



**STAFF REPORT  
ACTION REQUIRED**

**Traffic Control Signals – Ossington Avenue and Dewson Street**

<b>Date:</b>	February 29, 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>	Ts2016080te.top.doc

**SUMMARY**

---

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

Transportation Services is requesting approval to install traffic control signals at the intersection of Ossington Avenue and Dewson 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. The proposed traffic control signals will operate with three signal phases, requiring the prohibition of north-south right-turns-on-red and pedestrian crossings on the north intersection leg.

**RECOMMENDATIONS**

---

Transportation Services, Toronto and East York District recommends:

1. City Council approve the removal of a pedestrian crossover (PXO) from the south side at the intersection of Ossington Avenue and Dewson Street and, coincident with the removal of the PXO, approve the installation of traffic control signals at this intersection.
2. City Council prohibit pedestrian crossings on Ossington Avenue, between the south curb line of the east leg of Dewson Street and a point 30.5 metres north of the north curb line of the east leg of Dewson Street.
3. City Council prohibit northbound right turns on red signal at all times from Ossington Avenue to Dewson Street.

4. City Council prohibit southbound right turns on red signal at all times from Ossington Avenue to Dewson Street.

### **Financial Impact**

The estimated cost of replacing the pedestrian crossover with traffic control signals on Ossington Avenue and Dewson Street is approximately \$190,000.00. 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 Ossington Avenue and Dewson Street to enhance crossing safety for pedestrians and cyclists.

### **COMMENTS**

#### **Existing Conditions**

Ossington Avenue is a four-lane, minor arterial roadway with a daily two-way traffic volume of about 16,000 vehicles and a speed limit of 40 km/h. Transit service on Ossington Avenue is provided by the '63 Ossington' bus and there north-south transit stops located to the south of Dewson Street.

Dewson Street is a collector roadway that operates with a daily two-way traffic volume of about 2,500 vehicles. It is stop controlled at the intersection with Ossington Avenue, with the east and west legs of Dewson Street forming a "far-right" offset intersection with an offset of about seven metres. Dewson Street, west of Ossington Avenue, has a pavement width of about 7.3 metres and a posted speed limit of 30 km/h, as speed humps have been installed. Dewson Street, east of Ossington Avenue, has a pavement width of about 8.5 metres and a posted speed limit of 40 km/h. There is no TTC service provided on Dewson Street.

Adjacent traffic control signals on this section of Ossington Avenue are located about 290 metres to the south, at College Street, and about 160 metres to the north, at Harbord Street. A pedestrian crossover (PXO) is located on Ossington Avenue, south of Dewson Street. This PXO provides crossing protection for east-west pedestrians in this area.

In the immediate area, the land use is generally residential. Dewson Street Junior Public School (No. 65 Concord Avenue) is located on the southwest corner of the subject intersection and Central Commerce Collegiate Institute (No. 570 Shaw Street) is located to the east, at the intersection of Dewson Street and Roxton Road.

## Collision Review

Collision statistics provided by the Toronto Police Service for the three-year period ending December 31, 2014 disclosed that ten collisions had occurred at the intersection of Ossington Avenue and Dewson Street. Of these ten collisions, three were considered to be potentially preventable by the installation of traffic control signals, two angle-type collisions and one that involved a cyclist. No collisions involved a pedestrian.

## Traffic Control Signals

The minimum recommended spacing between adjacent traffic control devices is 200 metres. In spite of the substandard spacing, comprehensive traffic studies were conducted at the intersection of Ossington Avenue and Dewson 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	84 percent
<b>Justification 2:</b>	Delay to Cross Traffic	90 percent
<b>Justification 3:</b>	Collision Hazard	20 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 controls signals is justified at this intersection.

## Proposed Operation

At any "far-right" offset intersection, controlled by traffic control signals, there are a number of operational concerns:

- motorists entering the intersection from the side street on a green signal indication may see the main street red signal indication and abruptly stop in the middle of the intersection. This increases the risk of rear-end collisions with the next vehicle which is turning behind them;
- side street motorists entering the intersection during the same signal phase experience confusion over who has the right-of-way within the intersection; and
- side street motorists who perform a left turn on a green signal phase have travelled a significant distance and are travelling perpendicular to the next pedestrian crosswalk in which a pedestrian has a "Walk" phase.

Given the potential for pedestrian and vehicle conflicts caused by right-of-way confusion, Transportation Services are recommending a three-phase operation for the proposed traffic control signal at the intersection of Ossington Avenue and Dewson Street. The side-street phases will be separated to enhance safety which may result in increased delays for the side streets. A brief summary of this operation would be as follows:

1. On the first phase, north-south traffic on Ossington Avenue is permitted to move and pedestrians are permitted to cross on the east and west intersection legs;
2. On the second phase, eastbound traffic is permitted to move and pedestrians are permitted to cross on the north and south intersection legs. These pedestrian crossings will be located north and south of the west intersection leg; and
3. On the third phase, westbound traffic is permitted to move. No pedestrian crossings are permitted during this phase.

It was determined that pedestrian crossings should occur during the eastbound phase for the following reasons:

- the existing pedestrian crosswalk is located at the eastbound approach;
- the eastbound approach is adjacent to the elementary school; and
- there is a significant difference between the side street volumes entering eastbound (929) versus westbound (181) over the busiest eight-hour period of a typical weekday.

For the added safety of both pedestrians and motorists at this offset intersection, northbound and southbound right-turn-turns-on-red movements would be prohibited. This would prevent right-turning motorists from entering the large offset intersection on a red signal indication, reducing the potential for conflicts with east-west pedestrians and vehicles.

Additionally, with the proposed north crosswalk located at mid-block within the intersection, it is recommended that pedestrian crossings be prohibited on the north side of the subject intersection.

## Summary

Based on the review, the installation of traffic signals at Ossington Avenue and Dewson Street is justified and recommended. 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. However, the installation of traffic control signals at this intersection would result in the following negative impacts:

- **Loss of Parking.** With any installation of traffic control signals, parking must be prohibited at all times within 30.5 metres of the intersection. As many as four on-street parking spaces on Ossington Avenue and eight on Dewson Street may need to be removed;
- **Traffic Infiltration.** Non-local traffic volumes on Dewson Street could increase as it becomes easier for motorists to enter Ossington Avenue; 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**

Ann S. Khan, P. Eng.  
Manager, Traffic Operations  
Toronto and East York District  
Transportation Services  
Telephone: (416) 397-5021  
Fax: (416) 392-1920  
E-mail: [akhan5@toronto.ca](mailto:akhan5@toronto.ca)

## **SIGNATURE**

Kyp Perikleous  
Director, Transportation Services  
Toronto and East York District

## **LIST OF ATTACHMENTS**

1. Drawing No. 421G-2044, dated January 2016

P:\2016\Cluster B\Tra\Toronto and East York\Top\ts2016080te.top.doc - mb