All-Way Stop Control Study – Radnor Avenue and Flora Drive

Date: March 1, 2012
To: Scarborough Community Council
From: Director, Transportation Services, Scarborough District
Wards: Ward 37 – Scarborough Centre
Reference Number: P:\2012\Cluster B\TRA\Scarborough\sc1235
D11-4447409  Radnor Flora  all-way stop

SUMMARY

This staff report is about a matter for which the Community Council has delegated authority from City Council to make a final decision.

This report responds to a request from Councillor Thompson to investigate the feasibility of installing an All-Way Stop Control at the intersection of Radnor Avenue and Flora Drive. The report shows that this intersection did not meet the required technical warrant for this type of traffic control.

It is recommended that an All-Way Stop Control not be installed on Radnor Avenue at Flora Drive as the numerical study values did not meet the warrant for installation of an All-Way Stop Control.

RECOMMENDATIONS

Transportation Services recommends that Scarborough Community Council:

1. Not approve the installation of an All-Way Stop Control at Radnor Avenue and Flora Drive.

2. Not pass or amend the appropriate by-law(s) accordingly.
Financial Impact
There would be no financial impact associated with the staff recommendation regarding the unwarranted all-way stop control; however, if an All-Way Stop Control were to be installed, the financial cost of installing the two addition stop signs and associated pavement markings would be approximately $500.00. The funding for these stop controls would be available in the Transportation Services 2012 Operating Budget, within Cost Centre TP0397.

ISSUE BACKGROUND
Further to a request from Councillor Thompson, Transportation Services staff reviewed the feasibility of installing an All-Way Stop Control at the intersection of Radnor Avenue and Flora Drive. The report shows that this intersection did not meet the required technical warrant for this type of traffic control.

COMMENTS
The following characteristics describe the intersection of Radnor Avenue and Flora Drive and the surrounding area:

- This intersection is located within the community east of Kennedy Road west of Birchmount Road, south of Lawrence Avenue East.
- Radnor Avenue is a two-lane east-west local road with an unposted speed limit of 50 kilometres per hour and a daily traffic volume of approximately 879 vehicles per day. It has an 85th percentile speed of 44 km/h.
- Flora Drive is a two-lane, north-south local road with an unposted speed limit of 50 kilometres per hour.
- All-way Stop Controls are on occasion installed at the intersection of two local roads when the numerical warrants for such a traffic control device are met.
- Both these local roadway experience vehicle volumes in the lower range of typical local road volumes, (approximately 879 vehicles per day).
- The land use in this neighbourhood is single family residential.

An All-Way Stop Control cannot be recommended on Radnor Avenue at Flora Drive, since the subject intersection did not meet the technical warrants for an All-Way Stop Control installation.

All-Way Stop Control Warrant Study
A traffic study conducted at the intersection of Radnor Avenue and Flora Drive during the morning and afternoon peak hours of a typical weekday, (Wednesday, October 12, 2011), produced the following results:
<table>
<thead>
<tr>
<th>All-Way Stop Control Warrant</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Approach Vehicle Volume</td>
<td>95</td>
<td>44</td>
<td>59/41</td>
</tr>
<tr>
<td>Vehicle/Pedestrian Volume Crossing Major Road</td>
<td>≥ 250</td>
<td>≥ 100</td>
<td>≥ 30/70 or ≤ 70/30</td>
</tr>
</tbody>
</table>

*“Unit Volume Split”: Major Road Volume – Vehicles only. Minor Road Volume – Vehicles plus pedestrians crossing the major road.*

For an All-Way Stop Control to be numerically justified, the traffic volume requirements for the “Study Period Average” must be completely satisfied in Categories A and C, or Categories B and C.

As outlined in the above table, the traffic volumes do not meet the requirements to install an All-Way Stop Control at the subject intersection at this time.

It should be noted that notwithstanding the current non-compliance with the numerical warrants and staff not being able to recommend an all-way stop control on Radnor Avenue and Flora Drive, this could be a suitable location for an all-way stop if warranted in the future, since the vehicle volume splits indicate that a reasonable amount of compliance with this stop control can be anticipated.

A review of the collision records revealed that no collision was reported at this intersection during the five-year period ending December 31, 2010.

**CONTACT**
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**SIGNATURE**
Peter J. Noehammer, P.Eng.
Director, Transportation Services, Scarborough District

**ATTACHMENTS**
1. Location Plan (All-Way Stop Control Study, Radnor Avenue and Flora Drive)