



**Prince William Parkway
Interchange at Realigned Balls Ford
Road Project
Financial Plan – Annual Update**

December 31, 2022

State Project Number(s): 6234-076-266
UPC(s): 112815

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EXECUTIVE SUMMARY

This Design-Build project will provide a new grade-separated interchange at Route 234 (Prince William Parkway) and relocated Route 621 (Balls Ford Road), which includes a bridge crossing the existing Norfolk Southern Railroad. In addition, the project will construct a relocated Balls Ford Road as a new four-lane facility with a raised median between Doane Drive and Devlin Road. In June 2020, the scope of the Project was expanded beyond its Devlin Road termini by an additional 0.4 miles to terminate at Jennell Drive.

The project is fully funded with I-66 Outside the Beltway Concessionaire Funds. No financing issues have been identified.

The project was advertised in September 2019 and awarded to Lane Construction Corporation in March 2020 with a final completion date of December 2022. The current a modified completion date is now July 2023.

The project is currently under construction with bridgework, storm water management, lighting, signals, paving and concrete activities ongoing.

Right-of-way was cleared by July 2022, however, there is a need to obtain easements on another 1 parcel to complete the project but there is no anticipation that this will delay the construction completion.

As a result of favorable bids, the initial budget was decreased to \$105,000,000. However due to cost increases related with inflation and other market conditions \$2,929,911 in the State Funds were added to the budget in September 2022. The current total project cost estimate is \$107,929,911.

Eighteen change orders have been negotiated to date, totaling \$8,068,629. There is no apparent risk at this time of exceeding the project contingency.

This annual update covers October 2021 to October 2022.

1. PROJECT DESCRIPTION

The Prince William Parkway Interchange at Realigned Balls Ford Road project will provide a new grade-separated interchange at Route 234 (Prince William Parkway) and relocated Route 621 (Balls Ford Road), which includes a bridge crossing the existing Norfolk Southern Railroad. In addition, the project will construct a relocated Balls Ford Road as a new four-lane facility with a raised median between Devlin Road and Doane Drive.



The interchange project was a component of the Route 234 Bypass (now Prince William Parkway) project and was evaluated in a Supplemental Environmental Impact Statement (SEIS) prepared by VDOT and the Federal Highway Administration (FHWA) in 1994, in accordance with provisions of the National Environmental Policy Act (NEPA) and 23 CFR 771. Due to funding constraints, the Balls Ford Road interchange was constructed as a grade signalized intersection.

In July 2017, VDOT and Prince William County (PWC) conducted a Strategically Targeted Affordable Roadway Solution (STARS) evaluation to value engineer the cost of the interchange project. This resulted in the selection of a diverging diamond interchange which provides the same benefits to the traveling motorist yet can be constructed at a much lower cost as it requires the least amount of right-of-way and as smaller footprint than what was proposed in the Supplemental EIS while meeting existing and future traffic demand.

In September 2018, environmental studies were conducted to determine whether the diverging diamond design would result in new or significant environmental effects compared to those presented in the SEIS. These studies considered the new regulatory requirements and guidelines that have been issued since publication of the SEIS.

As a result, the environmental studies document demonstrated that the changes will not result in significant environmental impacts not already considered in the previous environmental documentation. Accordingly, no further studies are warranted, the 1991 FEIS and 1994 SEIS remain valid, and a Supplemental Environmental Impact Statement is not necessary.

The FHWA concurred with this determination on Aug 6, 2019.

The project can be tracked on the Prince William County Department of Transportation (PWC DOT) current road projects web page at the following link:

<https://www.pwcva.gov/department/transportation/current-road-projects>

2. SCHEDULE

To expedite the right-of-way acquisition process and the future on-schedule delivery of the project, two (2) total take parcels were identified early and an advanced Notice to Proceed (NTP) for their acquisition was issued on September 26, 2019.

The Prince William Parkway Interchange at Realigned Balls Ford Road project is a Design-Build project. A Public Information Meeting was held on April 3, 2019. The Request for Qualifications (RFQ) was released on May 1, 2019 (corresponds to Advertisement date for project) and the Request for Proposals (RFP) was issued on September 25, 2019. Technical proposals were due on Jan 10, 2020, followed by the cost proposals on Jan 31, 2020. The notice to proceed for the design-build contract was issued in March 2020.

The Updated Schedule reflects the need for longer design, and right-of-way/utility relocation times than what was estimated prior to construction award and in the 2021 report. The diverging diamond interchange is slated to open to the public by April 2023 and the final completion date is extended to July 2023 through a contract change order that expanded the scope and limits of the project. Schedule updates as of September 2022 are based on the dates agreed upon in the change order and the revised baseline schedule.

PROJECT SCHEDULE OVERVIEW

Initial Schedule (2019)

Task	Start	Finish	Year 1	Year 2	Year 3	Year 4	Year 5
Notice to Proceed	Jul-18	Jul-18					
UPC 112815	PE- Design	Oct-18					
	RW/Utilities	Sep-19					
	Construction	Sep-20					
Construction Complete	Dec-22	Dec-22					

Updated Schedule (2022)

Task	Start	Finish	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Notice to Proceed	Jul-18	Jul-18						
UPC 112815	PE- Design	Oct-18		█				
	RW/Utilities	Sep-19			█			
	Construction	Sep-20				█		
Construction Complete	Jul-23	Jul-23						

3. PROJECT COST

As a result of favorable bids, the initial budget was decreased to \$105,000,000 in September 2022. However due to cost increases related with inflation and other market conditions \$2,929,911 in the State Funds was added to the budget in September 2022. Also at this time, the estimate for each project phase was adjusted to align with a design-build project approach. The current total project cost estimate is \$107,929,911.

PWC has budgeted and appropriated project funds identified as the estimated reimbursement to the locality totaling \$105,885,911.00. VDOT project expenditures are estimated at \$2,044,000. The project cost by phase can be found in the table below, in year-of-expenditure dollars. The estimate includes all costs necessary to perform the preliminary engineering (including the cost of NEPA and other environmental documentation. Permits and approvals), right-of-way, environmental mitigation, construction (design/build), project management, public outreach, traffic management system (TMS) improvements, congestion management plans, and costs of external third-party work, including utility relocations. The construction cost estimate was prepared based upon the contractor’s bid and includes all executed change orders and necessary contingency and consultant services during construction. The right-of-way phase was estimated using VDOT’s PCES system, with contingency included.

In November 2020 the County, working through VDOT, received the necessary approvals from the Northern Virginia Transportation Authority and the Commonwealth Transportation Board to transfer \$25,000,000 of the Prince William Parkway Interchange at Realigned Balls Ford Road project surplus to the Devlin Road Widening project (UPC 118253). The Devlin Road/University intersection is considered the most logical termini of the interchange project, the scope and limits of the Prince William Parkway Interchange at Realigned Balls Ford Road project were expanded to include 0.8-miles of the Devlin Road Widening project (Jennell Drive to University Boulevard). Note that the County will administer the “Jennell to University Boulevard” portion of the Devlin Widening project as a standalone project under UPC 118253. The same National

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Environmental Policy Act (NEPA) and 23 CFR 771 requirements apply to the Devlin Road Widening project as were required for the Interchange project.

PROJECT COST BY PHASE

UPC	Phase	Initial Estimate	2021 Estimate	Current Estimate	Current Expenditures *	Balance to Complete
UPC 112815	PE	14,600,000	13,102,000	3,947,736	3,947,736	0
	RW	12,300,000	12,700,000	12,700,000	8,588,922	4,111,078
	CN	118,100,000	79,198,000	91,282,175	68,909,058	22,373,117
GRAND TOTAL		145,000,000	105,000,000	107,929,911	81,445,716	26,484,195

- Please note that the Current Expenditures include actual local expenditures that may not have been billed to VDOT at the time of the data date.
- The estimate for each project phase was adjusted since the last financial report to align with a design-build project approach.

COST ESTIMATING METHODOLOGY

Work elements associated with the Prince William Parkway Interchange at Realigned Balls Ford Road project can be summarized in two components: (1) work ahead and in preparation of the Design-Build contract for which PWC is responsible or has already accomplished throughout the development of the project and (2) work to be carried out under the design-build contract by the design-builder.

Work Outside of Design-Build Contract: PWC 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 and third-party utility relocation cost for the project; Design-Build risk contingency; and oversight of construction:

- Preliminary Engineering: PWC executed an agreement with a professional service firm to provide engineering and technical support during project development. Specifically, support for reviewing preliminary and final design submissions.
- Right-of-Way Purchases: In accordance with the Design-Build RFP, Part 2, Section 1.5, PWC 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/PWC Project Oversight Costs: VDOT/PWC post-award costs to manage the project and provide oversight of the project are estimated to be \$7,000,000. These costs include overall project management, design reviews, contract administration and construction oversight.

Design-Build Contract: The awarded Design-Build contract for the Prince William Parkway Interchange at Realigned Balls Ford Road project is a lump sum contract and will include the following major work elements to be provided by the design-builder: final design; right-of-way acquisition services; utility coordination; and relocation services; construction; and construction quality assurance and quality control (QA/QC). The estimated cost for the Design-Build contract was developed using the contractor's bid. The fixed amount of the Design-Build contract is a lump sum with payments based upon the project actual percent of completion.

4. PROJECT FUNDS

The Prince William Parkway Interchange at Realigned Balls Ford Road project is 100% funded with I-66 Outside the Beltway Concessionaire Funds. The funds have been committed to the project through a Standard Project Administration Agreement that was executed on August 30, 2018, and last revised on November 25, 2020. PWC has budgeted and appropriated project funds identified as the estimated reimbursement to the locality totaling \$105,885,911. This amount does not include the \$2,044,000 that have been identified as VDOT project expenses. The current project funding total is \$107,929,911.

Project funding is demonstrated in the National Capital Region Transportation Planning Board's (TPB) Long Range Transportation Plan (Visualize2045). The Constrained Long-Range Plan (CLRP) ID for the project is 3177. The project is also included in the Transportation Improvement Program (TIP), as well as the Commonwealth's Statewide Transportation Program (STIP). The TIP ID for the Project is 6621. The project is included as part of the FY 2023-2026 TIP. The Six-Year TIP total project cost of \$107,929,911.

This project is federally eligible but received an exception on May 31, 2018.

SUMMARY OF PROJECT FUNDING BY SOURCE
(Amounts in 000's)

Funding Source		Previous	FY20	FY21	FY22	FY23	FY24	FY25	TOTAL
UPC 112815	List all Federal								
	Subtotal								
	Concession Funds	\$105,000			\$2,929				\$107,929
	Subtotal	\$105,000			\$2,929				\$107,929
	TOTAL	\$105,000			\$2,929				\$107,929

5. FINANCING ISSUES

No financing issues have been identified. The project is fully funded using 66-Outside the Beltway Concessionaire Funds.

6. CASH FLOW

The Prince William Parkway Interchange at Realigned Balls Ford Road project annual cash expenditures are based on the project schedule developed by contractor. The below table 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 project's cash flow analysis will be updated annually as expenditures are incurred.

Cash Flow Analysis
(Amounts in 000's)

Expenditures		FY20	FY21	FY22	FY23	FY24	TOTAL
UPC 112815	PE	\$3,947	\$0	\$0	\$0	\$0	\$3,947
	Right-of-Way	\$3,056	\$3,594	\$1,939	\$4,111	\$0	\$12,700
	Construction	\$11,504	\$29,010	\$28,395	\$22,373	\$0	\$91,282
Cumulative Expenditures		\$18,507	\$51,111	\$81,445	\$107,929	\$107,929	\$107,929
Total Annual Allocations		\$105,000	\$0	\$2,929	\$0	\$0	\$0
Cumulative Allocations		\$105,000	\$105,000	\$107,929	\$107,929	\$107,929	\$107,929
Cash Flow per Year		\$86,493	\$53,889	\$26,484	\$0	\$0	\$0

7. P3 ASSESSMENT

Developed as a design-build project, the Project would not generate sufficient market demand or interest as a P3, nor would it demonstrate significant project efficiencies to effectively leverage private sector innovation and expertise under a P3 procurement under the Public Private Partnership Transportation Act of 1995, as amended (PPTA).

8. RISK AND RESPONSE STRATEGIES

PWC conducted a one-day facilitated risk workshop for Prince William Parkway Interchange at Realigned Balls Ford Road project on May 14, 2019. The workshop was held at the PWC, which was attended by 28 individuals from PWC, VDOT and project consultants.

The workshop participants identified a total of forty-eight (48) individual risks, based on the assumption that the project would be delivered through a Design--Build process. Participants found the following six (6) project risks to be the most significant:

- Construction coordination delays with Norfolk Southern Railroad
- Utilities relocation schedules
- Stakeholder opposition
- Land Rights from Norfolk Southern Railroad
- Norfolk Southern Railroad flagger availability
- Norfolk Southern Railroad timely reviews of plans,

Each of the above risks has a high level of complexity and the potential, if not continually addressed and mitigated throughout project delivery, to have a major impact on the project's cost and/or schedule (i.e., both the pre-advertisement schedule and the post-award schedule). Importantly, several risks are highly dependent upon and influenced by other risks, with the most notable being: (a) coordination with the Norfolk Southern Railroad; (b) stakeholder opposition and (c) utility relocation schedules. These risks were perceived to impact quality of work, post-award risk of change orders, and a variety of other issues.

The project has advanced past the design phase and so the risks associated with the design no longer pose concerns to the project. There remains moderate right-of-way and utility risk as the project progress through construction.

9. ANNUAL UPDATE CYCLE

The submission date of the Initial Financial Plan was December 31, 2019. The third update is based on a "data as of" date of September 30, 2022. Future annual updates will be

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submitted by December of that year, with a “data as of” date of September 30th of that year.

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

The current project estimate of \$107,929,911 is \$2,929,911 more than the 2021 Financial Plan estimate. Last year’s financial plan documented eight change orders totaling \$1,274,328. Ten change orders have been added to the project since last year. Eighteen change orders have been executed to date for a total increase of \$8,068,629. There is no apparent risk at this time of exceeding the project contingency. The below table shows the list of change orders reimbursable to VDOT.

Change Orders	Date	Amount (\$)	Contract Time (d)
1 - L Turn to Merrifield	Nov-20	\$ 272,500.00	0
2 - GOT cleanup	Nov-20	\$ 33,829.00	0
3 - Interchange Lighting scope reduction	Dec-20	\$ -	0
4 - Jennell ext. Drainfield Locations	Jan-21	\$ 8,250.00	0
5 - Randolph Ridge (design, row)	Mar-21	\$ 223,850.00	0
6 - ITS/ Traffic Signals Mod	Apr-21	\$ 380,880.26	0
7 - Mill & Overlay Rte 234	May-21	\$ 339,172.00	0
8 -Bridge Parapet Wall Modified Form Liner	Jun-21	\$ 15,847.00	0
10 - Merrifield Stockpile	Oct-21	\$ 174,642.76	0
12 - Merrifield Entrance & Util x-ing	Nov-21	\$ 247,039.33	0
14 - CTA mix to allow +/- 2% moisture	Apr-22	\$ -	0
15 - ITS/ Traffic Signals Mod #2	Aug-22	\$ 384,199	0
16 - Devlin Ext to Jennell Drive	Aug-22	\$ 5,889,000.00	249
18 - Additional Depth M & O 234 South	Sep-22	\$ 99,420.14	0
		\$ 8,068,629.49	249

11. COST AND FUNDING TRENDS SINCE INITIAL FINANCIAL PLAN

As a result of favorable bids, the initial budget was decreased to \$105,000,000 in September 2022. However due to cost increases related with inflation and other market conditions \$2,929,911 in state funds was added to the budget in September 2022. Also at this time, the estimate for each project phase was adjusted to align with a design-build project approach. The current total project cost estimate is \$107,929,911.

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

The completion date for the project has changed since the Initial Financial Plan of December 2022. The project has a new milestone for the opening of the diverging diamond interchange of no later than the end of April 2023. The new completion date for the Balls Ford Interchange Project is July 30, 2023.

13. SCHEDULE TRENDS SINCE INITIAL FINANCIAL PLAN

The project has a new milestone for the opening of the diverging diamond interchange no later than end of April 2023. The new completion date for the Balls Ford Interchange Project is July 30, 2023.