



## STAFF REPORT ACTION REQUIRED

### Traffic Control Signals – College Street and Shaw Street

<b>Date:</b>	January 14, 2016
<b>To:</b>	Toronto and East York Community Council
<b>From:</b>	Director, Transportation Services, Toronto and East York District
<b>Wards:</b>	Trinity-Spadina, Ward 19
<b>Reference Number:</b>	Te2016042te.top.doc

#### SUMMARY

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As the Toronto Transit Commission (TTC) operates a transit service on College Street, City Council approval of this report is required.

Transportation Services is requesting approval to install traffic control signals at the intersection of College Street and Shaw Street. The installation of traffic control signals at this location will replace an existing pedestrian crossover (PXO) and enhance safety for pedestrians, cyclists and motorists. In order to minimize the loss of parking, we are recommending to prohibit parking at all times on the west side of Shaw Street, between a point 15 metres north of College Street and a point 15 metres south of College Street. This installation will result in the loss of about 11 parking spaces.

#### RECOMMENDATION

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Transportation Services, Toronto and East York District recommends that:

1. City Council approve the removal of a pedestrian crossover (PXO) from the west side at the intersection of College Street and Shaw Street and, coincident with the removal of the PXO, approve the installation of traffic control signals at this intersection.
2. City Council approve implementation of a "No Parking Anytime" regulation on the west side of Shaw Street, between a point 15 metres north of College Street and a point 15 metres south of College Street.

## **Financial Impact**

The estimated cost of replacing the pedestrian crossover with traffic control signals on College Street at Shaw Street is approximately \$196,000.00. This work would be subject to competing priorities and available funding.

## **ISSUE BACKGROUND**

Transportation Services, Toronto and East York District, was requested by Councillor Mike Layton to investigate and report on the installation of traffic control signals at the intersection of College Street at Shaw Street to enhance crossing safety for pedestrians and cyclists.

## **COMMENTS**

### **Existing Conditions**

College Street is a four-lane, major arterial roadway with a daily two-way traffic volume of about 19,500 vehicles and a regulatory speed limit of 50 km/h. There are streetcar tracks on College Street that operate on a shared right-of-way with the median lanes. Transit service is provided by the '506 Carlton' streetcar.

Shaw Street is a collector roadway that operates one-way in the southbound direction for motorists. It is "Stop" controlled at its intersection with College Street. In 2013, a northbound contra-flow bike lanes were installed on the east side of Shaw Street as part of the Shaw Street Bikeway. Adjacent traffic control signals on this section of College Street are located about 205 metres to the west, at Ossington Avenue, and about 105 metres to the east, at Crawford Street.

A pedestrian crossover (PXO) is located on College Street, west of Shaw Street. This PXO provides crossing protection for north-south pedestrians in this area. In the immediate area, the land use is generally residential and mixed use on College Street. The nearest school is located to the north on Shaw Street (Central Commerce Collegiate Institute, No. 570 Shaw Street).

### **Collision Review**

Collision statistics provided by the Toronto Police Service for the three-year period ending September 30, 2014 disclosed that 13 collisions had occurred at the intersection of College Street and Shaw Street. Of these 13 collisions, seven were considered to be potentially preventable by the installation of traffic control signals, two involved a cyclist and two involved a pedestrian.

### **Traffic Control Signals**

The minimum recommended spacing between adjacent traffic control devices is 200 metres. In spite of the substandard spacing, on May 21, 2014 comprehensive traffic studies were conducted at the intersection of College Street and Shaw Street.

Based on the eight-hour vehicular and pedestrian traffic counts conducted at this intersection, and the collision history, the technical justifications for the installation of traffic control signals are satisfied to the following extent:

<b>Justification 1:</b>	Minimum Vehicular Volume	76 percent
<b>Justification 2:</b>	Delay to Cross Traffic	100 percent
<b>Justification 3:</b>	Collision Hazard	47 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 warrants must be at least 80 percent satisfied. Based on the above results, the installation of traffic control signals is justified at this intersection.

### **Pedestrian Crossover Operations**

Traffic studies were also undertaken to review the operating characteristics at the PXO. During the busiest eight-hour period of a typical weekday, 406 pedestrians were recorded crossing College Street within the painted crosswalk. The 406 pedestrians were classified as follows:

- 380 youths and adults (94 percent);
- 15 senior citizens (4 percent);
- 10 assisted children (2 percent);
- 1 disabled (less than 1 percent); and
- 0 unassisted children (0 percent).

In 92 percent of the crossings, pedestrians used the overhead flashing lights and in eight percent of the crossings, pedestrians did not use the overhead flashing lights. The study observed 38 instances in which vehicles failed to stop for pedestrians.

Additionally, a review to assess any deficiencies in the operational and physical suitability of the PXO at this location was carried out. By comparing the operation of the PXO to provincially adopted “environmental standards” we determined whether the PXO is operating under acceptable conditions. The standards and the comparative characteristics at this location are described in the attached appendix.

Based on the review, the PXO is generally operating under acceptable conditions, with the exception of the spacing to the traffic control signals at Crawford Street, which is less than 200 metres. As indicated, this could also make the installation of traffic control signals unsuitable.

## **Loss of Parking**

Under the provisions of the Toronto Municipal Code, Chapter 950, parking is prohibited within 30.5 metres of all signalized intersections, unless otherwise authorized by a specific by-law regulation. At non-signalized intersections parking is generally prohibited within 15 metres of the intersection.

At most signalized intersections the 30.5-metre corner parking prohibitions are an integral part of the intersection design and are required for efficient operation of traffic through the intersection. However, at signalized intersections where one street is relatively minor when compared to the other, a reduction in the length of the corner parking prohibition on the minor roadway may be considered on a site-specific basis.

In order to minimize the loss of parking on Shaw Street, we are recommending to prohibit parking at all times on both sides of Shaw Street, between a point 15 metres north of College Street and a point 15 metres south of College Street. Transportation Services review and field observations determined that this change will not result in any safety or operational concerns on Shaw Street.

## **Summary**

Based on the review, the installation of traffic signals at College Street and Shaw Street is justified. The installation of the traffic control signals will provide a safer crossing environment for pedestrians, especially school age children and senior citizens.

Additionally, this will provide a safer crossing for cyclists, who had to previously wait for a gap in traffic, or dismount and cross within the PXO. This installation will also provide consistency for cyclists using the Shaw Street Bikeway, which provides traffic control signals on all other crossing of arterial roads. However, the installation of traffic control signals at this intersection would result in the following negative impacts:

- **Loss of Parking:** As many as 11 on-street parking spaces on College Street may need to be removed;
- **Traffic Infiltration:** Non-local traffic volumes on Shaw Street could increase as it becomes easier for motorists to enter College Street;
- **Impacts to Transit:** There will be an increase in delays to transit service on College Street, which would be partially mitigated by the introduction of transit priority; and
- **Impacts to Pedestrians:** There may be an increase in delays to pedestrians, who will be required to wait for a "Walk" signal, rather than crossing upon pressing the PXO button.

Councillor Mike Layton has been advised of the recommendations of this staff report.

## **CONTACT**

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## **SIGNATURE**

Kyp Perikleous  
Director, Transportation Services  
Toronto and East York District

## **LIST OF ATTACHMENTS**

1. Drawing No. 421G-1594, dated November 2014
2. Appendix A - Table 1: Pedestrian Crossover Audit

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