



STAFF REPORT ACTION REQUIRED

Traffic Control Signals – Gerrard Street East and Ted Reeve Drive/Osborne Avenue

Date:	March 3, 2009
To:	Toronto and East York Community Council
From:	Director, Transportation Services Toronto and East York District
Wards:	Beaches-East York, Ward 32
Reference Number:	Ts09047te.top.doc

SUMMARY

Transportation Services has reviewed the need for traffic control signals to replace the pedestrian crossover (PXO) on Gerrard Street East at Ted Reeve Drive/Osborne Avenue at the request of Councillor Sandra Bussin.

The pedestrian crossover is operating properly, and visibility for drivers and pedestrians is satisfactory. A previous review of this pedestrian crossover had identified no operational or safety issues. Also, the number of pedestrians and vehicles using this intersection does not satisfy the technical criteria for the installation of traffic control signals.

RECOMMENDATIONS

Transportation Services recommends that City Council:

1. Not authorize replacement of the pedestrian crossover with traffic control signals at the intersection of Gerrard Street East and Ted Reeve Drive/Osborne Avenue.

Financial Impact

The adoption of the above-noted recommendation will not result in any financial impact.

If, however, City Council decides that it would be beneficial to replace the existing pedestrian crossover on Gerrard Street East at Ted Reeve Drive/Osborne Avenue with traffic control signals, the estimated cost would be \$140,000. Funds in the amount of \$2,450,000 have been allocated in the 2009 Transportation Services Capital Budget for installation of traffic control signals. This work would be subject to competing priorities and available funding.

ISSUE BACKGROUND

This pedestrian crossover was reviewed as part of the overall review of pedestrian crossovers on minor arterial roadways in 2006. It was identified for enhancement (additional larger beacons, zebra striping) as part of a five year program. According to the approved priority ranking, this location is scheduled to be upgraded in 2010. Also, this intersection was studied in June 2004 and April 2005 to determine the feasibility of installing traffic control signals to replace the pedestrian crossover. These studies determined that there were not enough pedestrians and vehicles using this intersection to justify converting the pedestrian crossover to traffic control signals.

In the fall of 2008 Councillor Sandra Bussin requested Transportation Services to complete an updated review of the safety of this pedestrian crossover and report on the feasibility of replacing it with traffic control signals.

COMMENTS

Roadway Characteristics

Gerrard Street East in the vicinity of Ted Reeve Drive and Osborne Avenue:

- is classified as a minor arterial roadway;
- operates two-way, east/west, on a pavement width of 13 metres;
- carries public transit service (“Gerrard – 135” bus);
- has a daily traffic volume of approximately 21,000 vehicles; and
- has a speed limit of 50 km/h.

Ted Reeve Drive and Osborne Avenue in the vicinity of Gerrard Street East:

- form north and south legs, respectively, of a far-right, 12 metre off-set intersection with Gerrard Street East;
- are classified as local roadways;
- Ted Reeve Drive operates two-way, north/south with a daily traffic volume of 500 vehicles, a pavement width of 7.5 metres and 50 km/h speed limit; and
- Osborne Avenue operates one-way northbound with a daily traffic volume of 400 vehicles, a pavement width of 6.7 metres and a 40 km/h speed limit.

The subject pedestrian crossover (PXO) is located on the east side of the off-set intersection. A crossing guard is present at the intersection during school arrival and dismissal times. There are eastbound and westbound near side TTC stops at the intersection. As such, standing is prohibited on the approaches to the PXO and stopping is prohibited within nine metres of the PXO. Parking is prohibited at all times on the north side of Gerrard Street East, west of the PXO, and prohibited on the subject section of Gerrard Street East between 4:00 p.m. and 6:00 p.m., Monday to Friday, east of the PXO. Stopping is prohibited between 4:00 p.m. and 6:00 p.m., Monday to Friday, on the south side and 7:00 a.m. to 9:00 a.m., Monday to Friday, on the north side.

Adjacent traffic control signals are located on Gerrard Street East approximately 200 metres to the east and west at Malvern Avenue and Main Street, respectively.

Safety Review

Our review of the Toronto Police Service collision data records over a three year period ending July 31, 2007, revealed that 7 collisions were reported at this intersection. Of these collisions, none were potentially preventable by the installation of traffic control signals. None of the collisions during this time period involved pedestrians.

A site investigation confirmed that all push buttons and lights are in good operating condition at this pedestrian crossover, and visibility for eastbound and westbound motorists is good.

Study Results

When this pedestrian crossover was assessed as part of the overall review of pedestrian crossovers on minor arterial roadways, there were no significant operational issues identified and no pedestrian collisions had occurred.

The results of the most recent and past traffic signal warrant studies completed at this intersection are presented below.

Year Studied	Traffic Control Signal Warrants (Percent Compliance)			Warrant Criteria Satisfied	
	Minimum Vehicular Volume	Delay to Cross Traffic	Collision Hazard	Yes	No
2004	33%	46%	0%		X
2005	38%	49%	0%		X
2008	31%	68%	0%		X

Traffic control signals are technically justified when the following results are achieved:

- Either the "Minimum Vehicular Volume" or "Delay to Cross Traffic" warrant is 100 per cent satisfied, or
- Any two of the three warrants are 80 per cent satisfied.

The numerical values indicate the amount of pedestrians and vehicles using the intersection of Gerrard Street East and Ted Reeve Drive/Osborne Avenue does not justify traffic control signals.

Alternate Recommendation:

If Council determines that installation of traffic control signals at the intersection of Gerrard Street East and Ted Reeve Drive/Osborne Avenue would be beneficial, it will need to replace Recommendation No.1 of this report with the following:

1. Replace the pedestrian crossover on Gerrard Street East, on the east side of Osborne Avenue, with traffic control signals at the intersection of Gerrard Street East and Ted Reeve Drive/Osborne Avenue.

Should traffic control signals be installed at this intersection, they would be operated such that the signal indications remain green for Gerrard Street East unless a pedestrian uses the push button, or a vehicle is present on Ted Reeve Drive/Osborne Avenue. As a result, there would be no impact to transit service on Gerrard Street East. TTC staff have indicated that they would have no concerns. Also, due to the off-set of the intersection the traffic signals would operate with three phases as follows.

Phase 1 – Gerrard Street East

Phase 2 – Ted Reeve Drive (pedestrians allowed to cross Gerrard Street East)

Phase 3 – Osborne Avenue (no pedestrians crossing Gerrard Street East)

The above type of operation is used at similar off-set intersections in Toronto and reduces conflicts between turning movements and creates a safer environment for pedestrians. However, this may result in increased delay for motorists on Ted Reeve Drive and Osborne Avenue. Also, pedestrians that now cross Gerrard Street East during gaps in traffic will have to wait for the pedestrian crossing phase. A conceptual drawing of the requested traffic control signals has been prepared and is attached for information.

CONTACT

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SIGNATURE

Peter Noehammer, P.Eng.
Director, Transportation Services

LIST OF ATTACHMENTS

- (1) Drawing No. 421F-9584, dated March 2009
- (2) Preliminary Drawing No. TCS3610

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