CITY OF HAMILTON

- RECOMMENDATION -

DATE: November 26, 2001
Author: H. Solomon

REPORT TO: Mayor and Members
Committee of the Whole

FROM: Peter M. Crockett, P.Eng., General Manager
Transportation, Operations & Environment

SUBJECT: Policy for Setting Speed Limits on City of Hamilton Roadways
(TOE01189) - (Affects Ward 15 and also has City Wide Implications)

RECOMMENDATION:

a) That the policy entitled “Speed Limit Policy” dated October 2001 and attached as
Appendix “A” to report TOE01189, be approved;
b) That the speed limit on Centre Road from 200 feet north of Northlawn Avenue to
150 feet north of Concession 5 East be reduced from 80 km/h to 60 km/hr;
c) That the attached by-law to amend City of Hamilton Traffic By-law 01-215 be
passed and enacted.

Peter M. Crockett, P.Eng., General Manager
Transportation, Operations & Environment

CORPORATE IMPLICATIONS:
N/A

ANALYSIS:
N/A

SUSTAINABLE DEVELOPMENT:
(Vision 2020, adopted by Regional Council as its vision for the future of Hamilton-Wentworth and endorsed by the Transition Board
as the basis of a vision for the “New” City of Hamilton, embodies the concept of a sustainable community which is an equal balance
of the economy, the environment, and social/health factors in all municipal decision-making.)

Properly set speed limits promote safety.
BACKGROUND:

The information/recommendations contained within this report have City-wide implications.

1. Committee Direction

Earlier this year, in the course of discussion about a specific speed limit change, Committee of the Whole directed a review of practice and preparation of a policy on setting speed limits. Committee directed that the policy address the following issues:

- Speed limits on medium and high speed rural roads
- The use of 40 km/hr speed limits on neighbourhood streets
- School zones
- Community safety zones

The City engaged the consulting firm of Intus Road Safety Engineering to assist in the preparation of this policy.

2. Scope of Policy

The attached policy addresses the first three issues noted above. To ensure a complete policy, staff has added recommendations in regard to speed limit setting for urban arterial and collector roadways.

3. Community Safety Zones

Community Safety Zones (CSZs) are really an enforcement technique rather than a speed limit setting issue. In a CSZ, fines are increased, but conditions are otherwise unchanged. CSZs have been addressed through a comprehensive review by the same consultant and are the subject of a separate report to Committee of the Whole on the topic.

4. Purpose of a Speed Limit Policy

The setting of speed limits impacts on road users in three major areas:

- Safety (vehicular, pedestrian)
- Mobility
- Public quality of life (walking, cycling, noise, driveway access)

Safety is, of course, paramount. Depending on the road type, quality of life or mobility may take precedence as the second most important factor.

The ideal speed limit would be self-enforcing. That appears to be an unattainable goal. Therefore the best that can be achieved is a compromise which results in the highest level of safety and maximizes mobility and quality of life. The best speed limit will result in the lowest demand for police enforcement or other types of speed limit compliance efforts such as traffic calming.

This policy is primarily intended for dealing with new requests for changes to speed limits. These almost always take the form of a request for a reduction in the speed limit. At this time there is no intent to review the complete roadway system through this policy. However, should Council support a thorough review, a consistent city-wide
speed limit application would likely result in an overall improvement in driver behaviour and safety in the City of Hamilton.

5. Previous Policies

Almost all of the previous area municipalities had policies that addressed one part or another of the issue of setting speed limits. While there was considerable consistency, there are differences among the policies and none of the policies covered the complete spectrum of speed limit types.

6. Consistency and Credibility of Speed Limit Setting Throughout the System

The biggest impact that this policy can achieve is in the area of consistency. If drivers encounter the same type of conditions under a given speed limit and there are few surprises, compliance and safety will be increased. Properly set speed limits will also increase driver respect for the signing and associated regulations, which will also result in higher rate of compliance.

Speed limits are quite consistent for the urban arterial roadway system. The collector and neighbourhood street systems are reasonably consistent, with 50 km/h predominant, although there are a few 40 km/hr zones on both collectors and local streets. However, on the rural road system, roadways have speed limits ranging from 50 km/hr to 80 km/hr, and roads with similar characteristics can have speed limits that differ by 20 km/hr. Areas around schools receive a variety of treatments.

Another advantage of optimally set speed limits is credibility. 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 truly are issues of safety requiring lower speeds. Thus, it is important not to set speed limits below what the typical driver considers realistic. Not only will an individual speed limit be ignored, but also it lessens the likelihood of other speed limits being obeyed.

7. Outstanding Requests

Once the policy is approved by Council, staff will begin addressing outstanding speed limit requests and will report to Committee of the Whole. At present there are over 30 outstanding requests. The majority of requests that are outstanding are in regard to rural Glanbrook. When Glanbrook was a township, by definition under the Highway Traffic Act, roadways without speed limit signing were 80 km/hr speed limit by default. However, many residents assumed that unsigned roads were 60 km/hr zones. Since the base speed limit in a city is 50 km/hr, it was necessary under the Highway Traffic Act to sign all rural Glanbrook roadways that were previously unsigned. The erection of 80 km/hr signs has caused significant concern and comment from the residents of Glanbrook. Therefore, a key use of the speed limit policy will be addressing requests for reductions in speed limits from roads presently signed at 80 km/hr in rural Glanbrook.

Additional requests include several schools including Guardian Angel School on Centre Road, Calvin Christian School on West 5th, and Regina Mundi School on Mohawk Road. There have been several requests for lower speed limits in urban areas as well as miscellaneous requests across the rest of the city.
8. Obtaining Compliance with Speed Limits

The goal of this policy is to propose the best speed limits for given conditions. The policy is not intended to define methods of ensuring or increasing compliance with these speed limits, other than to minimize the need for police enforcement which will still be required in most cases. Once a speed limit is set, options for improving compliance, especially on neighbourhood streets, might include traditional enforcement, or non-traditional methods such as additional redundant speed limit signing, speed humps, or neighbourhood speed watch.

9. Consultation Process and Structure of the Policy

The new City of Hamilton speed limit policy is a result of three types of input. Opinions, attitudes and understanding of speed limits were discussed with the public at a focus group to which members of Council were invited, conducted on October 15 of this year. Over 20 members of the public attended, mainly those who had a specific interest in reducing speed limits. Despite the fact that this was a group that shared the same specific concerns, their opinions and responses were extremely useful and valuable.

On October 19, staff met with Hamilton Police Services staff who are entrusted with roadway speed enforcement. The issue of speed limit setting as it affects enforcement and visa versa was discussed. The third contribution is from the technical side, based on a large body of research that has been conducted in the past few years, as well as local speed studies conducted by Traffic Section staff.

The three groups agree on one key point. They agree that the majority of drivers are reasonable, with the possible exception of driver behaviour on rural roads without sidewalks where pedestrians are present. The unacceptable behaviour seems to be concentrated on the drivers in the top 5 to 15 percent of the speed range.

The following are some of the specific comments, attitudes and information found from the three contributing groups.

9.1 Public Opinion

The following are the key attitudes and comments from the public focus group:

- Many of the concerns expressed focused on the effects of speeding traffic on pedestrians and adjacent land use rather than on the motor vehicle occupants and their possible injury.

- Despite the fact that most of the focus group participants felt that they were quite careful to obey speed limits, they agreed that most drivers exceed the speed limits regularly by a significant amount.
• They felt that much more police enforcement would be required to change driver behaviour on a wide-spread basis.

• The public indicated support for consistency in speed limit signing, both for using the same speed limit for the same condition on different roadways in the city and for minimizing the number of speed limit changes along a given road.

• When presented with a variety of roadway types and asked to assign a speed limit, the group tended to choose speeds at or lower than those presently signed. The group tended to choose the low end of the range of acceptable speed limits or lower.

9.2 Police Comments

• The police have limited resources to apply to speed limit enforcement. While the police do conduct proactive enforcement, much of the enforcement effort is in response to public compliant.

• Police enforcement can generally address only the worst of the drivers even if a significant number are exceeding the speed limit.

• The police prefer a properly set speed limit based on good engineering principles. A well-set speed limit will find a limited number of drivers exceeding the speed limit and does not make violators out of the majority of motorists who are driving with reasonable care and attention.

• It is recognized that a small tolerance between the posted speed limit and the speed at which violation notices are issued must be allowed in order to account for issues such as speedometer error and driver inattention; as well, the courts have a similar expectation.

• The police stated that they would find 40 km/hr in most neighbourhoods too restrictive in that it would result in a significant increase in demand for enforcement that could not be supplied and would lead to unfulfilled expectations.

• The police strongly support speed limit measures around schools and already spend a considerable amount of time undertaking that type of enforcement.

Chief Ken Robertson of the Hamilton Police Services has reviewed the proposed policy and agrees completely with the concept of setting speed limits based on good engineering principles. The Chief does not support artificially low speed limits due to the impact on fair and appropriate enforcement.

9.3 Research and Measurements

The following basic axioms have been proven repeatedly and have been substantiated through measurements in Hamilton.

• Large changes in speed limits (up to 20 km/hr) produce very small or negligible changes in actual travel speed, without heavy enforcement. Drivers tend to take their visual clues from the road and traffic and not from the speed limit signs so the speed limit signing has minimal effect on driver speeds. Table 1 shows a chart of two recent changes as a result of Committee of the Whole recommendations. It can be noted that where speed limits were changed from 80 km/hr to 60 km/hr, virtually no changes in driver speeds occurred.
Table 1  Glanbrook Speeds – Recent Speed Limit Changes

<table>
<thead>
<tr>
<th></th>
<th>BEFORE</th>
<th></th>
<th>AFTER</th>
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</tr>
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<tbody>
<tr>
<td></td>
<td>Speed Limit</td>
<td>Speed</td>
<td>Speed Limit</td>
<td>Speed</td>
</tr>
<tr>
<td><strong>Guyatt</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Trinity Church and Fletcher</td>
<td>80</td>
<td>81</td>
<td>80</td>
<td>83</td>
</tr>
<tr>
<td>east of Fletcher</td>
<td>80</td>
<td>89</td>
<td>70</td>
<td>87</td>
</tr>
<tr>
<td>West of Hwy 56</td>
<td>80</td>
<td>83</td>
<td>60</td>
<td>85</td>
</tr>
<tr>
<td><strong>Nebo</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South of White Church</td>
<td>80</td>
<td>85</td>
<td>60</td>
<td>88</td>
</tr>
<tr>
<td>North of Chippewa</td>
<td>80</td>
<td>87</td>
<td>60</td>
<td>83</td>
</tr>
</tbody>
</table>

Table 2 shows the results of a Stoney Creek study done several years ago which compares identical roadways on Stoney Creek mountain, some of which have 60 km/hr signing and some of which have 80 km/hr signing. It can be noted that for rural areas the 80 km/hr signing seems appropriate and drivers seem to be obaying the limit, while the roads with 60 km/hr posted limits show the same 80 km/hr travel speeds. Thus, the 60 km/hr signing is being ignored based on the type of roadway.

Table 2  Speeds on Stoney Creek Mountain

<table>
<thead>
<tr>
<th></th>
<th>60 Kph Speed Limit</th>
<th>80 Kph Speed Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Median Speed</strong></td>
<td>69.6</td>
<td>68.5</td>
</tr>
<tr>
<td><strong>85th Percentile</strong></td>
<td>81.7</td>
<td>79.8</td>
</tr>
<tr>
<td><strong>% Exceeding Limit</strong></td>
<td>75.5</td>
<td>19.2</td>
</tr>
</tbody>
</table>

- The faster a vehicle is travelling the higher the likelihood of injury or death in a motor vehicle collision.
- The number of collisions is minimized if the drivers in a stream of traffic travel at a uniform speed. This is true both for multi-lane urban arterials and for rural two-lane roads.
- When the fines for speeding are doubled, there is no impact on travel speed. With speeding as with other violations, drivers react to the likelihood of being caught, not to the penalty.

10. Proposed Policy Details

A text-based summary follows. The detailed policy is attached as Appendix A.

10.1 Rural Roads

The policy recommends a speed limit based on the speed below which 85% of the drivers are travelling. This would be the basic speed limit. The policy would then adjust speed limits down based on specific road conditions. The policy recognizes specifically residential areas on the basis of several factors. The residential areas are those locations where pedestrians are most likely to be found, and movements in and out of
driveways are most likely to occur. In these areas, 50 or 60 km/hr would be the typical speed limit. The policy also recognizes other factors such as roadways with blind hills that might require a reduction in speed limit. The public requested that the location of the speed change to a lower speed limit for residential areas occur some distance from those areas in order to give drivers time to acclimatize and to allow for pedestrians on foot travel outside of the built up area. This will be considered when setting the speed limits.

10.2 Urban Arterials and Collectors

The typical speed limit of 50 km/hr for most urban arterials and collectors will be retained. It is recognized that the travel speeds on the major arterials exceed 50 km/hr by a significant amount, but the speed limit is well known and a change to 60 would not be well received by the public. Retaining the 50 km/hr speed limit will allow for well-defined enforcement of violators by the police. It is recommended that on urban arterials with reverse frontage and no driveways, a speed limit of 60 km/hr be utilized.

10.3 Neighbourhood Streets

While the public focus group would have preferred 40 km/hr speed limits on all neighbourhood streets, the policy recommendation is not to proceed in this direction at this time. First, the police have indicated that this would result in an onerous increase in enforcement requests. Second, the bulk of collisions and certainly those involving injuries occur on the arterial or rural road street systems and diverting police resources away from major roadways would not serve the goal of improving safety. Third, use of 40 km/hr speed limits on neighbourhood streets would require installing signing at a significant cost.

While general use of 40 km/hr speed limits in the neighbourhoods is not recommended, it is suggested for limited use under specific conditions such as older neighbourhoods which do not have sidewalks, locations with substandard geometry which have evidence of collision problems and areas around schools on local streets. For other locations alternative approaches to reducing travel speeds such as traffic calming are suggested as preferable and likely far more effective.

10.4 School Areas

The Highway Traffic Act (HTA) provides for signing with an activated message to require 40 km/hr speeds during defined school hours. The HTA now allows only 40 km/hr part-time school zones in municipalities. The City has requested the Ministry of Transportation consider allowing speeds other than 40 km/hr in part-time school zones in order to provide greater flexibility for rural roads. This request has recently been restated and has been passed to Minister Brad Clark’s office. For locations now posted 50 or 60 km/h, it is suggested that a program of activated 40 km/hr school speed limits be introduced into Hamilton with a limited number of locations to be signed annually, (the suggested number is four per year), based on need and demand. The activated signs should be reserved for arterials and collectors. Full-time 40 km/hr speed limits may be used for neighbourhood school areas. For locations with speed limits higher than 60 km/h, that would be candidates for activated part-time school speed limits, full-time lower speed limit signing should be implemented and the issue revisited in the future, if the Province has changed the legislation. The outstanding request for speed
limit reduction in front of the new Guardian Angel School on Centre Road in Flamborough should be addressed immediately. While a part-time, activated, 60 km/hr would be the ideal solution, a full-time 60 km/hr limit is recommended until the Provincial legislation issue is resolved.

H. Solomon (Extension 4584)
Bill No.

City of Hamilton

BY-LAW NO. 01-215

To Amend:

By-law No. 01-215

TO REGULATE TRAFFIC

WHEREAS Section 210(123) of the Municipal Act, R.S.O. 1990, Chapter M.45, as amended, confers upon the councils of all municipalities the power to enact by-laws for regulating traffic on highways subject to the Highway Traffic Act;

AND WHEREAS Section 314(7) of the Municipal Act confers upon councils of all municipalities the power to enact by-laws to provide for placing, regulating and maintaining upon the public highways traffic signs for the purpose of guiding and directing traffic;

AND WHEREAS on the 18th day of September, 2001, the Council of the City of Hamilton enacted By-law No. 01-215 to regulate traffic;

AND WHEREAS it is necessary to amend By-law No. 01-215;

NOW THEREFORE the Council of the City of Hamilton enacts as follows:

1. Schedule 2 (Speed Limits) of By-law No. 01-215, as amended, is hereby further amended by adding to Subsection "4" of Section "G" thereof the following items, namely:

   "Centre Road 61m north of Northlawn Avenue 46m north of Concession 5 East 60
   Centre Road 46m north of Concession 5 East 450m south of Concession 6 East 80"

and by deleting therefrom the following item, namely:

   "Centre Road 61m north of Northlawn 450m south of Concession 6 East 80"

2. Subject to the amendments made in this By-law, in all other respects, By-law No. 01-215, including all Schedules thereto, as amended, is hereby confirmed unchanged.

3. This By-law shall come into force and take effect on the date of its passing and enactment.
PASSED AND ENACTED this day of A.D. 2001

_________________________________ ________________________________
MAYOR CITY CLERK
Background: This policy details the procedure for determining the appropriate speed limit for different roads and conditions.

Speed limits serve the following purposes:
- Reduce collision risk/improve safety;
- Provide mobility/reduce system delay;
- Provide a benchmark for enforcement; and
- Improve the quality of life for residents, and level of safety for vulnerable road users.

The above objectives sometimes conflict, and selection of a speed limit that provides the proper balance between these objectives is the aim of this policy. Improperly set speed limits, as with all traffic signs, are considered unreasonable by the motorist, will be willfully ignored, and will propagate disrespect for speed limits in particular and traffic control devices in general.

There is a general perception by the public that the majority of motorists adjust their travel speed according to the posted speed. That is not to say that motorists obey the speed limit, rather that they consistently travel 10 to 15 km/h over the posted speed limit. The perception is that this behaviour provides immediate personal gain (lower travel time) and minimal risk (i.e., low probability of being involved in a collision, or being stopped by the police for speeding).

The research on the relationship of travel speed to posted speed is clear – the public perception is wrong. While some motorists will adjust their speed based on the posted speed limit, the majority of motorists travel at a speed that they feel comfortable. Their comfort is in turn predicated on their past driving experience, the condition of the road, the adjacent land use, and the type of volume of traffic. A definitive study by Parker (1997) shows this to be the case (see Figure 1). Large changes in posted speed limits (10 to 20 km/h), result in very small changes to travel speeds (1 to 3 km/h) without intense public education and/or heavy police enforcement.

Relationship to Previous Policies: The policy that follows, while somewhat different in form, has the same goals and objectives as the previously approved of the former area municipalities and the Region of Hamilton-Wentworth.

Policy Use: The speed limit is intended to be the maximum speed that one can safely travel along a section of road. One of the main problems with selecting a maximum speed limit is that the maximum “safe” speed varies with varying environmental and traffic conditions. For instance, travelling at 80 km/h on a rural road may be considered “safe” in dry, daytime, summer conditions, but considered “unsafe” in the middle of a snowfall at night. As speed limits should not make reasonable drivers into “law breakers”, the maximum speed limit should be set in accordance with the most favourable environmental and traffic conditions.

Figure 1: Change in Speed versus Change in Posted Speed Limit (Parker 1997)
The appropriate speed limit for an individual road, or road section, is dependent on the function of the road, and the surrounding conditions/environment. For instance, arterial roads and local, residential roads have different functions: arterials move traffic, and local roads provide access to adjacent properties. This being the case, one would expect that the appropriate speed limit for an arterial would be higher than that for a local road. Furthermore, adjacent land uses such as schools may warrant a lower speed limit than the same road traversing open fields in a rural setting.

The policy follows:

1. RURAL AREAS
   As the safety of travel on rural roads is predicated on the design of the road, the type and volume of traffic encountered, and the surrounding land use, the speed limit for rural roads should be as determined by the following expert system. Rural areas that have driveway densities and amenities that begin to resemble urban areas should be treated as urban areas, with a speed limit of 50 km/h applied.

### Speed Limits for Rural Roads

<table>
<thead>
<tr>
<th>Factor</th>
<th>Criteria</th>
<th>60 km/h</th>
<th>70 km/h</th>
<th>80 km/h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width of Pavement (metres)</td>
<td>&lt; 6.5</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td></td>
<td>≥ 6.5</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Visibility (metres)</td>
<td>&lt; 100</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>100 ≤ V &lt; 150</td>
<td>YES</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>150 ≤ V &lt; 200</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td></td>
<td>&gt; 200</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Length of Section (km)</td>
<td>L &lt; 0.5</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td></td>
<td>0.5 ≤ L &lt; 1.0</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td></td>
<td>L ≥ 1.0</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Traffic Volume (Daily traffic)</td>
<td>T &lt; 2k</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>2k ≤ T &lt; 10k</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>T ≥ 10k</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Number of accesses (/km)</td>
<td>N &lt; 20</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>20 ≤ N &lt; 40</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>N ≥ 40</td>
<td>++</td>
<td>++</td>
<td>++</td>
</tr>
<tr>
<td>Pedestrian Traffic</td>
<td>High</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td>YES</td>
<td>YES</td>
<td>YES*</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
</tr>
</tbody>
</table>

**Total # of “YES” Responses**

The column with the most “YES” answers is the appropriate speed limit. If two or more columns have the same number of “YES” answers engineering judgement should be applied.

* + = A safety study should be undertaken to determine if other modifications are required to improve visibility
++ = Access density of over 40 accesses per kilometre are similar to urban conditions, and consideration should be given to lowering the speed limit to 50 km/h.
* = If there is a sidewalk on at least one side of the street, otherwise “NO”

As a general trend, rural roads experience higher travel speeds because they have sparse development, and low traffic volumes. The risk of collision due to travel speed is dependent on the geometric design, the type and volume of traffic, and the surrounding land use. As such, an appropriate speed limit takes all of these factors into account.
Factors to be Considered in Setting Speed Limits for Rural Roads

<table>
<thead>
<tr>
<th>Factor</th>
<th>Reason / Logic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width of Pavement (metres)</td>
<td>Wider pavements permit motorists to recover from minor errors in steering and tracking, while staying within the lane. This promotes safety and allows travelling at faster speeds. Wider pavement accommodates walkers and cyclists.</td>
</tr>
<tr>
<td>Visibility (metres)</td>
<td>This factor takes into consideration the drivers ability to see, perceive, and react to potential safety concerns, such as pedestrians, other motor vehicles emerging from driveways and intersections, and obstacles that have fallen in the road.</td>
</tr>
<tr>
<td>Length of Section (km)</td>
<td>Adequate enforcement of speed limits requires a length of road that is commensurate with the speed limit. Short sections are difficult for drivers to adapt to.</td>
</tr>
<tr>
<td>Traffic Volume (Daily traffic)</td>
<td>Higher volume rural roads are associated with a primary function of “mobility” and warrant a higher speed limit.</td>
</tr>
<tr>
<td>Number of accesses (/km)</td>
<td>An increase in the number of accesses per kilometre increases the speed differential in the traffic stream, and the collision risk. Higher access densities warrant lower speed limits.</td>
</tr>
<tr>
<td>Pedestrian Traffic</td>
<td>Collisions involving pedestrians usually result in a personal injury or fatality. As the collision risk increases with the pedestrian volume (exposure), a lower speed limit is warranted.</td>
</tr>
</tbody>
</table>

2. URBAN AREAS

2.1 Arterial Roads

An arterial road is as defined in the City of Hamilton Official Plan. The speed limit on urban arterial roads will be 60 km/h if the road has a sidewalk on at least one side of the road, and is controlled access (i.e., no private driveways are permitted), and 50 km/h otherwise.

Arterial roads have a primary purpose of moving traffic, and warrant a higher speed limit. The risk of a collision is greater decreased through the application of access control.

2.2 Other Roads

The basic speed limit on non-arterial roads (as defined by the Hamilton Official Plan) in urban areas, will be 50 km/h. 40 km/h will be considered where there are no sidewalks in a residential area, or where there are a series of substandard geometric conditions warranting a 40 km/h speed limit. 40 km/h may also be considered on neighbourhood streets when implemented together with traffic calming which will successfully achieve the desired travel speeds.

These roads serve a primary purpose of providing access to adjacent properties and speed limits in the range of 40 km/h to 50 km/h are appropriate.

3. SCHOOL AREAS

All roads that have contiguous school property, will be subject to the conditions of this section. The requirements of this section, supercede the requirements in Sections 1 and
2, above. The decision to lower speed limits adjacent to schools will be based on factors such as the presence or absence of sidewalks, the volume and speed of vehicular traffic on the road adjacent to the school, the number of students who walk to school, the presence of fencing at the school property and the difficulty of school buses and passenger cars to access the school property.

3.1 Rural Areas

Subject to the Highway Traffic Act, maximum speeds limit on rural roads that are contiguous to schools may be set up to 20 km/h lower than the speed limit on the adjacent road sections. The lowest maximum speed limit that is permitted under the Highway Traffic Act of Ontario (RSO 1990) is 40 km/h. The lower speed limit will be applicable to the section of road that is contiguous to the school and for 150 metres along the road on either side of the school property. The lowered speed limit may be extended if it results in an adjacent speed limit that is too short to adequately enforce. The Highway Traffic Act (RSO 1990) does not permit the implementation of a school zone speed limit other than 40 km/h. In rural areas, where speed limits tend towards 80 km/h, a decrease to 40 km/h is unreasonable. The 20 km/h reduction in the speed limit highlights the presence of the school, and the school children, and therefore increases their safety.

3.2 Urban areas

3.2.1 Arterial Roads

An arterial road is as defined in the City of Hamilton Official Plan. The school must be contiguous to the arterial road. Arterials that are school routes (i.e., roads that students use to travel to and from school, but that are not contiguous to the school) will be assessed as an urban arterial street.

On urban, arterial roads that are contiguous to a school and for 150 metres along the road on either side of the school property, time-limited 40 km/h speed limits may be used. The 40 km/h speed limit shall be in effect during the times of the day that students are walking to and from school, as prescribed by municipal bylaw. The 40 km/h speed limit will be demonstrated using the equipment shown in Figure 2.

The maximum speed limit at times of the day when the 40 km/h is not in effect, will be determined using the urban, arterial section of this policy.

All schools on urban, arterial roads may be eligible for the school zone speed limit. New installations will be implemented each fiscal year, prioritized using the risk factors noted above. Arterial roads have a primary purpose of moving traffic. Lower speed limits are generally contrary to this explicit purpose. However, recognizing the need to provide for the safety of school-aged pedestrians en route to school, it may be appropriate to slow the maximum permissible speed of motor vehicle traffic. The time-limited speed limit strikes a balance between the safety of school children and the need to ensure mobility through the City.
3.2.2 Other Roads

The speed limit on non-arterial roads in urban areas, as defined by the Hamilton Official Plan, that are contiguous to schools may be reduced to 40 km/h at all times of the day, where appropriate. The 40 km/h speed limit will extend for a minimum of 150 metres along the road on either side of the school, and may be extended if this results in an adjacent speed limit that is too short to adequately enforce. 

*Speeds on urban local streets are typically low, and there is no undue hardship imposed by a full-time 40 km/h speed limit. The 40 km/h speed limit highlights the presence of the school, and the school children, and therefore increases their safety.*

4. EXCEPTIONS AND SPECIAL CONSIDERATIONS

Conditions, situations, and events that are local or temporary should generally not have the speed limit adjusted to reflect the condition, but should be addressed through other means. For instance, a sharp curve in the middle of a relatively straight road in a rural area should not have the speed limit of the entire road lowered to reflect the “safe” speed of the curve. Rather, the appropriate speed limit should be determined through application of this policy, and the curve should be posted with advisory warning signs that indicate the direction and severity of the curve along with an advisory “safe” speed, as determined by an engineering study.

The Lincoln M. Alexander Parkway, and the future Red Hill Creek Expressway are considered to be “freeways” and speed limits for these facilities are not to be determined by this policy.

This policy does not take into account the condition of the road surface, as it is the aim of the City to maintain all roads in good condition. In the event that the surface condition is such that the speed limit set by this policy is considered inappropriate, then a lower speed limit should be posted until the road surface condition can be reinstated to an acceptable level.

END OF POLICY