



www.VirginiaDOT.org

Public Information Meeting

Centreville Road (Route 28) STARS Operational Improvements Study Prince William County

Monday, Sept. 30, 2019
6 to 8 p.m.
Presentation starts at 6:30 p.m.

Manassas Park Community Center
99 Adams Street
Manassas Park, VA 20111

Public Information Meeting

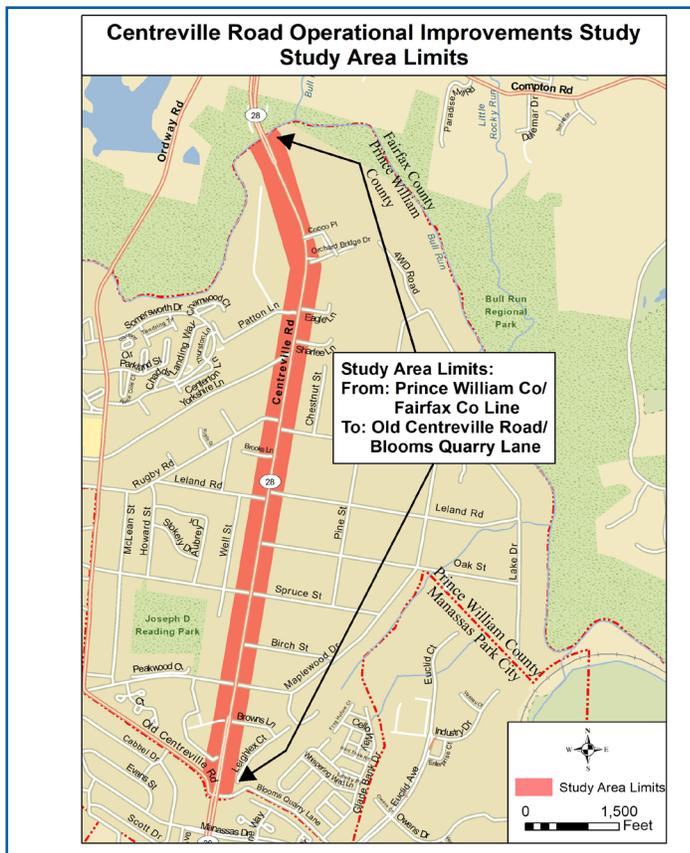
Welcome to the Virginia Department of Transportation's (VDOT) public information meeting on concepts being studied to assess potential operational improvements for two miles of Centreville Road (Route 28) between Blooms Quarry Lane and the Fairfax County line. The concepts being studied include roundabouts, overpasses, improved traffic signal timing and operations, turn lane improvements, access management and pedestrian enhancements.

This meeting is being held to provide an opportunity for citizens and organizations to give VDOT comments and/or suggestions on the study. A second public information meeting will be held **Nov. 20, 2019** to discuss alternatives developed based on public input and feedback.

VDOT strives to ensure that all members of the community have the opportunity to participate in public decisions on transportation projects and programs affecting them.

VDOT representatives are here to discuss the concepts being studied and answer your questions. **Residents and drivers of the corridor in the study area are asked to take a short online survey** that is now available for responses at **www.virginiadot.org/centrevilleroadstudy**. All comments received on this study will be reviewed and the final concepts based on public input will be made available on the VDOT study website.

Study at a Glance



Purpose: Assess potential safety enhancements for drivers and pedestrians.

Lengths and Limits: Two miles of Centreville Road (Route 28) between Blooms Quarry Lane and the Fairfax County Line.

Phase: Study

Begin Date: July 2019

Completion Date: Winter 2019/20

Cost: \$284,000

Study Overview

This study is assessing potential safety and operational enhancements for drivers and pedestrians along two miles of Centreville Road (Route 28) between Blooms Quarry Lane and the Fairfax County line.

Currently, this segment of Centreville Road experiences severe congestion in the morning and evening peak periods.

The concepts studied will be developed based on public input and may include:

- Innovative intersections such as roundabouts and overpasses
- Improved traffic signal timing and operations
- Turn lane improvements
- Access management for properties along the corridor including new medians
- Pedestrian enhancements including crosswalks and new sidewalks

Civil Rights

VDOT ensures nondiscrimination and equal employment in all programs and activities in accordance with Title VI and Title VII of the Civil Rights Act of 1964. If you need more information or special assistance for persons with disabilities or limited English proficiency, contact VDOT Civil Rights at 703-259-1775.

Get Involved

VDOT will review and evaluate any information received as a result of the public information meeting. The comment sheet and brochure is provided to assist in making your comments. You may leave the sheet or any other written comments in the comment box, or mail/ email your comments.

Residents and drivers of the corridor in the study area are asked to take a short online survey that is now available for responses at www.virginiadot.org/centrevilleroadstudy.

Environmental Review

Potential environmental impacts will not be included as part of this study. When the operational concepts are finalized and carried forward into a future project design development, VDOT will coordinate with the appropriate federal, state and local agencies as part of the environmental review and approval process.

Right of Way

Preliminary study concepts presented on the displays are conceptual and may change as the study and concepts are refined. Property owners would be informed of the exact location of any easements during the right of way acquisition process and prior to construction if projects should be developed as a result of this study.

Information about right of way purchase is discussed in VDOT's brochure, "Right of Way and Utilities: Guide for Property Owners and Tenants." Copies of this brochure are also available online at: www.virginiadot.org/business/row-default.asp.

Comments must be postmarked or delivered to VDOT by **Oct. 7, 2019**. A second public information meeting will be held **Nov. 20, 2019** to discuss alternatives developed based on public input and feedback, look for details on the study website.

All comments received on this study will be reviewed and the final concepts based on public input will be made available on the VDOT study website. Study information shared here, including a summary of comments received during the comment period will be available on the study website mentioned above.

Contact Information

Primary Contact:
Terrell Hughes, P.E.

Transportation and
Mobility Planning

1401 East Broad Street
Richmond, VA 23219

804-343-9025



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COMMENT SHEET

All comments are subject to public disclosure.

Name (optional): _____

Address (optional): _____

Email (optional): _____

1. What are your major concerns that you would like to see incorporated into this study?

2. Please provide us with any additional information or suggestions that will assist VDOT in developing the final concepts of this study.

3. How did you hear about this meeting?

_____ Newspaper _____ Social Media _____ Website _____ Other _____

Fold Line

Postal Service
will not
deliver without
a stamp

Virginia Department of Transportation
Northern Virginia District
Mr. Terrell Hughes, P.E.
1401 East Broad Street
Richmond, VA 23219

Fold Line



CENTREVILLE ROAD (ROUTE 28) OPERATIONAL IMPROVEMENTS STUDY (PRINCE WILLIAM COUNTY)

A Study undertaken as part of VDOT's Strategically Targeted and Affordable Roadway Solutions (STARS) Program

Presentation Outline

1. **Introductions**
2. **Meeting Objectives**
3. **VDOT Strategically Targeted and Affordable Roadways Solutions (STARS) Program**
4. **Centreville Road (VA Route 28) Corridor Improvement Study**
5. **Existing Traffic and Safety Conditions**
6. **Preliminary Issues**
7. **Potential Improvements**
8. **Next Steps and Concluding Comments**
9. **Questions**

2. Objectives for this Public Information Meeting

- **Inform the public about this STARS study**
- **Present preliminary information on safety and traffic**
- **Conditions within the Centreville Road (Route 28) Corridor**
- **Solicit input from the public on existing safety and traffic issues and gather ideas to enhance safety and reduce congestion in the corridor**

3. BACKGROUND ON VDOT'S STARS PROGRAM

STARS

**STARS is an Acronym for
Strategically Targeted and
Affordable Roadways Solutions**

**STARS is a program that was
originally implemented by VDOT in
2006 and has been continually
refined to address safety and
operational issues**

What is the STARS program?

Program to develop solutions to reduce crashes and congestion bottlenecks using a data-driven approach

Crash hotspots
Speed data
Traffic Count data



Use this information together to identify corridors with safety and congestion challenges

The diagram consists of three lines of text on the left: 'Crash hotspots', 'Speed data', and 'Traffic Count data'. A blue bracket-like shape on the right side of these lines connects them to a rectangular box on the right. The box has a blue border and contains the text 'Use this information together to identify corridors with safety and congestion challenges'.

Overall goal of STARS is to develop solutions that can be funded and implemented

STARS Program Goals

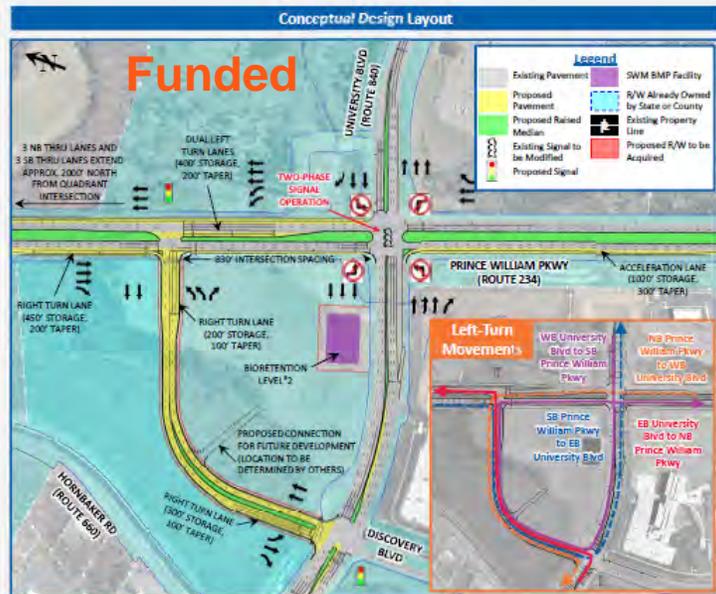
- Develop comprehensive, innovative transportation alternatives to relieve congestion bottlenecks and solve critical safety challenges
- Involve planners, traffic engineers, safety engineers, roadway designers, and local stakeholders

STARS Project Stakeholders



Recent STARS Efforts Near the Study Area

- Prince William County Parkway at Balls Ford Road
- Prince William County Parkway (Sudley Manor to Brentsville)
- Liberia Avenue (Route 28 to Prince William Parkway)



Project Description
 This project improves operations on Prince William Parkway at University Boulevard by converting the existing conventional intersection to a quadrant intersection. Left turns are not permitted at the main intersection and vehicles use the connector road and secondary intersections to complete left turn movements. Removing left-turns from the main intersection allows this intersection to operate under two-phase signal control, which increases green time on Prince William Parkway by 50% and reduces delay for mainline through vehicles as well as the overall intersection.

Planning Level Cost Estimate

Phase	Cost Estimate
Preliminary Engineering	\$6,281,000
ROW and Utility Relocation	\$918,000
Construction	\$22,072,000
Total Cost =	\$29,271,000

Note: Cost estimates reported in 2017 dollars.

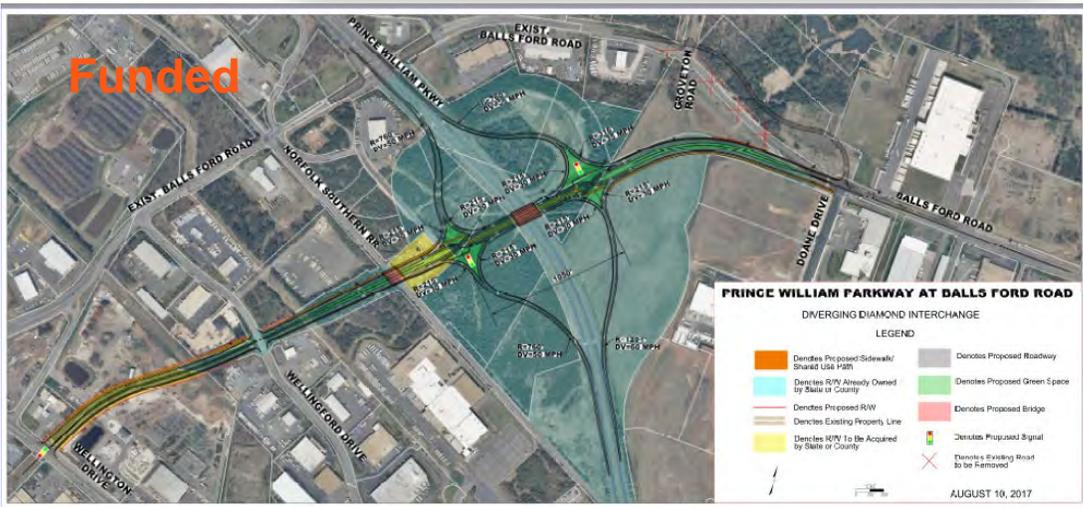
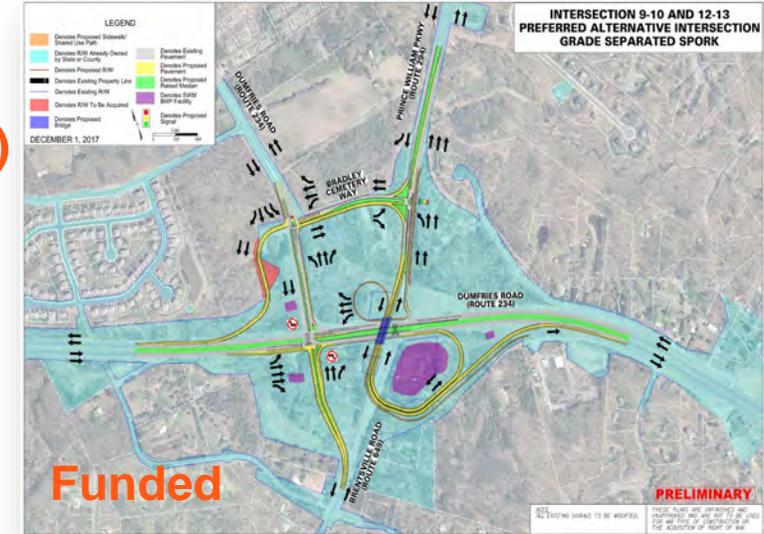
Project Schedule

Project Benefits

Overall Intersection Delay	Traffic Operations Benefits		Safety Benefits
	AM Peak	PM Peak	
2040 No Build	145.8 sec/veh	147.8 sec/veh	<ul style="list-style-type: none"> • Reduces conflict points at the intersection • Increases share of mainline green time, which results in reduced delay/stops and potentially mitigates rear-end crashes
2040 Build	33.0 sec/veh	23.0 sec/veh	
Δ Delay	-112.8 sec/veh	-122.8 sec/veh	
Prince William Parkway Through Delay			
2040 No Build	193.9 sec/veh	237.1 sec/veh	
2040 Build	42.8 sec/veh	34.2 sec/veh	
Δ Delay	-151.1 sec/veh	-202.9 sec/veh	

Note: Prince William Parkway through delay reported for peak direction.

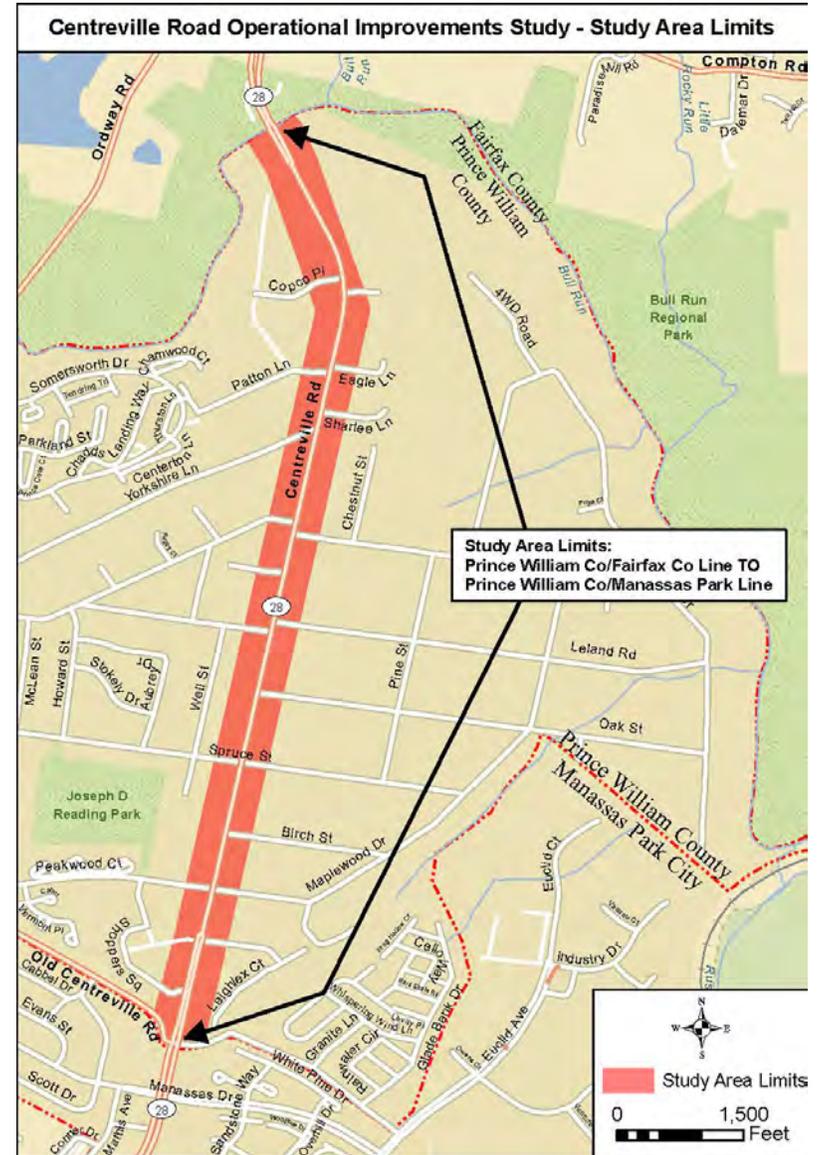
PRINCE WILLIAM PARKWAY INTERSECTION ALTERNATIVES STUDY STARS VDOT



4. CENTREVILLE ROAD CORRIDOR STARS STUDY

Study Area

Centreville Road (VA 28) -
between Prince William / Fairfax County Line
at the bridge over Bull Run and Bloom
Quarry's Lane / Old Centreville Road
intersection at the Prince William County /
City of Manassas Park line



Elements of the Study

- **Comprehensive traffic operations and safety performance study of the segment with a five-lane cross section**
- **Involves analyses of Existing Safety and Traffic Conditions and Projected Future (2030) Traffic Conditions**
- **Addresses issues raised by Delegate Roem and others**
- **Targeted Completion Date: End of 2019**
- **Complements and builds upon previous studies**
- **Focus is on shorter-term improvements that could enhance safety and improve traffic flow on the existing corridor**
- **Goal is to identify potential funding/implementation opportunities**
- **Accounting for current NEPA study for Route 28**
- **Recognizes that proposed Route 28 Bypass / Widening is included in 2019 Prince William County Mobility Bond Referendum**

5. EXISTING SAFETY AND TRAFFIC CONDITIONS

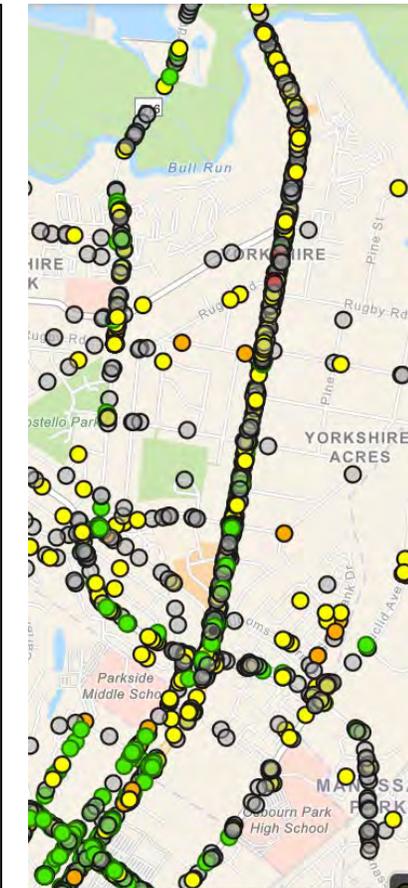
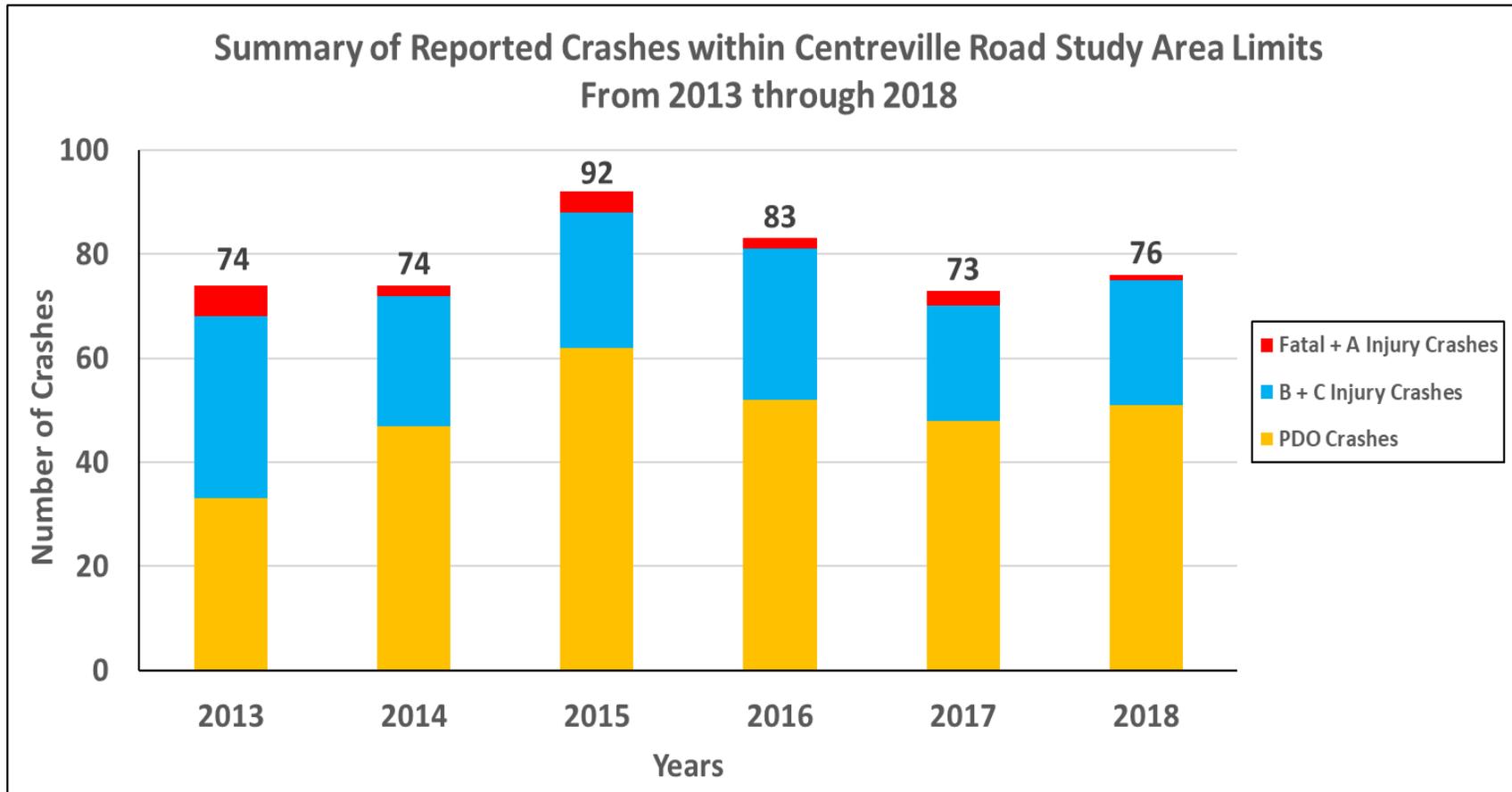
Characteristics / Features of the Corridor

- 2.1-mile corridor
- 54,000 vehicles a day
- Two-lanes in each direction with a center two-way left turn lane
- Inconsistent pedestrian accommodations
- Posted Speed Limit: 45 mph
- Northbound morning congestion
- Southbound evening congestion

- Signal-Controlled Intersections at:
 - Orchard Bridge Road
 - Yorkshire Lane / Falls Grove Drive
 - Leland Road
 - Maplewood Drive
 - Brown's Lane / Shopper's Crossing Access
- Emergency Signal
 - Patton Lane

- Stop-Controlled Intersections
 - Rugby Road
 - Oak Street
 - Spruce Street
 - Birch Street
 - Old Centreville Road / Blooms Quarry Lane
- Numerous Driveways:
 - 40+ on East side
 - 60+ on West side

Crashes Reported on Centreville Road within Study Limits



Fatal injuries include deaths which occur within thirty days following injury in a motor vehicle crash.

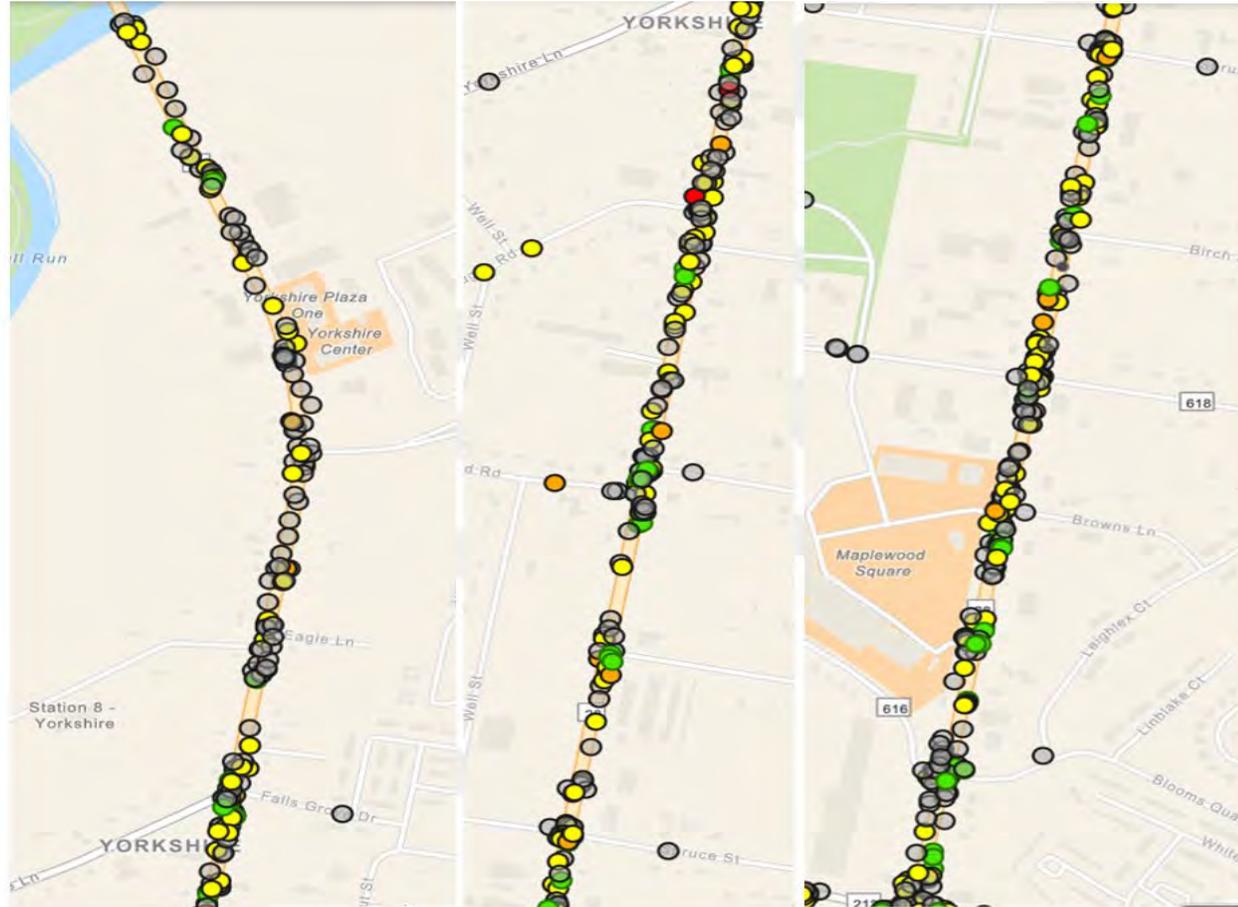
“A Injury” Severe injuries include skull fractures, internal injuries, broken or distorted limbs, unconsciousness, severe lacerations, severe burns, and unable to leave the scene without assistance.

“B Injury” Moderate injuries include visible injuries such as a “lump” on the head, abrasions, and minor lacerations.

“C Injury” Minor injuries include hysteria, nausea, momentary unconsciousness, and complaint of pain without visible signs of injury.

“PDO” No fatality or injury; property damage only above a set threshold

Locations of Crashes Reported On Centreville Road / VA 28 within Study Area from 2013 to April 2019



Average Annual Crash Rates between 2013 and 2018 ranged from 193 to 242 crashes per 100 million vehicle miles.

- **50 to 78%** higher than Average Annual Crash Rates for Primary Highways in VDOT NOVA District.
- **50 to 88%** higher than Statewide Average Rates



Significant Queueing Throughout the Corridor – Northbound During AM Peak Period

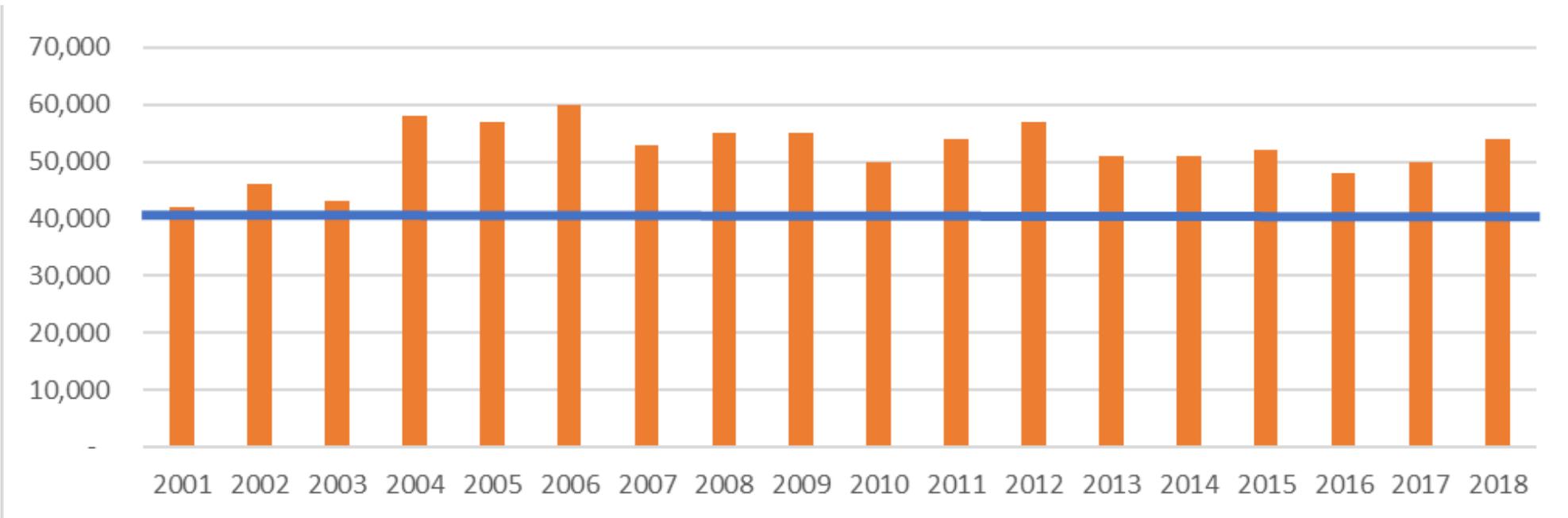


Significant Queueing Throughout the Corridor – Southbound During PM Peak Period



High Daily Traffic Flows

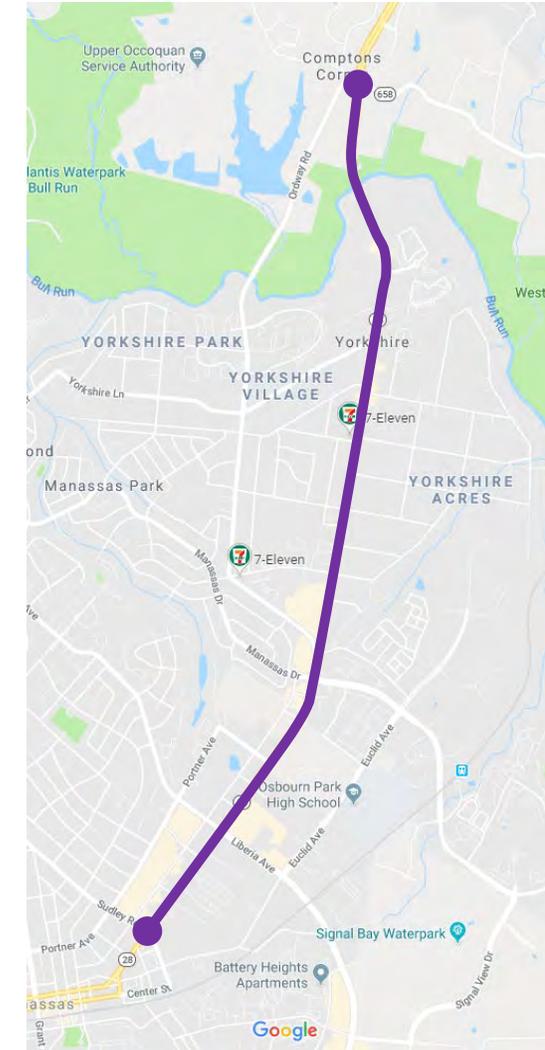
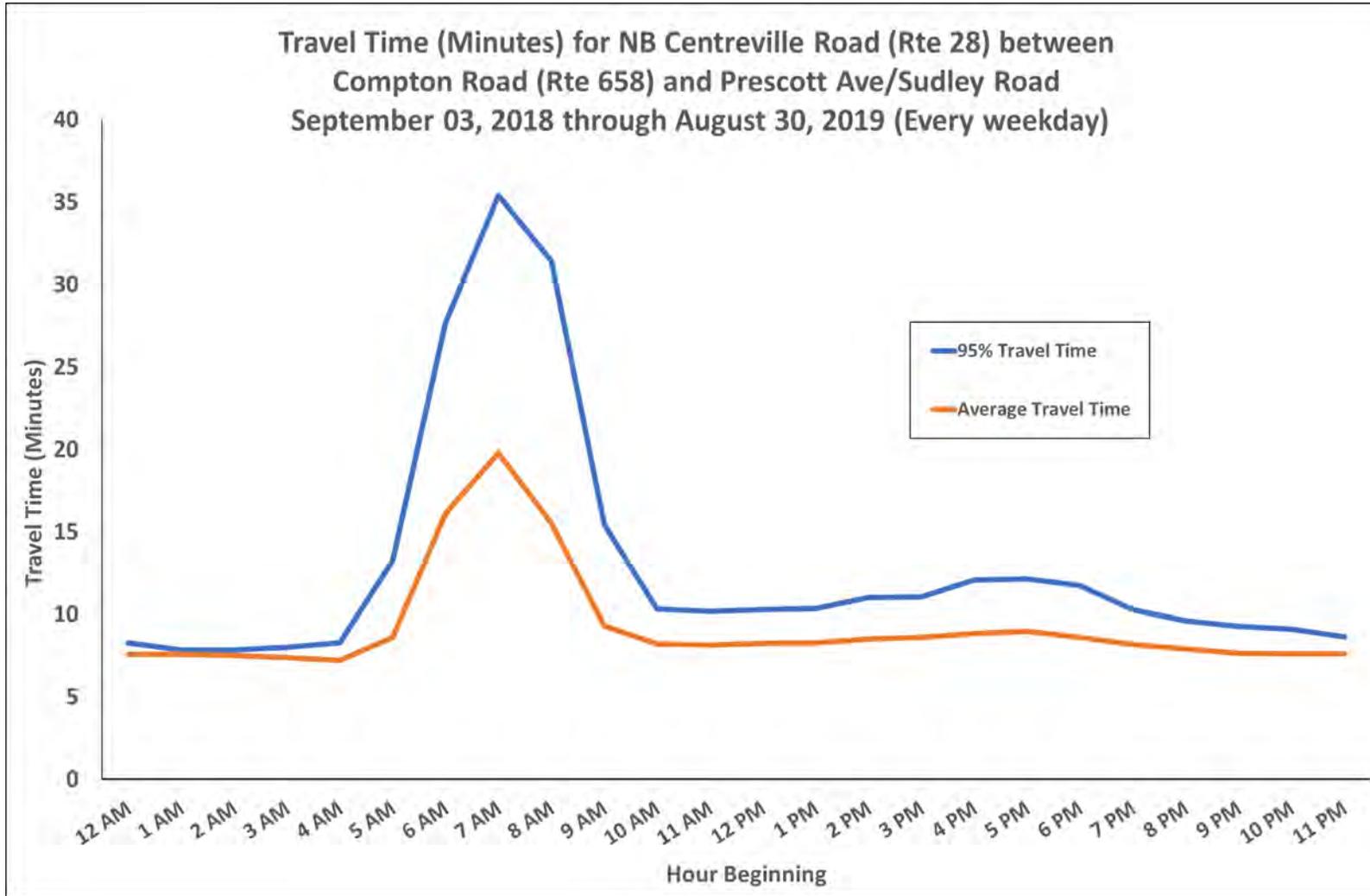
Vehicles per day



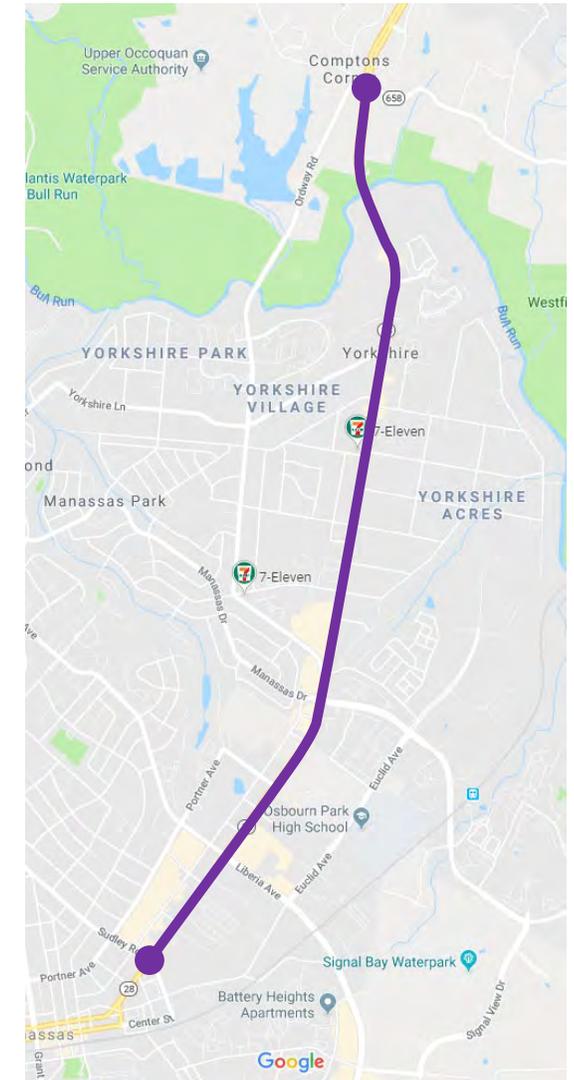
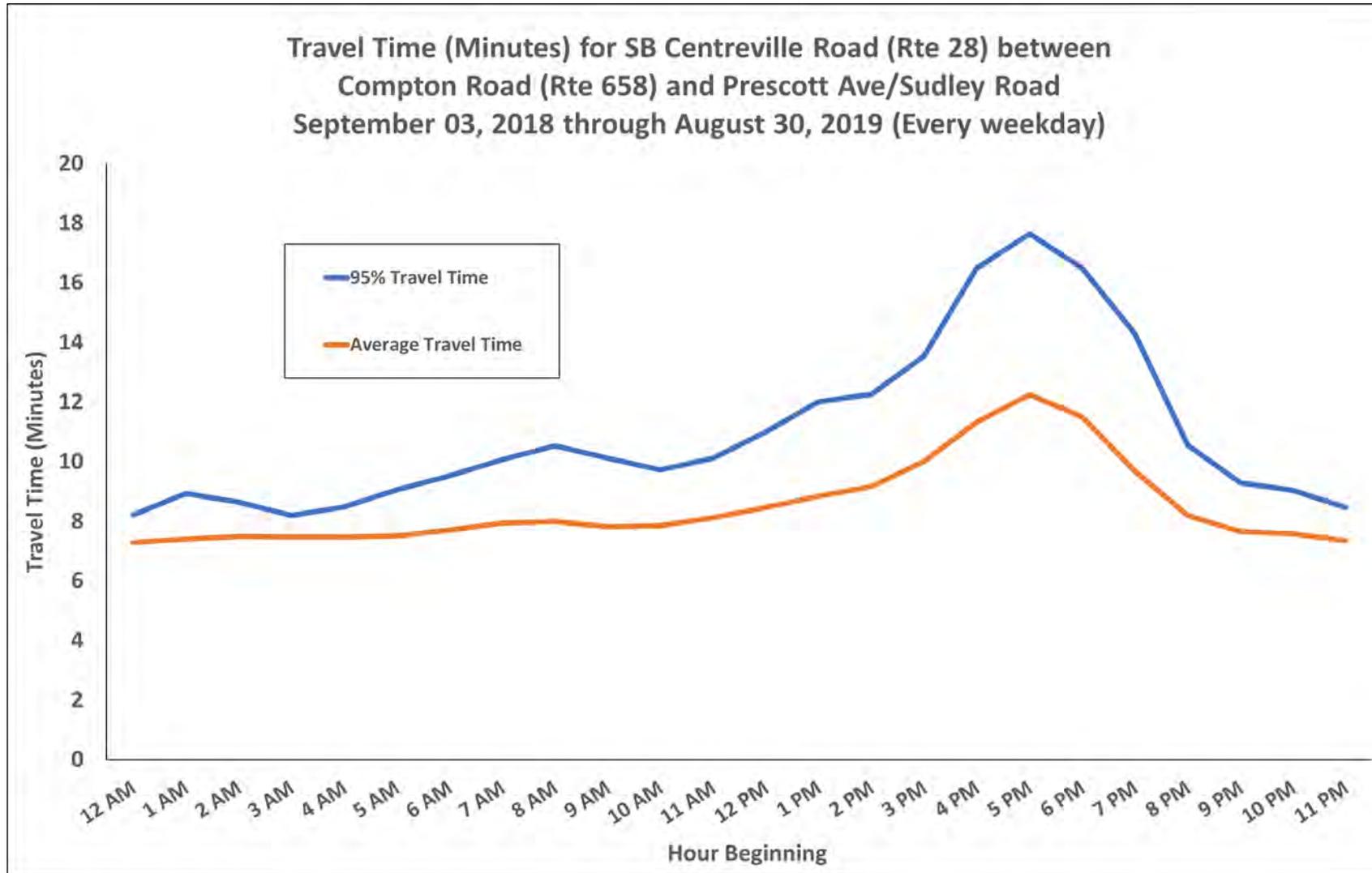
Design Capacity

YEAR

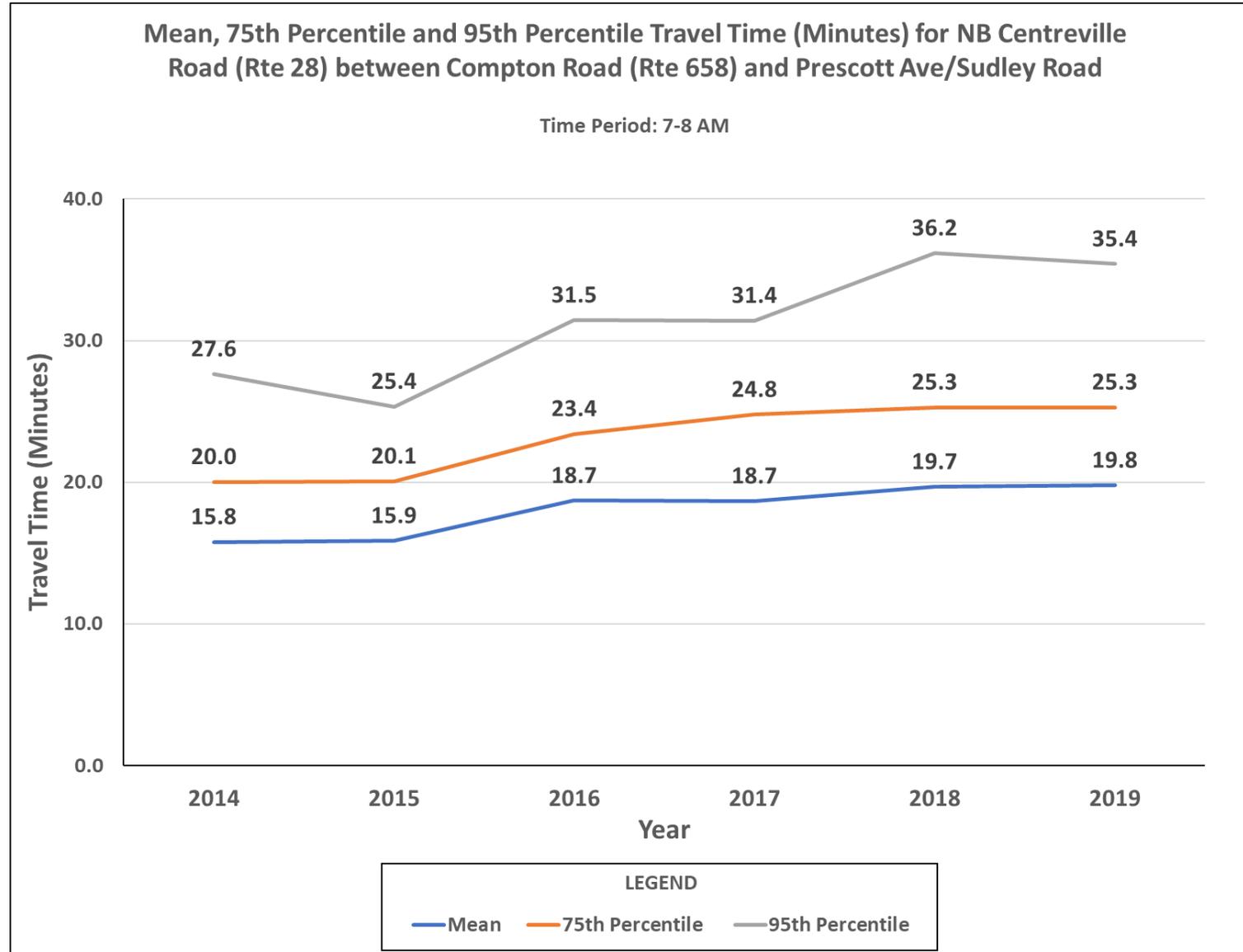
Travel Times on NB Centreville Road / VA Route 28



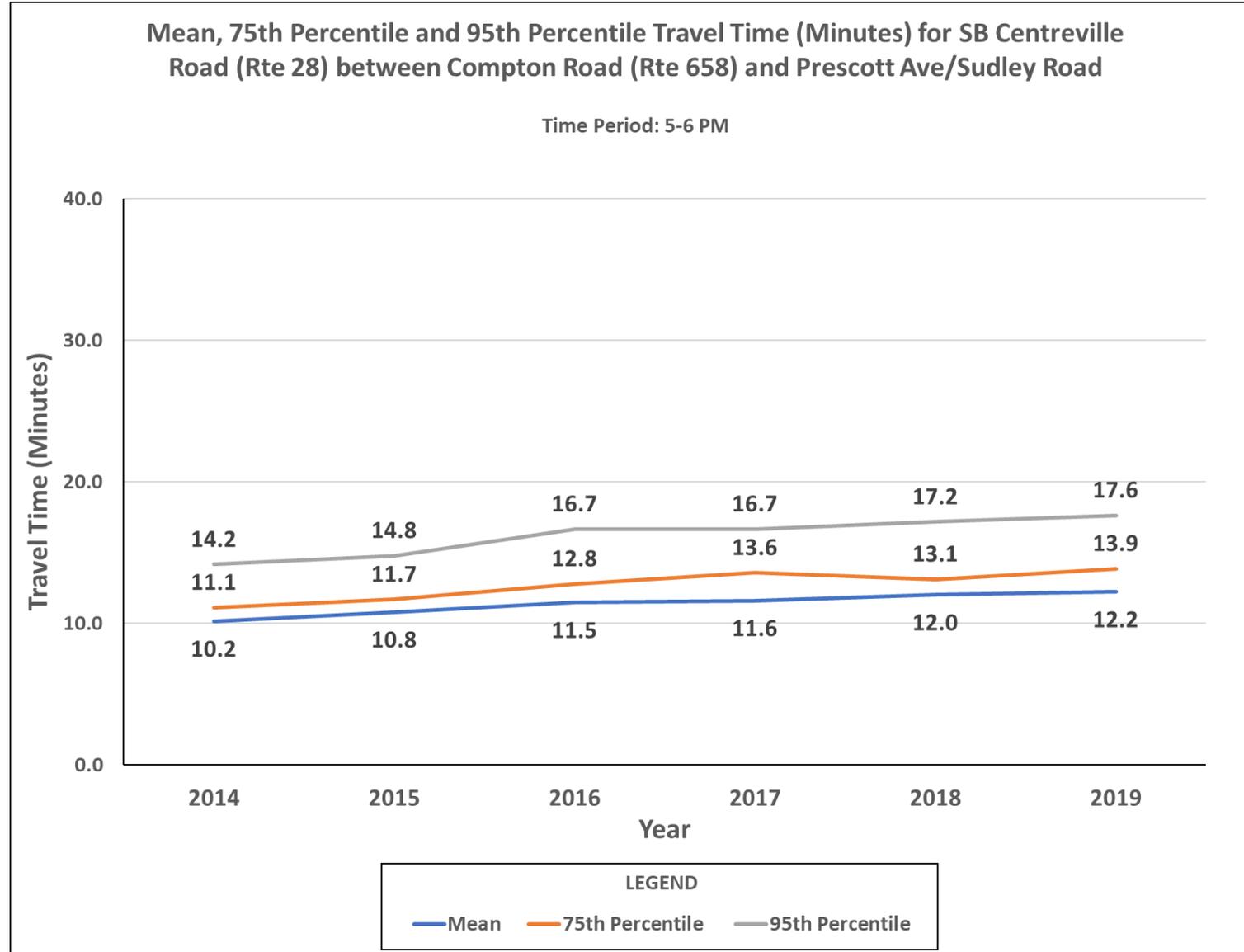
Travel Times on SB Centreville Road / VA Route 28



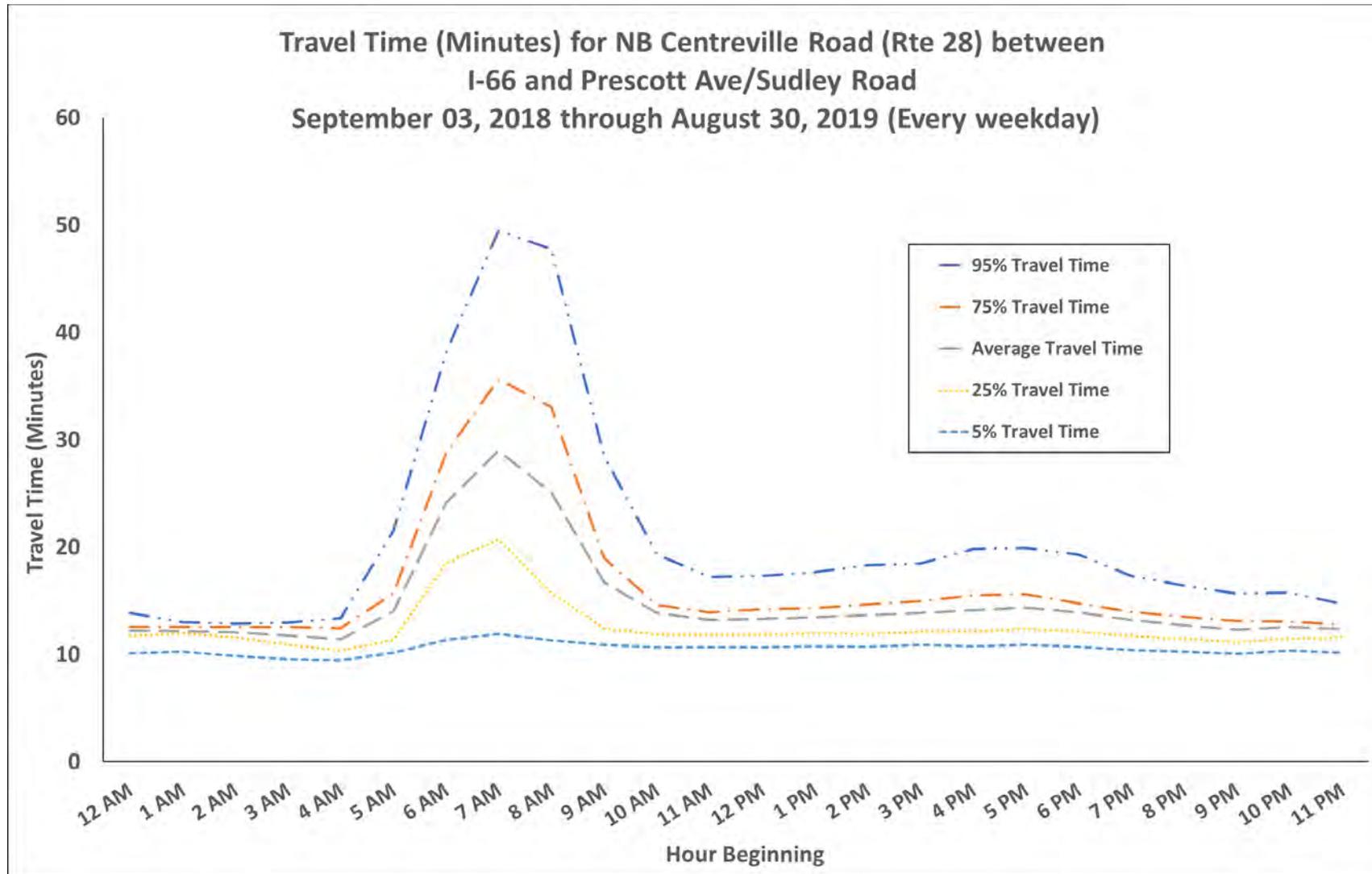
Travel Times Trends on NB Centreville Road / VA Route 28



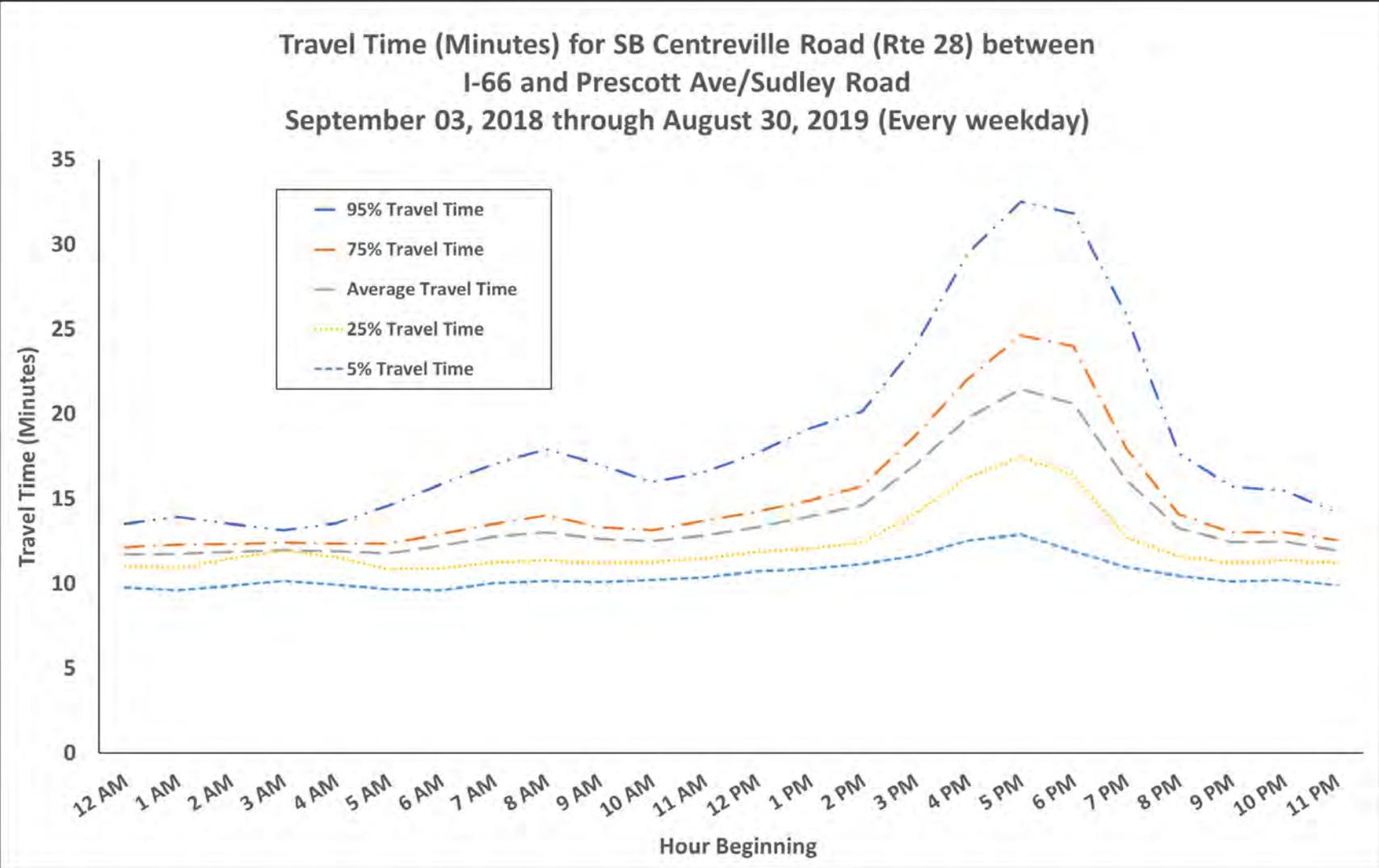
Travel Times Trends on SB Centreville Road / VA Route 28



Travel Times on NB Centreville Road / VA Route 28 to I-66



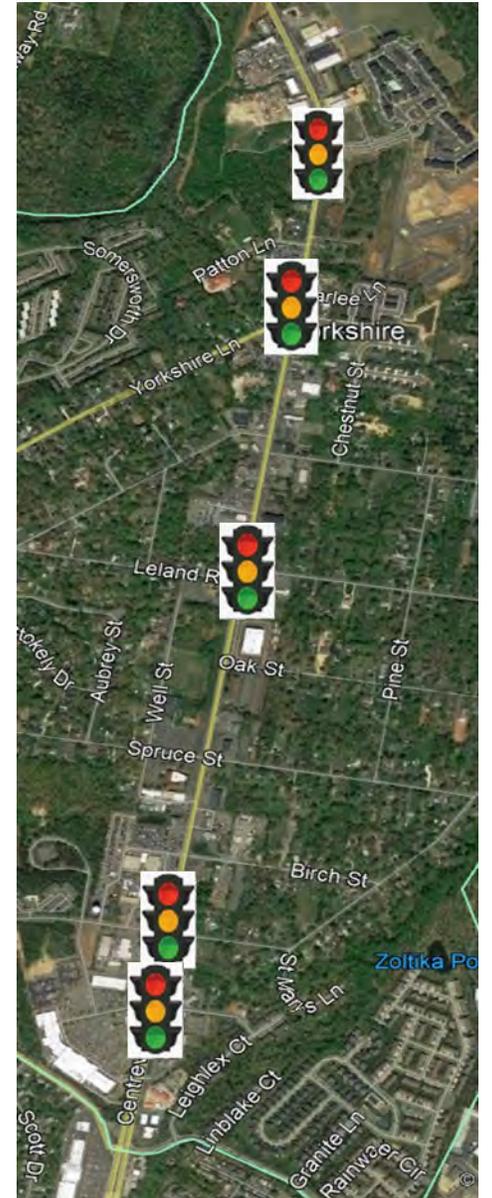
Travel Times on SB Centreville Road / VA Route 28 from I-66



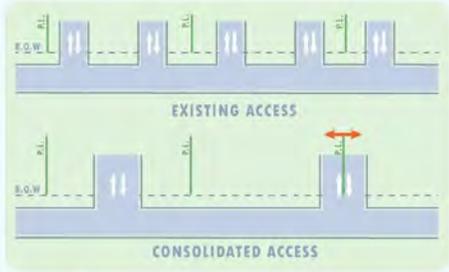
6. POTENTIAL IMPROVEMENT OPTIONS

Potential Improvement Options

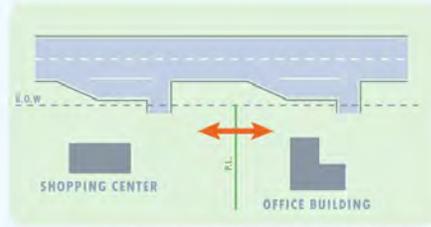
- **Traffic signal operational modifications and changes in traffic control at intersections**
- **Geometric changes and intersection modifications**
- **Access Management - changes to driveways / access points in the corridor**
- **Innovative intersections, roundabouts and flyovers**
- **Alternative routes on adjacent roadway network**



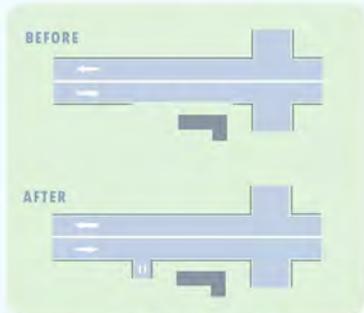
Driveway / Access Improvements



X CONSOLIDATE ACCESS POINTS



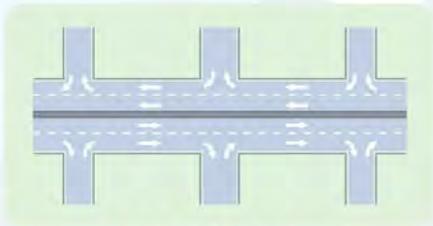
CONNECT ADJACENT PROPERTIES



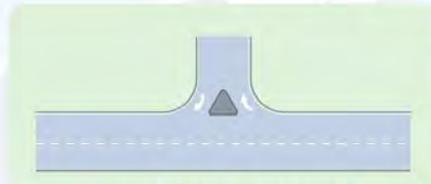
DEFINE DRIVEWAYS

LOCATE INTERSECTIONS TO FAVOR THROUGH TRAFFIC AND PROVIDE ADEQUATE SPACE TO DEVELOP DECELERATION LANES FOR TURNING TRAFFIC **M**

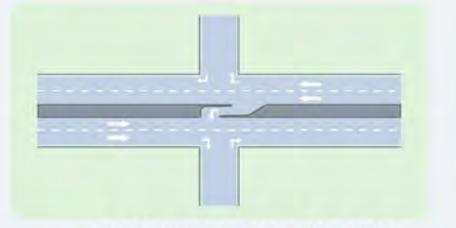
USE TURN LANES TO REMOVE VEHICLES FROM THROUGH TRAFFIC



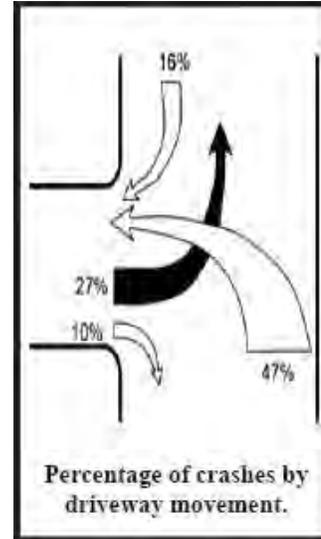
*** RIGHT-IN, RIGHT-OUT WITH RAISED MEDIAN**



*** RIGHT-IN, RIGHT-OUT WITH CHANNELIZING ISLAND**



▲ DIRECTIONAL MEDIAN OPENING OR 3/4 MOVEMENT

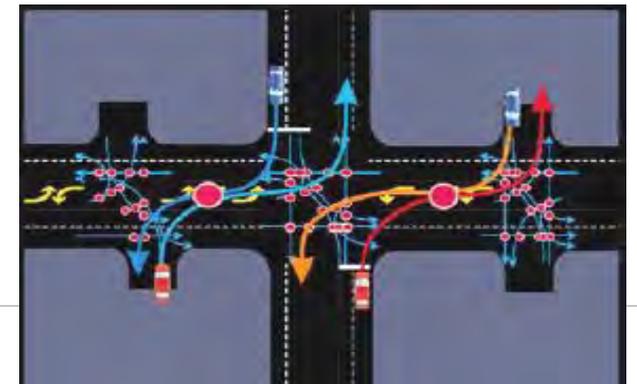


SAFE ACCESS IS GOOD FOR BUSINESS



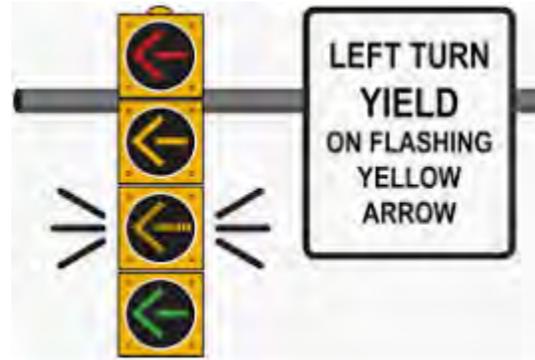
You may be reading this primer because your state transportation agency or local government has told you about plans that will affect access to your business. They may be planning to install a raised median on your roadway, to close a median opening, or to reconfigure your driveway. Perhaps your request for a driveway is under review or the regulating agency has imposed conditions on its approval. Or, maybe the state or local agency is planning a new access policy and you have questions or concerns about the economic effects of these changes.

Whatever the reason, it is important for you to understand the basis for these changes and how they might affect your business. This primer will address questions you may have about access management and its effect on business activity and the local economy. It focuses on economic concerns that may arise in response to proposed access changes or policies, including potential impacts on business activity, freight and deliveries, parking for customers, and property or resale value of affected property.



Signal Operations / Phasing & Timing

- Implement Install Flashing Yellow Arrows
- Implement lead/lag phasing, time-of-day phasing, turn prohibitions for selected left-turns
- Changes to adaptive signal operation
- Implement pedestrian signals
- Implement changes to signal operations to restore coordination after emergency signal pre-emption
- Implement ITS systems
 - CCTV Cameras for incident response and traffic monitoring
 - Dynamic Message Signs with travel times

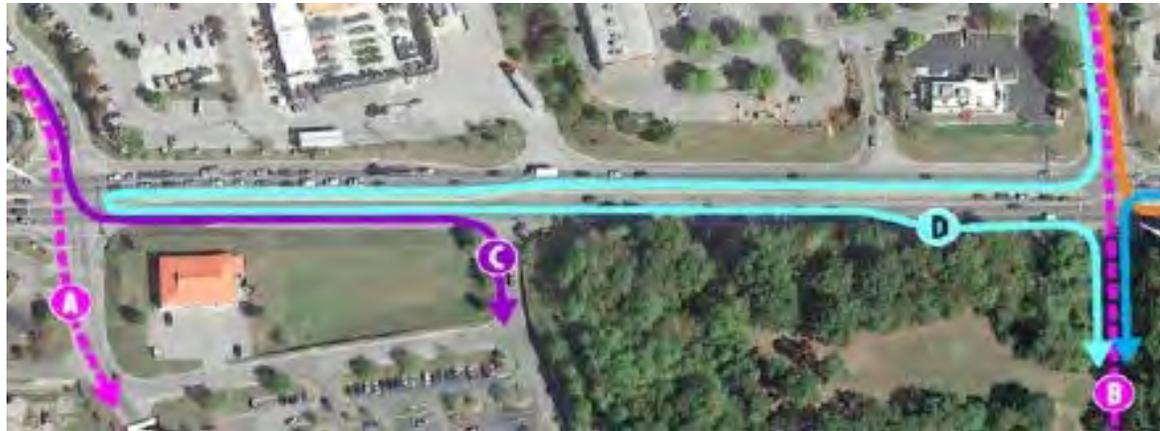


Drivers		Pedestrians	
...will see this	...will do this	...will see this	...will do this
	Proceed with Caution		Push the Button to Cross
	Slow Down (Pedestrian has activated the push button)		Wait
	Prepare to Stop		Continue to Wait
	STOP! (Pedestrian in Crosswalk)		Start Crossing
	STOP! Proceed with Caution if Clear		Continue Crossing (Countdown Signal)
	Proceed if Clear		Push the Button to Cross



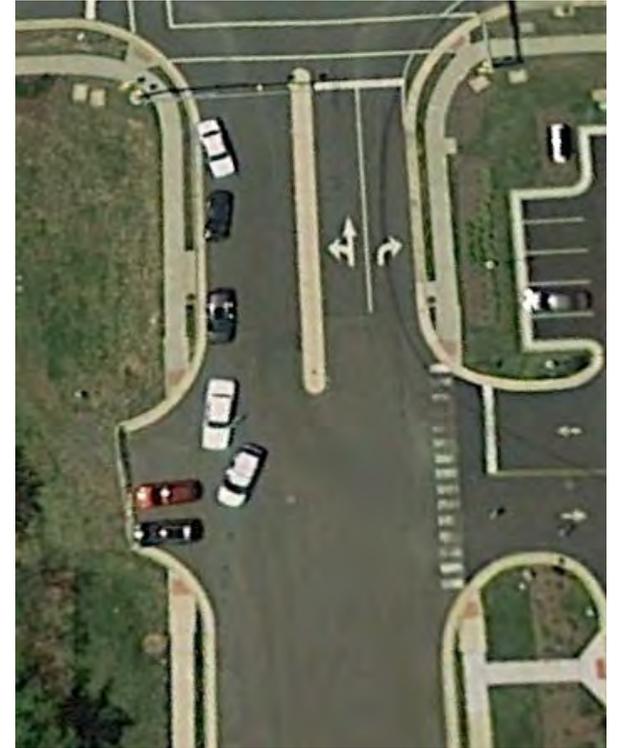
Roadway Network Changes

- Modify roadways to feature one-way connections
- Modify roadways to promote directed turns at selected intersections
- Modify roadways AND reduce signal phases at selected locations
- Prohibit left-turn movements at selected intersections and redirect to other intersections



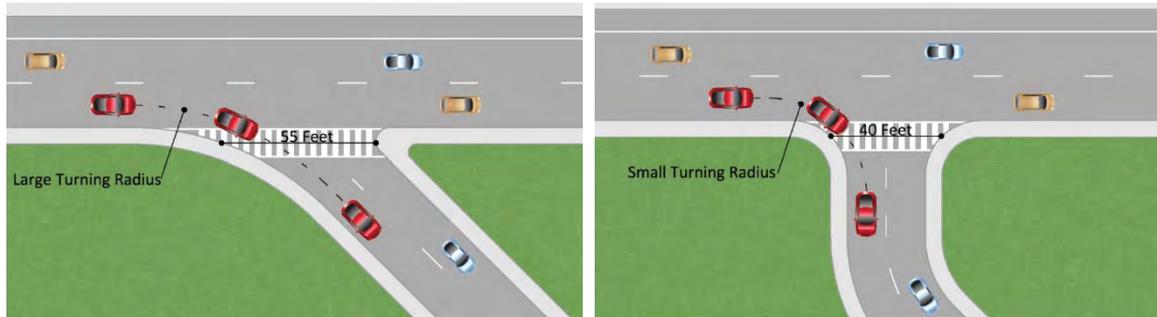
Minor Geometric Improvements

- Add channelizing islands at selected intersection legs and driveways
- Add raised islands on selected approaches to signal-controlled intersections to better define left-turn pockets
- Add improvements for pedestrians at signal-controlled intersections



Major Geometric Improvements

- Construct raised median
- Improve vertical alignment
- Remove offset between “separated” side streets at selected intersections (e.g., Leland Rd or Rugby Rd)
- Reduce skew at selected intersections
- Improve sight distance on side street approaches
- Remove/relocate utilities to improve sight distance
- Add right turn lanes from to selected intersections/driveways
- Add new roadways along the back of properties to reduce number of driveways



Innovative Intersections

T Continuous Green-T (CGT)



Q Quadrant Roadway (QR)



L Left-Turn Flyover



O Roundabout



R Restricted Crossing U-Turn (RCUT)



Next Steps

- **Public provides comments using the following link on computers and smart phones:**
 - <https://centrevilleroadstudy.metroquest.com/>

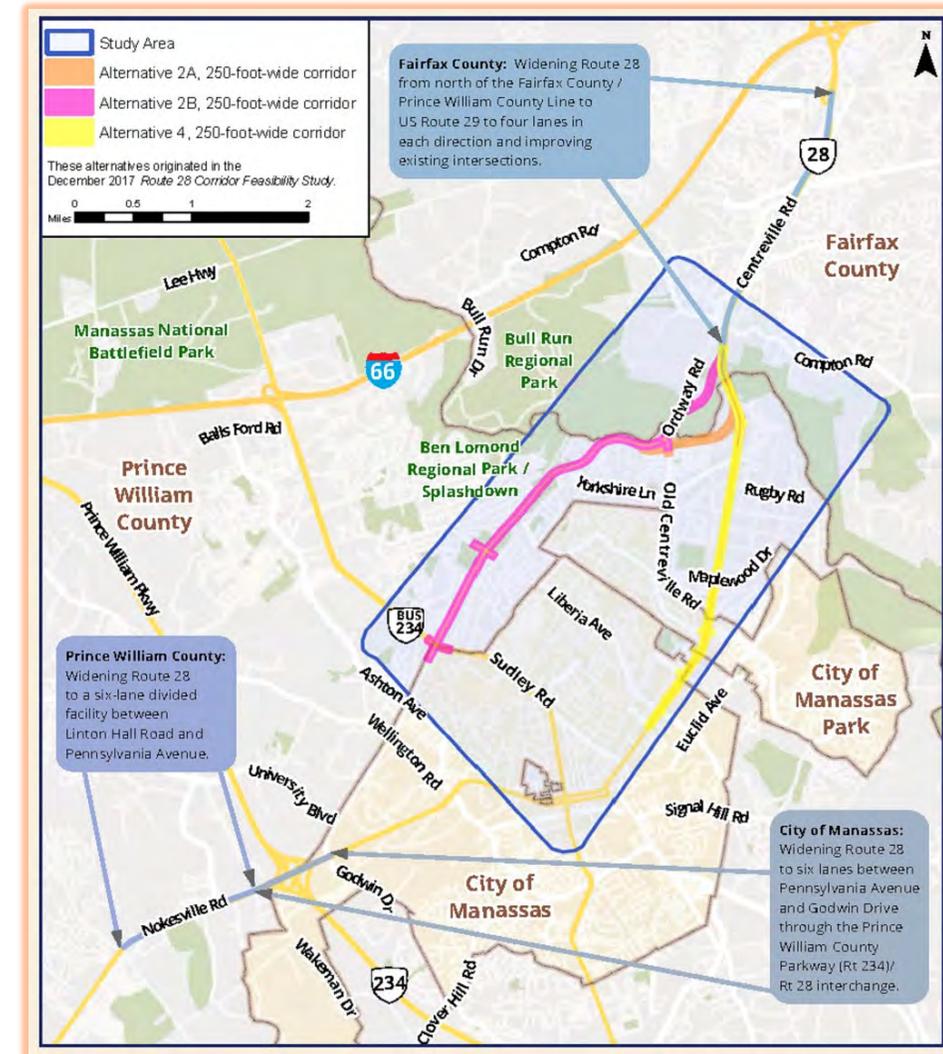


- **Comment Period Closes - October 7, 2019**
- **Second Public Information Meeting – November 20th**
- **Study Completion – End of 2019**

Route 28 Bypass / Widening Update

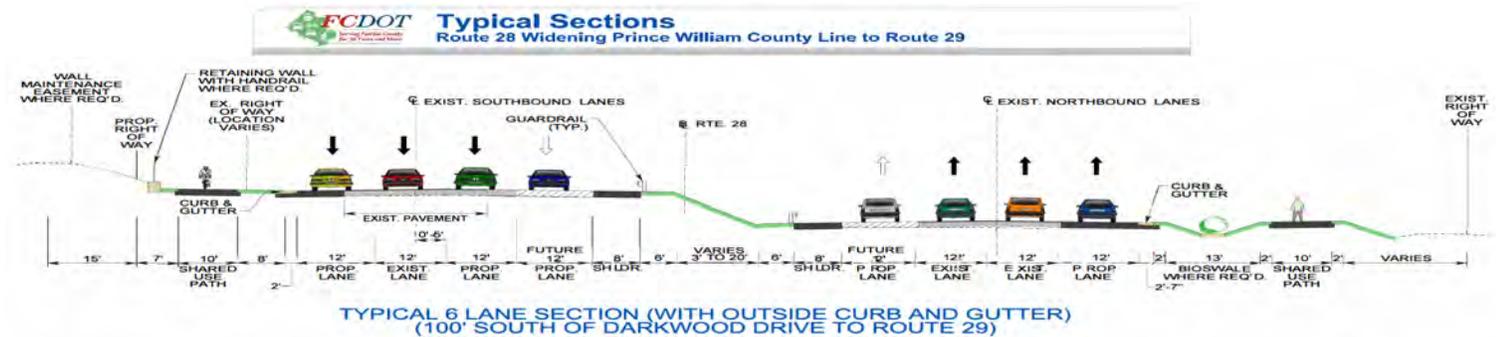
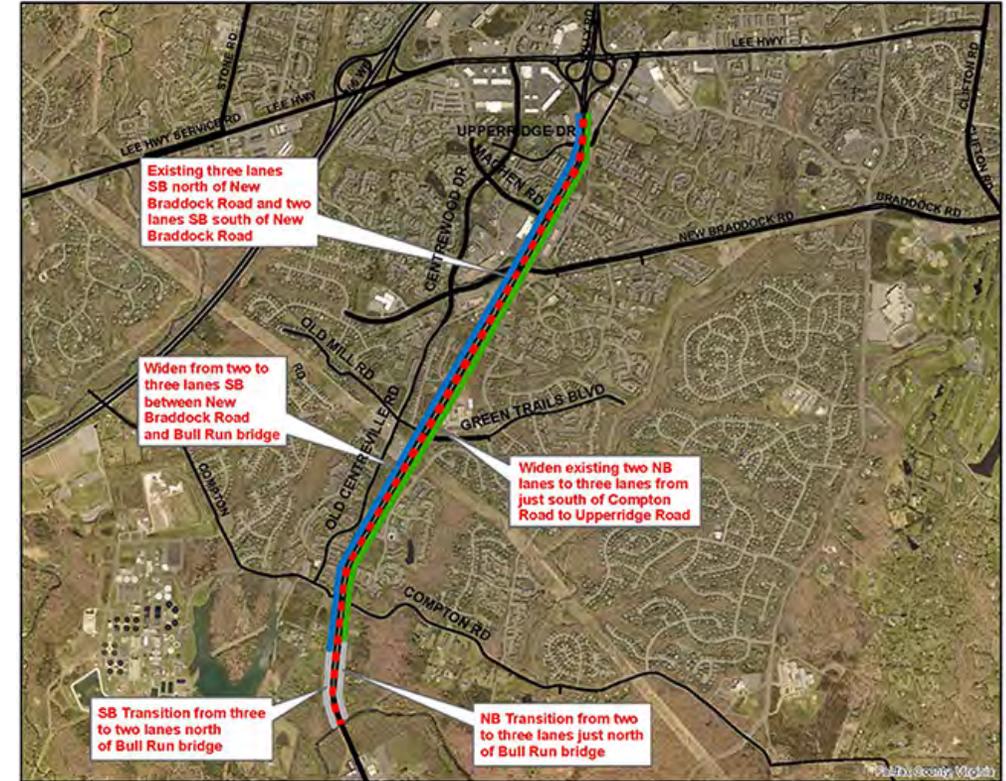
Purpose: Construction of a bypass or widening of existing Route 28 to relieve congestion between the City of Manassas and Fairfax County

- **Description:** 4-lane limited access road, extending from Flat Branch to Route 28 near the Fairfax/Prince William County Line and one bike/ped facility or widening of existing Route 28 to 6 lanes.
- **Approximate Project Cost:** \$300,000,000
- **Proposed Bond Authorization:** \$200,000,000
- **Existing Funding:** \$95 million in NVTAF funds.
- **Project Duration:** 5 to 7 years
- **Pros:** Relieves congestion, improves capacity, regional project, bike/ped access, improves travel time, transit reliability
- **Cons:** Cost, environmental impacts, ROW impacts, large wall construction, neighborhood impacts, alignment TBD



Route 28 Widening (Fairfax)

- Widening from four lanes to six lanes from Route 29 to bridge over Bull Run
- Cost: \$86,480,000
- Anticipated Schedule:
 - Start Construction – Fall 2020
 - Finish Construction – Spring 2023



TYPICAL 6 LANE SECTION (WITH OUTSIDE CURB AND GUTTER)
(100' SOUTH OF DARKWOOD DRIVE TO ROUTE 29)

A background image of a busy street with traffic. In the foreground, a dark SUV is driving towards the camera. Behind it, several other cars are visible. On the right side of the street, there are several white vans parked in a lot. In the background, there are commercial buildings with various signs, including one for 'MANASSAS AUTO TRUCK' and another for 'USED & NEW TIRES'. The overall scene is a typical urban or suburban street during the day.

Thank you!

Your participation and feedback is essential to developing a solution that works for all!

Project Website: www.virginiadot.org/projects