



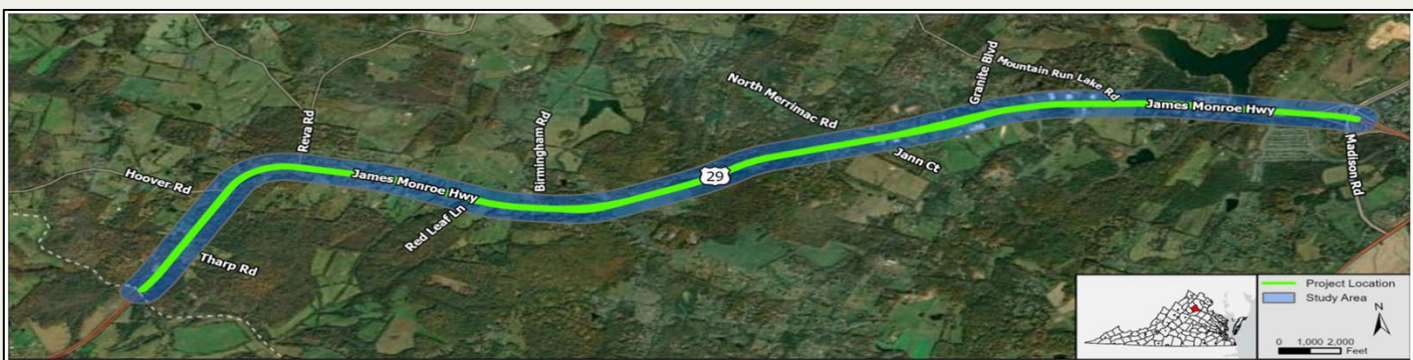
# PROJECT PIPELINE NEEDS AND EXISTING CONDITIONS SUMMARY

U.S. Route 29

VDOT District: Culpeper / Locality: Culpeper County

CU-25-02

Sheet 1 of 2



## Study Purpose, Goals, and Objectives

To evaluate safety issues along the US Route 29 corridor between the Madison County line and the US Route 29/299 interchange. Plan to use as part of future land use decisions. The study will result in Access Management and Corridor Preservation recommendations that Culpeper County can include in its Comprehensive

## VTrans Needs

- Safety Improvement
- Capacity Preservation (Keep traffic flowing smoothly)

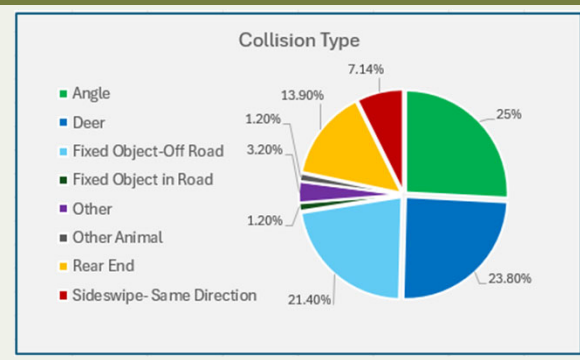
## Safety Needs

- A total of 252 crashes occurred within the 5-year study period. Angle crashes made up approximately 25% of all crashes, including both fatalities, while deer-related crashes accounted for 24%.
  - One fatal crash occurred at US 29 & Mountain Run Lake Road, where alcohol was a factor.
  - Another fatal angle crash occurred at US 29 & South Merrimac Road.
- 38% of all crashes occurred at night, and 70% of deer-related crashes happened during nighttime hours.
- 5 crash hotspots were identified: US 29 at Hoover Road, Reva Road, White Shop Road, Merrimac Road, and the 1-mile segment between Granite Boulevard and Country Store Drive.
- High angle crash rates were observed at US 29 & Hoover Road, Reva Road, White Shop Road, Merrimac Road, and Granite Road.
- Within the 1-mile segment from Granite Boulevard to Country Store Drive, 65 crashes were reported.
- Elevation differences between US 29 NB and US 29 SB contribute to poor sight distance at many of the crossovers along the corridor.

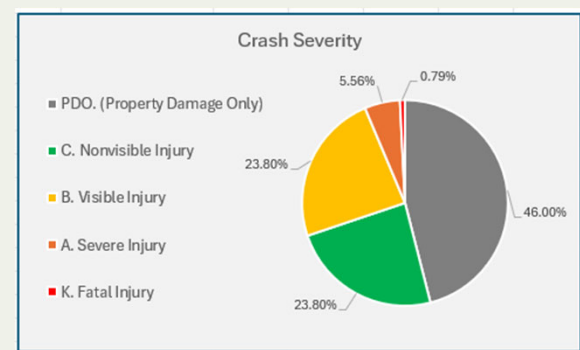
## Study Facts

Major Study Intersections	US 29 & Mountain Run Lake Rd, Granite Blvd, Reva Rd, Hoover Rd, White Shop Rd, Little Oak Dr, Merrimac Rd
Length of Study Area	6.5 miles
Classification	Other Principal Arterial
2022 ADT (Average Daily Traffic)	20,000-26,000
Speed Limit	55 mph

## Crash Type 252 Total Crashes (2020-2024)



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Sheet 2 of 2

## Safety Needs

- Elevation differences between US 29 Northbound and US 29 Southbound present sight distance challenges at multiple crossovers within the corridor.



## Operations Summary

- HCS operational analysis showed that all road segments are operationally acceptable.
- All intersections operate at LOS C or better, except for two intersections—US 29 & Granite Boulevard and US 29 & Merrimac Road—which operate at LOS D during the PM peak period.
- A high volume of heavy trucks utilizes White Shop Road to access a nearby dump.

Level of Service by Intersection	AM	PM
US 29 & Mountain Run Lake Road	B	B
US 29 & Granite Boulevard	C	D
US 29 & Merrimac Road	C	D
US 29 & White Shop Road	B	B
US 29 & Little Oak Dr/ Residential Driveway	C	C
US 29 & Reva Road	C	C
US 29 & Hoover Road	C	C

## Transit and TDM Needs

- Culpeper Orange Connector serves the City and surrounding area
- Foothill Express connects Charlottesville to Culpeper via US Route 29

## Summary of Needs Identified Through Public Outreach

- Survey dates: June 2<sup>nd</sup> – June 16<sup>th</sup>, 2025
- Number of participants: 333
- Modes of travel: personal vehicle (99%), truck or commercial vehicle (5%).
- Highest ranked needs: corridor safety, capacity preservation, speeding/aggressive driving, congestion reduction, and proper pavement marking and signage.
- Major concern regarding turn lane lengths along US 29- too short for cars making lefts or U-turns, resulting in rear-end crashes from cars speeding and not having enough time to slow down as cars ahead of them turn.
- Reva Road & US 29 is a dangerous intersection, particularly for trucks, school buses, and other heavy vehicles.
- Weekends, weekday rush hours, and UVA event days are when levels of congestion are highest.
- Median grass height causes sight distance/visibility concerns, particularly at crossovers.

## Proposed Solutions to Evaluate in Phase 2

- Implement R-CUTS
  - Reva Road
  - White Shop Road
- Add a lane for Reva Road southbound right turn
- Add acceleration & deceleration lane northbound at White Shop Road
- Pavement marking and signage improvements for better visibility, particularly at night and during adverse weather

