Traffic Control Signals Review – St. Clair Avenue East and Santamonica Boulevard

<table>
<thead>
<tr>
<th>Date:</th>
<th>May 28, 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>To:</td>
<td>Scarborough Community Council</td>
</tr>
<tr>
<td>From:</td>
<td>Director, Transportation Services, Scarborough District</td>
</tr>
<tr>
<td>Wards:</td>
<td>Ward 35 – Scarborough Southwest</td>
</tr>
<tr>
<td>Reference Number:</td>
<td>P:\2015\Cluster B\TRA\Scarborough\sc1551.docx D13-5845659 Santamonica – Traffic Control Signals</td>
</tr>
</tbody>
</table>

**SUMMARY**

The purpose of this report is to provide the results of the review of the feasibility of installing traffic control signals at the intersection of St. Clair Avenue East and Santamonica Boulevard.

The review of traffic volumes, delays and collisions at this location indicates that the intersection does not meet the required technical justification for the installation of traffic control signals. Therefore, it is recommended that traffic control signals not be installed at the intersection of St. Clair Avenue East and Santamonica Boulevard.

**RECOMMENDATIONS**

Transportation Services recommends that:

1. City Council not approve the installation of traffic control signals at the intersection of St. Clair Avenue East and Santamonica Boulevard.

**Financial Impact**

There is no cost associated with the recommendation in this report. However, should Scarborough Community Council recommend to City Council the approval of such signals, the cost of installing Traffic Control Signals would be approximately $160,000.00. The funds for these signals are not currently available in Transportation Services Division's 2015 Capital Budget.
ISSUE BACKGROUND
As a result of a request from Councillor Berardinetti, Transportation Services staff reviewed the feasibility of installing traffic control signals at the St. Clair Avenue East and Santamonica Boulevard intersection.

COMMENTS
The following characteristics describe the intersection of St. Clair Avenue East and Santamonica Boulevard:

- This intersection is located west of Birchmount Road and east of Warden Avenue;
- This three approach intersection is currently controlled by a compulsory stop control on Santamonica Boulevard;
- Santamonica Boulevard a two-lane local road with an unposted speed limit of 50 km/h;
- St. Clair Avenue East is four-lane major arterial road with an unposted speed limit of 50 km/h;
- Sidewalks are located on both sides of St. Clair Avenue East and Santamonica Boulevard;
- The land uses in this area consist of residential on the south side of the intersection and parkland on the north side;
- Existing traffic control signals are located on St. Clair Avenue East approximately 370 metres to the west at the intersection of Warden Avenue and approximately 450 metres to the east at the intersection of Birchmount Road.

Traffic Control Signal Warrant Study
Transportation Services staff conducted a Traffic Control Signal Warrant study at the intersection of St. Clair Avenue East and Santamonica Boulevard on Wednesday, May 29, 2014, using traffic volumes recorded over the peak eight hours of a typical weekday. The following are the results of the study:

<table>
<thead>
<tr>
<th>Traffic Control Signal Warrant</th>
<th>Compliance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Vehicular Volume</td>
<td>19%</td>
</tr>
<tr>
<td>Delay To Cross Traffic</td>
<td>52%</td>
</tr>
<tr>
<td>Collision Hazard</td>
<td>0%</td>
</tr>
</tbody>
</table>

For traffic control signals to be numerically justified, the following conditions need to be met:

1. One of the “Minimum Vehicular Volume” or “Delay to Cross Traffic” or "Collision Hazard" warrants must be 100% satisfied; or
2. The “Minimum Vehicular Volume” and “Delay to Cross Traffic” warrants must both be at least 80% satisfied.

Neither of the above-noted technical requirements to install traffic control signals at this intersection is met at this time.
The Collision Hazard justification is not met as there have been zero collisions during the most recent 5-year period suggesting that the intersection is functioning safely.

**Pedestrian Crossover Warrant Study**
Transportation Services staff conducted a Pedestrian Crossover Warrant study of St. Clair Avenue East and Santamonica Boulevard on Wednesday, May 29, 2014, using pedestrian volumes recorded over the peak eight hours of a typical weekday. The following are the results of the study:

<table>
<thead>
<tr>
<th>Pedestrian Crossover Warrant</th>
<th>Compliance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedestrian Volume</td>
<td>15%</td>
</tr>
<tr>
<td>Pedestrian Delays</td>
<td>10%</td>
</tr>
</tbody>
</table>

As outlined in the above table, the installation of a pedestrian crossover is not justified because both categories must be met 100%. A total of 32 pedestrians were observed crossing St. Clair Avenue East at this location during the eight-hour study period.

In summary, neither traffic control signals nor a pedestrian crossover is justified based on current conditions and operations at this intersection and, therefore, the installation of such traffic measures is not recommended at this time. It should be noted, however, that in the event that these numerical warrants are satisfied in the future, the traffic control signal spacing along this section of St. Clair Avenue East is suitable and would provide convenient pedestrian access and crossing opportunities to the TTC stops and other destinations in this area.

**CONTACT**
Marko A. Oinonen, B.A. Sc., DPA, P. Eng.
Manager, Traffic Operations
Transportation Services, Scarborough District
Tel: 416-396-7148
Fax: 416-396-5641
E-Mail: moinone@toronto.ca

**SIGNATURE**

____________________________________
John Mende, P.Eng.
Director, Transportation Services, Scarborough District

SS:cr

**ATTACHMENTS**
1. Location Plan (Traffic Control Signals Review – St. Clair Avenue East and Santamonica Boulevard)