



County of Fairfax, Virginia

Shirley Gate Road Extension

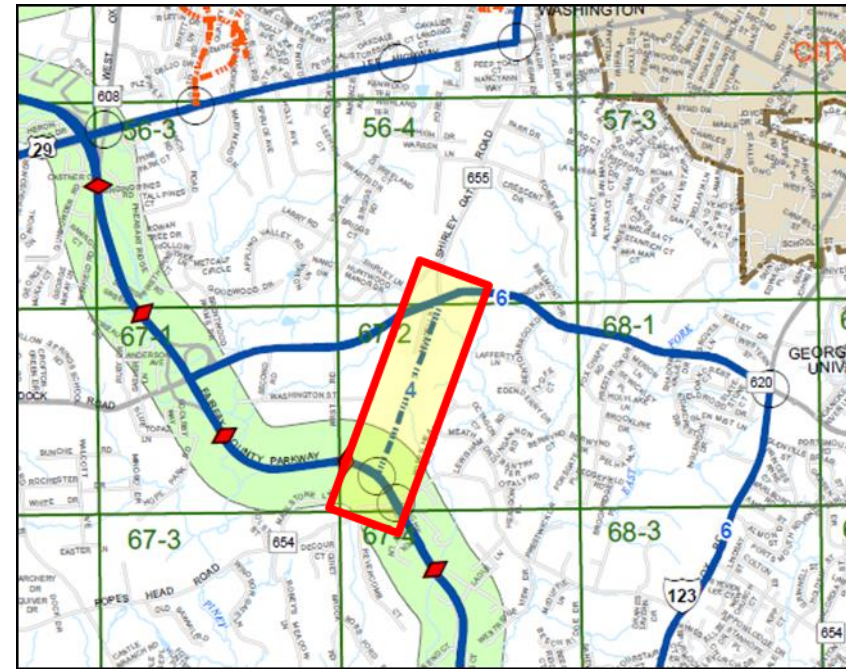
Fairfax Campus Community Advisory
Board

January 31, 2019



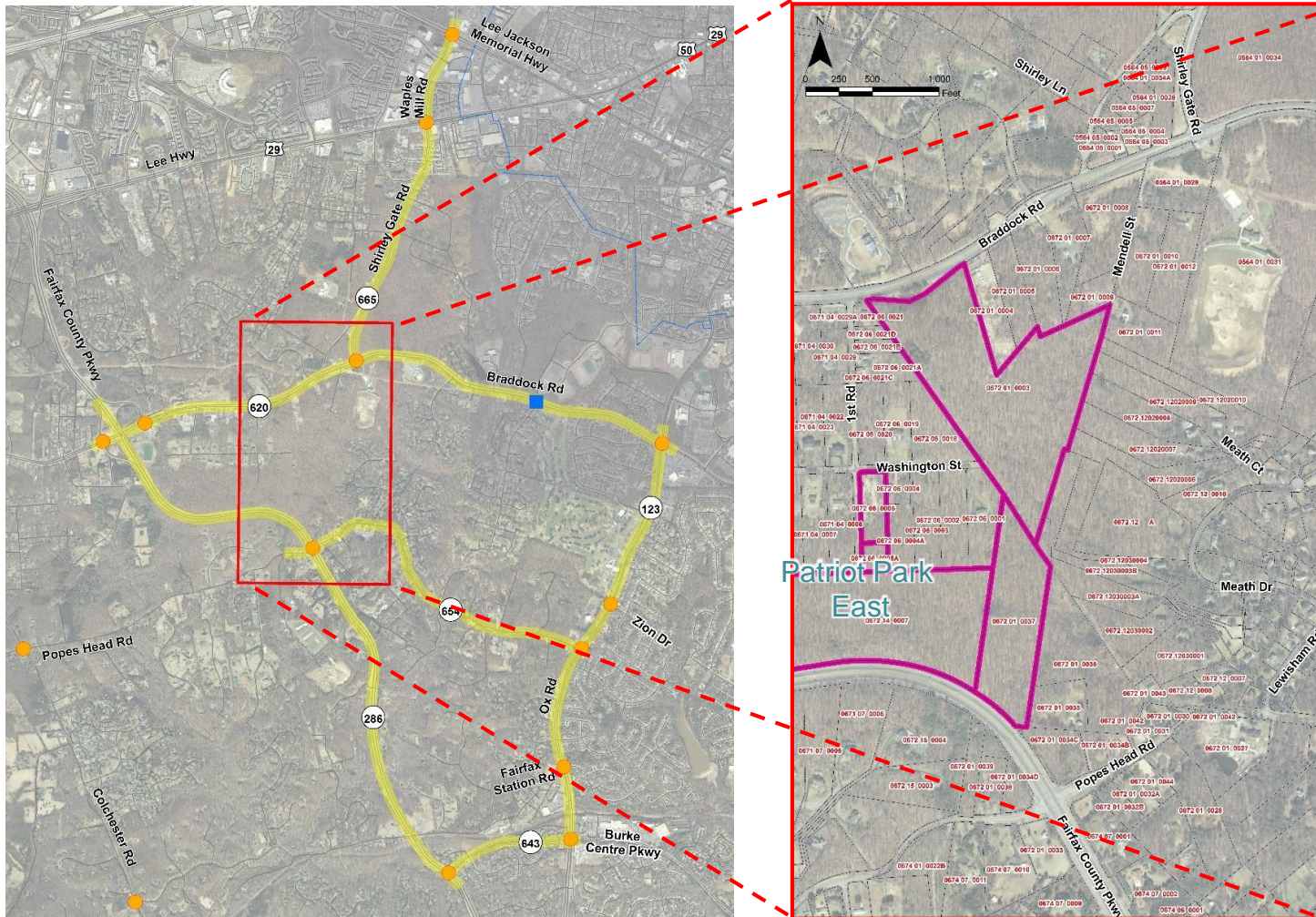
Project Background

- Extends existing Shirley Gate Road alignment from Braddock Road to Fairfax County Parkway
- Comprehensive Plan improvement since 1991
- Guidance to utilize existing easements and minimize impacts to residential properties to extent feasible.





Location & Affected Properties





History

- 1991- Extension added to Comprehensive Plan
- 2006 – Interchanges at Popes Head Road and Shirley Gate Road Extension added to Comp Plan
- 2014 – Extension added to County's Six Year Transportation Project Priorities (TPP)
- 2014 – Study of the Shirley Gate Road Extension authorized by Board of Supervisors
- 2015 – Sup. Herrity designated a Shirley Gate Road Extension Stakeholder Group made up of area property owners to help guide the planning process



Purpose and Need

- Improve north-south connectivity
- Relieve congestion on segments of the Fairfax County Parkway, Route 29, and Route 123.
- Relieve congestion at Route 123 and Braddock Road
- Delay need for planned grade-separated interchange at Route 123/Braddock Road
- Provide access to Patriot Park East, avoiding entrance off Braddock Road through an established neighborhood and existing wetland area
- Improve access to the west end of the City of Fairfax/Fair Oaks



Stakeholder Process

- Five meetings held between May and Sept 2015
 - Guided development of measures of effectiveness (MOE)
 - Provided adjustments to weighting values
- Guided development of updated alignment

Impacts to Adjacent Properties

- Septic Fields, Noise, Storm and Water Quality, Lighting

Impacts on Transportation System

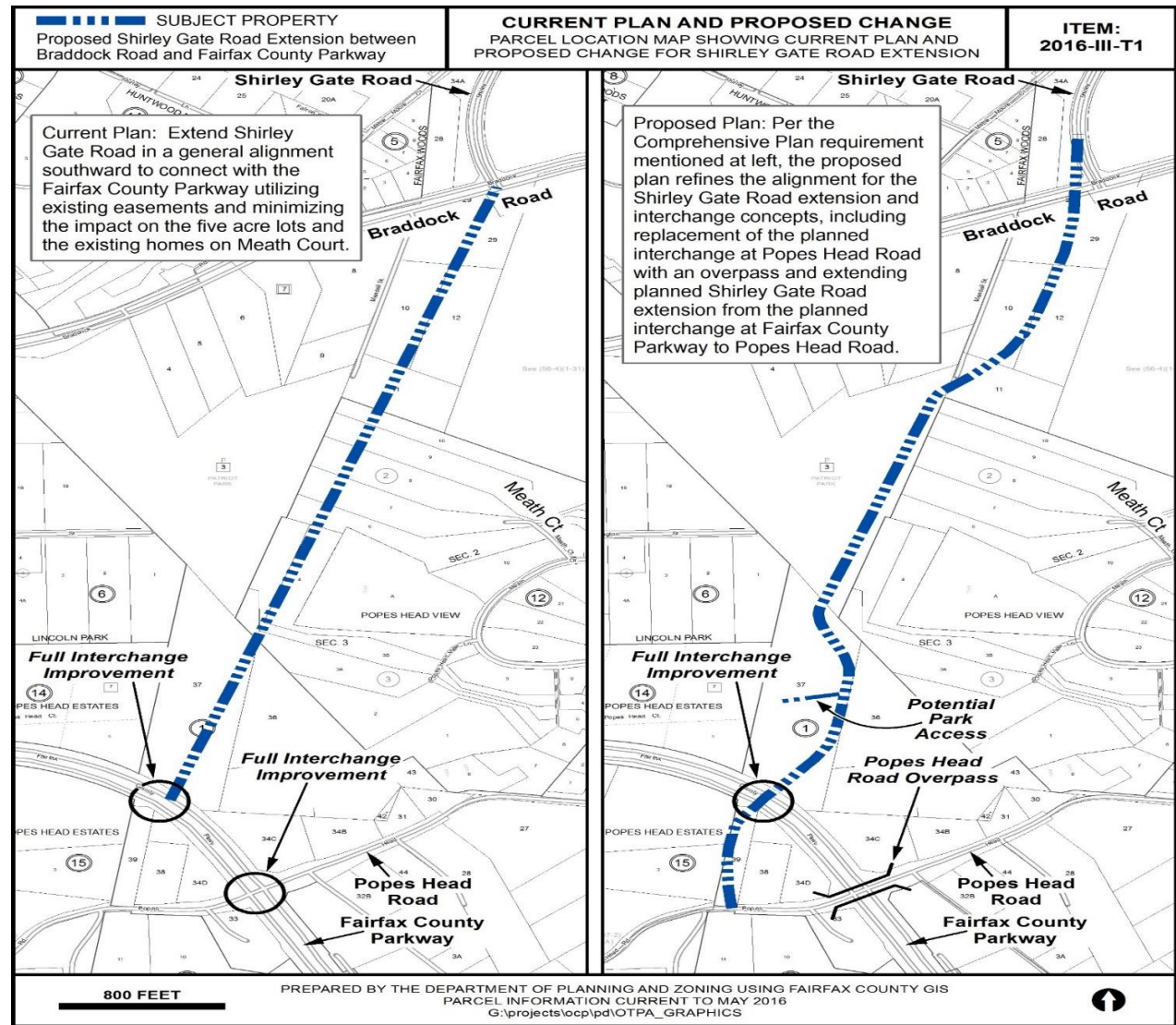
- Traffic Operations, Improvements to Road Network, Safety

Cost

- Minimize the Cost of Construction

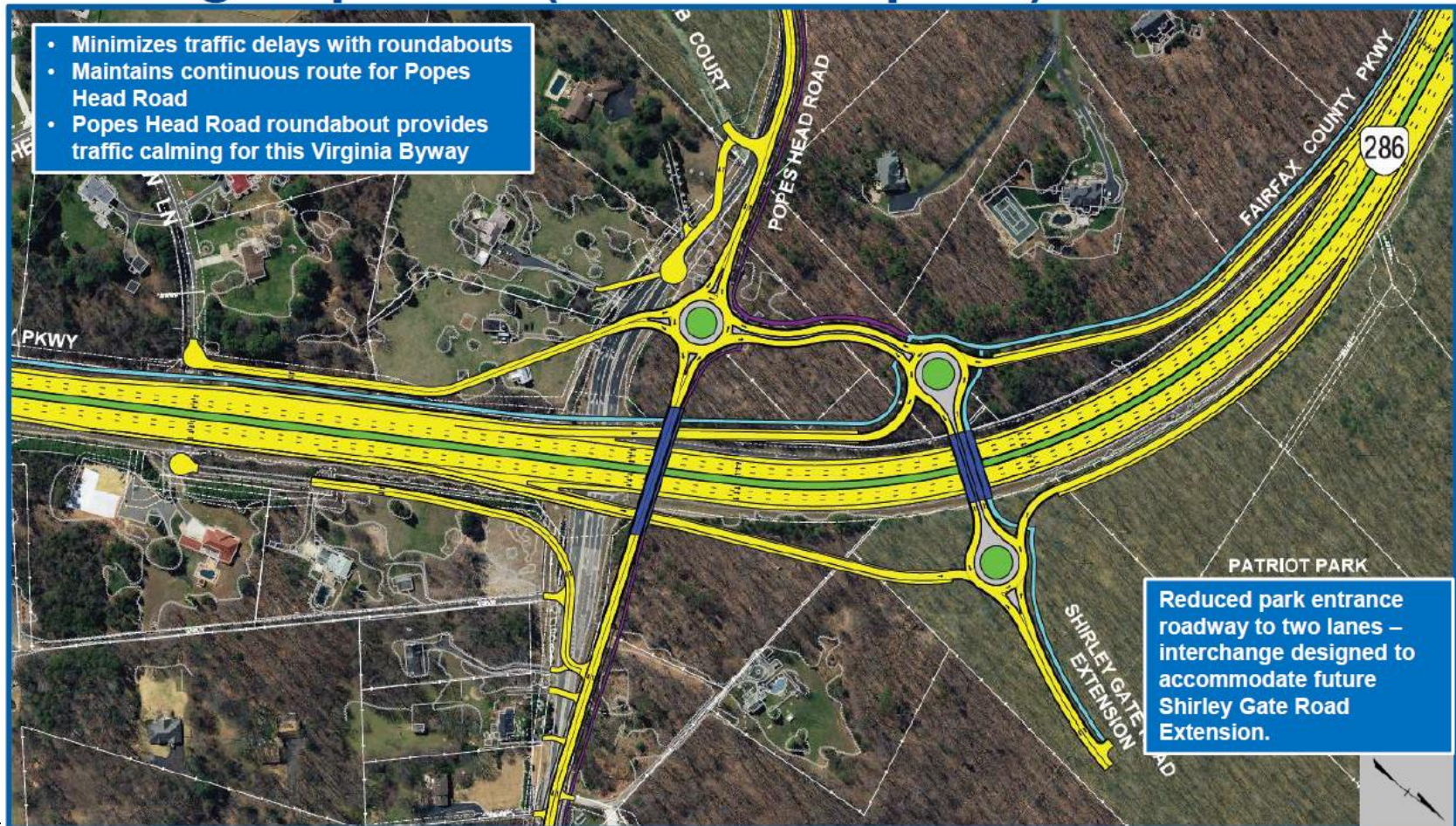


Refined Alignment



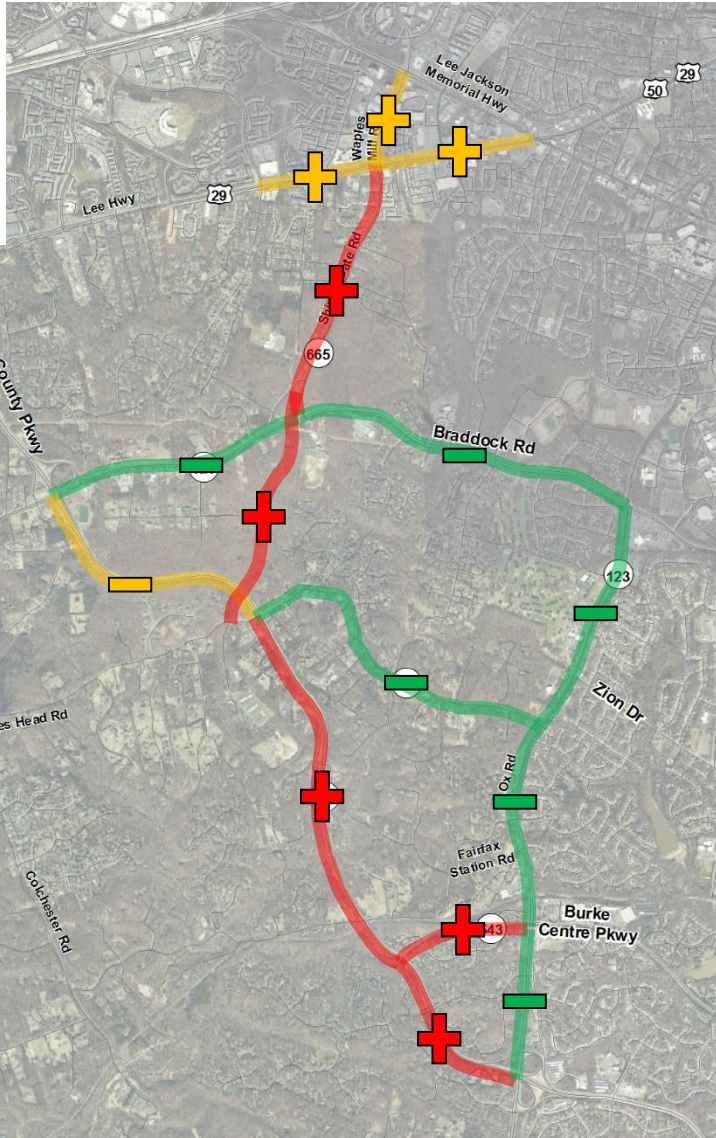


Fairfax County Parkway Interchange at Popes Head Road / Shirley Gate Road Extension

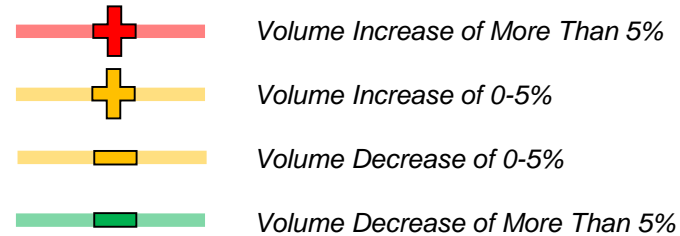




No Build vs. Build Forecast (2040) Volume Change

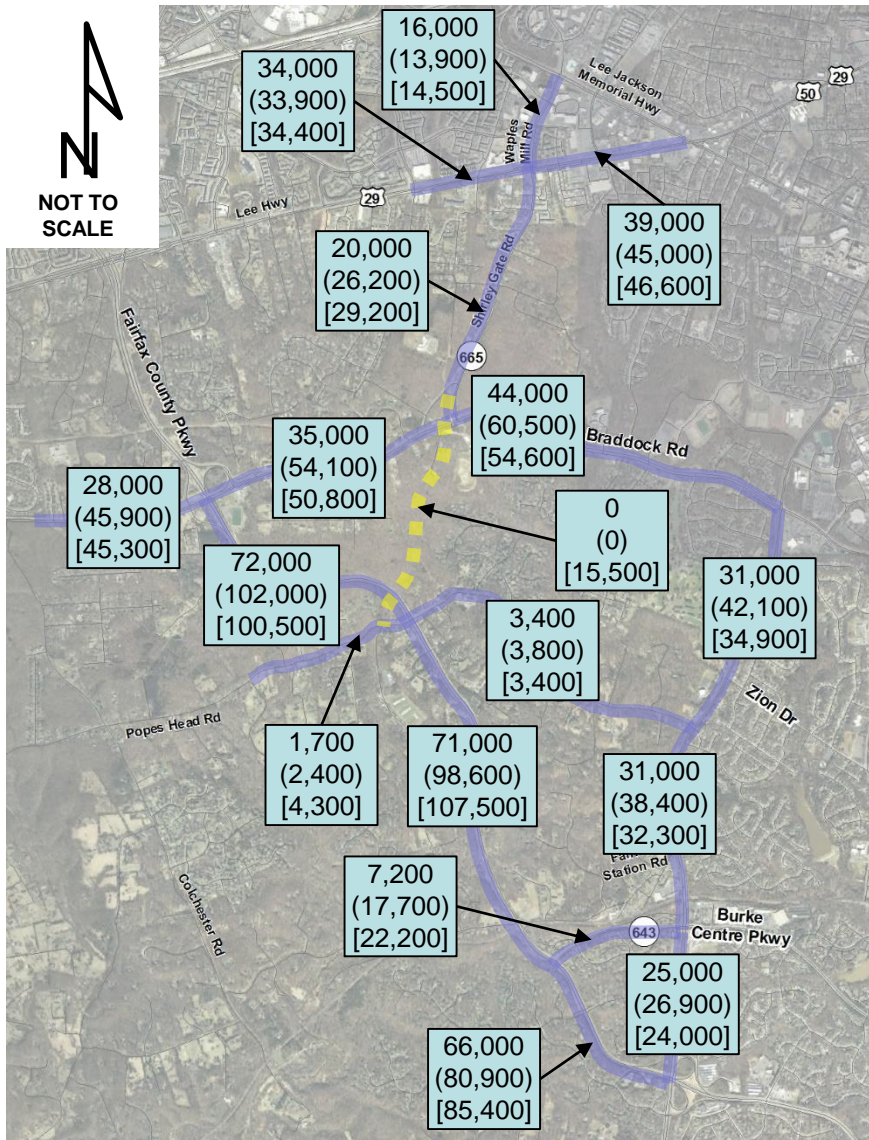


Roadway Segment Daily Volume Change (2040 Build vs. 2040 No Build)





Existing, 2040 No Build, and 2040 Build Volumes



— Roadway Segment

— Shirley Gate Road Extension

XX,XXX
(XX,XXX)
[XX,XXX]

2014 Existing Link Volume (veh/day)
(2040 No Build Daily Link Volume (veh/day))
[2040 Build Daily Link Volume (veh/day)]

Network Assumptions:

No Build

- Fairfax County Parkway: 6 Lanes
- Braddock Road: 6 Lanes (east of FCP)

Build (in addition to No Build)

- Shirley Gate Road Extension: 4 Lanes
- Interchange with FCP on Shirley Gate Road Extension Alignment



Benefits of Shirley Gate Road Ext.

- Reduced traffic volumes, travel times, delay and traffic congestion along area roadways/intersections
 - Braddock Road
 - Route 123
 - Intersection of Route 123 and Braddock Road
- Benefit Cost Ratio Analysis (2013 County Analysis)
 - 36.1 B/C (one of the highest amongst County projects)



Benefits of Shirley Gate Road Ext.

- Improved safety at Fairfax County Parkway and Popes Head Road
- Improved access to the west end of the City of Fairfax/Fair Oaks Area
- Provides proper access to Patriot Park East



Cost & Cost Effectiveness

- Planning Level Cost Estimate:
\$39,500,000 (2014)
- Other Factors:
 - congestion relief;
 - savings for travel time;
 - accident costs;
 - emissions; and
 - increased access to jobs



Ongoing & Next Steps

- Initiate Conceptual Design
- Coordinating with VDOT Fairfax County Parkway Widening project (US 29 to VA 123)



Questions?

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Project website:

<https://www.fairfaxcounty.gov/transportation/study/shirley-gate-extension>