

# TORONTO STAFF REPORT

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August 18, 2006

To: Toronto and East York Community Council

From: Director, Transportation Services Toronto and East York District

Subject: Spadina Avenue and Wellington Street West – Installation of Traffic Control Signals  
(Trinity-Spadina, Ward 20)

Purpose:

To report on a request from Councillor Martin Silva to install traffic control signals at the intersection of Spadina Avenue and Wellington Street West.

Financial Implications and Impact Statement:

The estimated cost of installing traffic control signals at the intersection of Spadina Avenue and Wellington Street West is \$125,000.00 including modifications to the Toronto Transit Commission (TTC) streetcar right-of-way and application of pavement markings. In addition, this installation will result in an additional cost of \$6000.00 annually to the Transportation Services Operating Budget for maintenance and communications costs. Funds allocated for the installation of traffic control signals contained in the 2006 Transportation Services Capital Program have been fully committed. Funds required for the installation of the subject traffic control signals will be included in the 2007 Transportation Services Capital Program requests and will be subject to competing priorities.

Staff of the City Planning Department, Community Planning Division, are currently investigating opportunities for private sector funding via a Section 37 agreement to defray the cost of the proposed installation.

Recommendations:

It is recommended that:

- (1) Pedestrian, mid-block traffic control signals be installed at the intersection of Spadina Avenue and Wellington Street West subject to no motor vehicle access being permitted across the TTC exclusive streetcar right-of-way; and

- (2) the appropriate City officials be authorized and directed to take whatever action is necessary to give effect thereto, including the introduction in Council of any bills that are required.

Comments:

In response to a request from Councillor Martin Silva, Transportation Services reviewed the feasibility of installing traffic control signals or a pedestrian crossover at the intersection of Spadina Avenue and Wellington Street West.

Spadina Avenue, in the vicinity of Wellington Street West, is a six-lane, major arterial roadway with a daily two-way traffic volume of approximately 35,000 vehicles and a speed limit of 50 km/h. The TTC Spadina Avenue streetcar service operates on a dedicated right-of-way. There are no transit stops in the vicinity of the subject intersection. Wellington Street West operates as a four lane collector road with a daily two-way traffic volume of approximately 3,000 vehicles and intersects the west side of Spadina Avenue in a ‘T-type’ intersection. Adjacent traffic control signals to this intersection are located approximately 150 metres to the south at Front Street West and approximately 165 metres to the north at King Street West.

The minimum recommended spacing between adjacent traffic control devices is 200 metres, which may be reduced in downtown areas where there are slower operating speeds. In spite of the sub-standard spacing, Transportation Services conducted comprehensive traffic studies at the intersection of Spadina Avenue and Wellington Street West. Based on the eight-hour vehicular and pedestrian traffic counts conducted at this intersection, and the collision history, the technical warrants for the installation of traffic control signals are satisfied to the following extent:

Warrant 1:	Minimum Vehicular Volume	68 percent;
Warrant 2:	Delay to Cross Traffic	86 percent; and
Warrant 3:	Collision Hazard	0 percent.

To meet the technical requirements 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 any two of the three warrants must be at least 80 percent satisfied. Based on the above results, the installation of traffic controls signals would not normally be warranted this intersection at this time.

A pedestrian crossover (PXO) would not be appropriate at the intersection of Spadina Avenue and Wellington Street West, as these devices are generally no longer installed on major arterial roadways. However, traffic control signals may be considered at locations where PXO’s are technically warranted, but their installation would be unsuitable or unsafe due to provincially established “environmental standards”.

Manual pedestrian and traffic surveys were undertaken during the busiest eight-hour period of a typical weekday and revealed that 573 pedestrians crossed Spadina Avenue at Wellington Street West (including both legs of Clarence Square on the east side of Spadina Avenue, in the vicinity of Wellington Street West). Of these surveys, 290 pedestrians were delayed more than 10

seconds in crossing Spadina Avenue. Based on these volumes and delays the technical warrants for the installation of a PXO are satisfied to the following extent:

Warrant 1: Pedestrian Volume 100 percent; and  
Warrant 2: Pedestrian Delay 100 percent.

To meet the technical requirements for the installation of a PXO, both of the warrants must be 100 percent satisfied. Based on the above results, the installation of a PXO is warranted at this intersection at this time. As noted above, Transportation Services does not support the installation of a PXO, however consideration could be given to pedestrian, mid-block-style traffic control signals.

Transportation Services requested comments from the TTC who advised that the transit right-of-way has been constructed at road grade, protected by raised curbs. They have recommended that if traffic control signals are approved that protected breaks in the curbing be provided and the existing patterned concrete in the right-of-way be replaced with standard concrete where pedestrian crossings are delineated. Further, if traffic control signals are installed, the TTC has requested that transit priority also be implemented. The proposed signals would be for pedestrians only and Transportation Services is not proposing to allow motor vehicles access over the TTC right-of-way.

Collision statistics provided by the Toronto Police Service for the three-year period ending December 31, 2005 disclosed that 10 collisions had occurred at this intersection. Of these 10 collisions, none involved a pedestrian and none were potentially preventable by the installation of traffic control signals.

Conclusion:

Traffic control signals should be installed at the intersection of Spadina Avenue and Wellington Street West to provide for a better pedestrian crossing environment on Spadina Avenue.

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Director  
BB/

List of Attachments:

(1) Drawing No. 421F-8503, dated August 2006