



# PROJECT PIPELINE: SUMMARY OF NEEDS & EXISTING CONDITIONS

VA-7 from Greenwood Rd/Frist Woods Dr to Frederick County Line  
VDOT Staunton District

ST-25-05  
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## Project Background and Goals

This project intends to create roadway and safety improvements that address VTrans Needs in the study area that meet readiness requirements for funding programs. The study area for this project is 2.25 miles of VA-7 (Berryville Pike) from Greenwood Road and First Woods Drive to Frederick County Line located east of the City of Winchester. Primary concerns that will be addressed for this portion of VA-7 include traffic safety, road capacity, transportation demand management, transit access, and enhancing pedestrian and bicycle facilities where appropriate.

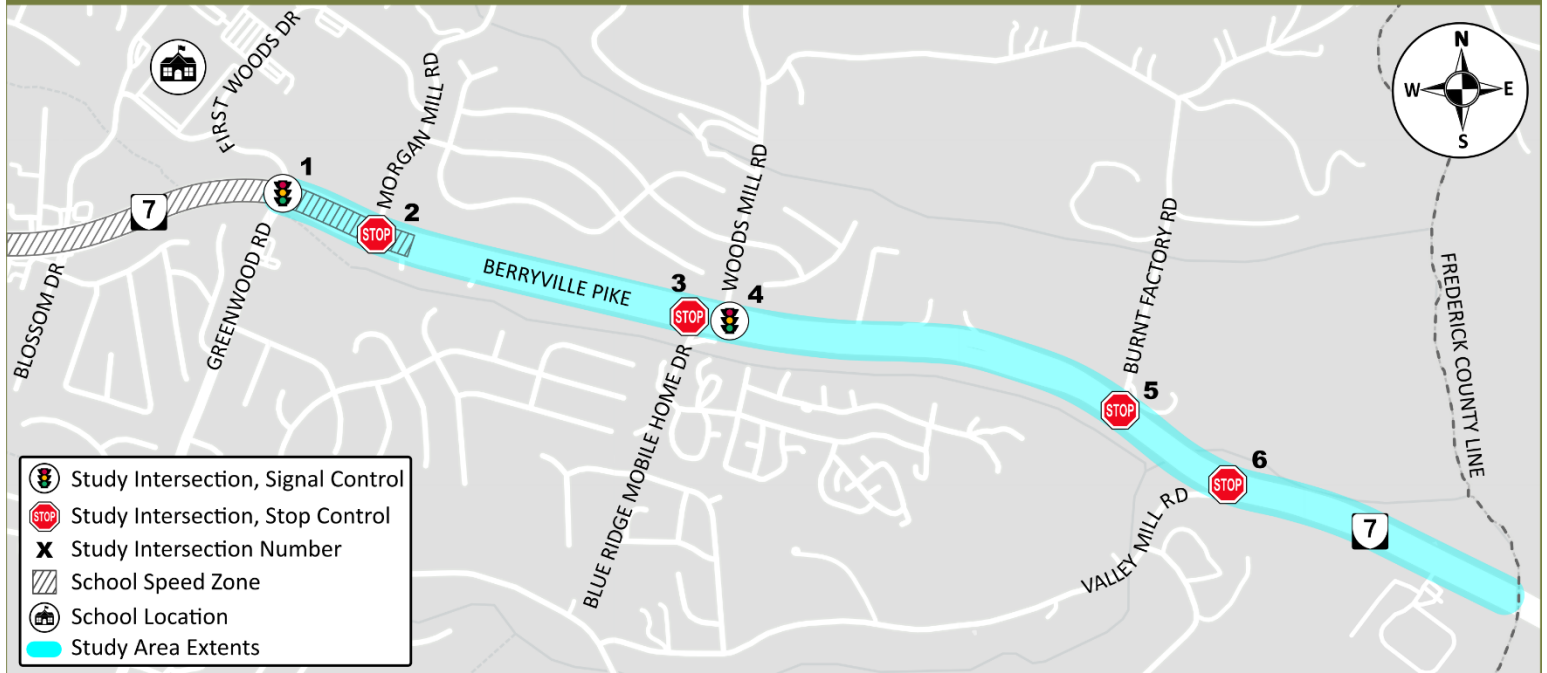
## VTrans Needs for VA-7

- ✓ Capacity Preservation
- ✓ Pedestrian & Vehicle Safety
- ✓ Transportation Demand Management
- ✓ Transit & Bicycle Access

## Overview of VA-7

- Divided principal arterial roadway with 45 MPH posted speed limit
- Used by 27,100 vehicles each day as of 2023
- Provides access to schools on First Woods Drive
- Surrounded by residential developments, hilly terrain, and forest

## Study Area Map



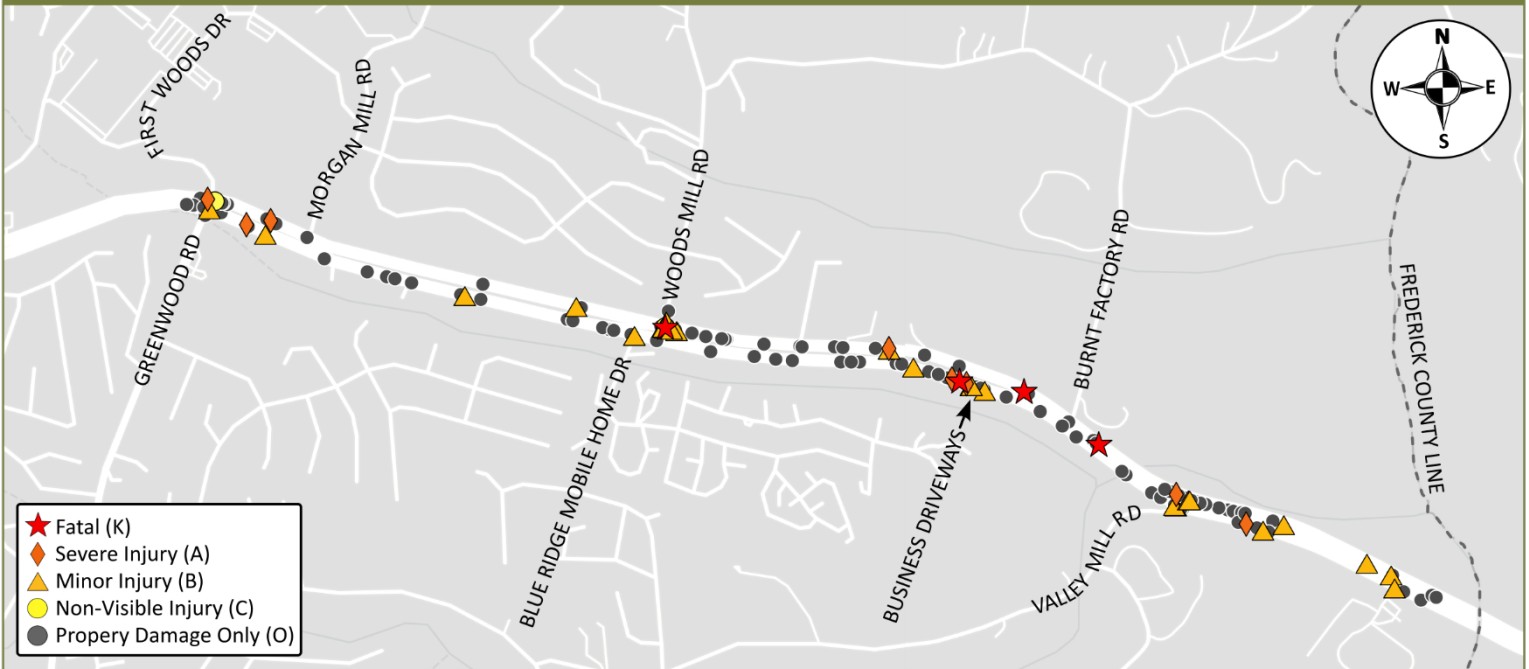


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## Crash Location and Severity Map



## Crash Statistics

- 195 total crashes in 5 years from Jan. 1 2020 to Dec. 31 2024
  - 22% caused injury or fatality
  - 23% involved speeding
  - 27% occurred in darkness or poor lighting
  - 89% occurred on dry roads without slippery conditions
  - 91% occurred without bad weather
- Top three collision types
  1. Fixed-object off-road (30% of all crashes)
  2. Rear-end (29% of all crashes)
  3. Angle (19% of all crashes)
- 4 study area locations rank in top 100 on VDOT Potential for Safety Improvement list

## Traffic Operations Overview

- VA-7 at Greenwood Rd/First Woods Dr
  - Traffic movements to and from minor streets experience high delay and may operate near capacity in both peak hours. Volume exceeds capacity of minor street approaches.
- VA-7 at Valley Mill Rd
  - Traffic movements from minor street experiences high delay in both peak hours. Volume exceeds capacity of minor street approach.
- All Other Study Intersections
  - Operate acceptably overall with low to moderate delay. Volume does not exceed capacity. Traffic turning from minor streets to VA-7 experiences more delay versus traffic on mainline VA-7.

## Public Survey Results

- **Top Concerns:** 45%-92% of survey respondents say their top concerns include capacity preservation, safety improvements, and transportation demand management.
- **Top Priorities:** 80%-92% of survey respondents say they would prioritize addressing traffic congestion, intersection and corridor safety, and speeding and aggressive driving.
- **Safety Issues:** 46%-71% of survey respondents say their safety concerns include sudden stops, speeding and aggressive driving, diffculting merging or weaving, and running red lights. (25%-26% also mention inadequate lighting, signs, and pavement markings.)
- **Mode of Travel:** 99% of survey respondents say they use personal vehicles and 6% or less say they also walk, bike, carpool, take the bus, or travel by other means.

## Potential Roadway and Safety Improvements

- ✓ Signalize VA-7 at Valley Mill Rd or convert to median u-turn
- ✓ Install new advanced warning signs with flashing beacons
- ✓ Adjust signal timing at signalized intersections
- ✓ Add or widen paved shoulders
- ✓ Remove roadside objects from clear zone
- ✓ Improve sight distance at intersections and on curves
- ✓ Install lighting throughout study area and at intersections
- ✓ Modify VA-7 west at Woods Mill Rd from a signal to a roundabout
- ✓ Modify VA-7 at Greenwood Rd
  - Conventional turn lanes and signal phasing
  - Reduced Conflict Intersection (RCI)
  - Median U-Turn (MUT)