



**STAFF REPORT  
ACTION REQUIRED**

**Proposed All-Way Stop Control on  
Knotwood Crescent/Mantis Road at Flower  
Crescent/Nightstar Road**

<b>Date:</b>	October 15, 2007
<b>To:</b>	Scarborough Community Council
<b>From:</b>	Director, Transportation Services, Scarborough District
<b>Wards:</b>	Ward 42 – Scarborough-Rouge River
<b>Reference Number:</b>	P:\2007\Cluster B\TRA\Scarborough\sc07065 D07-1442 Mantis Nightstar

**SUMMARY**

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This staff report is about a matter for which the Community Council does not have delegated authority from City Council to make a final decision.

This report provides the results of an All-Way Stop Control study conducted at the intersection of Knotwood Crescent/Mantis Road and Flower Crescent/Nightstar Road.

Traffic studies reveal that an All-Way Stop Control is warranted at the noted intersection.

**RECOMMENDATIONS**

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**Transportation Services, Scarborough District, recommends that Scarborough Community Council:**

1. Approve the installation of an All-Way Stop Control at the intersection of Knotwood Crescent/Mantis Road and Flower Crescent/Nightstar Road,
2. Adopt the “Compulsory Stops” regulation, as identified in the Appendix 1 of this report, and
3. Amend the appropriate by-law accordingly.

## Financial Impact

The financial cost of installing these stop controls is approximately \$1,000.00. The funding for these stop controls is available in the Transportation Services 2007 Operating Budget, within Cost Centre TP0226.

## ISSUE BACKGROUND

Further to a request from an area resident, Transportation Services staff reviewed the feasibility of installing an All-Way Stop Control at the intersection of Knotwood Crescent/Mantis Road and Flower Crescent/Nightstar Road.

The justification for the installation of an All-Way Stop Control is based on a technical warrant adopted by Council for use in the City of Toronto.

## COMMENTS

The following characteristics describe the intersection of Knotwood Crescent/Mantis Road and Flower Crescent/Nightstar Road:

- This four-way intersection is located in the Rouge Neighbourhood and is presently controlled by eastbound and westbound stop signs on Nightstar Road and Flower Crescent respectively, which are supplemented by painted stop bars.
- The daily traffic volume on Mantis Road is approximately 1,200 vehicles per day.
- Knotwood Crescent and Mantis Road are two lane residential roadways with a speed limit of 50 kilometres per hour (not signed).
- Flower Crescent and Nightstar Road are two lane residential roadways with a speed limit of 50 kilometres per hour (not signed) on Flower Crescent and a speed limit of 40 kilometres per hour on Nightstar Road.
- The Toronto Transit Commission operates a bus service on Mantis Road and Nightstar Road.
- Sidewalks are located on both sides of Nightstar Road and Mantis Road, and on one side on Flower Crescent and Knotwood Crescent.

## All-Way Stop Control Warrant Study

A traffic study conducted at the intersection of Knotwood Crescent/Mantis Road and Flower Crescent/Nightstar Road during the morning and afternoon peak hours of a typical weekday (Tuesday, September 18, 2007) produced the following results:

All-Way Stop Control Warrant	A Total Approach Vehicle Volume	B Vehicle/Pedestrian Volume Crossing Major Road	C Unit Volume Split* Major/Minor Roads
Four-Hour Study Period Average	201	122	44/56
Warrant Requirements For Study Period Average	≥ 250	≥ 100	≥ 30/70 or ≤ 70/30

\* "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, Categories B and C satisfied the warrant requirements; therefore, an All-Way Stop Control is warranted and should be installed at this intersection.

### **Collision History**

A review of the Toronto Police Service collision records for the five-year period ending December 31, 2006 revealed that no collisions have been reported at the subject intersection.

### **CONTACT**

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### **SIGNATURE**

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

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### **ATTACHMENTS**

1. Appendix 1 – By-law Amendment (enact)
2. Location Plan (Proposed All-Way Stop Control – Knotwood Crescent/Mantis Road and Flower Crescent/Nightstar Road)

Appendix 1

“Compulsory Stops”  
Regulation to be Enacted

Column 1  
Intersection

Column 2  
Stop Street

Knotwood Crescent/Mantis Road and  
Flower Crescent/Nightstar Road

Knotwood Crescent/Mantis Road