



STAFF REPORT ACTION REQUIRED

Traffic Control Signal Study – Steeles Avenue East at Ninth Line

Date:	May 3, 2011
To:	Scarborough Community Council
From:	Director, Transportation Services, Scarborough District
Wards:	Ward 42 - Scarborough Rouge River
Reference Number:	P:\2011\Cluster B\TRA\Scarborough\sc1154 D11-4245076 & D10-3718855 Steeles Ninth tcs

SUMMARY

The purpose of this report is to secure authority for the installation of Traffic Control Signals at the intersection of Steeles Avenue East and Ninth Line.

Traffic studies reveal that Traffic Control Signals are warranted at this location.

RECOMMENDATIONS

Transportation Services, Scarborough District, recommends that:

1. City Council approve the installation of a Traffic Control Signal at the intersection of Steeles Avenue East and Ninth Line.
2. City Council direct staff to undertake best efforts to have York Region share the capital cost of installing this Traffic Control Signal.
3. City Council pass or amend the appropriate by-law(s) accordingly.

Financial Impact

The financial cost of installing these new traffic control signals would be approximately \$90,000 for temporary traffic control signals until Steeles Avenue East is eventually widened. After Steeles Avenue East is widened, the temporary span wire design would be replaced with permanent traffic control signals costing approximately \$120,000. The funding for these signals is not currently available in Transportation Services Division's Capital Works Budget under Project No. CTP711-0101; however, the traffic control signal would be installed once funding and scheduling permit.

It should be noted that at this time, the City of Toronto is obligated to fund the entire amount of installing the signals, as per 1970's era agreements with York Region. Discussions are occurring between staff of the City and York Region to review the current boundary obligations along Steeles Avenue and enter into an agreement to cost share capital infrastructure along Steeles Avenue, including the installation of new Traffic Control Signals.

ISSUE BACKGROUND

As a result of nearby residential growth in York Region, Transportation Services staff reviewed the feasibility of installing traffic control signals at Steeles Avenue East at Ninth Line.

COMMENTS

The following characteristics describe the intersection of Steeles Avenue East and Ninth Line:

- This T-type intersection is presently controlled by a southbound stop sign on Ninth Line at Steeles Avenue East.
- Steeles Avenue East is a minor arterial roadway with a single lane eastbound and a single lane westbound. Ninth Line has a single lane northbound and a single lane southbound which splits into a southbound left turn lane and a southbound right turn lane at the subject intersection.
- There are no existing TTC routes along this portion of Steeles Avenue East. The easterly limit of TTC routes is Staines Road.
- Steeles Avenue East has a posted speed limit of 60 kilometres per hour (km/h). Ninth Line has a posted speed limit of 60 km/h.
- Traffic control signals are located approximately 552 metres west on Steeles Avenue East at Staines Road and also approximately 4.7 kilometres east at Steeles Avenue East and Pickering Town Line.
- The land use adjacent to the intersection consists of agricultural land, a golf course and also a golf driving range.
- There are no curbs or sidewalks at the subject intersection and no pedestrians were observed during the eight hour study.
- The Rouge River is located approximately 160 metres west of the intersection.

Traffic Control Signal Warrant Study

Transportation Services staff have conducted numerous Traffic Control Signal Warrant Studies at the intersection of Steeles Avenue East and Ninth Line over the years, the most recent of which was on Thursday, April 15, 2010. Using the traffic volumes recorded over the peak eight hours of a typical weekday the following results were obtained:

Traffic Control Signal Warrant	Compliance Level
Minimum Vehicular Volume	100 %
Delay To Cross Traffic	70 %
Collision Hazard	67 %

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 of these warrants must be at least 80% satisfied.

As outlined in the above table, the “minimum Vehicular Volume” category is satisfied 100 %. The installation of traffic control signals are justified at the subject intersection based on the foregoing information.

Collision History

A review of the Toronto Police Service collision records for the five-year period ending December 31, 2009 is summarised below.

Five-Year Collision Information	Number of Reported Collisions					
	2005	2006	2007	2008	2009	Total
Collisions Potentially Preventable by the Installation of Traffic Control Signals	1	1	3	2	5	12
Collisions Involving Pedestrians Crossing Steeles Avenue East and/or Ninth Line	0	0	0	0	0	0

In summary, traffic control signals are justified and should be installed at the subject intersection.

CONTACT

Marko A. Oinonen, P.Eng.
 Manager, Traffic Operations, Scarborough District
 Tel: 416-396-7148
 Fax: 416-396-5641
 E-Mail: moinone@toronto.ca

SIGNATURE

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

KS:ca

ATTACHMENTS

1. Location Plan (Traffic Control Signal Study – Steeles Avenue East at Ninth Line)