

--

--

<b>TO:</b>	<b>CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON APRIL 25, 2016</b>
<b>FROM:</b>	<b>JOHN BRAAM, P. ENG. MANAGING DIRECTOR, ENVIRONMENTAL &amp; ENGINEERING SERVICES AND CITY ENGINEER</b>
<b>SUBJECT:</b>	<b>SCHOOL ZONE SPEED LIMIT POLICY</b>

<b>RECOMMENDATION</b>
-----------------------

That on the recommendation of the Managing Director, Environmental & Engineering Services and City Engineer:

- a) the following Draft School Zone Speed Limit Policy, attached hereto as Appendix A, **BE RECIEVED** for information; and,
- b) a public participation meeting **BE SCHEDULED** at a future Civic Works Committee meeting to gather input on Draft School Zone Speed Limit Policy.

<b>PREVIOUS REPORTS PERTINENT TO THIS MATTER</b>
--

For additional information, please refer to the following committee report:

- May 20, 2015 - Civic Works Committee - School Zone Speed Limit Policy

<b>2015-19 STRATEGIC PLAN</b>
-------------------------------

The following report supports the Strategic Plan through the strategic focus areas of *Strengthening Our Community* and *Building a Sustainable City* by improving pedestrian safety in and around schools.

<b>BACKGROUND</b>
-------------------

The City recently adopted the London Road Safety Strategy (LRSS) which defines a system and a process for setting out the targets, policies, and action plans that will guide the City and its partners in creating safer roads by reducing the number and the severity of motor vehicle collisions. One of the targets is to improve safety for pedestrians around schools.

At its May 20<sup>th</sup> 2015 meeting, the Civic Works Committee received the draft Guiding Principles for a School Zone Speed Limit Policy. Civic Administration was directed to finalize the policy through consultation with stakeholders and to hold a public participation meeting before Civic Works Committee when the policy is drafted.

The following report provides some considerations and recommendations with respect to implementation of a School Zone Speed Limit Policy.

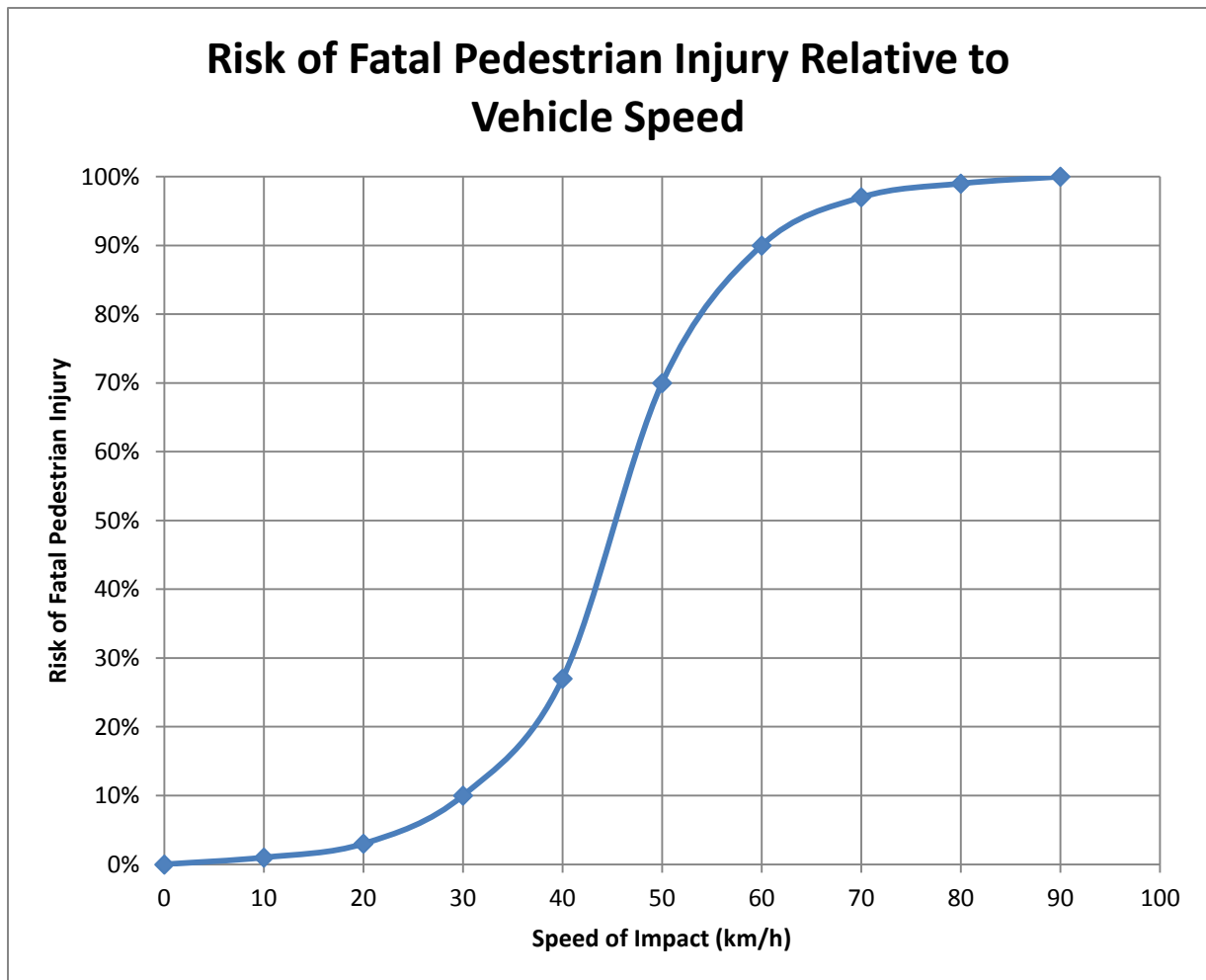
**DISCUSSION**

In London, the school boards have 103 elementary schools and 22 secondary schools. In addition to this there are 6 private schools. The majority of schools are located on streets with a posted speed limit of 50 km/h. The following table highlights the breakdown of existing posted speed limits at London’s schools:

	Posted Speed Limit			
	50 km/h	60 km/h	70 km/h	80km/h
Elementary Schools	96	6		1
Secondary Schools	15	6	1	
Private Schools	5	1		

**Speed and Risk Exposure**

The severity of injuries for pedestrians increases with the travelling speed of a vehicle. There are numerous studies that demonstrate this relationship as shown in the following graph.



It should also be noted that artificially reducing the speed limit has variable to no impact to the actual operating speed. Most drivers typically travel at a speed they determine is appropriate for the roadway and setting the speed limit artificially lower than deemed appropriate by the driver could result in a further disregard for roadway signage. A large speed differential between the posted and actual speed can make it difficult for pedestrians to safely judge crossing opportunities, which can result in a less safe pedestrian environment.

### **Stakeholder Input**

Input from a variety of stakeholder was received and is summarized below:

#### Thames Valley District School Board

- Supports lowering the speed limits to 30 km/h

#### London District Catholic School Board

- No response to date.

#### Community Safety and Protective Services Committee (CSCP)

- The CSCP supports the reduction of speed limits near schools and noted that traffic calming measures are also needed along with education and enforcement.

#### London-Middlesex Road Safety Committee

- *“Supports the notion of reducing speed limits in school zones that have been properly assessed and will have coinciding engineering, educational and enforcement strategies to assist in compliance”*

#### Active & Safe Routes to School (ASRTS)

- *“ASRTS strongly supports reducing speed limits within school zones to decrease both perceived and real dangers associated with traffic around the vulnerable population of young children. However, to increase the likelihood and sustainability of reduced speeds, ASRTS would also like to recommend a holistic approach to accompany speed limit changes.”*
- *“We recommend employing traffic calming or speed reduction measures such as extended curbs, raised intersections, speed detection equipment or traffic control devices that have been found in literature to sustainably decrease speeds, in conjunction with the reduced speed limits to increase the likelihood of compliance.”*

The above summarizes input solicited from various stakeholder groups. In order to obtain input from others, including the public, it is recommended that a public participation meeting be held at a future meeting of the Civic Works Committee.

## Draft School Zone Speed Limit Policy

Taking into account technical considerations and stakeholder input, it is recommended that a School Zone Speed Limit Policy be implemented based on the following:

1. New and reconstructed roads are to be designed in a 'Complete Streets' manner.
2. The Traffic Calming Policy to be applied where appropriate in retrofit situations.
3. A public education campaign and multi-faceted communication plan, in partnership with the London Police Services and school boards, be developed to raise awareness and educate drivers and pedestrians.
4. The speed limit in School Zones be reduced from the current 50 km/h to 40 km/h on local and primary/secondary collector roads; noting, the Ontario Traffic Manual defines a School Zone to start 150 metres before the school property to 150 metres after the school property. These limits may be adjusted on a school by school basis after discussion with the appropriate school board.



The school zone speed limit will apply 24/7 which recognizes that school properties are used by children outside of regular school hours.

The policy would not apply to arterial roads.

The Draft School Zone Speed Limit Policy is also summarized in Appendix A.

Appendix B provides considerations that were considered during the development of this policy with the goal of mitigating safety concerns around London's schools.

### Financial Impact

The Ontario Traffic Manual which governs the use and placement of regulatory road signs states that School Zone Speed Limit signs are required at the beginning of each zone and a standard regulatory speed sign is required at the end of the zone. Approximately 480 signs are required to implement the above policy at an estimated cost of \$100,000.

Adding solar powered flashing beacons to a sign is estimated to be \$5,000 per location, which would add an additional \$1,200,000 to the cost of the program.

### Implementation Schedule

If adopted, implementation of the School Zone Speed Limit program could be done over the following two years utilizing existing resources and budgets. The addition of solar powered flashing beacons would be done as an enhancement on a case by case basis after an evaluation of impacts.

<b>SUMMARY</b>
----------------

Reducing the speed limit at schools should improve safety for pedestrians and cyclists. Safer routes to and from school also encourages a more active lifestyle by addressing some of the safety concerns that parents and caregivers have with respect to students walking/cycling to school. As more students walk/cycle to school the congestion currently experienced around schools will decrease which will further enhance safety.

In order to achieve the goals and objectives of the initiative, a public education campaign and multi-faceted communication plan are required to achieve compliance with the proposed changes to the speed limit.

Additional stakeholder input into the draft School Zone Speed Limit Policy should be obtained before it is finalized. It is recommended that a public participation meeting be held at a future Civic Works Committee to gather additional public input.

**Acknowledgements**

This report was prepared by Doug Bolton and Shane Maguire of the Roadway Lighting & Traffic Control Division with the assistance from John Parsons, Roadway Operations and Doug MacRae, Transportation Planning & Design.

<b>PREPARED BY:</b>	<b>REVIEWED &amp; CONCURRED BY:</b>
<b>SHANE MAGUIRE, P. ENG. DIVISION MANAGER ROADWAY LIGHTING &amp; TRAFFIC CONTROL</b>	<b>EDWARD SOLDI, P.ENG. DIRECTOR, ROADS AND TRANSPORTATION</b>
<b>RECOMMENDED BY:</b>	
<b>JOHN BRAAM, P.ENG. MANAGING DIRECTOR, ENVIRONMENTAL &amp; ENGINEERING SERVICES AND CITY ENGINEER</b>	

F:\April 2016\8th\CWC Apr 25 2016 - School Zone Speed Limit ver 3.docx

Attach:     Appendix A: Proposed School Zone Speed Limit Policy  
               Appendix B: Draft Policy Background Considerations

c:            Amanda Pfeffer, London Police  
               Transportation Advisory Committee  
               Community and Protective Services Committee  
               London Middlesex Road Safety Committee c/o Alyssa Penney, MLHU  
               Thames Valley District School Board  
               London District Catholic School Board

Agenda Item #

Page #

## **APPENDIX A**

### **DRAFT SCHOOL ZONE SPEED LIMIT POLICY**

1. New and reconstructed roads are to be designed in a 'Complete Streets' manner.
2. The Traffic Calming Policy be applied where appropriate in retrofit situations.
3. A public education campaign and multi-faceted communication plan, in partnership with the London Police Service and school boards, be developed to raise awareness and educate drivers and pedestrians.
4. The speed limit in School Zones be reduced from 50 km/h to 40 km/h on local and primary/secondary collector roads; noting, the Ontario Traffic Manual defines a School Zone to start 150 metres before the school property to 150 metres after the school property. These limits may be adjusted on a school by school basis after discussion with the appropriate school board.

The School Zone Speed Limit will apply on a continuous basis (24 hours/day, 7 days/week) which recognizes that school properties are used by children outside of regular school hours.

The School Zone Speed Limit Policy does not apply to arterial roads.

## APPENDIX B

### DRAFT SCHOOL ZONE SPEED LIMIT POLICY BACKGROUND CONSIDERATIONS

#### Problem Statement

Excessive vehicle speed, whether actual or perceived, reduces the perceived safety for pedestrians. Injuries sustained by pedestrians increases exponentially with vehicle speed. This may discourage active transportation choices which can further increase the number of vehicles in school zones and speeding concerns from pedestrians.

#### Purpose

Today's society is fast paced and a by-product is increased traffic speeds and driver frustration when travel times are delayed. Many students are driven to school whether it is for safety, security or before/after school activities and this can contribute to higher speeds in school zones. The development of a School Zone Speed Limit Policy should provide guidelines to reduce the speed of traffic in and around schools in order to improve pedestrian safety and to improve the walkability of the area.

#### School Zone Speed Limit Policy Considerations

Options to reduce the speed of vehicles in school zones can consider a variety of measures up to a city-wide lowering of the speed limit. Currently the default speed limit in urban areas is 50 km/h. Any variation from this speed limit must be by-lawed by the City and adequate signs must be posted.

#### School Zone Speed Limit Options

##### 1. Do Nothing

- ✓ Least expensive
- ⊗ Does not address the problem statement

##### 2. City-wide Reduction of 50 km/h to 40 km/h

- ✓ Implementation is simplified
- ✓ Cost can be minimized by changing the speed limit signs at the entrance to the city
- ⊗ Reduced effectiveness as drivers tend to operate their vehicle at speeds that appear appropriate for the roadway taking into consideration geometry, roadside environment (e.g. rural vs urban, multi-lane arterial vs local residential street) and side friction (e.g. driveways)
- ⊗ School zones are treated in the same manner as other streets with no special consideration; therefore, the impact on reducing speeds in school zones is reduced.



It should be noted that the Province is currently reviewing options to change the default speed limit across the province. These pending changes may impact how the City would



implement a city-wide speed reduction. A survey of municipalities by the Province indicated that the majority did not support a change in default speed limits.

3. 40 km/h School Zones

- ✓ Most effective at reducing the speed of vehicles in school zones; noting that the effectiveness will vary depending on which technology is implemented.
- ⊗ More costly than the other alternatives with the cost dependent on which technology is used

Subconsiderations of this alternative are as follows:

a) During School Hours

- ⊗ Drivers may disregard the reduced speed limit when students are not present
- ⊗ Does not address times when the school is being used outside of normal school hours



b) During Arrival/Dismissal Times

- ✓ Targets the speed reduction at critical times when students are going to or leaving school
- ⊗ Does not address times when the school is being used outside of normal school hours



c) 24/7 Application

- ✓ Recognizes that schools are often used by vulnerable road users outside of traditional school hours
- ✓ Simplifies enforcement
- ⊗ Less effective than time limited speed reductions

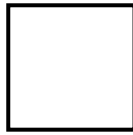
A 30 km/h School Zone Speed Limit, as suggested by the Thames Valley District School Board, was considered; however, it is not recommended due to the following:

- ⊗ Expected poor compliance without substantial and continuous significant enforcement;
- ⊗ A greater difference between posted speed limit and actual speed makes it difficult for pedestrians to judge safe crossing opportunities

Road Classification Considerations

Most of London’s schools are located on primary collector, secondary collector and local streets with fewer on arterial roads. The road classification along with the roadside environment greatly influences the speed that drivers will travel. It is likely that implementation of School Zone Speed Limits on arterial roads would have little or no impact on the speed of vehicles due to the driver environment on these roads. In order to avoid a mistaken pedestrian perception of a reduced need for awareness and caution





at these locations, the proposed draft policy would not apply to arterial roads including those posted at 60 km/h.

The Ontario Traffic Manual describes the beginning of a School Zone starting 150 m before the school property and extending 150 m past the end of the school property. It is recommended that these same limits be used for speed reductions. That being said, the limits of the School Zone may be adjusted on a case by case basis. Discussion with the appropriate school board to address unique issues at each school should take place before any speed limit changes.

### **Engineering, Education and Enforcement (3Es)**

A School Zone Speed Limit Policy should take into consideration Engineering, Education and Enforcement (3Es) if it is to be effective. Reducing the speed limit and installing signs will not change driver behaviour and it will not reduce the speed of vehicles.

#### Engineering

In order to reduce speeding, roads have to be designed in a 'Complete Streets' manner that puts an emphasis on the use of roadways for all modes. Complete Streets are a policy and design approach that requires streets to be planned, designed, operated, and maintained to enable safe, convenient and comfortable travel and access for users of all ages and abilities regardless of their mode of transportation.

Complete Streets allow for safe travel by those walking, bicycling, driving automobiles, riding public transportation, or delivering goods.

The current Traffic Calming Policy contains a variety of engineering solutions that can be applied to reduce the operating speed of vehicles.



#### Education

An education campaign including various media can change driver behaviour in the long term. Public Service Announcements (PSAs), advertisements and the City's Dynamic Speed Signs are some forms of education which will be used.



#### Enforcement

Enforcement of current and future speed limits is required if compliance with the speed limit is to be achieved. The lack of adequate enforcement resources may limit the success of the School Zone Speed Limit Policy.

The effective balance of the 3Es is critical to reducing operating speeds and increasing safety in school zones.