

## **Traffic Control Signals – King Street West and Close Avenue**

**Date:** March 27, 2017  
**To:** Toronto and East York Community Council  
**From:** Acting Director, Transportation Services, Toronto and East York District  
**Wards:** Ward 14, Parkdale-High Park

### **SUMMARY**

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

Transportation Services is requesting approval to install traffic control signals at the intersection of King Street West and Close Avenue. The installation of traffic control signals at this location will replace an existing pedestrian crossover (PXO) and enhance safety for pedestrians, cyclists and motorists.

### **RECOMMENDATIONS**

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The Acting Director, Transportation Services, Toronto and East York District recommends that:

1. City Council approve the installation of traffic control signals at the intersection of King Street West and Close Avenue.
2. City Council approve the removal of a pedestrian crossover (PXO) located on King Street West immediately west of Close Avenue.

### **FINANCIAL IMPACT**

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The estimated cost of replacing the PXO with traffic control signals at King Street West and Close Avenue is approximately \$200,000.00. This work would be subject to the availability of funding and competing priorities.

## **DECISION HISTORY**

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This report addresses a new initiative.

## **COMMENTS**

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Based on a request from Councillor Gord Perks, Transportation Services reviewed the operation of the pedestrian crossover (PXO) on King Street West and Close Avenue.

King Street West at Close Avenue is a four-lane, major arterial roadway with a daily two-way traffic volume of approximately 18,000 vehicles. It has a pavement width of about 14.7 metres and the speed limit is 50 km/h. Transit service is provided by the "504-King" streetcar which operates on a shared right-of-way in the median lanes.

Close Avenue is a local roadway that operates one-way in the southbound direction, between Queen Street West and to a point 45 metres north of Springhurst Avenue, and two-way, between this point and Springhurst Avenue. Close Avenue is a compulsory stop on the north side of King Street West. It has a pavement width of about 6.1 metres, north of King Street West and about 7.3 metres, south of King Street West, with a daily traffic volume between 1,000 to 1,600 vehicles. It has a 30 km/h posted speed limit as speed bumps are installed. There is no transit service on Close Avenue.

A PXO is located on King Street West, immediately west of Close Avenue. The nearest adjacent pedestrian crossing facilities on King Street West are located about 100 metres to the west, at Jameson Avenue, and about 120 metres to the east, at Dunn Avenue. Both of these intersections are controlled by traffic control signals.

Queen Victoria Public School (kindergarten to grade six) and Parkdale Early Learning Centre, a child care centre, are located on the south-west corner of this intersection. Other nearby schools are Holy Family Catholic Elementary School (kindergarten to grade eight) at No.141 Close Avenue and Parkdale Colligate Institute (Grade 9 to grade 12) at No. 209 Jameson Avenue.

### **Collision hazard**

Collision statistics provided by the Toronto Police Service for the three-year period ending June 30, 2016 disclosed that 17 collisions had occurred at the intersection of King Street West and Close Avenue. Of these 17 collisions, four involved a pedestrian and one involved a bicycle. One of four pedestrian collision resulted in a fatal collision. 10 out of 17 collisions were considered to be potentially preventable by the installation of traffic control signals. Further review of these collisions did not note a pattern as to the location or time of day/day of the week that the collision occurred.

### **Feasibility of the installation of traffic control signals**

The feasibility of the installation of traffic control signals was reviewed based on the traffic studies recently undertaken at this intersection during the busiest eight-hour period of a typical weekday. Based on the eight-hour vehicular, pedestrian and cycling traffic counts and the collision history, the technical justifications for the installation of traffic control signals were satisfied to the following extent:

Justification 1:	Minimum Vehicular Volume	38 percent
Justification 2:	Delay to Cross Traffic	87 percent
Justification 3:	Collision Hazard	67 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, the warrant criteria for the installation of traffic control signals at the intersection of King Street West and Close Avenue have not been satisfied at this time.

### **Operational study of the pedestrian crossover (PXO)**

Traffic studies were also undertaken to review the operating characteristics of the PXO. Studies recorded the number and type of pedestrians crossing King Street West within the crosswalk during the busiest eight-hour period of a typical weekday. There were 403 pedestrians recorded crossing within the crosswalk during the study period. Additionally, 10 pedestrian crossed outside of the crosswalk. The 403 pedestrians were classified as follows:

Youths and adults:	306 (76 percent);
Assisted children:	58 (14 percent);
Unassisted children:	33 (8 percent);
Senior citizens:	3 (1 percent); and
Disabled:	3 (1 percent).

Additionally, an audit was carried out to assess any deficiencies in the operational and physical suitability of the PXO compared to the provincially adopted environmental standards to potentially expose factors which can make a PXO unsuitable. The standards and the comparative characteristics at this location are described in more detail in the attached Appendix "A".

Based on the PXO audit, the location of the PXO at this intersection is not suitable based on the substandard spacing to adjacent traffic control devices.

### **Summary**

Based on the above review, Transportation Services recommends the replacement of the PXO with traffic control signals at the intersection of King Street West and Close Avenue to improve safety and operations for all road users, including pedestrians, bicyclists and motorists. Additionally, the installation of traffic control signals with the coordination of adjacent traffic control signals, at Jameson Avenue and Dunn Avenue, will have better performance on traffic movement than with 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 five on-street parking spaces on Close Avenue and 12 on-street parking spaces on King Street West may need to be removed;
- **Traffic Infiltration**  
Non-local traffic volumes on Close Avenue could increase; 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 pedestrian push button.

Transportation Services consulted with the Toronto Transit Commission and they have no objection to the proposed traffic control signals as long as the transit priority signal is installed at this location. Transportation Services concurs with their request.

Councillor Gordon Perks has been advised of the recommendations of this report.

## **CONTACT**

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## **SIGNATURE**

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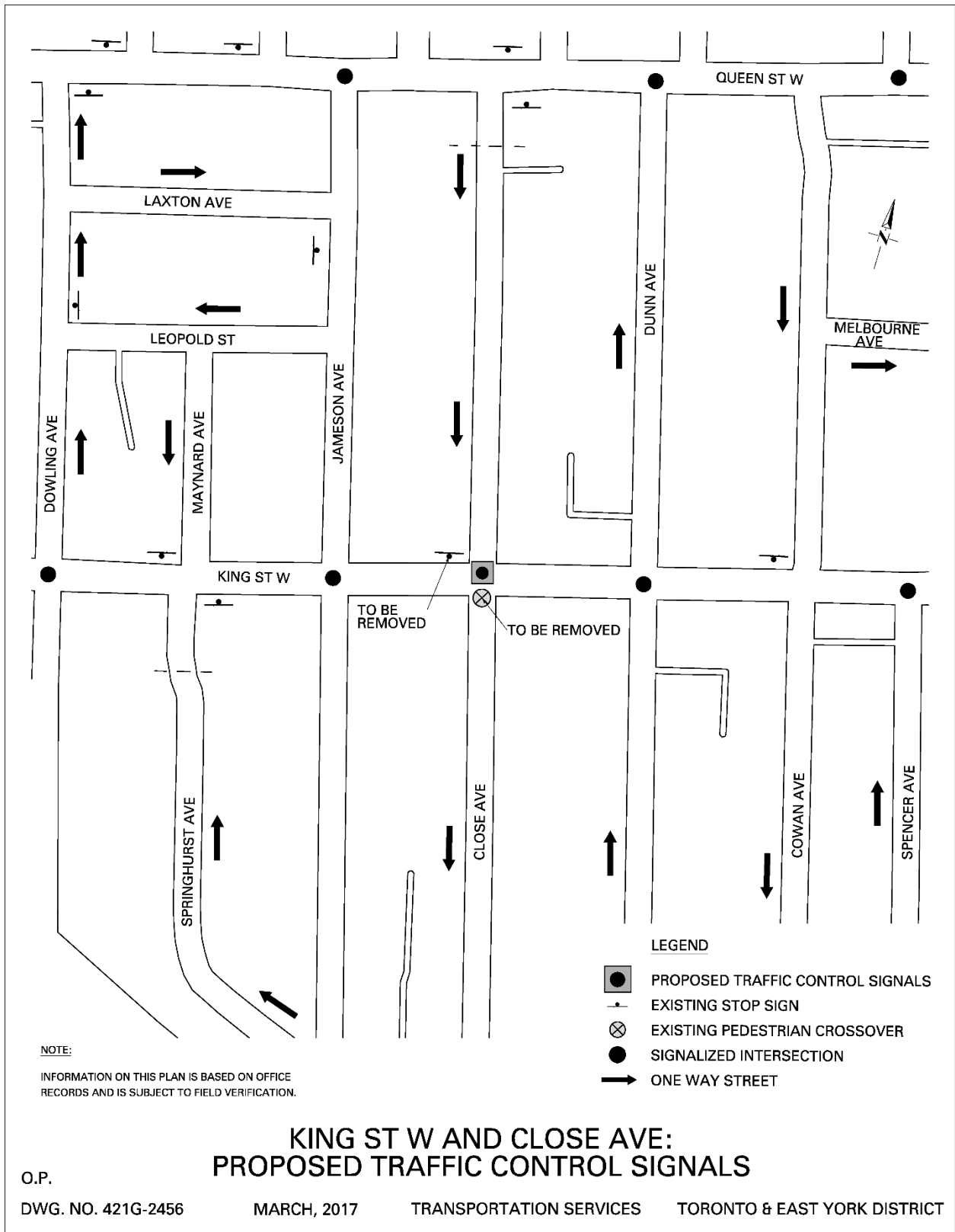
Dave Twaddle, C.E.T.  
Acting Director, Transportation Services  
Toronto and East York District

## **ATTACHMENTS**

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1. Drawing No. 421G-2456, dated March 2017
2. Appendix A - Pedestrian Crossover Audit

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Appendix 'A'  
King Street West at Close Avenue  
Audit of existing pedestrian crossover (PXO)

Standard	Comment	Standard Met/ Not Met
Speed – Vehicle operating speed less than 60 km/h	The posted speed limit on King Street West is 50 km/h.	Met
Width – Not more than four lanes wide on a two-way street, or more than three lanes wide on a one-way street	King Street West operates with two lanes in each direction with a shared streetcar tracks in the median lane.	Met
Volume – Traffic volume less than 35,000 vehicles per day (total of both directions)	King Street West carries about 18,000 vehicles per day in both directions.	Met
Turns – No significant volume of turning movements which interfere with PXO	The volume of southbound right turning traffic from Close Avenue to King Street West is light (about 210 over eight hours). Similarly, The volume of eastbound right turning traffic from King Street West to Close Avenue is also light (about 280 over eight hours)	Met
Visibility – No visibility problems exist for either pedestrians or motorists	The road alignment at both approaches of King Street West is straight and has no obstructions to see the overhead flash light and pedestrians waiting to cross at the crosswalk.	Met
Loading – No loading zones in the immediate vicinity	There are no commercial loading zones and transit stops at and closed to the intersection.	Met
Driveways – No driveways or entrances nearby	There are no driveways in the immediate vicinity of the intersection.	Met
Spacing – Not less than 200 metres to another pedestrian crossover or traffic control signal (TCS)	The adjacent traffic control signals at Jameson Avenue is about 100 metres to the west and the traffic control signals at Dunn Avenue is about 120 metres to the east.	Not Met