



## Transform 66 Outside the Beltway Concessionaire Funding Project Submittal Form

### Project Information

**Submitting Jurisdiction/Agency:** Prince William County

**Project Title:** Route 234 at Balls Ford Road Interchange Including Balls Ford Road Improvements

**Project Location:** ([map](#))

#### **Project Description:**

This project will provide a new grade-separated interchange at Route 234 (Prince William Parkway) and relocated Route 621 (Balls Ford Road), which includes a grade-separated overpass crossing the existing Norfolk Southern Railroad (Line B). 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.

### General Project Eligibility Consideration Criteria. Please check all that apply.

Provide supporting documentation

#### **Project in a Regionally Adopted Plan/ Document:**

- |  |         |
|--|---------|
| a. TransAction 2040  | _____   |
| b. VTrans 2040   | ___X___ |
| c. I-66 Corridor of Statewide Significance (COSS)                            | ___X___ |
| d. Comprehensive Plan  | ___X___ |
| e. Capital Improvement Plan  | _____   |
| f. Regional Transportation Priorities Plan                                   | _____   |
| g. Constrained Long Range Plan   | ___X___ |
| h. Transportation Improvement Program  | _____   |
| i. Other Regionally Adopted Plan ( <i>please specify</i> )                   | _____   |
| j. Letter or resolution of support via formal approval by the governing body | ___X___ |

#### **Please see attached**

- TransAction Draft Plan, Page 46
- VTrans Multimodal Transportation Plan (VMTP) 2025 Tier 1 Recommendation Profile for VTrans 2040. Pages N78 – N79

- COSS Description
- PWC Comp Plan, Page Trans 50
- The 2016 CLRP Amendments and FY 2017 – 2022 TIP Air Quality Conformity Network Inputs, Page 26
- PWC/Board of County Supervisors Resolution - No. 17- 269

### **Additional Project Criteria.**

Provide supporting documentation

#### **Projects must meet all of the following criteria:**

**Projects must be in the I-66 Outside the Beltway Corridor or demonstrate a clear and compelling nexus to the I-66 Outside the Beltway Corridor.**

The “Route 234 at Balls Ford Road Interchange, including Balls Ford Road Improvements” Project is located in the I-66 Outside the Beltway Corridor (OTB). Specifically, the new interchange would relocate the existing failing intersection approximately ½ mile from where it exists today. The project will close the existing intersection at Route 234 (Prince William Parkway) and Balls Ford Road. The new alignment will construct and relocate Balls Ford Road to four lanes from Devlin Road to Doane Road and will include four 12-foot lanes with a raised median of varying width. The project also adds a new grade-separated bridge over the Norfolk Southern Railroad Line where it intersects with Balls Ford Road west of the proposed interchange.

For years, the existing intersection at Balls Ford Road and Route 234 has been a major choke point in the county, prompting numerous concerns from residents and local businesses regarding congestion as well as safety issues at the intersection and the railroad crossing less than .2 miles from the intersection. The Transform I-66 project includes a proposed 1,300-capacity park & ride facility located along Notes Drive, which can only be accessed from Balls Ford Road. The new park & ride facility will add more congestion to an already failing intersection at Balls Ford Road and Prince William Parkway and the failing intersection at Balls Ford Road and Sudley Road (Route 234 Business). Transform 66 is not proposing any improvements to help mitigate the impacts from the new park & ride lot, for either of these two access points onto Balls Ford Road.

This project will provide improved access to the new park & ride facility, in comparison to the existing failing intersection. This interchange will help mitigate the impact of congestion, from not only the new park & ride lot, but also the current traffic on Prince William Parkway accessing both the I-66 general purpose and express lanes during morning rush hour. In addition, the interchange will provide enhanced access to the existing 450-capacity park & ride facility on Cushing Road, adjacent to the on-ramp to I-66 eastbound.

According to the Virginia Department of Transportation (VDOT), the estimated Annual Average Daily Traffic (AADT) volume for 2016 at this intersection shows Balls Ford Road with an average volume of 17,000 vehicles, equaling a Level of Service (LOS) of F. Route 234 has an AADT of 48,000 vehicles, which also equals an LOS of F at the intersection. Safety issues are particularly acute in the afternoon when traffic from I-66 westbound to Route 234 southbound starts backing up and cueing on the I-66 ramp.

According to the Highway – Rail Grade Crossing Accident/Incident Report (see attached), approximately eleven trains pass the at-grade railroad crossing on Balls Ford Road daily, which block cars and trucks

traveling on Balls Ford Road. There have been five reported accidents involving trains and automobiles since 1979 and two have involved fatalities.

The project would tie into three proposed improvement projects:

- The widening of Balls Ford Road directly east of the interchange.
- The interchange at Sudley Manor and Route 234, less than 2 miles south of the interchange.
- The interchange at University Boulevard and Route 234, approximately 3 miles south of the interchange.

**Projects must demonstrate utilization of concessionaire funding by toll day one (mid-2022).**

Upon receipt of funding, the design phase of the project will be initiated. This can occur as early as November 2017. This would allow the project to have an estimated completion date of March 2023; therefore, the project will begin utilizing the concessionaire funding before toll day one (2022).

**Projects must demonstrate commitment of any required operation and/or maintenance funds.**

All the roads and intersections are maintained by VDOT, and this will be the case for the new Route 234 at Balls Ford Road interchange.

**Projects must show benefit to users within the corridor.**

The second round of the Smart Scale project evaluation scored the Balls Ford Road/Prince William Parkway Interchange as one of the top four projects in the Commonwealth of Virginia for congestion relief and in the top five for Project Benefit Score. (Please see attached pages 4 and 11 from the Smart Scale Round 2 update report.) The project was not selected for Smart Scale funding due to the proposed project cost, making the project less competitive than other projects.

The VDOT estimated AADT Volume for 2016 indicates a LOS of F at the intersection of Balls Ford Road and Route 234 (Prince William Parkway). The intersection is currently at capacity. Without improvements, the peak periods for traffic congestion at this intersection (for both AM and PM) could be extended, causing the intersection to be at capacity for more hours of the day, ultimately negatively affecting more users of the intersection. According to the Prince William County (PWC) Traffic Demand Model, the proposed interchange will improve the LOS for 24-hour volume to LOS B on Balls Ford Road and LOS C on Route 234. The interchange will provide more free flow of traffic and reduce, if not eliminate, the afternoon cueing occurring on the I-66 off-ramps that feed onto Route 234 southbound, due to the stop-and-go traffic on Route 234 at that interchange. The elimination of cueing on the I-66 off-ramp will address safety by reducing the number of accidents that would occur in the intersection. According to the Prince William County Police Department report (see attached), there have been 530 crashes at that intersection over the past 5 years. This includes 52 accidents for 2017 (through May 2017).

It should be noted that VDOT and Prince William County are already looking at potential solutions to reduce the cost of the project. VDOT may consider conducting a Strategically Targeted Affordable Roadway Solution (STARS) evaluation. VDOT NOVA L&D Engineers believe the project's traditional cloverleaf design can be updated to a more cost-effective, modern design to both reduce the cost estimate and footprint, as well as right-of-way needs, while meeting existing and future traffic demand. If the project is selected, VDOT

intends to evaluate alternative design concepts, taking advantage of a travel demand model and traffic analysis package recently developed for this interchange as part of the Transform 66 OTB improvements project.

Additionally, an application for Transform 66 OTB Concessionaire Funding is also being submitted for an adjacent project "Balls Ford Road Widening – Groveton Road to Route 234 Business." It would be possible to improve the economies of scale by combining the two projects and potentially selecting one contractor for the Design-Build project contract. This could save quite a bit in project costs.

**Studies are ineligible for funding consideration.**

**If other funding sources are required to complete the project, project must demonstrate other such funding has been appropriated/allocated or otherwise currently available to the project.**

An allocation of \$2,000,000 in Federal Regional Surface Transportation Program (RSTP) funds will help cover construction costs for FY 2022.

**Project Milestones**

Specify start and end dates

**Project Milestones by Project Phase:**

- **PE/Design:** 11/1/2017 – 5/1/2020
- **Right-of-Way Acquisition:** 1/1/2019 – 1/1/2020
- **Construction:** 1/1/2020 – 7/1/2023
- **Capital Asset Acquisitions:**
- **Other:**

**Project Cost**

**Total Requested Concessionaire Funds:** Rounded to \$168,000,000.

**Total Cost to Complete Project:** Rounded to \$170,000,000

<b>Project Phases</b>	<b>Requested Concessionaire Funding</b>	<b>Other Sources of Funding (Amount by Source)</b>	<b>Total Cost by Phase</b>
<b>PE/Design</b>	\$12,000,000		\$12,000,000
<b>Right of Way Acquisition</b>	\$12,800,000		\$12,800,000
<b>Construction</b>	\$99,250,000	\$2,000,000 RSTP	\$101,250,000

<b>Capital Asset Acquisitions</b>			
<b>Other (incl. const. admin., environ., contingency, etc.)</b>	\$43,900,000		\$43,900,000
<b>TOTAL</b>	<b>167,950,000</b>	<b>\$2,000,000</b>	<b>\$169,950,000</b>

### **Prioritization - This is the County Priority Number 1**

**Priority consideration will be given to projects that can accomplish two or more of the following:**

- Project has undergone a performance-based evaluation process (i.e., TransAction 2040, SmartScale). The interchange and relocation were evaluated in TransAction.

The second round of the Smart Scale project evaluation scored Balls Ford Road/Prince William Parkway Interchange as one of the top four projects in the Commonwealth of Virginia for congestion relief and one of five top projects for project benefits. Please see pages 4 and 11 from the Smart Scale Round 2 update report (attached).

The project was evaluated in the NVTAs TransAction Draft Plan. The project is part of the corridor segment 2.3 (Rt. 234 \_ I-66 to I-95). Performance of all projects in each of the corridor segments were evaluated in total, not individually. The segment had a performance rating of 21.0, which was relatively low. The consultant conducting the evaluation noted that the segments with the lowest performance ratings generally have less acute travel conditions and/or serve fewer travelers.

- Project can demonstrate the ability to reduce congestion.

The VDOT estimated AADT Volume for 2016 indicates a LOS of F at the current Balls Ford Road and Route 234 (Prince William Parkway) intersection. The intersection is currently at capacity. Without improvements, the AM and PM peak period for traffic congestion will become extended, and negatively affect additional users of the facility accessing the new park & ride facility. The proposed interchange will improve the LOS for 24-hour volume to LOS B on Balls Ford Road and LOS C on Route 234. The interchange will provide more free flow of traffic and reduce, if not eliminate, cueing on the I-66 off-ramps that feed onto Route 234 southbound in the afternoon. This will also address safety concerns and reduce the number of accidents that would occur due to the cueing.

The second round of the Smart Scale project evaluation scored the Balls Ford Road/Prince William Parkway Interchange as one of the top four projects in the Commonwealth of Virginia for congestion relief and one of the top five for Project Benefits Score.

- Project is a joint effort between two or more localities or agencies.

VDOT and Prince William County will be involved in the project. Prince William County will manage the project and VDOT will provide oversight and maintain the project upon completion.

VDOT oversight will include:

- Preliminary Analysis/ STARS III study results The data will be used in IJR and NEPA processes.
  - PE Phase: Provide previous project design package; provide design oversight/ approvals, about 10-15% of PE
  - CEI/ CN oversight: 2% of CN
- Project is an extension/expansion of a project currently encompassed as part of the Transform 66 OTB project.

Balls Ford Road will provide access to a proposed 1,300-capacity park & ride facility as part of the Transform-66 project along Notes Drive that can only be accessed from Balls Ford Road (just south of the interchange). The interchange will provide improved access to the existing 450-capacity park & ride facility on Cushing Road.

- Project was requested to be included in the Transform 66 OTB project (must be demonstrated via documentation).

On June 20, 2016, via Res. No. 17- 269, the Prince William Board of County Supervisors adopted a list of six priority projects for Transform 66 OTB. This project was included. Please see attached BOCS Resolution.

- Project can be constructed prior to toll day one (mid-2022).

The project will be under construction and complete within a year after toll day one. Please see schedule.

### **Additional Documentation/Information in Support of this Project**

- Smart Scale Round 2 Update Report.
- Motor Vehicle Crashes – Sudley/Balls Ford Road
- Highway-Rail Grade Crossing Accident Report from Norfolk Southern Railroad
- Regional and Detailed Maps
- Traffic Volume Map for 2016