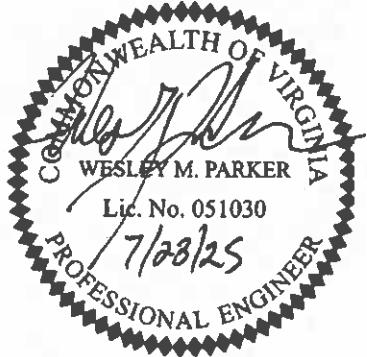


# Memorandum



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Project: Legacy Blvd. Intersection

Date: 6/17/25  
Comm #: 9704-2  
To: Sean Crawford (Poquoson, VA)  
Subject: Victory Blvd Speed Study

## Purpose and Background

The purpose of this memo is to summarize the speed data collected for Victory Blvd (State Route 171) in the City of Poquoson, Virginia. The city recently installed a new traffic signal at the intersection of Legacy Blvd and Victory Blvd. The posted speed limit along Victory Blvd changes from 55 mph through the intersection at Legacy Blvd, to 35 mph approximately 225-ft east of the intersection, without speed transition zone signs posted. This memo reviews the speed data collected to determine if the posted speed limits are appropriate and provide countermeasure recommendations, if warranted.

## Study Area:

Victory Blvd is a minor arterial with a posted speed limit of 55 mph west from the city line to approximately 225-ft east of Legacy Blvd where the posted speed limit is 35 mph as the corridor transitions to a more urban environment. The 55 mph speed limit along Victory Blvd was established outside of city limits by resolution on 12/17/1975 and continues through Legacy Blvd. In existing conditions, Victory Blvd is a two-lane undivided roadway with paved 10-ft shoulders for the eastbound direction, and 1-ft paved shoulders and 40-ft cleared grass shoulder for the westbound direction. A study area map showing is shown in Figure 1.

Additionally, a new traffic signal is under construction at the intersection of Legacy Blvd and Victory Blvd to facilitate movements out of the new development to the south. The traffic signal pole foundation on the westbound side of the Victory Blvd was installed closer to the edge of roadway than specified in the plans, placing it within the 55 mph clear zone prompting a review of vehicular speeds in the area.

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Figure 1- Victory Blvd Study Area

## Analysis

Daily directional counts and speed data were collected for 48 hours from Tuesday, June 3, 2025 at 12:00AM, through Thursday June 5, 2025 at 12:00 AM on Victory Blvd approximately 600-ft west of Legacy Blvd within the 55 mph speed zone, as seen in Figure 2.

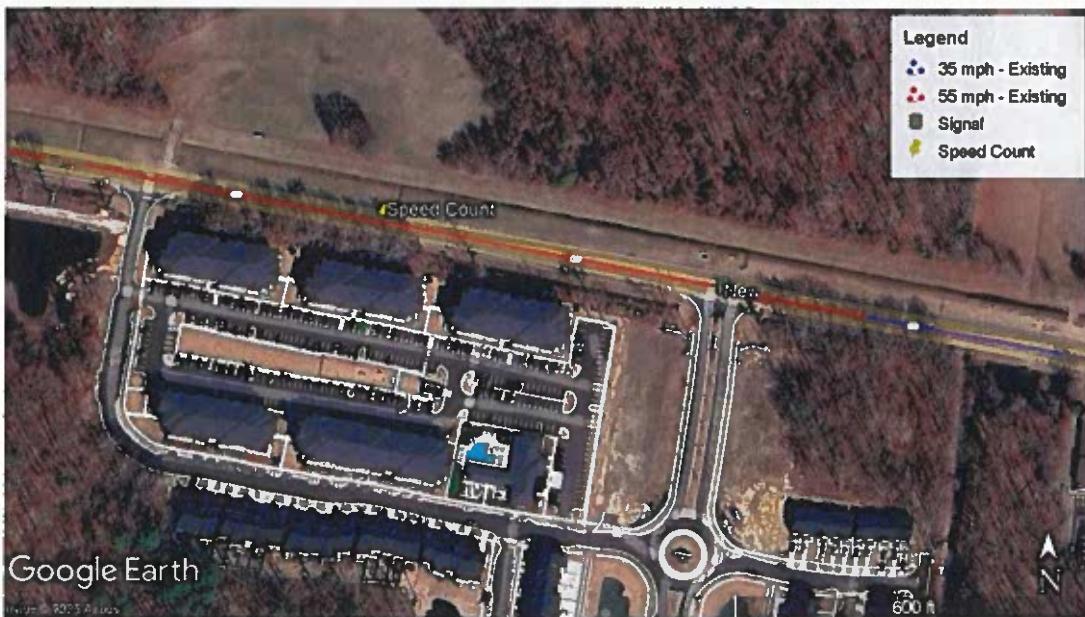


Figure 2- Location of Speed Counter on Victory Blvd

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Speed Data is recorded in 1 mph increments and is summarized in Table 1. As seen in Table 1, the mean speed along Victory Blvd is just under 45 mph for the eastbound direction and just under 46 mph for the westbound direction. The 85<sup>th</sup> percentile speed, which is defined as the speed that 85% of drivers will drive at or below under free-flow conditions, is shown as 51 mph for both the eastbound and westbound direction.

Table 1. Speed Data Summary

Victory Blvd	Direction	Mean Speed	Median Speed	Mode Speed	85 <sup>th</sup> Percentile Speed	Pace Speed	% Traveling Within Pace
West of Legacy Blvd	Eastbound	44.9	45.0	45.0	51.0	41-51	64%
	Westbound	45.9	46.0	45.0	51.0	41-51	68%
	Combined	45.3	46.0	45.0	51.0	41-51	66%

In addition to the speed study, a daily traffic count was conducted to determine the average daily traffic (ADT) volume including both travel directions. The average daily traffic along this corridor over this time period was found to be 13,560 vehicles per day (vpd), (7,615 vpd eastbound / 5,945 vpd westbound).

Crash Data for Victory Blvd was retrieved for a five-year period between January 1, 2020 and December 31, 2024 from VDOT's Tableau Crash Tools. Eight recorded crashes were found during this period and are summarized in Figure 3.

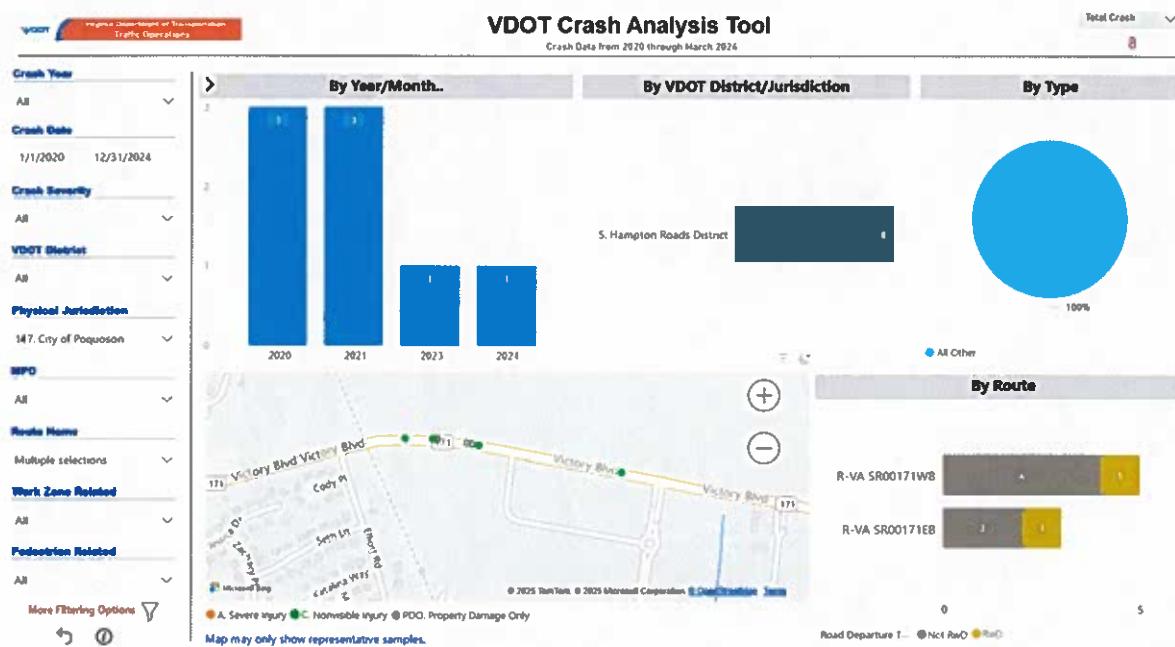


Figure 3- VDOT's Tableau Crash Tools Summary

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One rear end crash occurred between Big Woods Dr and Legacy Blvd. The crash occurred in daylight conditions and resulted in a nonvisible injury. Seven of the eight crashes occurred on or approaching the horizontal curve between the west city limit and Big Woods Dr. Of these crashes, one resulted in a severe injury, three in nonvisible injuries, and three were property damage only (PDO) crashes. The severe injury crash was categorized as an "other" collision type and occurred in dark unlit conditions under no adverse weather conditions. One of the nonvisible injury crashes was an "other" collision type crash that occurred in rainy conditions. The remaining nonvisible injury crashes were a rear end and a fixed object-off road crash which occurred under no adverse weather conditions. All three PDO crashes were rear end crashes, two of them occurred in rainy conditions.

The crash rates for this section of highway are summarized in Table 2.

Table 2- Crash Rates

Roadway	Direction	Crashes	Crash Rate	Injuries (ABC)	Injury Rate	Fatalities	Fatality Rate
Victory Blvd	Eastbound	Eastbound	3	45.9	2	30.6	0
	Westbound	Westbound	5	98.1	3	58.8	0
	Combined	Combined	8	68.8	5	43.0	0
VDOT Minor Arterial	Statewide Average (2020-2023)	2023 Statewide Average	185,225	197.16	67,005	71.32	1,135

Crash history did not show any particular crash patterns or reference to speeding. Crash rates did not indicate an above average crash occurrence.

## Summary & Recommendations

According to the speed study and the traffic count that was conducted, the average speed for both directions reached a max of 46.0 mph with a daily traffic volume of over 13,000 vehicles per day. The crash analysis did not indicate severe safety concerns and with a posted speed of 55 mph, this should not be a cause of concern. However, since there are no existing advanced warning signs indicating the 20 mph speed reduction, it is recommended to implement a transition zone by introducing a 45 mph posted speed limit zone in advance of the existing 35 mph posted speed zone. Additionally, with the traffic signal pole foundation located within a 55 mph clear zone, and the new traffic signal and adjacent development effectively marking the beginning of a more urban environment, reducing the speed to 45 mph in this area would better align with the surrounding roadside development and serve as a gateway into the city. Recommended locations of new posted speed limit signs are shown in Figure 4.

## Agenda



*Figure 4- Recommendations*