All-Way Stop Control Review – Dorcot Avenue and Munson Crescent

Date: December 9, 2015
To: Scarborough Community Council
From: Director, Transportation Services, Scarborough District
Wards: Ward 37 – Scarborough Centre
Reference Number: P:\2015\Cluster B\TRA\Scarborough\sc1602.docx
D15-6741699 AWSC – Dorcot Avenue and Munson Crescent

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 Michael Thompson to review the feasibility of installing an all-way stop control at the Dorcot Avenue/Munson Crescent intersection. Currently, this location is controlled by a southbound compulsory stop control where Munson Crescent meets Dorcot Avenue; there is also a school crossing located on the east side of this intersection. Based on an assessment of the pedestrian and traffic volumes and conditions at this intersection, it has been determined that the technical warrants for the installation of an all-way stop control are not met. This is consistent with the results of two similar studies previously undertaken of this intersection. Therefore, this report recommends that all-way stop control not be installed at this intersection.

RECOMMENDATIONS

Transportation Services recommends that Scarborough Community Council:

1. Not approve the installation of an All-Way Stop Control at the intersection of Dorcot Avenue and Munson Crescent.

Financial Impact
There would be no financial impact associated with the staff recommendations. However, should an all-way stop control be approved, the financial cost of installing the additional signage and associated pavement markings would be approximately $750.00.
The funding for such regulatory traffic signs has been requested in the Transportation Services 2016 Operating Budget, within Cost Centre TP0397.

ISSUE BACKGROUND
Further to a request from Councillor Michael Thompson, Transportation staff reviewed the feasibility of installing an all-way stop control at the intersection of Dorcot Avenue and Munson Crescent.

In recent years, the immediate area of the school at 61 Dorcot Avenue has been reviewed on eight occasions for various requests resulting in two reports to Scarborough Community Council and numerous signage and pavement marking installations. The reviews include:

- all-way stop control studies at several intersections, including two for the Dorcot Avenue and Munson Crescent intersection.
- parking regulations within the school zone.
- reduction of the speed limit on Dorcot Avenue.
- alterations to the School Bus Loading Zone.
- numerous warning sign and pavement marking installations.
- meetings with three different school principals and parent/teacher groups, as well as addressing the student body.

COMMENTS
The following characteristics describing the intersection of Dorcot Avenue and Munson Crescent:

- This intersection is located within the residential community west of Brimley Road, east of Midland Avenue, north of Lawrence Avenue East and south of Ellesmere Road, known as the Midland Park Community.
- Dorcot Avenue runs east west between Brimley Road and Midland Avenue.
- Dorcot Avenue is a two-lane collector road with a posted speed limit of 40 kilometres per hour and a daily traffic volume of approximately 2,000 vehicles per day. The vehicle volume range for a collector road is between 2,500 to 8,000 vehicles per day, and therefore, the volumes on Dorcot Avenue are less than the vehicle volume range for collector roads.
- A School Crossing is located on Dorcot Avenue east of Munson Crescent.
- Dorcot Avenue has an 85th percentile operating speed of 49 km/h.
- There are sidewalks on both sides of Dorcot Avenue.
- The land uses in this neighbourhood is single family residential with the nearby school at 61 Dorcot Avenue.

All-Way Stop Control Warrant Study
A traffic study conducted at the intersection of Dorcot Avenue and Munson Crescent, during the morning and afternoon peak hours of a typical weekday (Wednesday, May 27, 2015), produced the following results:
A previous traffic study conducted at the intersection of Dorcot Avenue and Munson Crescent, during the morning and afternoon peak hours of a typical weekday (Wednesday, February 16, 2011), produced the following results:

<table>
<thead>
<tr>
<th>All-Way Stop Control Warrant</th>
<th>A Total Approach Vehicle Volume</th>
<th>B Vehicle/Pedestrian Volume Crossing Major Road</th>
<th>C Unit Volume Split* Major/Minor Roads</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two-Hour Study Period Average</td>
<td>251</td>
<td>37</td>
<td>86/14</td>
</tr>
<tr>
<td>Warrant Requirements For Study Period Average For Collector Roads</td>
<td>≥ 375</td>
<td>≥ 150</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 first table above, the most recent traffic volumes recorded in May this year do not meet the requirements for the installation of all-way stop control at the subject intersection, which is consistent with the previous results outlined in the second table for February 2011. The vehicle volume splits are not favourable, indicating that a potentially less than acceptable amount of motorist compliance could be expected should this unwarranted all-way stop control be installed. The spacing requirement for the installation of this traffic control device is also a concern, since this intersection is located 130 metres west of an existing all-way stop control on Dorcot Avenue and Birkdale Road, which could be a safe stopping distance risk between these two locations.

A review of the collision records revealed that there were no reported collisions (including pedestrians) that would have been potentially preventable by the installation of an all-way stop control at this intersection during the five-year period ending December 31, 2014.
Based on the results of the traffic study, which confirm the results of the previous assessments, it is recommended that all-way stop control not be installed at the Dorcot Avenue/Muncson Crescent intersection.

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SIGNATURE

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Director, Transportation Services, Scarborough District

FJB:cr

ATTACHMENTS

1. Location Plan (All-Way Stop Control Review – Dorcot Avenue and Munson Crescent).