Speed Zone – St. Clair Avenue East from Birchmount Road to Herron Avenue

Date: April 22, 2014
To: Scarborough Community Council
From: Director, Transportation Services, Scarborough District
Wards: Ward 35 – Scarborough Southwest
Reference Number: P:\2014\Cluster B\TRA\Scarborough\sc1428.docx

SUMMARY

This staff report discusses the feasibility of installing a 50 km/h speed zone on St. Clair Avenue East from Birchmount Road to Herron Avenue. A 50 kilometre per hour (km/h) speed limit is technically justified on this portion of St. Clair Avenue East.

RECOMMENDATIONS

Transportation Services recommends that:

1. City Council rescind the maximum rate of speed limit regulation, as identified in Appendix 1 of this report.

2. City Council enact the maximum rate of speed limit regulation, as identified in Appendix 2 of this report.

Financial Impact

The financial cost of modifying the speed limit signs is approximately $4,000.00. Funding for the signs is available in the Transportation Services 2014 Operating Budget, within Cost Centre TP0397.

ISSUE BACKGROUND

Further to a request from Councillor Michelle Berardinetti, Transportation Services staff reviewed St. Clair Avenue East from Birchmount Road to Herron Avenue to determine whether a reduction of the speed limit from 60 km/h to 50 km/h would be justified.
COMMENTS
The following characteristics describe St. Clair Avenue East from Birchmount Road to Herron Avenue:

- St. Clair Avenue East is located north of Danforth Road and south of Eglinton Avenue East.
- St. Clair Avenue East is an east-west major arterial road with a traffic volume of 24,816 vehicles per day and an operating speed of approximately 66 km/h.
- St. Clair Avenue East from Birchmount Road to Herron Avenue is a four-lane east-west road with a posted 60 km/h speed limit, and a width of approximately 15.5 metres. West of Herron Avenue the speed limit is already 50 km/h.
- The land uses on St. Clair Avenue East consists primarily of single family dwellings, senior citizens centre, retail outlets and TTC Subway.
- There is an elementary school located on the south side of St. Clair Avenue East between Birchmount Road and Warden Avenue.
- Sidewalks are located on both sides of St. Clair Avenue East but the setbacks along the subject roadway are minimal, especially at the School Bus Loading Zone in front of the school. In some areas, the sidewalk is directly adjacent to the curb, offering little to no buffer zone for pedestrians.
- Transportation staff has observed school age youth on St. Clair Avenue East from Birchmount Road to Herron Avenue.

50 Km/h Speed Limit Warrant

In order for a 50 km/h speed limit to be warranted, various traffic conditions must be assessed, such as: roadway width and operating speeds, frequency of pedestrian activities, pedestrian environment including sidewalk widths and distance of sidewalk setbacks from the road (buffer zones), frequency of cyclist activities number of residential/commercial driveways, horizontal and vertical curves, the road and traffic environment. Our investigation indicates that the technical justification, or warrant, for the installation of a 50 km/h speed zone is satisfied.
**50 Km/h Speed Limit Warrant Study**

A permanent 50 km/h maximum speed limit may be implemented on an arterial road where one of the following two warrants A, or B, is met.

A. 85th Percentile Speed is less than 60 km/h. (Study data shown in the table below.)

| East of Warden Avenue.: Eastbound – 68 km/h and Westbound – 63 km/h | No |

B. If any combination of FIVE of the following criteria were answered as YES.

1. **Pedestrian and Bicycle Related Factors**

| 1.a | Is pedestrian activity (Age under 12) Heavy? Or Is pedestrian activity (Age under 12) Medium and sidewalk setback is less than 2.5 m? Or Is pedestrian activity (Age under 12) Light and sidewalk setback is less than 0.5 m? Or Is pedestrian activity (Age OVER 12) Heavy and sidewalk setback is less than 0.5 m? | No | Yes |

| 1.b | Is the bicycle activity (without a bike lane) High? | No | No |

2. **Collision Related Factor**

| 2 | Does the collision history indicate a significant number of collisions resulting in injuries (as opposed to all collisions)? | No | No |

3. **Roadway Geometry Related Factors**

| 3.a | Is the number of uneasy curves per kilometre when driving at a speed less than 60 km/h (level/rolling terrain) equals two or more? | Yes | Yes |

| 3.b | Is the number of locations per kilometre with insufficient distance to stop safely while travelling at 60 km/h equals two or more? | Yes | Yes |

| 3.c | Is the length of speed zone < 1 km? | No | No |

| 3.d | Is the number of non-commercial driveways per kilometre > 30? | Yes | Yes |

| 3.e | Is the number of low-density residential driveways per kilometre > 5? | Yes | Yes |

| 3.f | Absence of a Centre Left-Turn Lane | Yes | Yes |

4. **Roadway Operation Related Factors**

| 4 | Is the On-Street Parking activity Medium to high? | No |

As outlined in the above tables, the introduction of a 50 km/h speed limit is justified on the subject section of St. Clair Avenue East.
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SIGNATURE

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FL:pz

ATTACHMENTS

1. Appendix 1 – By-law Amendment, Rescind
2. Appendix 2 – By-law Amendment, Enact
3. Location Plan – (Speed Zone – St. Clair Avenue East from Birchmount Road to Herron Avenue)
Appendix 1

"Speed Limits on Public Highways"
Regulation to be Rescinded

<table>
<thead>
<tr>
<th>From Column 1</th>
<th>From Column 2</th>
<th>From Column 3</th>
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<tbody>
<tr>
<td>Highway</td>
<td>Between</td>
<td>Speed Limit (km/h)</td>
</tr>
<tr>
<td>St. Clair Avenue East</td>
<td>Kingston Road and Herron Avenue</td>
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Appendix 2

“Speed Limits on Public Highways”
Regulation to be Enacted

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