



Somerville Glengarry Estates Subdivision Speed Limit Recommendations 2020

Pearl Drive Road, etc.

John Chlarson, P.E., MTAS Public Works Consultant
David Webb, Somerville Police Chief

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Municipal Technical Advisory Service
INSTITUTE *for* PUBLIC SERVICE

Somerville Pearl Road Speed Limit Recommendations 2020

Somerville Police Chief David Webb contacted the Municipal Technical Advisory Service (MTAS) to ask for guidance on establishing speed limits on Pearl Road in Glengarry Estates Subdivision. Glengarry Estates is a relatively new subdivision which, for whatever reason, has never had speed limits posted.

MTAS Consultant John Chlarson, P.E., conducted a field visit with Chief Webb to review the existing conditions. The Chief confirmed that, while there is a Homeowner's Association, the streets are public streets and the Town has jurisdiction and maintenance responsibilities.

Based on a study as required by law in the State of Tennessee, MTAS recommends that Somerville set the speed limits in Glengarry Estates Subdivision at 25 miles per hour.

[Tenn. Code Ann. § 55-8-153](#)

55-8-153. Establishment of speed zones.

(a) The department of transportation is empowered to lower the speed limits prescribed in § 55-8-152 in business, urban or residential districts, or at any congested area, dangerous intersection or whenever and wherever the department shall determine, upon the basis of an engineering and traffic investigation, that the public safety requires a lower speed limit.

(b) Appropriate signs giving notice of the lower speed limit shall be erected by the department at such places or put on the highway where the prescribed speed limits are effective.

(c)

(1)

(A) The legislative authorities of municipalities shall possess the power to prescribe lower speed limits on highways designated as state highways in their respective jurisdictions when, on the basis of an engineering and traffic investigation, it is shown that the public safety requires a lower speed limit.

(B) Engineering and traffic investigations used to establish special speed zone locations and speed limits by municipalities on state highways shall be made in accordance with established traffic engineering practices and in a manner that conforms to the Tennessee manual on uniform traffic control devices (MUTCD). The investigations shall be documented and documentation shall be maintained by the jurisdiction performing or sponsoring the investigation.

(C) All signs, signals and other forms of public notification of the speed limits, road hazards and other traffic conditions shall comply with the MUTCD.

(2) The legislative bodies of municipalities shall also possess the power to prescribe lower speed limits within certain areas or zones, or on designated

highways, avenues or streets that are not designated as state highways in their respective jurisdictions, and to erect appropriate signs and traffic signals.

As referenced in the Tennessee Code Annotated, the MUTCD guidelines for setting speed limits are as follows:

Section 2B.13 Speed Limit Sign (R2-1)

Standard:

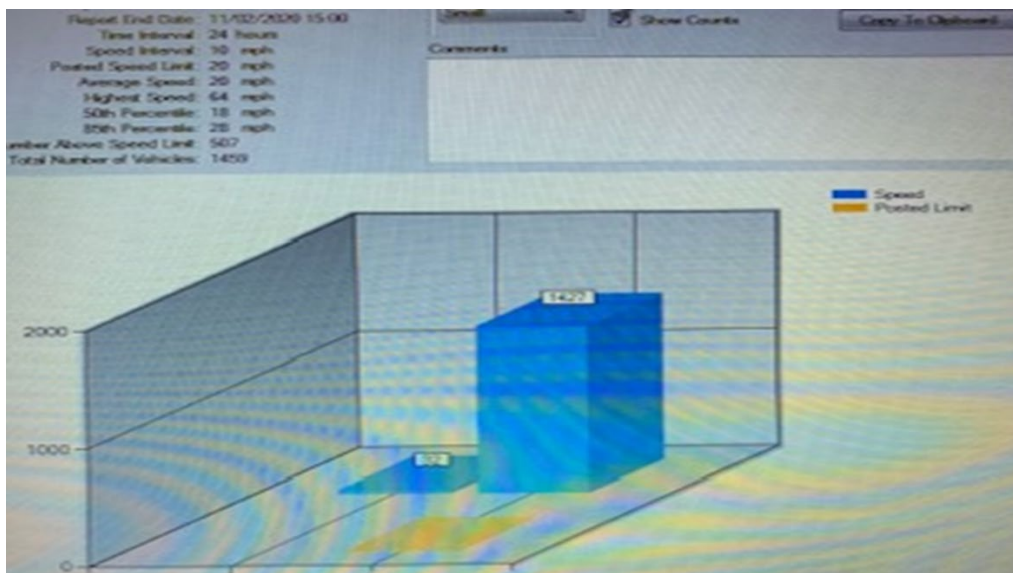
01 Speed zones (other than statutory speed limits) shall only be established on the basis of an engineering study that has been performed in accordance with traffic engineering practices. The engineering study shall include an analysis of the current speed distribution of free-flowing vehicles.

02 The Speed Limit (R2-1) sign (see Figure 2B-3) shall display the limit established by law, ordinance, regulation, or as adopted by the authorized agency based on the engineering study. The speed limits displayed shall be in multiples of 5 mph....

12 *When a speed limit within a speed zone is posted, it should be within 5 mph of the 85th-percentile speed of free-flowing traffic.*

13 *Speed studies for signalized intersection approaches should be taken outside the influence area of the traffic control signal, which is generally considered to be approximately 1/2 mile, to avoid obtaining skewed results for the 85th-percentile speed.*

So, given these criteria, MTAS Public Works Consultant and Engineer, John C. Charlson, P.E., either needed existing current speed study data on Pearl Road or to arrange to conduct and record speed data collection. Chief Webb had current data (11/02/20) from a radar speed trailer available.



The road is outside of the influence zone of a traffic signal (MUTCD 2B 13.13) and the 85th-percentile speed recorded was 28 miles per hour.

Then we reviewed the physical characteristics of the road and topography of the neighborhood.



In consulting with Matt Cate, P.E., Director, the University of Tennessee's Tennessee Transportation Assistance Program (TTAP), he confirmed our methodology and recommended, based on traffic engineering practices, a speed limit of 25 miles per hour.

This recommendation is consistent with the MUTCD guidelines "within 5 mph of the 85th-percentile speed of free-flowing traffic."

Again:

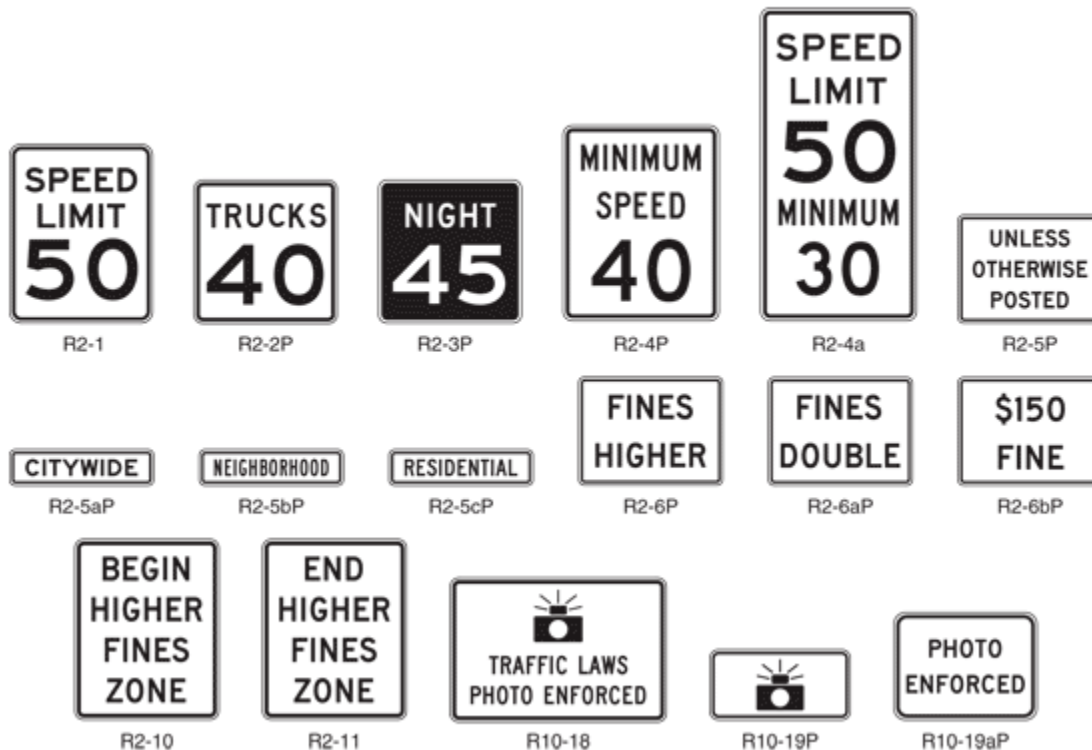
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02 The Speed Limit (R2-1) sign (see [Figure 2B-3](#)) shall display the limit established by law, ordinance, regulation, or as adopted by the authorized agency based on the engineering study. The speed limits displayed shall be in multiples of 5 mph.

Figure 2B-3. Speed Limit and Photo Enforcement Signs and Plaques



R2-1 is shown as a vertical rectangular white sign with a black border and legend. The words "SPEED LIMIT" are shown on two lines above the numerals "50."

For Pearl Road, and the rest of Glengarry Estates, the words "SPEED LIMIT" should be shown on two lines above the numerals "25".

The speed limit will also require an ordinance to be adopted by the Somerville board of Aldermen for legal establishment and enforcement.

For your convenience, below is a model ordinance for your review:

ORDINANCE ESTABLISHING SPEED LIMITS IN A CERTAIN AREA

Summary:

An ordinance establishing the speed limit in a certain area.

ORDINANCE NO.

AN ORDINANCE OF THE TOWN OF SOMERVILLE, TENNESSEE, ESTABLISHING SPEED LIMITS IN THE GLENGARRY ESTATES SUBDIVISION.

WHEREAS, the Board of Mayor and Aldermen of the Town of SOMERVILLE is interested in establishing safe speed limits for vehicles traveling in the Town, and

WHEREAS, an engineering study has been conducted in accordance with the requirements of [Tenn. Code Ann. § 55-8-153](#), and

WHEREAS, said study has determined that the recommended speed limit for the streets in Glengarry Estates is 25 miles per hour; now, therefore:

BE IT ORDAINED BY THE BOARD OF MAYOR AND ALDERMEN OF THE TOWN OF SOMERVILLE, TENNESSEE AS FOLLOWS:

Section 1. There is established a maximum speed limit of 25 miles per hour for all of Pearl Drive Road and all other streets or roads within the boundaries of the Glengarry Estates Subdivision.

Section 2. A penalty of up to \$50 shall be imposed for each violation of this ordinance.

Section 3. This ordinance shall take effect from and after its final passage and the posting of appropriate signs, the public welfare requiring it.

First Reading:

Second reading:

Mayor

City Recorder

Somerville: Glengarry Estates Subdivision Speed Limit Sign Placement



As depicted on the aerial view above of Glengarry Estates Subdivision, the speed limit signage should be placed near the entrance to the subdivision from Warren Road. Near the entrance on the right hand or south shoulder of the entry lane of the boulevard section of Pearl Road, the signage above should be placed as depicted, and placed on the same post. Given the size and characteristics of the streets in the subdivision, this will be all the signage that is necessary at this time.



R2-20-24

In order to limit speed limit signs in subdivisions, R2-20-24 may be used in conjunction with the appropriate speed limit sign to indicate the legal speed limit on all roads within a subdivision.



R2-20-24; 1.50" Radius, 0.63" Border, 0.38" Indent, Black on White;
 [ALL] C; [RESIDENTIAL] B 125% spacing; [STREETS] C;
 Table of distances between letter and object lefts.

9.06	A	L	L	9.06								
2.96	R	E	S	I	B	E	N	T	I	A	L	2.96
5.04	S	T	R	E	E	T	S	5.04				