



City of
Peterborough

To: Members of the General Committee

From: Jasbir Raina, Commissioner of Infrastructure and Planning Services

Meeting Date: June 5, 2023

Subject: Approval of a City-Wide Speed Limit Reduction in School Areas and the Implementation of Community Safety Zones, Report IPSENG23-014

Purpose

A report to recommend the approval of a City-Wide Speed Limit Reduction in School Areas and the implementation of Community Safety Zones.

Recommendations

That Council approve the recommendations outlined in Report IPSENG23-014, dated June 5, 2023, of the Commissioner of Infrastructure and Planning Services as follows:

- a) That the following recommended Traffic Safety initiatives be approved;
 - i. The implementation of city-wide speed limit reduction and Community Safety Zones in school areas, as illustrated in Appendix A.
 - ii. The implementation of school area road safety treatments in five pilot areas, one in each Ward.
- b) That By-law 16-116, being a By-law to Regulate Speed Limits on certain streets in the City of Peterborough, be repealed and replaced with the draft by-law attached as Appendix B to this report.

- c) That By-law 13-098, being a By-law to Designate a Part of the Highway in the City of Peterborough as a Community Safety Zone, be amended by adding Community Safety Zone locations as described in recommendations a) i) of Report IPSENG23-014 - Approval of a City-Wide Speed Limit Reduction in School Areas and the Implementation of Community Safety Zones, as set out in Appendix C attached to this report.
- d) That By-law 09-136, being a By-law for the Regulation of Parking, be amended to restrict parking near Vertical Centerline Treatments (see figure 2 in this report), as set out in Appendix D attached to this report.

Budget and Financial Implications

The cost of implementing a city-wide speed limit reduction in school areas and Community Safety Zones will cost approximately \$295,000, funds for which are available in the uncommitted balance of the approved 2023 Capital Budget for Traffic Safety Program (project ref 5-18-03). The estimated future funding requirement of \$625,000 will be requested in future years capital budgets to implement additional road safety treatments pending the evaluation of the initial pilot areas.

Table 1 – Breakdown of Estimated Costs

Items	Cost Estimate
Installation of Sign Infrastructure	\$120,000
Communication and Awareness Campaign	\$ 50,000
Road Safety Treatments (5 Pilot School Areas)	\$125,000
Total Estimated Cost	\$295,000
Estimated Future Funding Requirement	
Road Safety Treatments (Remaining School Areas)	\$625,000

Background

In March 2022, Council approved Report IPSTR22-003 – Transportation Master Plan Phase 4 – Approval of Infrastructure and Policy Recommendations. The Transportation Master Plan (TMP) identified several key infrastructure policy initiatives such as Complete Streets, Goods Movement, Road Safety, and Emerging Technologies. The Road Safety Strategy included in the TMP outlines a road safety program that adopts a safe systems approach for the design of new infrastructure and includes five key areas of emphasis, including Safe School Zones, Safety for Vulnerable Users, Safe Neighbourhoods, Safe Corridors, and Safe Intersections. Each road safety initiative is

approached using a combination of Engineering measures, targeted Education and Enforcement.

Safe School Zones

The City currently has 30 elementary and secondary schools within its jurisdiction, signed with School Area signs on all roadways leading to the school. Of the 30 elementary and secondary schools, 8 have a reduced speed limit to 40km/h on the major roads fronting the school during school admission and dismissal times. These School Area signs are designated warning signs and used to provide drivers advanced warning that they are approaching a school area. The 40 km/h school zone maximum speed when flashing sign is a regulatory speed limit sign that is supported under the **Highway Traffic Act** (HTA), Section 128, Rate of Speed, subsection (5) rate in school zones. When the sign beacons are flashing, drivers are required to operate their vehicles at a maximum rate of speed of 40km/h when inside the zone.

The purpose of reduced speed limits in school areas is to improve pedestrian safety and comfort. Children walking to and from school are considered as one of the more vulnerable road users since they are smaller therefore harder to see, have the tendency to make unpredictable movements and often have difficulty judging the speed and distance of vehicles on the road. Studies have shown that the severity of injuries from collisions involving pedestrians is directly related to the speed of the vehicle at impact. Higher speeds decrease driver reaction time and increase vehicle stopping distance.

As prescribed under the HTA, the default speed limit for urban roads is 50km/h unless otherwise posted. A peer review of other municipalities' current school area practices revealed that most of the municipalities surveyed have, or are moving towards, a city-wide approach of full-time speed reductions as follows: 40km/h speed limits on major roads fronting schools, 40km/h speed limits on local neighbouring roads surrounding a school, and 30km/h speed limits on roads fronting schools within neighbourhoods. In support of the new reduced speed limits, municipalities are also implementing Community Safety Zones (CSZ) fronting schools to emphasize to drivers that they are entering a special area where public safety is a concern and that fines for HTA offences, such as speeding, may be double. Details describing CSZ are included under "Enforcement" below. This city-wide approach provides consistent messaging to drivers entering school areas.

While the TMP recommendation specifically calls for a default speed limit of 40km/h in school zones, staff are of the opinion that some roads in school areas be reduced further to 30km/h where the local context and surrounding built environment supports the need. The same built environment attracts children to the school areas outside school times either for extra curricular school activities or the use of sports fields and playground facilities. This continuous activity in school areas provides sufficient justification to support full-time speed reductions in school areas and has become best practice in other Ontario municipalities.

One of the fundamental elements of traffic engineering and government regulations is to promote uniformity of treatment in design, application, and operation of traffic control devices. The objective is safe driving behaviour, achieved by a predictable roadway environment. To achieve this goal, staff first established criteria that could be consistently applied across the City with a minimal number of exceptions. These criteria were applied to all school areas to determine which roads receive 40km/h versus 30km/h speed limits. The criteria consider road classification (Arterial, High-Capacity Collector, Low-Capacity Collector and Local Road designation), school frontage, driveway locations, main and secondary access points to the school property. Table 1. shows the proposed school area speed limits based on road classification.

Table 1: Proposed School Area Speed Limits

Road Classification	Speed Limit km/h and Community Safety Zone
Arterial Road	40km/h with CSZ
High-Capacity Collector	40km/h with CSZ
Low-Capacity Collector	30km/h with CSZ
Local Road with school frontage	30km/h with CSZ
Local Road leading to school driveway	30km/h
Local Roads with walkway access	40km/h

Plans showing proposed speed limit reductions for all school areas are shown in Appendix A - School Area Speed Limit Reduction Plans.

The HTA Part IX Rate of Speed, Section 128 (1) sets the maximum rate of speed vehicles can travel on Ontario highways. The HTA defines all streets and roads, including local city streets, as highways. For highways within a local municipality or within a built-up area the maximum rate of speed is 50km/h. To post a different maximum speed limit, the HTA allows Council through a by-law to designate a different rate of speed on a municipal highway or portion of a highway. The HTA also allows Council through a by-law to designate an area, such as a neighbourhood, at a maximum rate of speed less than 50km/h. Designating an area maximum speed limit reduces the number of signs required by only posting maximum speed limit signs at the entry points of the neighbourhood or a group of residential roads. The implementation of the new maximum speed limits in school areas will utilize both road specific and area speed limit signs. The use of new area speed limit signs in residential areas around schools will reduce sign clutter and are shown below in Figure 1.

Figure 1: Typical AREA Speed Limit Signs



To ensure consistency and promote uniformity of treatment in design, the existing 40km/h School Zone Maximum Speed When Flashing signs will be removed and replaced with new full-time maximum speed limit signs.

In terms of traffic management, it is expected that changing speed limit signs alone is not sufficient to effect overall driver behaviour. Driver awareness is key to modifying driver behaviour and may be achieved by education through the media; altering the road environment through implementing traffic engineering measures; and supporting the posted speed limit through enforcement.

Traffic Engineering Measures

Traffic engineering measures can be implemented using road safety treatments such as pavement markings, road signs, delineators, and electronic driver feedback signs. These road safety treatments inform drivers that they are entering a school area and that there is a need to be alert and slow down. The application of these types of treatments may vary based on site specific conditions such as road classification and pre-existing operating and maintenance constraints. However, the goal is to create a consistent gateway treatment fronting all schools city-wide. Initially staff will pilot five school areas with road safety treatments to determine the effectiveness of the measures and operational/maintenance challenges associated with the specific

treatment. The five school areas (one in each ward) to be piloted include St. Patrick's Catholic Elementary School (C.E.S.), Edmison Heights Public School (P.S.), École Catholique Monseigneur-Jamot, St. Alphonsus C.E.S. and Keith Wightman P.S., and Queen Mary P.S. An evaluation will be conducted at all five locations and will entail the collection of speed data in both pilot and non-pilot school areas to determine if the road safety treatments have contributed to overall compliance with the new speed limits. Following the evaluation, staff will finalize the individual designs of the road safety treatments for the remaining school areas to be implemented as funding permits. The estimated cost to complete the remaining school areas is \$625,000 but subject to pilot area evaluation results and any recommended adjustments.

Figure 2 provides examples of proposed road safety treatments and Figure 3. shows typical school area gateway treatment that will be applied to the five pilot areas.

Figure 2: Proposed Road Safety Treatments

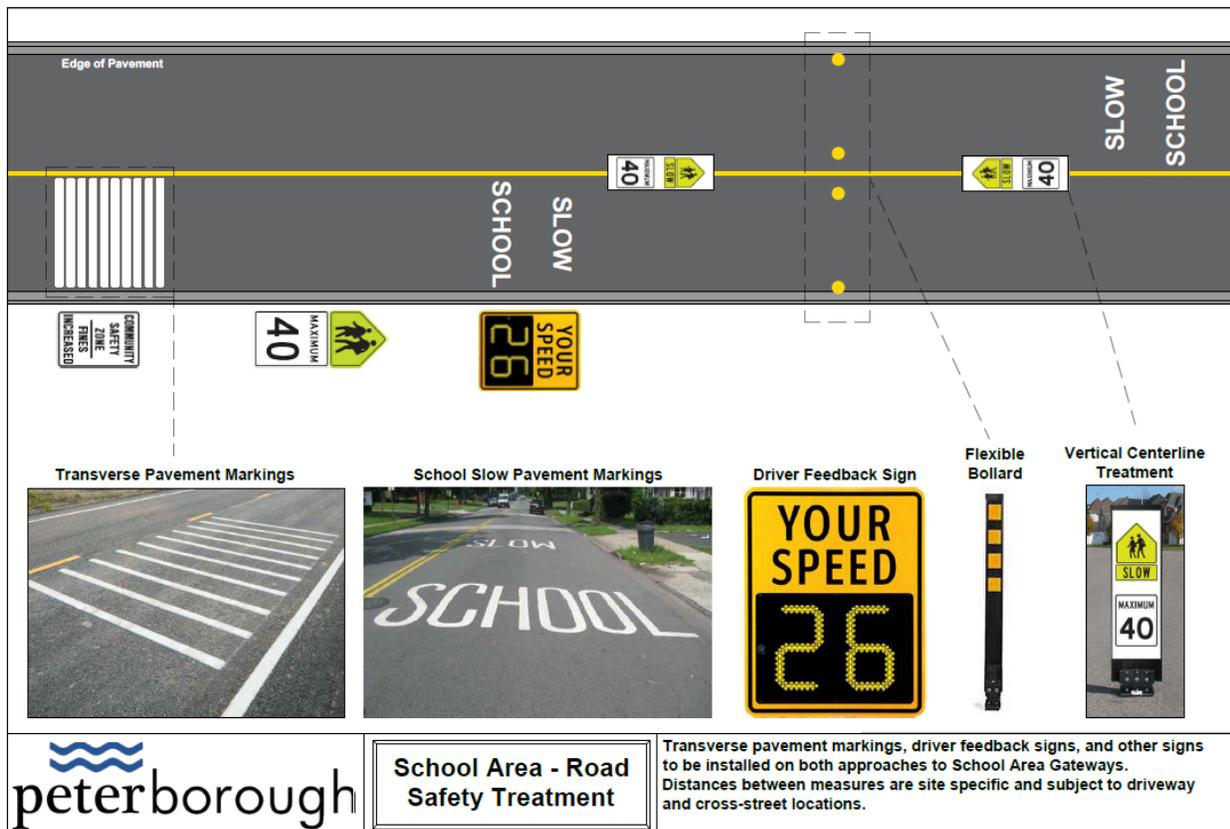
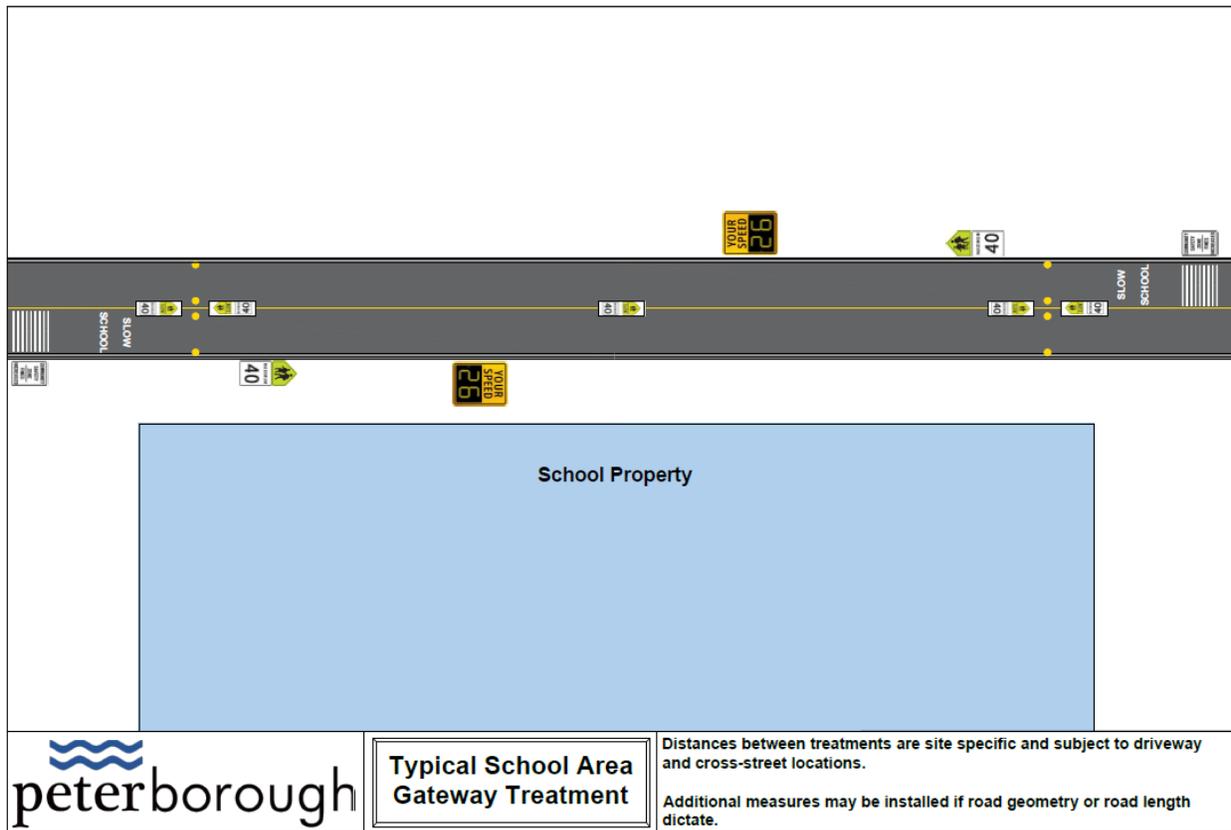


Figure 3: Typical School Area Gateway Treatment.



It is anticipated that upon the initial implementation of the reduced speed limits in school areas there will be an adjustment period for motorists to get used to the new speed limits. Areas not receiving pilot road safety treatments may experience a period of time where some drivers fail to comply to the new posted speed limit. During this period, it is anticipated there will be an influx of speed related complaints to City departments and Peterborough Police Services. These complaints will be processed as staff resources permit and requests for traffic calming in these areas will be put on hold for a minimum of 18 months following the new speed limits coming into effect.

Enforcement

In support of the legal requirement for drivers to operate their vehicles at or below the maximum posted speed limit, the HTA allows municipalities to designate, through a by-law, a part of a roadway under its jurisdiction as a Community Safety Zone (CSZ) where public safety is of special concern. These areas may include school, park, recreation, and playground areas, etc. The City currently has one CSZ on Weller Street from Wallis Drive to Park Street.

Once a CSZ is designated and established by the implementation of regulatory signs, the HTA provides that any person convicted of specific offences described in the HTA is liable to increased fines if it is committed while in a CSZ. Many set fines for HTA offences such as speeding, careless driving, and contravention of other rules of the road are doubled, serving as a deterrent for poor driver behaviour.

Community Safety Zones are signed with standard regulatory COMMUNITY SAFETY ZONE signs with BEGINS and ENDS tabs to define the legal limits of the zone.

Figure 4. Shows an example of the regulatory signs required to establish a Community Safety Zone.

Figure 4: Community Safety Zone Sign Example



The Peterborough Police Service is responsible for enforcing the Highway Traffic Act within the City of Peterborough. Enforcement will play an important roll in the success of reducing vehicle speed in school areas. In the future, if additional enforcement is required to improve compliance in the school areas, implementing CSZ provides the City the option to explore Automated Speed Enforcement in these specific areas. In 2017, The Province of Ontario passed Bill 65 – Safer School Zones Act, 2017, which amended the HTA to allow municipalities to use Automated Speed Enforcement in School Zones and Community Safety Zones.

It is recommended that Community Safety Zones be designated to encompass the speed reduction areas as shown in Appendix A - School Area Speed Limit Reduction Plans.

Communications and Public Education Plan

An extensive public education and awareness campaign is recommended to promote the school area speed limit changes and the implementation of Community Safety Zones. The campaign will focus on informing Peterborough and area residents on the benefits of lower vehicle speeds and to encourage a community effort in creating safer school areas throughout the City. The communications initiatives will include the following:

- City website;
- Social media posts;
- Print media, newspaper;
- City media releases;
- Radio ads;
- Local school communications;
- Peterborough Police Service communications;
- Roadside message boards.

Partner and Stakeholder Consultation

The success of this project is dependent on its partners and stakeholders including Peterborough and area residents. Peterborough Police Service has previously supported the City's traffic safety initiatives with the promotion and awareness campaigns for the Crossing Guards of Peterborough and "Safe Under 7" speed enforcement. Our partnership with Peterborough Police Service is key to the success of this road safety initiative.

A meeting with Peterborough Police Service (PPS) Traffic Unit representative was held to present the proposed school area reduced speed limits project and ensure the proposal would be supported from an enforcement perspective. The initial feedback from PPS was positive, however, it is anticipated that existing resources may need to be redeployed to focus on school areas. Specific enforcement operations in school areas would need to be developed and included in PPS's annual enforcement program. Initial concerns from PPS included the practicality of enforcement of reduced speed limits on smaller sections of roads. After discussion it was determined that these areas may be enforced with some adaptation to current enforcement practices. In addition to the enforcement discussion, PPS is also open to assisting with the awareness and educational campaign required to promote the reduced speed limits in school areas.

A separate on-site meeting was also held with Fire Services and Public Works staff to review the proposed on-street road safety treatments with respect to Fire response and winter maintenance. The school area gateway design with delineators were temporarily installed on a city street for fire vehicles and public works plow trucks to test drive.

Fire Services test drove the gateway treatment with a large fire pumper truck. The fire truck was able to negotiate the delineators with ease however, it was noted that it may be more of a challenge if the gateway treatment was installed on a bend in the road or very close to an intersection.

Public Works test drove a plow truck and found it was unable to negotiate through the delineators with the wing plow down. A regular size plow truck with the wing down requires 4.5m to pass between the face of curb and the delineators. As such, consideration needs to be given when installing the proposed gateway treatment with lane widths of less than 4.5m wide. Traffic Engineering staff will pay special attention to this requirement during the pilot study period.

Review of Peer Municipalities

Staff reviewed policies of other area Ontario municipalities that have also reduced or are in the process of reducing school area speed limits within their jurisdiction. As discussed previously, there are a variety of measures that may be taken when reducing speed limits within school areas. While legislation such as the HTA and traffic engineering guidelines (i.e. the Ontario Traffic Manual), strive to promote consistency across the province, each municipality has its own unique built form and challenges when implementing school area safety measures. There are however key elements that are common amongst the municipalities reviewed.

A summary of the findings of the peer municipalities has been provided below in Table 2.

Table 2: Peer Municipality School Area Speed Limit Review

Municipality	School Area Speed Limit (km/h)	School Area Speed Limit (km/h)	CSZ in School Area
	High Volume Roads	Low Volume Roads	
Barrie	40 when flashing	40	*n/a
Brampton	40	40	Yes
Guelph	40 school times	30	Yes
Hamilton	30	30	Yes
Kingston	40	pilot 30	Yes
Kitchener	50	pilot 30	*n/a
London	40	40	Yes
Mississauga	40 when flashing	30	Yes
Ottawa	40	30	Yes
Toronto	40 with exceptions	30	Yes

*information not available

Implementation Plan

The implementation of the city-wide speed limit reduction in school areas.

Phase 1 - Implementation of sign infrastructure leading with signpost installation. This is the larger part of the field work that will require approximately 400 new signposts to be installed.

Phase 2 - Installation of regulatory signs (Speed Limit and Community Safety Zone Signs) and the launch of the communications plan.

Phase 3 - Installation of the road safety treatments. (five pilot areas)

Phase 4 - Evaluation of the road safety treatments. (five pilot areas)

Phase 5 - Implementation of road safety treatments at the remaining school areas as funding permits.

Note: It is anticipated that most of the installation works will be performed by the City's Public Works Division.

Timeline

If the recommendations are approved, Phase 1 of the implementation plan will start immediately. Phase 2 and Phase 3 are anticipated to be completed in the fall of 2023. Phase 4 will commence in spring 2024.

Summary

As recommended in the approved Transportation Master Plan in accordance with the City's Road Safety Strategy, staff recommend the implementation of the traffic safety measures in school areas.

A review of peer Ontario municipalities shows movement towards full-time speed limit reduction in school areas with speed limits being set at 30km/h to 40km/h supported by Community Safety Zones.

To accomplish this, it is necessary to apply three basic principles: engineering, education, and enforcement. With partners and stakeholder support, this proactive traffic safety initiative will benefit all.

Implementation of the recommended traffic safety initiatives will improve pedestrian safety, comfort, and promote active transportation.

Submitted by,

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Attachments:

- Appendix A- School Area Speed Limit Reduction Plans
- Appendix B- By-Law to Regulate Speed on certain Streets in the City of Peterborough
- Appendix C- By-Law to Amend By-Law 13-098 being a By-Law to Designate a Part of a Highway in the City of Peterborough as a Community Safety Zone.
- Appendix D- By-Law to Amend By-Law 09-136 being a By-Law for the Regulation of Parking.