



STAFF REPORT ACTION REQUIRED

Traffic Control Signal Installation: Dufferin Street at Gibson Street

Date:	August 13, 2007
To:	North York Community Council
From:	Acting Director, Transportation Services, North York District
Wards:	Ward 15 – Eglinton Lawrence, Ward 17 – Davenport
Reference Number:	p:\2007\ClusterB\TRA\NorthYork\nycc07083tsny (5778)

SUMMARY

To obtain approval for the installation of traffic control signals at the intersection of Dufferin Street and Gibson Street.

Based upon the results of recent traffic studies, the installation of traffic control signals at the intersection of Dufferin Street and Gibson Street is justified and will provide safe pedestrian crossing protection on Dufferin Street.

RECOMMENDATIONS

Transportation Services, North York District recommends that:

1. traffic control signals be installed at the intersection of Dufferin Street and Gibson Street; and
2. the appropriate City officials be authorized and directed to take whatever action is necessary to implement the foregoing, including the introduction in Council of any Bills that are required.

FINANCIAL IMPACT

All costs associated with the installation of traffic control signals at Dufferin Street and Gibson Street, estimated at \$100,000.00, will be included for consideration as part of Transportation Services 2007 Capital budget.

ISSUE BACKGROUND

Transportation Services Division, North York District and Etobicoke York District, have reviewed a request from Councillor Howard Moscoe and Councillor Cesar Palacio on behalf of the area residents to install traffic control signals along Dufferin Street, between Gibson Street and Preston Road.

COMMENTS

Dufferin Street is a, four-lane major arterial road with a daily two-way traffic flow of approximately 29,000 vehicles, and a regulatory speed limit of 50 km/h. Gibson Street is a two-way local roadway that intersects Dufferin Street on the east side, forming a “T-type” intersection. Located approximately 55 metres to the north on the west side of the Dufferin Street is Preston Road, which is also a two-way local roadway intersecting Dufferin Street as a “T-type” intersection. The west side of Dufferin Street is predominantly comprised of residential properties, and Fairbank Memorial Park/Community Centre is located on the east side of the roadway.

Adjacent traffic control signals are located approximately 195 metres to the north of Gibson Avenue at Rowan Avenue and 180 metres to the south at Martin Street/Holmesdale Road. Mid-block Toronto Transit Commission transit stops are located on both sides of Dufferin Street between Gibson Street and Preston Road.

To determine the feasibility of installing a pedestrian crossover or traffic control signals, staff of both Districts conducted the appropriate studies to identify the existing traffic conditions and any difficulty pedestrians are experiencing when crossing Dufferin Street.

It should be noted that our records indicate that Transportation Services has previously reviewed the feasibility of installing a pedestrian crossover or traffic control signals at the above-noted intersection(s) in May 2004 and April 2006. Neither of the above traffic control measures was warranted.

In view of the recent request by both Councillors Transportation Services undertook an eight-hour pedestrian delay study on May 24, 2007. The following table illustrates the results of the most recent and historical technical warrants for the installation of a pedestrian crossover:

Warrant	Study Date		
	Dufferin St at Gibson St		Dufferin St at Preston Rd
	May 2007	April 2004	April 2004
Pedestrian Volume	94%	66%	26%
Pedestrian Delay	66%	62%	32%
Warranted	NO	NO	NO

In order to meet the technical requirements for the installation of a pedestrian crossover, both warrants must be satisfied 100 percent. In order for the pedestrian delay warrant to be considered, a minimum of 200 pedestrians must be observed crossing the roadway, of

which 130 must be delayed for periods greater than 10 seconds. Our study revealed a total of 220 pedestrians crossed Dufferin Street.

However, it should be noted that given the location of the transit stops, the amenities on the east side of the roadway and close proximity of the intersections of Dufferin Street/Gibson Street and Dufferin Street/Preston Road, staff has undertaken a combined assessment of the pedestrian crossings. This assessment has indicated that the technical warrants for the installation of a pedestrian crossover were met as follows:

Warrant 1: Pedestrian Volume 110%
 Warrant 2: Pedestrian Delay 125%

The technical warrants for the installation of traffic control signals at the intersection of Dufferin Street and Gibson Street are satisfied to the following extent:

Warrant	Dufferin St at Gibson St			Dufferin St at Preston Rd
	May 2007	July 2006	June 2004	April 2004
Minimum Vehicular Volume	13%	23%	13%	2%
Delay to Cross Traffic	42%	26%	48%	12%
Collision Hazard	0%	0%	13%	0%
Warranted	NO	NO	NO	NO

In order to meet the technical warrants for the installation of traffic control signals, one of the “Minimum Vehicular Volume” or “Delay to Cross Traffic” warrants must be 100 percent satisfied or both must be at least 80 percent satisfied. The “Collision Hazard” warrant is based on the number of collisions of the type susceptible to correction by the installation of traffic control signals.

A review of the Toronto Police Services, collision records revealed that in a three-year period ending December 31, 2006 there has been two collisions involving pedestrians on Dufferin Street between Gibson Street and Preston Road. Both incidents involved a pedestrian attempting to cross Dufferin Street from the east-side to the west-side. The first incident occurred on the north leg of Dufferin Street and Preston Road, at approximately 9:27 p.m. on March 14, 2005. The second incident occurred on September 15, 2006 at approximately 10:00 p.m. on the north leg of Dufferin Street and Gibson Street. In both incidents the pedestrians were struck by a southbound vehicle.

Given the above study results, the installation of a pedestrian crossover at Dufferin Street and Gibson Street is warranted and traffic control signals are not. However, in order to ensure that the installation of a pedestrian crossover is the most suitable traffic control measure, this Division subjects the proposal to an Environmental Audit.

The Environmental Audit takes into consideration the geometry of the roadway, traffic flow, sight lines, and spacing of adjacent traffic control measures. In view of our findings this division is unable to support the installation of a pedestrian crossover at this location.

In situations where a pedestrian crossover is warranted and the Environmental Audit fails, Transportation Services will support and recommend the installation of traffic control signals. As such staff recommends that in order to improve pedestrian crossings along Dufferin Street, traffic control signals be installed at Dufferin Street and Gibson Street and that the existing mid-block northbound and southbound transit stops be relocated south as close as possible to the intersection of Dufferin Street and Gibson Street.

Staff of the Toronto Transit Commission, have indicated that they are in agreement with the installation of the traffic control signals and the relocation of the transit stops. The northbound transit shelter will also be relocated closer to the intersection.

Councillor Howard Moscoe and Councillor Cesar Palacio have been advised of the recommendations contained within this report.

CONTACT

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SIGNATURE

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ATTACHMENTS

Attachment 1: Map – Dufferin Street at Gibson Street; Traffic Control Signals
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Attachment 2: Map – Dufferin Street at Gibson Street; Traffic Control Signal Plan
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