



STAFF REPORT ACTION REQUIRED

Proposed Traffic Control Signals on Brenyon Way at Wickson Trail/John Tabor Trail

Date:	March 25, 2009
To:	Scarborough Community Council
From:	Acting Director, Transportation Services, Scarborough District
Wards:	Ward 42 – Scarborough-Rouge River
Reference Number:	P:\2009\Cluster B\TRA\Scarborough\sc09028 D08-2836274 (D07-1335) Brenyon Way traffic control signals

SUMMARY

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 responds to a request to replace the existing Pedestrian Crossover with an All-Way Stop Control at the intersection of Brenyon Way and Wickson Trail/John Tabor Trail. The report shows that an All-Way Stop Control is warranted at this intersection that is located in the Malvern Neighbourhood.

However, the intersection design along with the existence of a school crossing with an Adult Crossing Guard precludes the use of All-Way Stop Control; the installation of Traffic Control Signals is the only available option.

RECOMMENDATIONS

Transportation Services, Scarborough District, recommends that Scarborough Community Council recommend that City Council:

1. Approve the installation of Traffic Control Signals at the intersection of Brenyon Way and Wickson Trail/John Tabor Trail.
2. Rescind the “Pedestrian Crossover” regulation on Brenyon Way, as identified in Appendix 1 of this report.
3. Amend the appropriate by-law(s) accordingly.

Financial Impact

The financial cost of the Pedestrian Crossover removal and the installation of the Traffic Control Signals is approximately \$175,000.00. The funding for these signals is available in Transportation Services Division's Capital Works Budget under Project No. CTP708-01.

ISSUE BACKGROUND

Further to a request from the local MPP through the local Councillor's office on the behalf of an area resident, Transportation Services staff reviewed the feasibility of installing both an All-Way Stop Control and Traffic Control Signals at the intersection of Brenyon Way and Wickson Trail/John Tabor Trail.

The justification for the installation of both All-Way Stop Control and Traffic Control Signals are based on a technical warrants adopted by Council for use in the City of Toronto.

Under Toronto Municipal Code Chapter 27, this matter is not delegated to Scarborough Community Council since TTC Bus Route 132 runs along Brenyon Way.

COMMENTS

The following characteristics describe the intersection of Brenyon Way and Wickson Trail/John Tabor Trail:

- This four-way intersection is located in the community north of Sheppard Avenue East, east of Neilson Road, and is presently controlled by a Pedestrian Crossover located on the north side, and eastbound and westbound stop signs on Wickson Trail and John Tabor Trail respectively which are supplemented by painted stop bars and crosswalk lines.
- The Pedestrian Crossover is primarily used by area residents and as a school crossing for St. Columba Catholic School located on the northeast corner of this intersection and Grey Owl Public School located just west of this intersection on Wickson Trail.
- An Adult Crossing Guard assists school children during school crossing times.
- Brenyon Way is a wide two-lane (13 metres) collector roadway with a speed limit of 50 kilometres per hour and a daily traffic volume of approximately 5,800 vehicles per day.
- Wickson Trail and John Tabor Trail are two-lane (9.7 metres) collector roadways with a speed limit of 40 kilometres per hour.
- Sidewalks are located on both sides of Brenyon Way, Wickson Trail and John Tabor Trail.
- The Toronto Transit Commission (TTC) has northbound and southbound bus stops located just south of this intersection.
- There are Traffic Control Signals located 420 metres to the northwest at Sewells Road and 650 metres to the southeast at Sheppard Avenue East.

All-Way Stop Control Warrant Study

A traffic study conducted at the intersection of Brenyon Way and Wickson Trail/John Tabor Trail during the morning and afternoon peak hours of a typical weekday (Tuesday, November 13, 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	605	205	69/31
Warrant Requirements For Study Period Average For Collector Roads	≥ 375	≥ 150	$\geq 30/70$ or $\leq 70/30$

* "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 A, 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, 2007 revealed the following history:

Five-Year Collision Information	Number of Reported Collisions					
	2003	2004	2005	2006	2007	Total
Total Collisions	7	2	1	3	4	17
Collisions Potentially Preventable by the Installation of an All-Way Stop Control or Traffic Control Signals	2	2	0	1	0	5
Collisions Involving Pedestrians crossing Brenyon Way	0	0	0	0	0	0

In summary, the All-Way Stop Control is justified.

However, this location is used for school crossings by the students of two area schools and is protected by an Adult Crossing Guard. The relevant provincial standard actually does not recommend providing an All-Way Stop Control for a location such as this one because of its use as a school crossing, especially considering the relatively wide 13 metre crossing of Brenyon Way. The only other suitable form of traffic control to consider would be Traffic Control Signals.

Traffic Control Signal Warrant Study

Transportation Services staff conducted a Traffic Control Signal Warrant Study at the intersection of Brenyon Way and Wickson Trail/John Tabor Trail during the morning and afternoon peak hours of a typical weekday (Tuesday, November 13, 2007) produced the following results:

Traffic Control Signal Warrant	Compliance Level
	Tuesday, November 13, 2007
Minimum Vehicular Volume	67%
Delay To Cross Traffic	55%
Collision Hazard	7%

For traffic control signals to be numerically justified, one of the “Minimum Vehicular Volume” or “Delay to Cross Traffic” warrants must be 100% satisfied or any two of the three warrants must be at least 80% satisfied.

As indicated by the foregoing summary, Traffic Control Signals at the intersection of Brenyon Way & Wickson Trail/John Tabor Trail are not technically justified using these criteria. However, they are justified using Engineering Judgement due the existence of the school crossing along with the excess width of Brenyon Way. Considering that All-Way Stop Control is already warranted, to do nothing could incur a liability to the City and potentially endanger public safety. The installation of Traffic Control Signals would mitigate the same issues as All Way Stop Control, while providing better pedestrian crossing protection at this location.

Coincident with the installation of Traffic Control Signals, the existing Pedestrian Crossover will be removed.

The TTC was consulted about this new Traffic Control Signal installation and they have indicated no concerns, subject to one of the bus stops being relocated.

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SIGNATURE

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ATTACHMENTS

1. Appendix 1 – By-law Amendment (rescind)
2. Location Plan (Proposed Traffic Control Signals – Brenyon Way at Wickson Trail/John Tabor Trail)

Appendix 1

“Pedestrian Crossover Locations” Regulation to be Rescinded

Column 1
Road

Brenyon Way

Column 2
At

Wickson Trail/John Tabor Trail