



# Municipality of Port Hope

## Staff Report

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### Report Title: Traffic and Parking By-law Amendment-Speed Reduction Measures

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**Report to:** Works & Engineering Committee

**Date of meeting:** March 15, 2022

**Report Author:**

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**Department responsible:**

Works & Engineering

**Report Number:** WE-06-22

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### Recommendation:

1. That a by-law be presented to Council to amend the Traffic and Parking By-Law 39/2008 to include the proposed changes as outlined in Attachment 1 of this report, and further,
2. That a Notice of the Proposed changes to the Traffic and Parking By-Law be posted on the Municipal website and Community Pages of Northumberland News

### Highlights:

- Staff are recommending a number of speed reduction measures that includes speed limit reductions within the rural and urban areas within MPH's jurisdiction as well as enhanced speeding awareness through social media and the municipal web site.

### Background:

The Municipality of Port Hope is responsible for ensuring roadways serve the needs of all transportation users such as cars, transit, pedestrians (including those with accessibility needs), cyclists, emergency vehicles and snow removal equipment. When the rules of the road are not followed, residents may no longer feel safe walking or riding their bikes on the street. Works and Engineering have undertaken various programs in the past to review road safety and speed limits in conjunction with applicable Provincial Legislation.

Some notable changes are outlined below:

- Section 128 (1) of the Ontario Highway Traffic Act states that "no person shall drive a motor vehicle at a rate of speed greater than 50 kilometres per hour (km/h) on a highway within a local municipality or within a built-up area". This

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speed limit is commonly referred to the Statutory Speed Limit. Since 2009, the Municipality of Port Hope has had signs posted at various entry points into the Municipality indicating that the speed limit is “50 km/h unless otherwise posted”. The Ontario Traffic Manual (OTM) indicates that “maximum speed” signs are required when the speed limit is different than the statutory speeds. They may also be used to supplement the statutory speed limit. Based on the Highway Traffic Act and OTM requirements, it is the Municipality of Port Hope’s practice to install speed limit signs only when there is a change from a higher or lower maximum speed limit.

- In 2008 the Municipality of Port Hope Rural Speed Limit Program was initiated where a review of rural roads and speed limits was assessed based on a number of factors including surface treatments, linkages to existing higher speed roads, OTM, MTO Road Safety Manual requirements, sight lines, geometrics and visual assessment of roadside safety hazards
- In 2009, signs were posted at entry points to the Municipality to inform motorists that the Statutory Speed Limit is 50km/h unless otherwise posted.
- Section 214.1(1) of the Highway Traffic Act, R.S.O. 1990, c.H.8, as amended, provides that a municipality may by by-law designate a part of a highway under its jurisdiction as a community safety zone if, in the council's opinion, public safety is of special concern on that part of the highway.
- May 30<sup>th</sup>, 2017, Province of Ontario passed Bill 65, the Safer School Zone Act which permits Municipalities to enact neighbourhood speed limit reductions.
- In June 2019, The Municipality of Port Hope completed a Traffic Calming Program to provide a comprehensive process to address local neighbourhood traffic issues.

### **Discussion:**

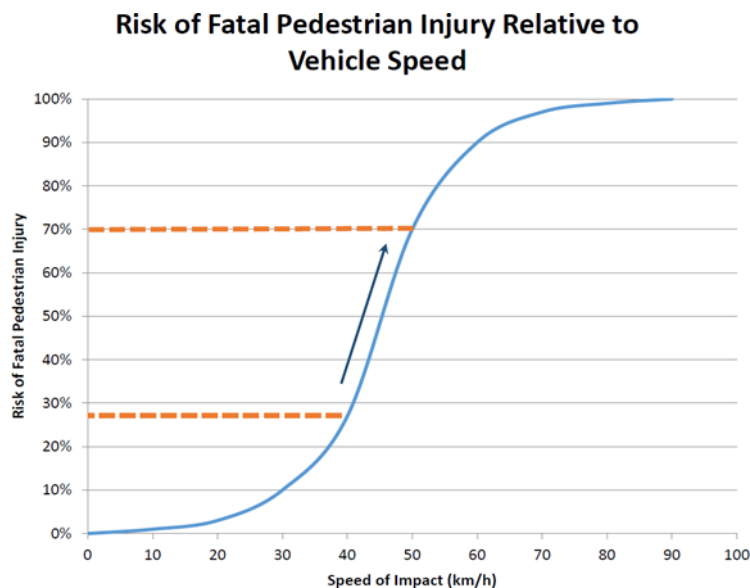
The majority of motorists drive at a speed they consider reasonable, and safe for road, traffic, and environmental conditions. Posted limits which are set higher or lower than dictated by roadway and traffic conditions are ignored by the majority of motorists. A speed limit should be set so that the majority of motorists observe it voluntarily and enforcement can be directed to the minority of offenders.

A driver’s choice of speed can impose risks to other road users. Crash severity increases with increasing speeds because in a collision, the amount of kinetic energy dissipated is proportional to the square of the velocity. Crashes, however, appear to depend less on speed and more on the variation in speeds. The likelihood of a crash occurring is significantly greater for motorists traveling at speed slower and faster than the mean speed of traffic.

Maximum speed limits are set for ideal road, traffic, and environmental conditions. A Coroner's report prepared for the British Columbia Ministry of Transportation titled *Review and Analysis of Posted Speed Limits and Speed Limit Setting Practices in British Columbia* recognized this and stated, "although supportive of changes to lower the speed limit for local municipalities, there was a strong view that in the absence of enforcement, drivers will drive the speed at which they are comfortable, irrespective of the posted speed, unless speed reduction is accompanied by engineering changes to the road to encourage adoption of slower speeds."

In 2013, the World Health Organization (WHO) released the Pedestrian Safety Manual. This document identified the relationship between stopping distance, vehicle speed and pedestrian injuries. The report determined that driver behavior and speed are a major contributing factor in collisions involving pedestrians. The report concluded that the perception and reaction stopping distance required for a motorist to stop in an emergency increased with the speed of the vehicle. A vehicle travelling at 50 km/h will typically need 36.0 meters to stop, while a vehicle travelling at 40 km/h will stop in 27.0 meters, a 9.0-meter difference.

The correlation between impact speed and pedestrian injury severity changes drastically, based on vehicle speed as illustrated below:

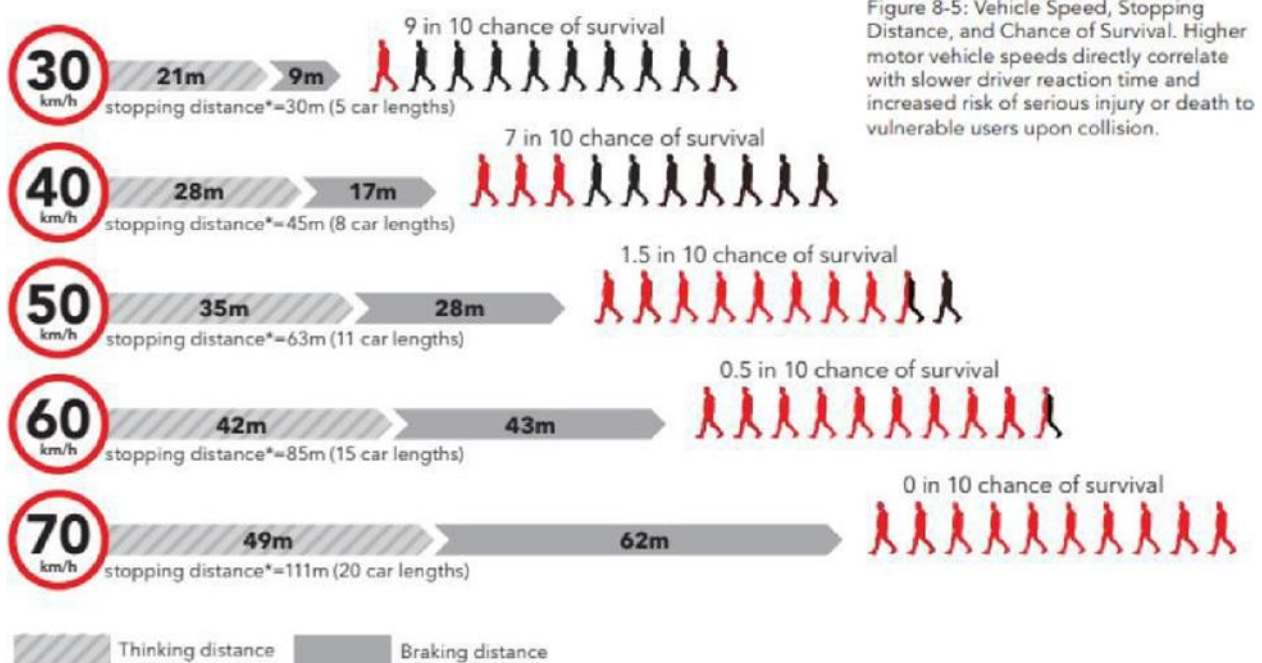


The WHO reported that an adult pedestrian has a 20% risk of dying if struck by a vehicle travelling at 60 km/h. The report states that most speed is lost in the last few meters of braking. Therefore, when a vehicle that was travelling at 40 km/hr. has stopped, a car that is travelling at 50 km/h is still travelling at 41 km/h. Thus,

a difference of 10 km/h in initial travelling speed can result in a difference of 41 km/h in impact speed.

The WHO report recommends that speed management is important for addressing pedestrian safety around the world. Key measures for managing speed include setting speed limits to 30-40 km/h in residential and high pedestrian traffic areas, enforcing traffic rules on speed limits and implementing traffic-calming measures.

The Complete Streets concept (Developed by the National Complete Streets Coalition which was founded in 2005) is promoted as offering improved safety, health, economic, and environmental outcomes. Complete Streets emphasizes the importance of safe access for all users, not just automobiles. Recent Complete Street policies seek to create design-oriented traffic safety improvements which actively slow drivers down by narrowing roadways while better accommodating pedestrians and cyclists. The below figure from the City of Toronto's Complete Streets Guidelines, demonstrates that a reduction in vehicle operating speeds from 50 km/h to 40 km/h significantly increases the chance of survival for a vulnerable road user from 15% to 70%. This is further increased to 90% for operating speeds of 30 km/h.



\*Stopping distances during wet conditions. Single car length=5.6m. Based on a 2.5s reaction time, representing 90th percentile of drivers.

source: Adapted from World Health Organization, 2008. Speed management: a road safety manual for decision-makers and practitioners. Transportation Association of Canada, 2011. Geometric Design Guide for Canadian Roads Part 1. 1.2.5.2 - 1.2.5.4.

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The Complete Streets concept has been incorporated into the design of a number of residential road reconstruction projects by preserving the narrow right-of-way, replacing and maintaining sections of sidewalk, and preserving and enhancing boulevard trees. These concepts will continue to be incorporated into future road reconstruction projects.

Passive traffic safety measures which were adopted in the mid-20th century created roadways which were forgiving to motorists traveling at high speeds but which de-prioritized cycling and pedestrian facilities. Passive traffic safety policies led to excessively wide streets, clear zones adjacent to roadways, wide turn radii and a focus on protecting drivers from the consequences of high speeds. Passive traffic safety measures sought to avoid influencing the behavior of drivers while giving automobiles maximum convenience. The mindset on how roads are designed needs to change, and in an effort to address existing roads, staff previously brought forward a proposed traffic calming program, which was approved by Council in 2019. The Traffic Calming program provides a procedure and criteria for the initiation, investigation, and implementation of traffic calming measures. Proposed measures identified through the program would be brought forward to Council for final review and approval. The program was developed to address safety concerns related to speeding and excessive traffic volume in a fair and efficient manner. Traffic calming can be used in residential neighbourhoods on both local and collector roadways. Arterial roads are not considered for traffic calming. To date, Works and Engineering has not received an application as part of the Traffic Calming Program.

Traffic Safety education programs play an integral part of road safety due to the role of the human factor in the occurrence of accidents. As road safety is everyone's responsibility, the public needs to become aware that the issues of traffic and traffic accidents are vital to their health and safety. An enhanced community speeding awareness campaign is included as part of the Communications staff work plan for 2022 to look at lawn signs, and bumper magnets as well as a dedicated web page and social media posts as educating our roads users leads to improved safety.

Works and Engineering has completed a review of speed limits and is recommending several speed limit reductions outlined on Attachment 1 as part of a speed management strategy. Reducing the default speed limit to 40 km/hr is not recommended at this time as it is anticipated to create driver frustration and low compliance without changing the physical nature of most roads. The proposed changes are primarily focused in school zones, the new pedestrian cross overs, and the downtown core, where pedestrian traffic is considerably higher. The reduction to the speed limits on Walker Road and the 10<sup>th</sup> Line are a result of existing road geometry. While Cranberry Road and Deer Park Road meet the design criteria as 80 km/hr roads, it is recommended they be reduced to 50 km/hr to be consistent with other rural roads.

The proposed speed reduction measures have been reviewed by the Port Hope Police, and it was noted that significant enforcement will be required until the public adjust to

the updated speed limits.

In addition to speed mitigation amendments, staff are also recommending the following changes to parking restrictions to mitigate parking concerns related to emergency vehicle access and pedestrian safety in the vicinity of the waterfront:

- King Street (east side) from Peter Street to Madison Street
- Madison Street (south side) from King Street westerly to a distance approximately 30 metres
- Mill Street South (east side) from Shuter Lane to Madison Street

**Financial Considerations:**

The purchase and installation of new speed limit signs is anticipated to be on the order of \$4,000 which will be funded by the respective roads operating budgets.

**Communication and Public Engagement:**

Notice of the Proposed changes to posted Speed Limits are outlined in the proposed changes to the Traffic and Parking By-Law and will be posted on the Municipal website and Northumberland News. A new speeding awareness page has been created on the municipal web page as part of the education campaign. An enhanced speeding campaign is in the 2022 workplan of the Communications division anticipated to be launched later this year.

**Conclusion:**

The recommendations for speed reduction measures for the rural and urban areas within the Municipalities jurisdiction is considered a public safety initiative aimed at bringing enhanced awareness to the impacts of speeding within the community.

**Attachments:**

Attachment 1- Proposed Traffic and Parking By-law Amendments.