

## **Route 50 STARS Safety and Operational Improvements Study - Arlington County**

### **Frequently Asked Questions**

#### **How were the Alternatives under consideration developed?**

The study team evaluated existing safety and operations through the review of field data collection and observations, historical crash trends, speed and traffic volume data including vehicles, bicycles, and pedestrian data. Public feedback was also collected and reviewed from the Public Information Meeting and the online survey conducted during November 2019. Insight from the public and stakeholders was used along with the traffic and crash data analysis in order to develop various alternatives and supplemental options which meet the study's goals and objectives.

#### **What is the purpose of restricting turning or through movements from side streets?**

Unsignalized left turn movements to and from Route 50 at Old Glebe Road, Jackson Street, Hudson Street, Highland Street, Garfield Street, and Fenwick Street create the potential for crashes and unsafe traffic operations. For vehicles turning left from Route 50 to the side streets, this creates the potential for rear end crashes as vehicles must slow or stop in the Route 50 through lanes in order to turn. Vehicles turning left from unsignalized side streets must look for a gap in both directions (six total lanes) of Route 50 traffic which creates the potential for angle crashes and often leads to Route 50 traffic having to brake to avoid a collision. Restricting left turns to and from the unsignalized intersections would reduce the potential for both rear end and angle crashes along Route 50 and thereby improve safety.

At the signalized Irving Street and Fillmore Street intersections, the northbound and southbound side street approaches currently receive concurrent green lights and the left turns must yield to opposing through vehicles in addition to pedestrians crossing Route 50. The side streets do not operate efficiently due to vehicles hesitating and waiting in the intersection for gaps in opposing traffic while they block vehicles behind them from traveling freely through the intersection. Sometimes, the vehicles trapped behind left-turning vehicles go around which creates safety issues with opposing vehicles. Varying levels of aggressiveness by left-turning and through vehicles also contribute to safety issues. By limiting certain through or left-turn movements at Irving Street and Fillmore Street, the side streets would operate more safely and efficiently without having to yield to opposing traffic. In addition, prohibiting left turns from the side streets would eliminate potential conflicts between left turns and pedestrians crossing Route 50 because pedestrians would not cross at the same time as side street left-turning vehicles.

#### **Will Alternatives 1b and 1c eliminate direct access between the north and south sides of Route 50?**

As discussed above, the purposes for restricting movements from the Irving Street and Fillmore Street approaches to Route 50 in Alternatives 1b and 1c are to improve the safety and operations at those intersections and reduce conflict points between both vehicles and pedestrians. Although Alternative 1b prohibits the northbound and southbound Irving Street through movements across Route 50, vehicles

will be able to cross Route 50 at the Fillmore Street intersection. Although Alternative 1c prohibits the northbound and southbound Fillmore Street through movements at Route 50, vehicles will be able to cross Route 50 at the Irving Street intersection. With all options under consideration, both pedestrians and bicyclists would be permitted to cross Route 50 at both Irving Street and Fillmore Street.

### **Where will traffic be diverted to with the Alternatives under consideration?**

By eliminating left-turn movements to and from unsignalized side streets, vehicles that make those movements under existing conditions would be diverted to other routes including Irving Street and Fillmore Street. With Alternatives 1b and 1c, as a result of restricting the side street through or left-turn movements at Irving Street and Fillmore Street, a portion of those vehicles would be diverted to other roads in the area, including Irving Street and Fillmore Street.

The enclosed figures depict the amount of traffic anticipated along the study area roadways under No Build conditions and with each of the Alternatives under consideration. The figures also depict the change in traffic volumes along Fillmore Street and Irving Street.

### **Can the speed limit along Route 50 be reduced to 35 MPH to address speeding?**

Speed data trends were reviewed as part of the study's traffic operations analysis. In general, average travel speeds are not significantly greater than the 45-mile per hour posted speed limit through the study area due to the signalized intersections at Fillmore Street and Irving Street in combination with the number of access points and left turns along the study corridor. Therefore, a speed limit reduction was not considered as part of the range of alternatives considered.

VDOT has an established policy and study process for establishing speed limits and changing speed limits. The study analyzes various factors affecting the safe and appropriate speed on a particular road, the physical features (e.g., geometry, lane and shoulder width, etc.), the type and extent of development (e.g. residential, commercial, etc.) along the roadway, the extent of pedestrian and bicycle activity and the prevailing speed on the roadway under typical conditions.

Speed limits also assist law enforcement personnel and promote better traffic flow by potentially reducing a wide variance in speeds. Increasing the range of motorist travel speeds typically results in a higher frequency of crashes. More information regarding the establishment of speed limits can be found on VDOT's website: <http://www.virginia-dot.org/info/faq-speedlimits.asp>

Given the potential changes to the roadway typical section under consideration as part of this study, the posted speed limit would be reevaluated in conjunction with the design and implementation of the proposed improvements should the project be funded.

### **Will there be impacts to the multi-use trail?**

If funded, the project design will minimize impacts to the existing multi-use trails along both eastbound and westbound Route 50. Trail reconstruction is anticipated to be located only at the intersections where new curb ramps will be reconstructed as well as at the approaches to the pedestrian bridge. The completed project will maintain the trails along both sides of Route 50 in generally their current location.

## Will the project significantly impact trees and green space along Route 50?

If funded, the project design would minimize impacts to existing trees to the greatest extent possible; however, some widening along Route 50 is required with Alternatives 1a, 1b, 1c, and 2. It is anticipated that trees may be impacted along westbound Route 50 at Garfield Street, Fenwick Street and at the entrance to Columbia Gardens Cemetery. Along eastbound Route 50, trees may be impacted approaching the pedestrian bridge crossing and at the intersection with Fenwick Street. The existing paved shoulders would be utilized to the greatest extent possible which would minimize impacts to the existing green space. Alternatives 1a, 1b and 1c provide a raised grass median which will provide additional green space that separates eastbound and westbound Route 50.

## What time of day do crashes occur and could left-turn restrictions be considered during off-peak periods only?

Crash data was reviewed by time of day as depicted in the graphic below. As shown, the highest frequency of crashes occurred along eastbound Route 50 during the evening peak rush hour. Although there is a pronounced peak in the number of crashes reported during the peak hours, 49 percent of the crashes reported along Route 50 occurred outside of the six hours during the AM peak (7 AM - 10 AM) and PM peak (3 PM – 6 PM) hours indicating a need for safety improvements throughout the day.

