



STAFF REPORT ACTION REQUIRED

Traffic Control Signals – Strachan Avenue and Douro Street/Wellington Street West

Date:	January 27, 2015
To:	Toronto and East York Community Council
From:	Director, Transportation Services, Toronto and East York District
Wards:	Trinity-Spadina, Ward 19
Reference Number:	Ts2015020te.top.doc

SUMMARY

Transportation Services is seeking authority from City Council to install traffic control signals at the intersection of Strachan Avenue and Douro Street/Wellington Street West.

The installation of traffic control signals at this location is technically justified and will enhance safety for pedestrians, cyclists and motorists crossing/accessing Strachan Avenue. A portion of the costs to install the traffic control signals will be borne by the adjacent developer.

RECOMMENDATIONS

Transportation Services recommends that:

1. City Council approve the installation of traffic control signals at the intersection of Strachan Avenue and Douro Street/Wellington Street West.

Financial Impact

The estimated cost of installing traffic control signals at the intersection of Strachan Avenue and Douro Street/Wellington Street West is approximately \$200,000.00.

The developer of the lands at Nos. 11, 25 Ordinance Street and No. 45 Strachan Avenue will be required to provide a contribution for a portion of the costs for the traffic control signal at this intersection. Staff met with the developer in July 2014 and they have agreed to fund a portion of the traffic control signal in the amount of \$80,000.00.

ISSUE BACKGROUND

Transportation Services was requested by Councillor Layton to report on the installation of traffic control signals at Strachan Avenue and Douro Street/Wellington Street West to address safety concerns for pedestrians, cyclists and motorists crossing/accessing this intersection.

COMMENTS

Strachan Avenue is a minor arterial roadway with a daily, two-way traffic volume of about 13,500 vehicles and a speed limit of 40 km/hr. Strachan Avenue generally consists of a lane for general traffic in each direction, as well as a bicycle lane. Transit service on Strachan Avenue is provided by the '63 Ossington' bus.

Douro Street is a collector roadway with a speed limit of 50 km/h that intersects the west side of Strachan Avenue. Wellington Street West is also a collector roadway with a speed limit of 40 km/h that intersects the east side of Strachan Avenue, opposite Douro Street. Both Douro Street and Wellington Street West are controlled by “Stop” signs at their intersection with Strachan Avenue. There are no TTC services provided on Douro Street or Wellington Street West.

The installation of traffic control signals has been previously assessed at this intersection, and the review determined that traffic control signals were technically justified. However, due to the uncertainty at the time regarding the rail grade-separation to the south, no further action was taken as there was the possibility that the signals would have to be removed at a later date, depending on the preferred bridge design. Now that the rail grade-separation has been resolved, an updated assessment has been undertaken.

Adjacent traffic control signals to this intersection are located about 135 metres to the north, at King Street West, and about 160 metres to the south, at East Liberty Street/Ordnance Street. 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, comprehensive traffic studies were undertaken at the intersection of Strachan Avenue and Douro Street/Wellington Street West. Based on an eight-hour vehicular and pedestrian traffic count conducted at this intersection, and the collision records, the technical justifications for the installation of traffic control signals are satisfied to the following extent:

- Minimum Vehicular Volume Justification: 100 percent;
- Delay to Cross Traffic Justification: 90 percent; and
- Collision Hazard Justification: 80 percent.

To meet the technical requirements for the installation of traffic control signals, one of the “Minimum Vehicular Volume” or “Delay to Cross Traffic” justifications must be 100 percent satisfied, or any two of the three justifications must be at least 80 percent

satisfied. Based on the above results, the installation of traffic control signals is justified at the intersection of Strachan Avenue and Douro Street/Wellington Street West.

Collision statistics provided by the Toronto Police Service for the three-year period ending December 31, 2013 disclosed that 18 collisions had occurred at this intersection. Of those 18 collisions, three involved a pedestrian and 12 were potentially preventable by the installation of traffic control signals. None of the three pedestrian collisions involved a pedestrian crossing Strachan Avenue.

Further review of the 12 collisions that were considered to be potentially preventable by the installation of traffic control signals disclosed the following:

- five were angle-type collisions between southbound and westbound motorists;
- two were angle-type collisions between northbound and eastbound motorists;
- two were angle-type collisions between northbound and westbound motorists;
- one was an angle-type collision between a southbound and an eastbound motorist;
- one was a pedestrian collision between a westbound motorist and a southbound pedestrian on the west intersection leg; and
- one was a pedestrian collision between an eastbound motorist and a northbound pedestrian on the east intersection leg.

Some of the disadvantages that may result from the installation of traffic control signals at this intersection are:

- Increased levels of non-local traffic on Douro Street and Wellington Street West. Installation of traffic signals at this intersection could attract more non-local traffic which could use this traffic signal to bypass the busy Strachan Avenue and King Street West intersection;
- As with any installation of traffic control signals, parking must be prohibited at all times within 30.5 metres of the intersection. This will result in the loss of parking spaces on the south side of Douro Street; and
- Increased congestion and delays to traffic on Strachan Avenue.

Therefore, to address the pattern of collisions at this intersection that could be potentially prevented by traffic control signals, and to provide protection for pedestrians, cyclists and motorists crossing/accessing Strachan Avenue, Transportation Services can support the installation of traffic control signals at this intersection. With the ongoing development in this area, traffic volumes at this intersection are likely to continue to increase.

Councillor Layton has advised he is in support of the proposed traffic control signals at the intersection of Strachan Avenue and Douro Street/Wellington Street West.

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SIGNATURE

Kyp Perikleous
Director, Transportation Services
Toronto and East York District

LIST OF ATTACHMENTS

(1) Drawing No. 421G-1646, dated January 2015

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