Improvements – Segment III is located in York County. The project limits are from 1.15 miles west of Route 199, Lightfoot (Exit 234) to 1.05 miles west of Route 199, Humelsine Pkwy/Marquis Ctr Pkwy (Exit 242). This will extend the 3-lane section of I-64 from the point where the I-64 Segment II project ends to the west for approximately 8.2 miles. Interstate 64 is functionally classified as an interstate. The VDOT geometric design standard that will be utilized for I-64 is GS-1 (Rural Principal Arterial System) with a minimum design speed of 75 mph. VDOT has initiated this proposed widening project to provide immediate congestion relief to the roadway corridor.

VDOT has determined that the use of Design-Build contracting will expedite delivery. The Design-Builder will be able to perform final design, right of way acquisition, utility relocation, and some construction activities concurrently. This project contributes to the Preferred Alternative and contributes to the Purpose & Need elements outlined in the Final Environmental Impact Statement (FEIS). The project will incorporate context sensitive design where practical and in accordance with the resolution of the Transportation Planning Organization (TPO).

Under the terms of the design-build contract scheduled to be awarded by the Commonwealth Transportation Board (CTB) in December 2017, the design-builder will construct the widening of I-64 from a 4 lane divided interstate to a 6 lane divided interstate from state milepost 233.3 to state milepost 241.3. The proposed improvements include the reconstruction of the two existing lanes and outside shoulders, and the addition of one 12-foot-wide travel lane and one 12-foot-wide inside shoulder in each direction. On the eastern end, this 4-lane section of I-64 ties into the 6-lane widening project, I-64 Capacity Improvements – Segment II. The widening is expected to occur in the median of the existing interstate, limiting the amount of right of way required to construct the project and avoiding impacts to existing interchanges. These improvements will increase capacity, minimize geometric and structural deficiencies, provide more lanes for evacuation, and improve safety by reducing congestion and improving vehicular level of service.

Four (4) existing bridges within the corridor will be widened to the inside to accommodate the same typical section as the roadway and two (2) existing bridges will be replaced. Three (3) major culverts will also be modified, extended and/or rehabilitated due to the interstate widening. Additional improvements include widening the outside shoulders and extending the acceleration and deceleration lanes to meet current design standards. The I-64 EB off-ramp to Route 143 shall be reconstructed to add additional capacity as needed per the traffic analysis.

PROJECT HISTORY

The following is a brief chronology on the development of the project I-64 Capacity Improvements – Segment III:

October 2012

The Draft Environmental Impact Statement (DEIS) for the Interstate 64 Peninsula Study, a 75-mile long corridor from Hampton to Richmond was approved for public availability.

December 2012

Location Public Hearings for the DEIS were held in Richmond, Williamsburg, and Newport News.

March 2013

The TPO recommended Alternative 1B as the locally preferred alternative, with the caveat that Context Sensitive Design be applied, as well as a phased approach (build in fundable sections) for construction of the project.

April 2013

The CTB passed a resolution identifying a preferred alternative for the Interstate 64 Peninsula Study as Alternative 1: general purpose widening with the option to widen to the outside or within the median, to be determined on a segment-by-segment basis. The resolution also

stated that future development of operationally independent segments within the study corridor should be closely coordinated with the TPO.

The Richmond Area Metropolitan Planning Organization identified Alternative 1B in the DEIS as its locally preferred alternative, subject to conditions relating to right of way acquisition and design.

October 2013

HB 2313 was signed into law, which provides a comprehensive transportation funding source and includes a major regional funding package for Hampton Roads.

The Hampton Roads Transportation Planning Organization (HRTPO) approved and adopted Board Resolution 2013-09 endorsing I-64 Peninsula Segment 3 – Route 199 East of Williamsburg to Route 199 West of Williamsburg.

November 2013

On November 26, 2013, FHWA and VDOT signed the FEIS for the I-64 Peninsula Study. This signature approved the document for public distribution and review. In the Notice of Availability (NOA) published in the Federal Register, FHWA specifically solicited comments on the phased implementation of the preferred alternative. A 60-day comment period was provided following the publication of the NOA.

March 2016

The Hampton Road Transportation Accountability Commission (HRTAC) included the I-64 Peninsula Segment III Project, which will widen I-64 from Route 199 East of Williamsburg to Route 199 West of Williamsburg as one of the construction projects in the funding plan adopted by the HRTAC on March 17, 2016. The funding plan projected that the project would cost approximately $311 million.

The HRTAC executed an Interim Project Agreement for Funding and Administration with VDOT that authorized $10 million of funding for preliminary engineering project costs. HRTAC also issued Resolution 2016-06 that reaffirmed its interest in completing the I-64 Peninsula Segment III project, which was projected to cost approximately $311 million.

August 2016

On August 10, 2016, FHWA signed the Record of Decision for Segment III of the I-64 Peninsula Study. This completed the NEPA process and allowed VDOT to advance with more detailed design activities.

December 2016

The HRTAC voted to authorize to execute an Agreement with VDOT to construct I-64 Segment III at their regular meeting on December 15, 2016.

March 2017

The Request for Qualifications (RFQ) for I-64 Capacity Improvements – Segment III was released on March 29, 2017.

June 2017

The Request for Proposals (RFP) for I-64 Capacity Improvements – Segment III was released on June 21, 2017.

CURRENT ACTIVITIES

The Design-Build contract is scheduled to be awarded in December 2017 with a January 2018 notice to proceed (NTP).

PROJECT WEBSITE

Additional information on the I-64 Capacity Improvements project can be found on the project website at the following link:

http://www.i64widening.org/learn_more/segment_3.asp

The website provides additional information regarding project description, purpose, location map, implementation schedule, cost, contact information, etc.

2. SCHEDULE

The anticipated notice to proceed date for the design-build contract is January 17, 2018. Based on a preliminary schedule, the remaining design efforts are estimated to take place between January 2018 and March 2019. Remaining right of way acquisitions and utility relocations are anticipated to occur between January 2018 and August 2019. Construction activities are anticipated to begin in January 2018. The final completion date is September 24, 2021, or the Offeror's proposed early completion date.

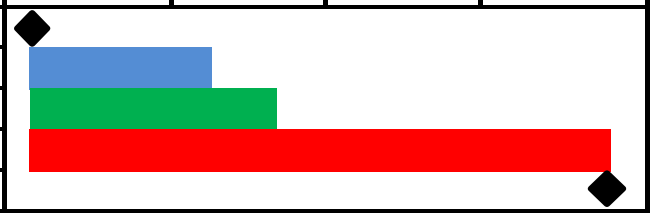
The Department will pay the Design-Builder $7,200,000 as a "no excuses" incentive payment if Work under the Contract Documents for the Project is completed 90 to 86 days prior to the Final Completion Date. $4,800,000 will be paid if Work is completed at least 85 days prior to the Final Completion Date. For every day less than the 85 days up to and including day 55 the Design-Builder takes to complete the Work of the Project, the incentive payment will decrease at a daily rate of $100,000. The incentive payment for completion of Work on day 55 will be $1,800,000. $1,740,000 will be paid if Work is completed at least 54 days prior to the Final

Completion date. For every day less than the 54 days up to and including day 25 the Design-Builder takes to complete the Work of the Project, the incentive payment will decrease at a daily rate $60,000. No incentive payment will be paid for completing all Work 25 days prior to the Final Completion Date or at any date thereafter.

Chart 2.1 below is an approximate anticipated schedule for the selected design-build team:

CHART 2.1 - PROJECT SCHEDULE OVERVIEW

Task		Start	Finish
Notice to Proceed		Jan-18	Jan-18
UPC 106665	PE- Design	Jan-18	Mar-19
	RW/Utilities	Jan-18	Aug-19
	Construction	Jan-18	Sep-21
Construction Complete		Sep-21	Sep-21



3. PROJECT COST

VDOT's Project Cost Estimating System (PCES) is the official source for all cost estimate information. The current total project cost estimate is $311,303,819. Project costs noted in the estimate below include: preliminary design activities, right of way purchase, utility relocation, environmental and design permits/approvals, survey and geotechnical investigations, and construction.

TABLE 3.1 – PROJECT COST ESTIMATE

Phase	Estimate
PE	10,000,000
RW	12,000,000
CN	289,303,819
Total	311,303,819

COST ESTIMATING METHODOLOGY

Work elements associated with the I-64 Capacity Improvements – Segment III project can be summarized in two components: (1) work to be carried out under the design-build contract by the design-builder and (2) work outside of the Design-Build contract for which VDOT is responsible or has already accomplished throughout the development of the project.

Design-Build Contract: The awarded Design-Build contract for the I-64 Capacity Improvements project will be lump sum and will include the following major work elements to be provided by the design-builder: final design; right-of-way acquisition services; utility coordination; utility relocations; construction; and construction quality assurance and quality control (QA/QC). The estimated cost for the Design-Build contract was developed using the Request for Proposals

(RFP) Plans and by adjusting a construction quantity estimate developed for those plans to account for anticipated changes to the project. The fixed amount of the Design-Build contract is a lump sum with payments based upon the project physical percent of completion.

Work Outside of Design-Build Contract: VDOT will remain responsible for updating the EIS documentation; preliminary engineering support services; oversight of final design; oversight of right-of-way acquisition services; payment for new right-of-way acquired for the project; landscaping maintenance after project construction; Design-Build risk contingency; and oversight of construction:

- Preliminary Engineering: VDOT will execute an agreement with a professional services firm to provide engineering and technical support during project development. Specifically, VDOT needs support for reviewing preliminary and final design submissions.
- Right of Way Purchases: In accordance with the Design-Build RFP, Part 2, Section 1.5, VDOT remains responsible for the actual cost of the purchase of right-of-way, all easements and miscellaneous fees associated with real estate closings as part of the project and oversight of the right-of-way acquisition/payment/condemnation process.
- VDOT Project Oversight Costs: VDOT post-award costs to manage the project and provide oversight of the project are estimated to be $11,983,831. These costs include overall project management, design reviews, contract administration and construction oversight.

In addition, other preliminary engineering expenditures associated with project development of the I-64 Capacity Improvements project are reflected in the total project estimate.

SUMMARY OF ESTIMATES AND EXPENDITURES

Table 3.2 includes the current estimate of the total cost of the project and the remaining cost-to-complete in year-of-expenditure dollars. The table below depicts the estimated project expenditures as of July 31, 2017.

TABLE 3.2 – PROJECT COST BY PHASE

PHASE		ESTIMATE	CURRENT EXPENDITURES	BALANCE TO COMPLETE
106689	PE	10,000,000	3,302,867	6,697,133
	RW	0	0	0
	CN	156,376,066	0	156,376,066
	Total	166,376,066	3,302,867	163,073,199
109790	PE	0	0	0
	RW	12,000,000	0	12,000,000
	CN	132,927,753	0	132,927,753
	Total	144,927,753	0	144,927,753
Grand Total		311,303,819	3,302,867	308,000,952

4. PROJECT FUNDS

The current total project cost estimate is $311,303,821. In March 2016, the Hampton Roads Transportation Accountability Commission (HRTAC) executed a Project Agreement for Funding and Administration with VDOT that authorized $10,000,000 of funding for PE project costs.

Project funding is demonstrated in the HRTPO's Long Range Transportation Plan and Transportation Improvement Program (TIP), as well as the Commonwealth's Statewide Transportation Improvement Program (STIP). The PE, RW, and CN phases of the Project are include in the HRTPO's TIP as well as the STIP. In March 2016, the Hampton Roads Transportation Planning Organization (HRTPO) amended its Transportation Improvement Program (TIP) to represent $144,927,753 in HPP funds and $166,376,066 HRTF funds.

In December 2016, HRTAC executed the Project Agreement for Funding and Administration with VDOT that authorized $301,303,819 of funding for RW and CN project costs.

SIX-YEAR IMPROVEMENT PROGRAM (SYIP) FUNDING

I-64 Capacity Improvements Project – Segment III is fully funded with HRTAC and SmartScale (HB1887) funds in the amount of $311,303,819.

State and Federal Sources:

SmartScale (HB 1887) funds were allocated to the project in the amount of $144,927,753.

Other Sources:

Hampton Roads Transportation Accountability Commission (HRTAC) Funds: The Final FY 2018-2023 SYIP includes $166,376,066 in Hampton Roads Transportation Funds (HRTF) allocated by the HRTAC.

Table 4.1 summarizes the funding allocated to the I-64 Capacity Improvements – Segment III by fund source and year.

Table 4.1: Summary of Funding by Source and Year

Funding Source		Prev.	2019	2020	2021	2022	Total
UPC 106689	Other: HRTAC (CNRH22)	$ 10,000,000	$ -	$ 24,752,207	$ 89,013,751	$ 42,610,108	$166,376,066
UPC 109790	Federal: HB1887 (HF1100)	$ -	$ 24,000,000	$ 20,447,080	$ 33,319,617	$ 2,680,000	$ 80,446,697
	Federal: HB1887 (HF1101)	$ -	$ 6,000,000	$ 5,111,770	$ 8,329,904	$ 670,000	$ 20,111,674
	Federal: HB1887 (HF1400)	$ -	$ -	$ -	$ 12,677,653	$ -	$ 12,677,653
	Federal: HB1887 (HF1401)	$ -	$ -	$ -	$ 3,169,413	$ -	$ 3,169,413
	State: HB1887 (HS0100)	$ 28,522,316	$ -	$ -	$ -	$ -	$ 28,522,316
Grand Total		$ 38,522,316	$ 30,000,000	$ 50,311,057	$146,510,338	$ 45,960,108	$311,303,819

USE OF ADVANCE CONSTRUCTION AUTHORIZATION TO DATE

The table below demonstrates use of the advance construction (AC) provision to date.

Table 4.2: Advance Construction Authorization

UPC	Phase	AC Date	AC Balance	Plan to Convert*
106689	PE	4/6/2017	$9,000,000	No plans to convert
106689	CN	6/2/2017	$140,738,459	No plans to convert
109790	RW	6/2/2017	$10,800,000	FFY18: Plan to convert $10,800,000 Z001 AC at 80% to obligate $12,000,000 Z001 at 100% which includes 20% Soft Match
109790	CN	6/2/2017	$119,634,979	FFY18: Plan to convert $16,000,000 Z001 AC at 80% to obligate $20,000,000 Z001 at 100% which includes 20% Soft Match FFY19: Plan to convert $20,687,080 Z001 AC at 80% to obligate $25,858,850 Z001 at 100% which includes 20% Soft Match FFY20: Plan to convert $37,807,417 Z001 AC at 80% to obligate $47,259,271 Z001 at 100% which includes 20% Soft Match; Plan to convert $8,479,331 Z001 AC at 80% to obligate $10,599,164 Z002 at 100% which includes 20% Soft Match
TOTAL			$280,173,438	$93,773,828

***Plan to convert AC based on CTB approved FY18-23 SYIP**

5. FINANCING ISSUES

There are no financing issues on this project.

6. CASH FLOW

I-64 Capacity Improvements – Segment III project annual cash expenditures are based on the project schedule assumed by the VDOT Design Team. Table 6.1 below is a Cash Flow Analysis for the project. It shows the comparison of previously expended and projected expenditures by fiscal year by phase against the total annual allocations. The initial estimated computations relay a deficit in fiscal year 2020. The deficit in the cash flow will be addressed in the upcoming SYIP where funding may be able to be adjusted in the outer years.

Table 6.1 - Cash Flow Analysis
(Amounts in 000's)

Expenditures		Prev.	FY2019	FY2020	FY2021	FY2022	Total
UPC 106689	PE	$ 7,803	$ 1,000	$ 750	$ 447	$ -	$ 10,000
	Right of Way	$ -	$ -	$ -	$ -	$ -	$ -
	Construction	$ -	$ -	$ 10,782	$ 69,014	$ 76,580	$ 156,376
UPC 109790	PE	$ -	$ -	$ -	$ -	$ -	$ -
	Right of Way	$ -	$ 12,000	$ -	$ -	$ -	$ 12,000
	Construction	$ -	$ 46,062	$ 62,265	$ 24,600		$ 132,927
Cumulative Expenditures		$ 7,803	$ 66,865	$ 140,662	$ 234,723	$ 311,303	$ 311,303
Total Annual Allocations		$ 38,522	$ 32,000	$ 50,311	$ 146,510	$ 43,960	$ 311,303
Cumulative Allocations		$ 38,522	$ 70,522	$ 120,833	$ 267,343	$ 311,303	$ 311,303
Cash Flow per Year		$ 30,719	$ 3,657	$ (19,829)	$ 32,620	$ -	

7. P3 ASSESSMENT

This interstate project cannot be tolled and is not a candidate for delivery via the Public Private Transportation Act (PPTA).

8. RISK AND RESPONSE STRATEGIES

VDOT's current budget in the SYIP for FY2018-2023 is $311.3 million for I-64 Capacity Improvements – Segment III project.

The scope of work required for the project consists of, but is not limited to, widening 8.2 miles of Interstate 64 to the median side eastbound and westbound. The proposed improvements include reconstruction of the existing lanes and an additional 12' wide travel lane and 12' wide median shoulder in each direction. Work includes the repair and widening of 4 bridges, 3 major culverts and the replacement of the Queens Creek (2) bridges. Based on the Final Environmental Impact Statement (FEIS), soundwalls will likely be installed in areas at the eastern end of the Queen's Creek bridges. Final soundwall locations will be determined from a noise study to be performed by the awarded design build team. The outside paved shoulders will be widened from 10' to 12' to meet VDOT standards. The deficient acceleration and deceleration lane lengths at the ramps along the mainline will be lengthened to meet current AASHTO Standards as identified in the FEIS.

It is anticipated that the project's contingency budget included in the project estimate will mitigate the project risks.

The following Design Exceptions (DE) and Design Waivers (DW) have been approved with respect to the RFP Conceptual Plans for this project:

- (DE) Existing bridge outside shoulder width for I-64 WBL under Route 143/Camp Peary Overpass does not meet AASHTO Requirements.
- (DE) To allow the addition of bricks on the back face of the new 42" F-shape concrete parapet on the widened side of the Colonial Parkway bridges.
- (DW) Left Total Shoulder Width for I-64 EBL under Route 143 (Camp Peary) Overpass does not meet VDOT Standards.
- (DW) Left Total Shoulder Width for I-64 EBL & WBL under Route 716 (Queens Drive) Overpass does not meet VDOT Standards.
- (DW) The existing and proposed vertical bridge clearance of I-64 over Colonial Parkway does not meet the VDOT Structure and Bridge Manual Requirements.
- (DW) The proposed inside shoulder cross slope of 2% to allow for the shoulder to be used as a travel lane during construction does not meet VDOT Standards.

Right of way acquisition is one area where VDOT has exposure for a cost increase. VDOT remains responsible for the actual cost of the purchase of remaining right-of-way, all easements, and miscellaneous fees associated with closing. While the current right-of-way cost estimate includes costs for potential condemnations, escalation and other associated costs, there is the possibility that actual acquisition costs may fluctuate prior to final settlement. Potential additional costs can be mitigated through the identification of opportunities to reduce right of way impacts through design modifications and value engineering opportunities that may develop during final design and right of way negotiations. Interchange modifications will not be included in this project. In order to minimize right-of way and property impacts, the additional 12' lane and 12' shoulder will generally be added towards the median in each direction.

9. ANNUAL UPDATE CYCLE

The submission date of the Initial Financial Plan is October 30, 2017. The first annual update will be submitted by October 30, 2018, and will be based on a "data as of" date of July 30, 2018. Future annual updates will be submitted by October 30 of that year, with a "data as of" date of July 30 of that year.