



Report to Council

Department: Infrastructure Services

Division: Infrastructure Services

Date: July 6, 2020

Prepared by: Kevin Girard, P.Eng, MBA
Director of Infrastructure Services

Report Number: Infrastructure Services-2020-06

Subject: Policy for Establishing Speed Limits

Number of Pages: 13 (including attachments)

Recommendation(s)

That Infrastructure Services – 2020-06 entitled, “Policy for Establishing Speed Limits” prepared by Kevin Girard dated July 6, 2020 be received, and

That Council adopt the Transportation Association of Canada’s Guidelines for Establishing Posted Speed Limits as the standard for establishing speed limits on Town of Essex roadways, and

That Council adopt Infrastructure Services Policy #2020-01 titled, “Establishing Speed Limits on Town of Essex Roads”.

Purpose

This report has been developed to provide recommendations and a policy for reviewing speed limits review requests in the Town of Essex.

Background and Discussion

The authority for the Town of Essex to set speed limits is granted through the Highway Traffic Act (HTA). Under this legislation, the Town can set speed limits ranging from 40 to 80km/h in 10km/h intervals. The HTA also sets a default municipal speed limit of 50km/h on roadways within cities, towns, villages, or built-up areas. It further sets a default municipal speed limit of 80km/h in areas that are not built-up, and in a municipality that has the status of a Township under the Municipal Act.

The Town of Essex has the second largest road network in the region with close to 300km of roads, with varying conditions that include multiple road users, topography, surface types, road conditions, and land uses. This large and diverse network consists largely of both rural and urban sections. Every year the Town receives numerous complaints of speeding and/or requests for speed limit changes on its various roadways. As per Council's request, the attached policy provides for a formal process to guide the Town in establishing and reviewing speed limits on Town of Essex roads.

The mere reduction of posted speed limits, without changing the characteristics of the roadway to encourage reduced speeds has been shown to have a minimal impact on vehicle operating speeds. In addition the posting of additional signage and/or adjusting the posted speed limit of a roadway are generally not considered to be traffic calming measures. Alternatively and preferably, road safety may be enhanced through the posting of credible speed limits that match the expectation of drivers for a given roadway and its surrounding area. The purpose of this policy is to provide Administration with a systematic, consistent, reliable, and transparent framework to assess, review, and implement appropriate speed limits on Town of Essex roads. Implementation of this policy will also:

- Create a process for Administration to objectively review speed limit change requests from the Public, Council, and other stakeholders.

- Provide Administration and the public with an objective and reliable tool for evaluating speed limits on Town roads.
- Provide a standard format and process for resolving in a consistent manner, complaints regarding speed limits.
- Reduce the workload and duplication efforts for Town staff in responding to speed limit concerns.

A speed limit is the maximum legal speed at which vehicles may travel, but not necessarily the safe speed at which a vehicle should be driven. It is the responsibility of the driver to obey a speed limit and to ensure that the vehicle speed is appropriate for the prevailing circumstances and road conditions, even if that speed is lower than the posted speed limit. Consistency and credibility are very importance considerations. If the majority of speed limits make sense to drivers, there is a better chance of getting drivers to react to lower speed limits where there are truly issues of safety requiring lower speeds.

The current process for speed limit reviews in the Town is to utilize the 85th percentile speed of the road, which represents the speed at which 85% of the motorists are traveling at or below, based upon the fact that generally the public drives in a safe and appropriate manner to suit the road conditions. Consistency in the application of posted speed limits on the Town Road network is critical in maintaining the validity of and compliance with posted speed limits by road users. Reliable use of engineering standards backed by national and international research, such as TAC's guidelines in combination with reasoned engineering judgement, will result in a safer roadway environment.

When evaluating individual speed reduction requests, the Town reviews current literature including research, guidelines, and field reports to understand the elements of the issue. The major findings of these reviews are:

- The physical environment is a key factor in determining the most appropriate travel speed for a roadway. Controlling elements such as lane width, roadway curvature,

presence of parking and sidewalks, and surrounding land uses are critical to creating an environments appropriate to support lower travel speeds.

- Simply installing a slower speed limit sign has demonstrated that it is **not effective** and that it will have **no effect** on driver behaviour.
- It is critical that a road authority apply posted speed limits consistently and without undue influence that is not backed up by solid engineering analysis. Speeds that are set individually for non-technical reasons that are not related to the physical environment will result in disregard for the limits and may in fact decrease overall safety. This causes driver confusion and frustration and may result in the opposite of the intended effect.
- The public must be reminded of their responsibilities through appropriate education and enforcement programs. Although the majority of the burden of creating and maintaining safe travel environment is the responsibility of the road authority, this does not excuse the public from driving responsibly in all condition.
- The Transportation Association of Canada's "Canadian Guidelines for Establishing Posted Speed Limits" presents the first standardized approach to setting speed limits in Canada.

The Transportation Association of Canada (TAC) Guidelines for Establishing Posted Speed Limits is the proposed method for establishing maximum speed limits on Town roads. Road section(s) will be reviewed in accordance with the TAC guidelines in order to make recommendations regarding the appropriate posted speed limits.

Financial Impact

Ontario Regulation 239/02, being the Minimum Maintenance Standards for Municipal Highways was amended by Ontario Regulation 366/18, effective May 3, 2018. One of these changes in the amendment has revised the classification definition as determined by the Average Daily Traffic volume and posted speed limit on a section of road. These classifications are used to determine the minimum level of service on roads with respect to timing for snow plowing, road maintenance, shoulder maintenance, road cracking, road patrols, and road lighting. Table 1

below showcases the recently amended classifications of highways which represents the relationship of Average Daily Traffic to the speed limit to determine the classification of roadways. As displayed in Table 1, the highest classification of roadway is a class 1 which has the highest speed limit to average daily traffic ratio, whereas a class 6 road would have the lowest ratio of speed limit to average daily traffic. The majority of Town of Essex roads are class 3 to class 6 roadways.

Table 1: Minimum Maintenance Standards Road Classifications

| Column 1 Average Daily Traffic (number of motor vehicles) | Column 2 91 - 100 km/h speed limit | Column 3 81 - 90 km/h speed limit | Column 4 71 - 80 km/h speed limit | Column 5 61 - 70 km/h speed limit | Column 6 51 - 60 km/h speed limit | Column 7 41 - 50 km/h speed limit | Column 8 1 - 40 km/h speed limit |
|--|---------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|-------------------------------------|
| 53,000 or more | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 23,000 - 52,999 | 1 | 1 | 1 | 2 | 2 | 2 | 2 |
| 15,000 - 22,999 | 1 | 1 | 2 | 2 | 2 | 3 | 3 |
| 12,000 - 14,999 | 1 | 1 | 2 | 2 | 2 | 3 | 3 |
| 10,000 - 11,999 | 1 | 1 | 2 | 2 | 3 | 3 | 3 |
| 8,000 - 9,999 | 1 | 1 | 2 | 3 | 3 | 3 | 3 |
| 6,000 - 7,999 | 1 | 2 | 2 | 3 | 3 | 4 | 4 |
| 5,000 - 5,999 | 1 | 2 | 2 | 3 | 3 | 4 | 4 |
| 4,000 - 4,999 | 1 | 2 | 3 | 3 | 3 | 4 | 4 |
| 3,000 - 3,999 | 1 | 2 | 3 | 3 | 3 | 4 | 4 |
| 2,000 - 2,999 | 1 | 2 | 3 | 3 | 4 | 5 | 5 |
| 1,000 - 1,999 | 1 | 3 | 3 | 3 | 4 | 5 | 5 |
| 500 - 999 | 1 | 3 | 4 | 4 | 4 | 5 | 5 |
| 200 - 499 | 1 | 3 | 4 | 4 | 5 | 5 | 6 |
| 50 - 199 | 1 | 3 | 4 | 5 | 5 | 6 | 6 |
| 0 - 49 | 1 | 3 | 6 | 6 | 6 | 6 | 6 |

In accordance with subsection 128(2) of the HTA, should Council elect by by-law to prescribe a rate of speed different on a road section from the rate set out in subsection 128(1) of the HTA that is not greater than 100 km/h, such decision may potentially result in an increased road classification and therefore, increased level of service requirements associated with road maintenance operations and correction of identified deficiencies. Conversely, a reduction in speed limits may potentially result in a reduced road classification, and therefore, a decrease in level of service requirements. Adjustments to posted speed limits throughout the Town are anticipated to have a direct impact on the current road maintenance expenses.

In Addition, a speed limit change will result in costs associated with speed warning signage in accordance with 'Ontario Traffic Manual Book 5 – Regulatory Signs'.

Consultations

Norman Nussio, Manager of Operations and Drainage

Robert Auger, Town Solicitor, Legal and Legislative Services/Clerk

Link to Strategic Priorities

- Manage, invest and plan for sustainable municipal infrastructure which meets current and future needs of the municipality and its citizens.
- Create a safe, friendly and inclusive community which encourages healthy, active living for people of all ages and abilities.
- Provide a fiscal stewardship and value for tax dollars to ensure long-term financial health to the municipality.
- Manage responsible and viable growth while preserving and enhancing the unique rural and small town character of the community.
- Improve the experiences of individuals, as both citizens and customers, in their interactions with the Town of Essex.

Report Approval Details

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| Document Title: | Policy for Establishing Speed Limits.docx |
| Attachments: | - Establishing Speed Limits Policy_DRAFT for Council.pdf - Establishing Speed Limits Policy Appendix A_DRAFT for Council.pdf |
| Final Approval Date: | Jun 29, 2020 |

This report and all of its attachments were approved and signed as outlined below:

A handwritten signature in black ink, appearing to read "Chris Nepszy". The signature is written in a cursive, flowing style.

Chris Nepszy, Chief Administrative Officer - Jun 29, 2020 - 11:47 AM