



I-264/Witchduck Road Interchange & Ramp Extension (C-D Road)

Initial Financial Plan

March 31, 2017

State Project Numbers: 0264-134-102, P101, R201,
C501, B601, B602, B603, B621, D601
UPCs: 17630, 108041

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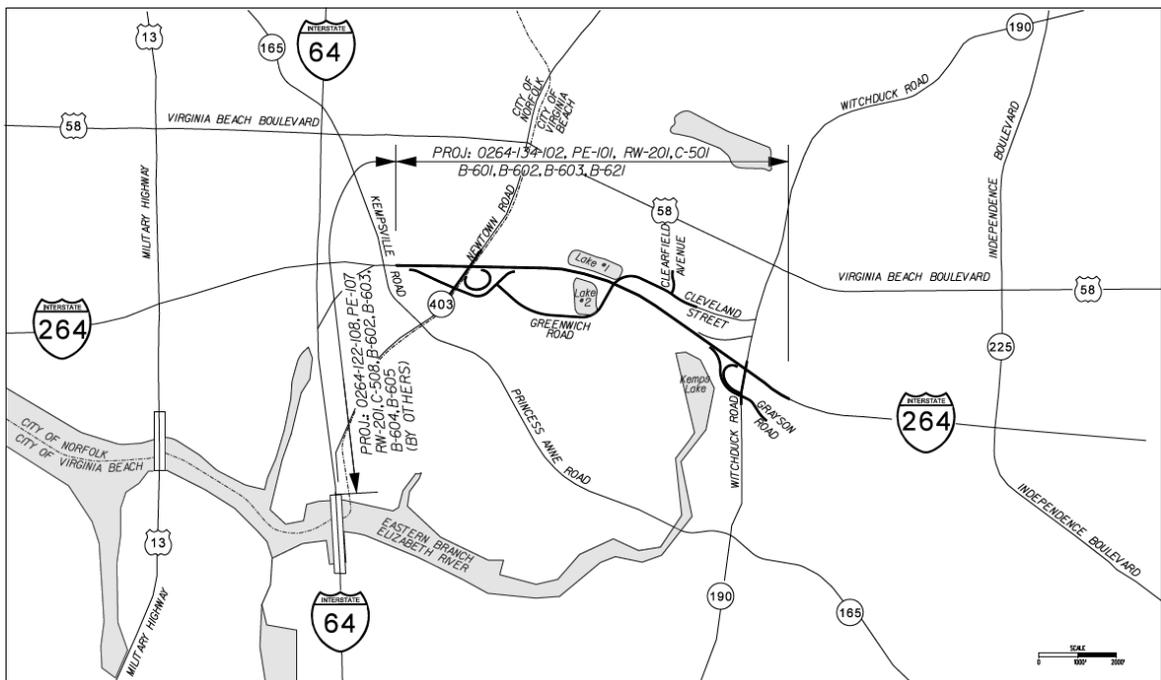
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1. PROJECT DESCRIPTION

The proposed I-264/Witchduck Road Interchange & Ramp Extension project is one of two adjacent projects which, when completed, will provide approximately 4 miles of interstate improvements from the Twin Bridges in Norfolk to the Witchduck Road interchange in Virginia Beach. The improvements will provide additional capacity, relieve daily congestion, reduce crash rates, and improve safety and traffic operations along the corridor.

The proposed I-264/Witchduck project improvements include extending the new two-lane Collector-Distributor (C-D) roadway along eastbound I-264 from the adjacent I-64/I-264 Improvements project (UPC 57048) through the Newtown Road interchange to the Witchduck Road interchange, reconfiguring the south side of both interchanges to eliminate the weave movements, and constructing an overpass to connect Greenwich Road on the south side of I-264 and Cleveland Street on the north side. Below figures show the project location map and project improvements.

PROJECT LOCATION MAP



PROJECT IMPROVEMENTS



A Categorical Exclusion (CE) was approved by the Federal Highway Administration (FHWA) on July 9, 2007. A combined Location and Design Public Hearing was held on July 14, 2011. The CE was combined to encompass the two adjacent projects. An Interchange Modification Report (IMR) was approved by FHWA on November 14, 2011.

The project website has been established and is available at the following link: <http://www.i64i264improvements.org>.

2. SCHEDULE

The I-264/Witchduck Road Interchange & Ramp Extension project is a Design-Bid-Build project. To expedite the right of way acquisition process, the total take parcels were identified early and an advanced Notice to Proceed (NTP) for the total take parcels was issued on April 30, 2015. Partial take right of way NTP for the remaining impacted properties was issued on November 4, 2015. Right of way acquisition is currently underway. The project will require a Type III Right of Way certification as some of the buildings may not be vacated and utilities relocations will not be cleared prior to the scheduled advertisement date.

Pre-Advertisement Conference (PAC) meeting was held on July 14, 2016. Construction Advertisement is currently scheduled for June 13, 2017 and construction NTP is expected in October 2017. The Preliminary Contract Time Determination (CTDR) schedule indicates construction duration of approximately four years with the construction completion projected in fall 2021.

PROJECT SCHEDULE OVERVIEW (CALENDAR YEAR)

	2015	2016	2017	2018	2019	2020	2021
Task	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D
PE - Design							
RW/Utilities							
Construction							

3. PROJECT COST

Narrative of Project Cost

The current total project estimate is \$192,311,747. The estimates, as well as current expenditures for Preliminary Engineering (PE), Right of Way (RW) and Construction (CN) costs are summarized in the table below. PE and RW expenditures as of December 31, 2016 are \$35,869,200.

PROJECT COST BY PHASE

UPC	Phase	Estimate	Current Expenditures	Balance to Complete
17630	PE	\$ 13,882,900	\$ 12,613,917	\$ 1,268,983
	RW	\$ -	\$ -	\$ -
	CN	\$ 123,836,271	\$ -	\$ 123,836,271
	SUBTOTAL	\$ 137,719,171	\$ 12,613,917	\$ 125,105,254
108041	PE	\$ 199,910	\$ -	\$ 199,910
	RW	\$ 54,392,666	\$ 23,255,283	\$ 31,137,383
	CN	\$ -	\$ -	\$ -
	SUBTOTAL	\$ 54,592,576	\$ 23,255,283	\$ 31,337,293
17630 + 108041	PE	\$ 14,082,810	\$ 12,613,917	\$ 1,468,893
	RW	\$ 54,392,666	\$ 23,255,283	\$ 31,137,383
	CN	\$ 123,836,271	\$ -	\$ 123,836,271
	TOTAL	\$ 192,311,747	\$ 35,869,200	\$ 156,442,547

Cost Estimating Methodology

The preliminary engineering estimate includes field investigation costs for survey, geotechnical data collection, traffic counts, environmental support, and professional engineering design services to develop design plans and construction documents. Preliminary engineering estimate also includes right of way and utility charges prior to right of way notice to proceed.

The right of way phase estimate includes the actual cost of right of way and easements acquisition, miscellaneous fees associated with real estate closings as part of the project and oversight of the right of way acquisition, payment, and condemnation process. The right of way phase also includes utility design and public utility relocation fees.

The project construction cost estimate was developed through VDOT’s TrnsPort estimate program and includes all roadway, bridge, drainage, traffic, maintenance of traffic, lighting, traffic control devices, traffic management systems, landscape and other items. The latest TrnsPort estimate was based on the revised Pre-Advertisement Conference (PAC) plans and updated December 28, 2016. The estimate includes 12% for Construction Engineering and Inspection (CEI) and 10% contingency.

4. PROJECT FUNDS

The project is funded by multiple funding sources, including Hampton Roads Transportation Funds (HRTF). Federal funds include Interstate Maintenance (IM), NHS, NHPP, and RSTP. State funds include the match for the federal funds, FRAN Bond Proceeds and Priority Transportation Funds (PTF).

On April 16, 2015, HRTAC executed an Interim Project Agreement for Funding and Administration with VDOT which authorized \$54,592,576 of funding in support of this project. The construction of this project is anticipated to be funded entirely from HRTAC. The VDOT-HRTAC resolution and a Standard Project Agreement to fund the construction phase of the project for \$123,836,271 is planned to be executed in March 2017. The proposed contract assumes that HRTAC would fund costs out of the HRTF on a “pay as you go” basis. That approach is consistent with the initial funding plan approved by HRTAC. The TIP/STIP Amendment will be presented at the Transportation Technical Advisory Committee (TTAC) and the Hampton Roads Transportation Planning Organization (HRTPO) meetings for approval in April 2017.

The HRTPO has submitted an application through the Smart Scale prioritization process to help fund this project with statewide high priority grant funding in the Round 2 application period during the fall 2016. If this project is selected by the Commonwealth Transportation Board (CTB) to receive the high priority grant funds, the amount of required HRTAC funds will be reduced.

As of December 31, 2016, the project has a shortfall of \$950,000. VDOT is currently reviewing other projects in the Six Year Improvement Program to determine where the allocations necessary to cover this deficit will come from. The project is currently recommended for funding through Smart Scale in the FY 18-23 SYIP.

The table on the following page summarizes the current funding allocated to this project by fund source and year without the proposed \$123,836,271 for construction phase discussed above.

SUMMARY OF PROJECT FUNDING BY SOURCE

Funding Source		Thru FY 2017	TOTAL
UPC 17630 / 108041	Interstate Maintenance	\$ 5,880,479	\$ 5,880,479
	NHS	\$ 511,156	\$ 511,156
	NHPP	\$ 1,064,000	\$ 1,064,000
	RSTP	\$ 1,892,000	\$ 1,892,000
	Federal Subtotal	\$ 9,347,635	\$ 9,347,635
	State Match	\$ 1,520,265	\$ 1,520,265
	FRAN Bond Proceeds	\$ 1,250,000	\$ 1,250,000
	Priority Transportation Funds	\$ 815,000	\$ 815,000
	State Subtotal	\$ 3,585,265	\$ 3,585,265
	HRTAC *	\$ 54,592,576	\$ 54,592,576
	Other Subtotal	\$ 54,592,576	\$ 54,592,576
	TOTAL	\$ 67,525,476	\$ 67,525,476

* HRTAC funding is under UPC 108041.

Federal Fund Sources and Special Funding Techniques

The HRTPO has included all phases of this project in its Long Range Transportation Plan. The PE and RW phases of this project are included in HRTPO’s TIP as well as the Commonwealth’s FFY15-18 STIP.

Preliminary engineering associated with this project was authorized by the Federal Highway Administration (FHWA) on December 1, 2000 under federal project number STP-5403(650). The authorization includes federal funds totaling \$10,382,873. Detailed information concerning federal fund sources and special funding techniques associated with the project authorization is provided below.

PROJECT AUTHORIZATION DETAILS AS OF DECEMBER 31, 2016

Federal Project Number 5403650 UPC 17630 PE				
Program Code	Total Cost	Federal Funds Obligated	AC Funds	Soft Match
H050	\$ 207,753	\$ 114,203	\$ 51,999	\$ -
L010	\$ 6,533,866	\$ 5,880,479	\$ -	\$ -
M001	\$ 496,191	\$ 496,191	\$ -	\$ 99,238
Q230	\$ 2,365,000	\$ 1,892,000	\$ -	\$ -
Q240	\$ 2,000,000	\$ 2,000,000	\$ -	\$ 400,000
Total	\$ 11,602,810	\$ 10,382,873	\$ 51,999	\$ 499,238

*Soft match obligations are included in the current federally obligated funds. Federal program codes without soft match require a state match.

5. FINANCING ISSUES

Work to execute a Standard Project Agreement between VDOT and HRTAC to fund the construction phase of the project for \$123,836,271 is currently underway. No financing issues are anticipated at this time.

6. CASH FLOW

I-264/Witchduck Road Interchange & Ramp Extension project annual cash expenditures are based on the project schedule developed by VDOT and the design team. As indicated in Section 4, the project has a shortfall of \$950,000.

The below table summarizes the cash flow analysis for the project and it will be updated annually as expenditures are incurred. It shows the comparison of previously expended and projected expenditures by fiscal year by phase against the total annual allocations.

CASH FLOW ANALYSIS

Expenditures		Thru FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	TOTAL
17630	PE	\$ 13,882,900	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 13,882,900
	Right of Way	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Construction	\$ -	\$ 20,218,167	\$ 30,327,250	\$ 30,327,250	\$ 30,327,250	\$ 12,636,354	\$ 123,836,271
108041	PE	\$ 199,910	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 199,910
	Right of Way	\$ 31,550,000	\$ 22,842,666	\$ -	\$ -	\$ -	\$ -	\$ 54,392,666
	Construction	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Cumulative Expenditures		\$ 45,632,810	\$ 88,693,643	\$ 119,020,893	\$ 149,348,143	\$ 179,675,393	\$ 192,311,747	\$ 192,311,747
Total Annual Allocations		\$ 67,525,476	\$ 20,218,167	\$ 30,327,250	\$ 30,327,250	\$ 30,327,250	\$ 12,636,354	\$ 191,361,747
Cumulative Allocations		\$ 67,525,476	\$ 87,743,643	\$ 118,070,893	\$ 148,398,143	\$ 178,725,393	\$ 191,361,747	\$ 191,361,747
Cash Flow per Year		\$ 21,892,666	\$ (950,000)	\$ (950,000)	\$ (950,000)	\$ (950,000)	\$ (950,000)	\$ (950,000)

Note: This cash flow analysis includes the additional \$123,836,271 of HRTAC funds that will be discussed at the HRTAC and HRTPO meetings in the spring of 2017.

7. P3 ASSESSMENT

Alternate Project Delivery Office reviewed the project and determined that the project is not a good candidate for a Design-Build procurement or a P3 delivery.

8. RISK AND RESPONSE STRATEGIES

The Virginia Department of Transportation (VDOT) conducted a one-day facilitated risk workshop for the I-264/Witchduck Road Interchange & Ramp Extension project on July 14, 2016. The workshop was held at the VDOT Hampton Roads District office in Suffolk, Virginia. Salvija Hofheimer, VDOT project manager, facilitated the workshop, which was attended by 47 individuals from multiple VDOT Hampton Roads District disciplines, Central Office, and the project consultant team. The purpose of the workshop was to assess the project risks, cost and schedule impacts, and identify potential mitigation strategies. The risks were documented in PM-103B Risk Analysis Matrix.

The workshop participants identified nearly sixty individual risks with probability-impact ranging from 2 to 9 (1 being the lowest and 9 being the highest risk). It is anticipated that many of the risks will be eliminated or reduced significantly during the final design stage and prior to the project advertisement for construction. The following risks categories were determined to be the most significant.

- Complex sequence of construction and maintenance of traffic
- Right of way acquisition and relocations schedule
- Phased utility relocation schedule
- Utility conflicts during construction

- B603 and B621 bridge construction
- Geotechnical risks due to poor soils, settlement, deep foundations, pile and drilled shaft installation
- Large jack and bore pipe installation
- Construction access constraints and limited laydown areas
- Construction coordination with the adjacent active construction projects
- Public relations and public perception during construction

Prior to the contract award, a Project Construction Risk Action Plan will be developed to summarize potential construction risks that may impact the project schedule and budget during the construction phase. The action plan will provide activities and actions to counter or minimize the time response by the VDOT project delivery team to the construction contractor with the intent to reduce or eliminate construction delays.

With regard to project funding, work to execute a resolution and a Standard Project Agreement between VDOT and HRTAC to fund the construction phase of the project is currently underway. In addition, HRTPO requested Smart Scale funding for the construction phase of the project. All funding issues will need to be resolved before the project is advertised for construction.

9. ANNUAL UPDATE CYCLE

The submission date of the Initial Financial Plan is March 31, 2017. The first annual update will be submitted by March 31, 2018 and will be based on a "data as of" date of December 31, 2017. Future annual updates will be submitted by March 31 of that year, with a "data as of" date of December 31 of that year.