RESOLUTION No. 2026-004

A RESOLUTION TO ACCEPT AND ADOPT THE TRAFFIC STUDY WITH REGARD TO SPEED LIMITS AS SUBMITTED BY BURCH TRANSPORTATION FOR THE CITY OF EAGLEVILLE, TENNESSEE

WHEREAS, the City Council of the City of Eagleville, Tennessee recognizes the importance of traffic safety;

WHEREAS, Burch Transportation has completed a comprehensive study titled "**Speed Limit Study**," as detailed in the attached report (Appendix A);

WHEREAS, the study provides valuable data and analysis on current traffic speeds, terrain, crash statistics and speed distribution;

WHEREAS, the findings directly support the City of Eagleville's responsibility for public safety by enacting speed limits that serve our growing community and increased traffic flow;

THEREFORE, BE IT RESOLVED that the City Council of the City of Eagleville formally accepts and adopts the study titled " **Speed Limit Study** " as presented;

BE IT FURTHER RESOLVED that the findings and recommendations within the study be adopted for consideration in future planning and policy development;

BE IT FINALLY RESOLVED that this resolution takes effect immediately upon passage.

Chad Leeman, Mayor

Christina Rivas

Attested by: Christina Rivas, City Recorder

Approved as to Form
this 22 day of January , 2026

Stephen Aymett, City Attorney

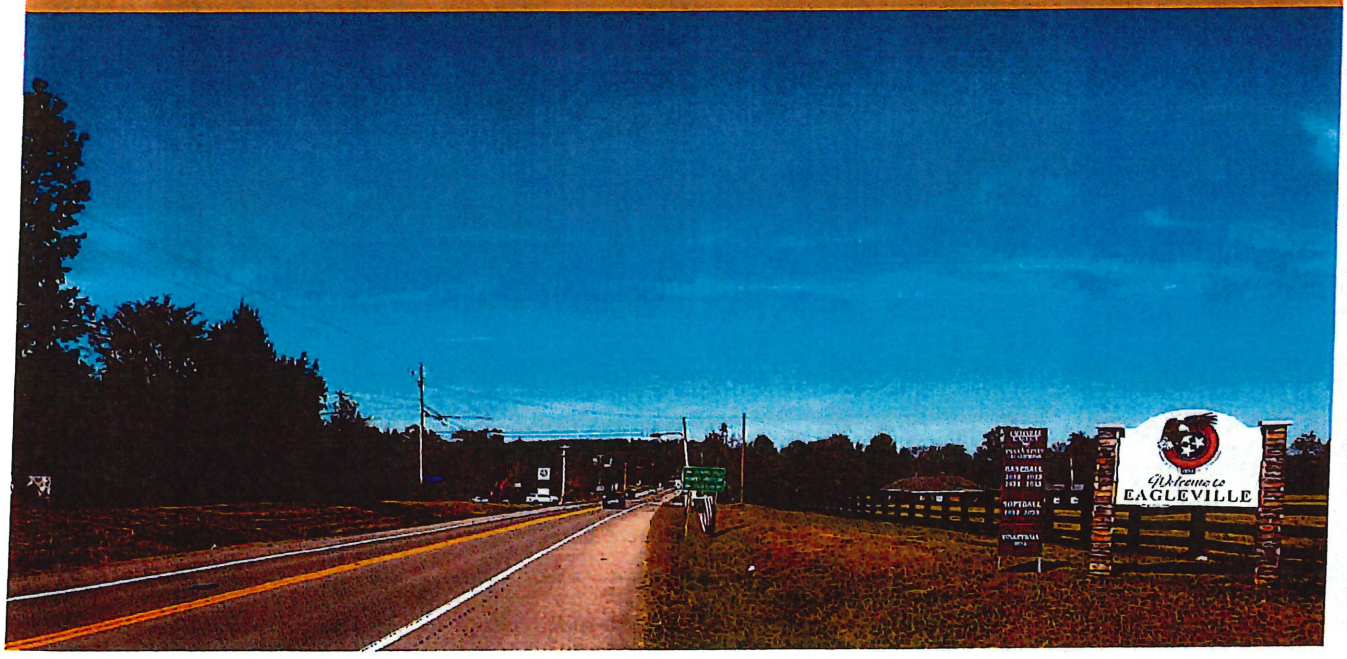
BURCH
TRANSPORTATION

City of Eagleville, Tennessee

SPEED LIMIT STUDY

S Main Street and
New Highway 99

December 2025



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INTRODUCTION 1.0

The City of Eagleville is organized around the crossroads intersection of Main Street (US 41A, State Route 16) and State Route 269/99. Both of these routes are classified by TDOT as rural minor arterials, meaning that they are designed and intended to carry higher volumes of traffic and usually at faster speeds. However, the strict mobility-focused role of these roads changes when drivers approach the commercial center where access and slower speeds become more important.

Like all cities, Eagleville desires safe streets and has indicated concerns with speeding on these primary roads. Specifically, this study was commissioned to address speeds and the speed limits on two road segments, S Main St south of Eagleville and New Hwy 99 east of Eagleville.

As an incorporated city, Eagleville has the authority to set the speed limits on these state routes and is conducting this engineering study in accordance with state law (see TCA § 55-8-153-c-1-A, B).

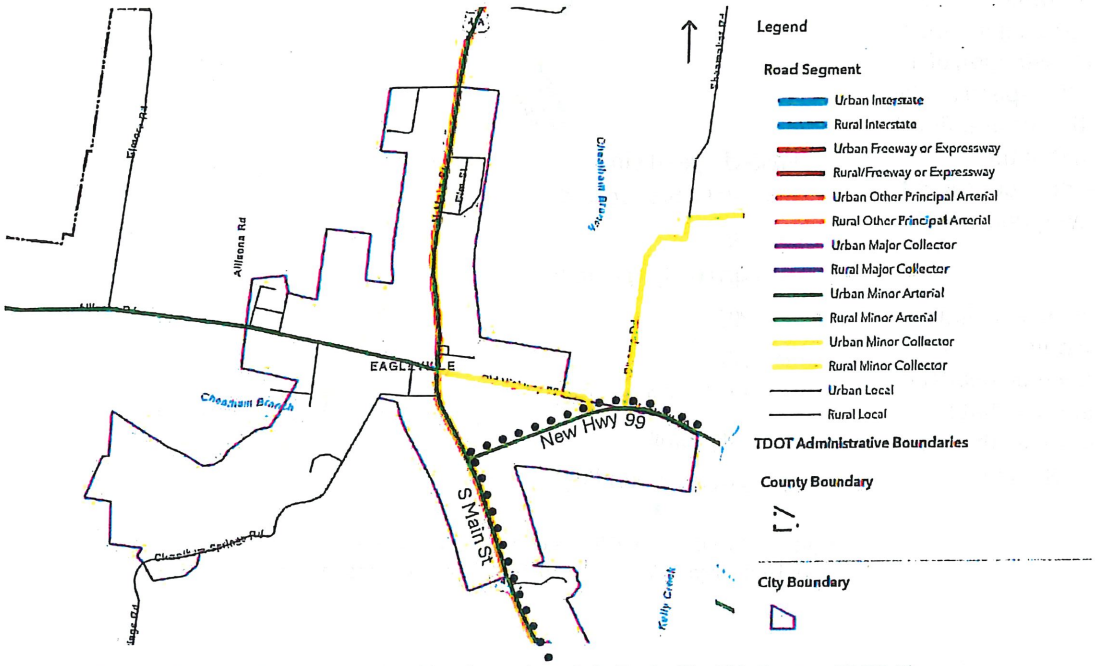


Figure 1. The city limits and functional classifications of roads in Eagleville, TN. *Source: TDOT.* The approximate study segments are dotted.

1.1 EXISTING SPEED LIMITS

The purpose of a speed limit is to communicate to drivers the maximum safe speed for driving under normal conditions. It is incumbent on drivers to slow down further under unusual conditions (weather, low visibility, adverse road conditions, the presence of traffic or other road users – pedestrians, bicyclists – etc.).

Normal conditions are defined as portions of the corridor and times of the day when congestion or traffic control does not have a major impact on the driver's selection of a speed. Thus, the speed limit is to be set for these "free-flow" conditions so that the regulation is more consistent with the roadway context and geometry.

An appropriate speed limit is one that both contributes to safety for every road user and establishes speeds that are seen as reasonable, therefore achieving compliance.

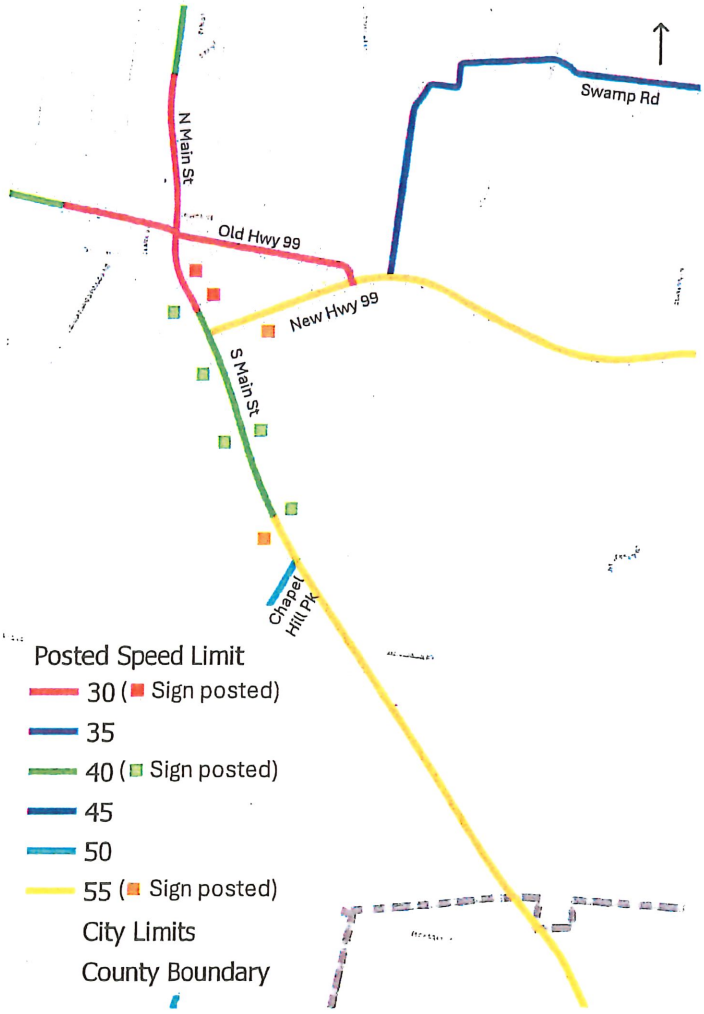


Figure 2. Existing speed limits by segment and locations of posted speed limit signs. *Source: TDOT TRIMS and field observations.*

1.2 SPEED SETTING FACTORS

The *Manual on Uniform Traffic Control Devices* (MUTCD) sets forth six factors which are to be considered when setting speed limits. These are:

1. ROADWAY ENVIRONMENT
Describes the nature of the road and its users.

2. ROADWAY CHARACTERISTICS
Design features that influence speed.

3. GEOGRAPHIC CONTEXT
Contributing factors of the surrounding land area.

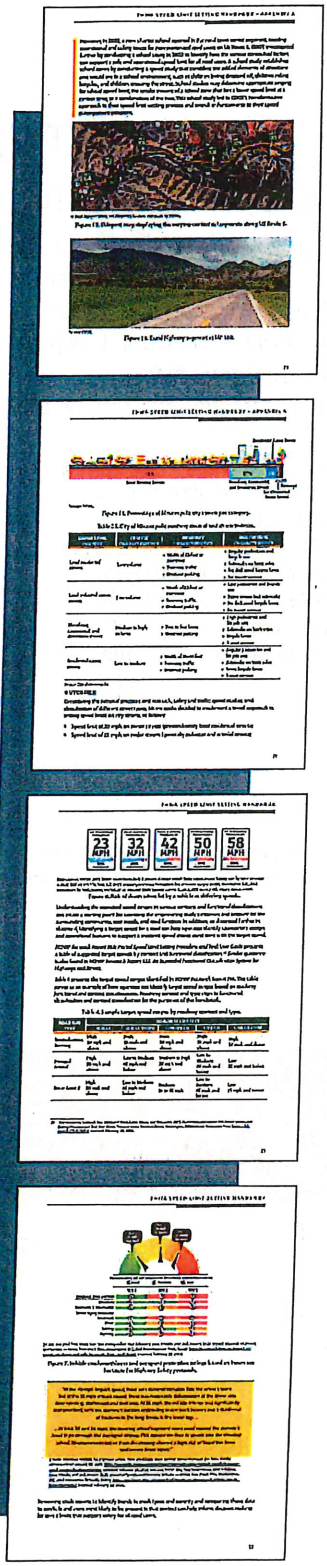
4. REPORTED CRASH EXPERIENCE
Considers how safety has been influenced by speed.

5. SPEED DISTRIBUTION
Quantifies drivers' comfort with speed.

6. PAST SPEED TRENDS
Looks at trends which predict where speeds are headed.

A subsequent document published by the Federal Highway Administration, the *Speed Limit Setting Handbook* (Report #FHWA-SA-24-063) was published in January 2025 and further defines each of these six factors. This investigation into Eagleville's speed limit condition follows the guidance of FHWA's *Handbook*.

The *Speed Limit Setting Handbook* also contains background information like definitions, basic study principles, and regulatory considerations that should be reviewed as a precursor to this report.



SPEED FACTORS

2.0

2.1 Roadway Environment

The roadway environment factors are similar for both roads:

- Both are rural minor arterials
- Driveway access density is low, reflecting the large-lot rural condition
- No transit service and low pedestrian and bicycle activity
- No curbside activity
- Both roads under capacity, but S Main St traffic is higher and growing faster.

Figure 3. *10-year traffic trends (average annual daily traffic).* S Main St traffic (blue) is growing at 4.6% annually, more than double the 2.0% rate on New Hwy 99. Traffic volumes are still not high enough to really impact travel speeds. *Data source: TDOT*

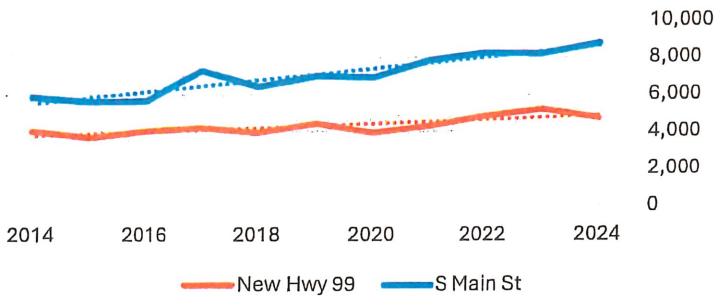
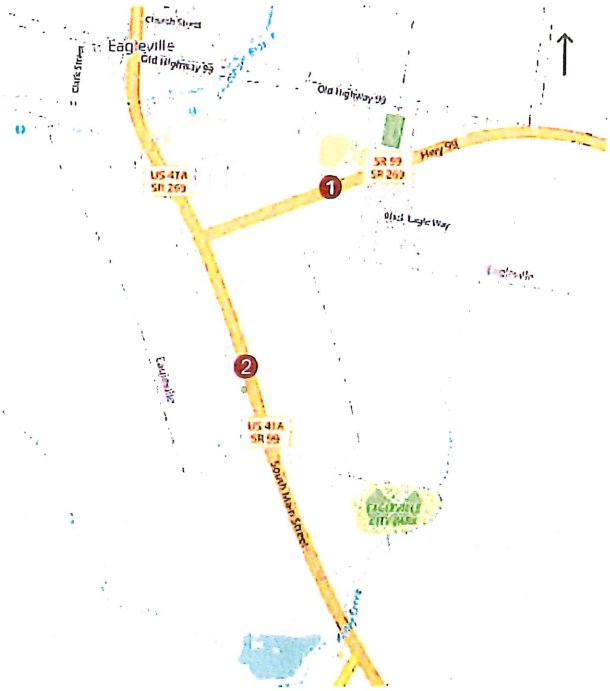


Figure 4. *Locations and select volume data from special counts made on Thursday, October 2, 2025.*



Free-flow[4] speed data	New Hwy 99 (1)	S Main St (2)
AM Peak Hour Volume	286	824
PM Peak Hour Volume	444	872
24-Hour Volume	4,625	10,154
Truck %	4%	4%

2.2 Roadway Characteristics

The roads have many similarities in roadway characteristics as well:

- Two-lane highways with 12' lanes and wide (10-12') paved shoulders
- Left turn lanes only at a few key intersections
- Generally, no passing allowed
- Few warning and no advisory speed conditions
- No traffic signals or mainline stop conditions
- Large roadside setbacks
- Some street lighting
- No significant sight distance obstructions or horizontal or vertical curvature

Above. *Wide pavement, open roadsides, and sparse land use results in the rural context still prevalent on these roads in the outer areas of the city limits. (On S Main St)*
Below. *New development, a center turn lane, and lighting all contribute to a less rural (and slower) context. (On New Hwy 99)*

2.3 Geographic Context

Both roads have the same rural context, but here are a few differences which might impact speeds:

- New Hwy 99 has a few more new residential developments directly along the corridor.
- The Eagleville school complex is served more directly from New Hwy 99.
- S Main St has more commercial property including the Eagleville Market and several rural-oriented businesses.
- City Park is located off of S Main Street. However, there are no land uses on either road which produce any notable amount of pedestrian or biking trips.

New Hwy 99 has seen a few developments like this one, but with limited impact to the rural context.

2.4 Crash Experience

Speed is often at least a partial factor in crashes, and safety is an important part of the speed limit recommendations.

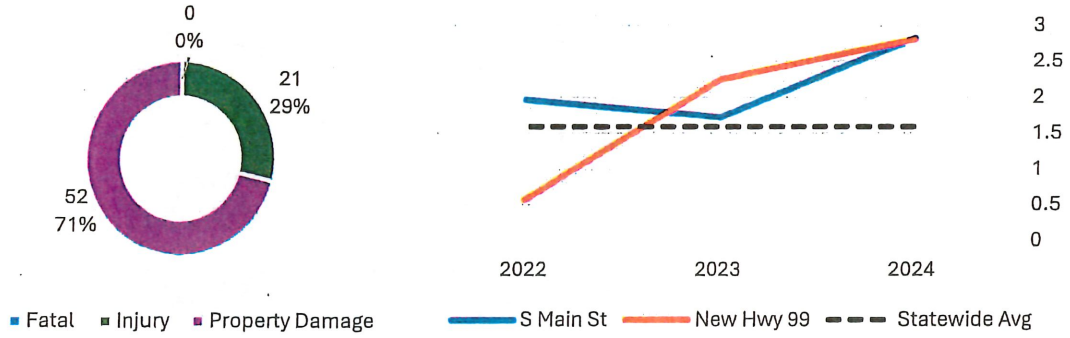


Figure 5 (Above). Crash severity: Combined routes, 2022-2024. *Data Source: TDOT.* With 71% of crashes being property damage only, these routes are exactly at the statewide average for severity. No fatalities were documented during these years.

Figure 6 (Above right). Crash rates by route, 2022-2024. *Data Source: TDOT.* Crash rates are growing, and significantly exceeded the statewide average rate for similar roads in 2024.

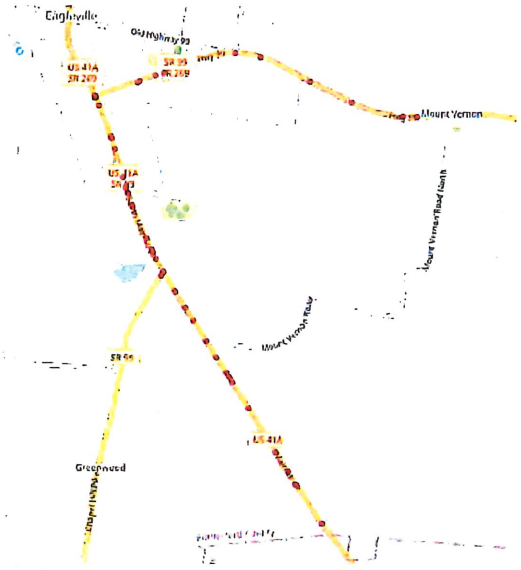


Figure 7 (Right). Crash locations, 2022-2024. *Data Source: TDOT.* Crashes are fairly evenly distributed, though hotspots existed on S Main St at the New Hwy 99 intersection (25 crashes), the Chapel Hill Pike intersection (17 crashes), and the Eagleville Market driveways (5 crashes).

The northbound approach to Chapel Hil Pike on S Main Street. The speed limit is currently 55 mph here and the intersection is the second most frequent crash location.

2.5 Speed Distribution

Traditionally considered the best way to determine prudent and reasonable speed limits, the free-flow speed of traffic is still an important factor in setting speed limits.

Free-flow[4] speed data	New Hwy 99	S Main St
	1	2
Average speed	49.5	43.0
50th % speed	49.6	42.7
85th % speed	55.2	47.8
Pace speed	41-50	38-47
USLIMITS[5]	55	45

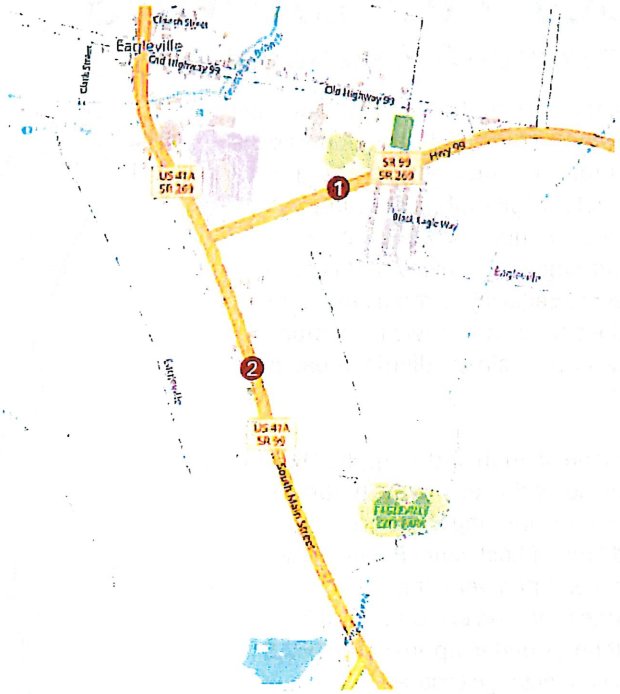


Figure 8. Locations of speed data collected by tube counts on Thursday, October 2, 2025.

2.6 Speed Trends

Cell phone data gives us a picture of the history of overall speeds on these roads.

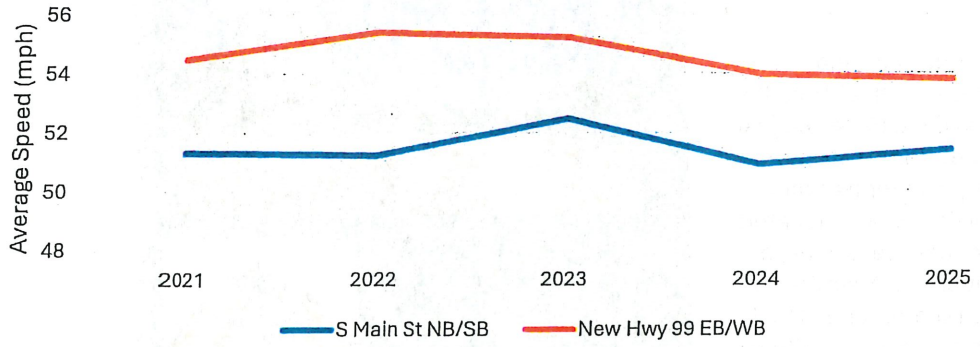


Figure 9. *Average Speed Trend, 2021-2025.*
These are the average speeds during the period 12:00 AM – 5:00 AM during every day of the year from 2021-October 2025 over the whole length of the study segments. A very slight decreasing speed trend shows that land use and other conditions affecting speeds have not changed much over the past five years. *Data source: RITIS*

[4]Free-flow speed conditions estimated to be all hours except 7:00-10:00 AM and 2:00-7:00 PM.
[5]USLIMITS is FHWA's expert-system tool to suggest reasonable, safe, and consistent speed limits.

RECOMMENDATIONS 3.0

3.1 Summary – S Main Street

Generally, this segment of US 41A stretching across the Rutherford-Bedford County line is a typical rural two-lane highway, designed for speeds of at least 55 mph. The statutory speed limit of 55 mph is appropriate for much of this segment. However, this road also serves as Eagleville's main street, and as such, the speed limit slows to 30 mph through the core business district area, also appropriate.

In between the 55 mph and 30 mph zones, a transition is advisable as drivers naturally slow down upon entering the more developed area of Eagleville. Based on the six factors presented here, it is recommended that the existing 40 mph speed limit be extended approximately 0.3 mile south with signage located approximately even with the Eagleville signage south of Chapel Hill Pike. South of this location, the speed limit should remain at 55 mph to the Bedford County line.

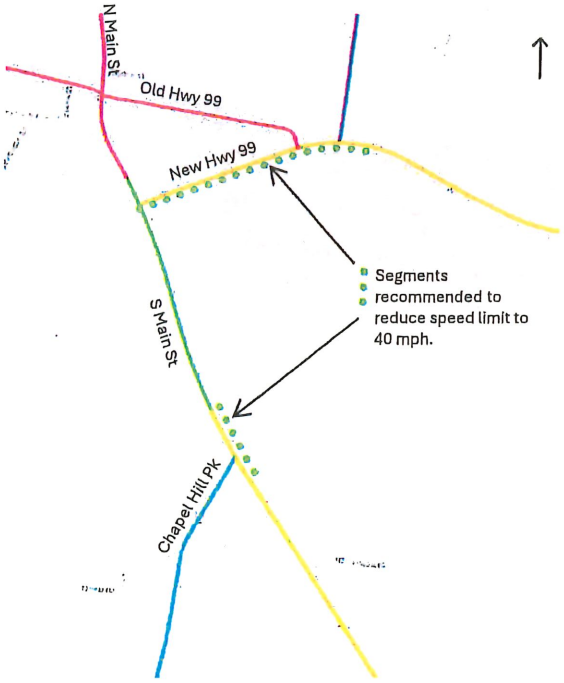


Figure 10. Recommended speed limit changes.

3.2 Summary – New Highway 99

This highway between Rockvale and Eagleville remains rural and should mostly retain its 55 mph speed limit. However, just west of Kelley Creek, development patterns change, and drivers begin entering a more suburban area. Eagleville School is located here (with a 25 mph school speed zone) as well as the stop condition at S Main Street. For these reasons, it is recommended that New Highway 99, from approximately Kelley Creek to S Main Street have a reduced posted speed limit of 40 mph. The existing 25 mph school speed zone should remain in effect.