



## STAFF REPORT ACTION REQUIRED

### Road Alteration – Bay Street, between Davenport Road and Bloor Street West

<b>Date:</b>	December 17, 2012
<b>To:</b>	Toronto and East York Community Council
<b>From:</b>	Acting Director, Transportation Services, Toronto and East York District
<b>Wards:</b>	Toronto Centre - Rosedale, Ward 27
<b>Reference Number:</b>	Ts2013026te.top.doc

#### **SUMMARY**

---

Bay Street, between Bloor Street West and Davenport Road, has been scheduled for reconstruction as part of the 2013 Capital Works Program. Transportation Services is seeking authority from City Council to alter the intersection of Davenport Road, and Bay Street, and also alter the west side of Bay Street, between Yorkville Avenue and Bloor Street West.

#### **RECOMMENDATIONS**

**Transportation Services recommends that:**

1. City Council approve the road and sidewalk alteration of Bay Street, between Davenport Road and Bloor Street West, generally as shown on Drawing Nos. 421G-0802, 421G-0803, and 421G-0804, dated August 2012, attached to the December 17, 2012 report entitled "Road Alteration – Bay Street, between Davenport Road and Bloor Street West", from the Acting Director, Transportation Services, Toronto and East York District.
2. City Council rescind the existing westbound left turn prohibition in effect at all times at the intersection of Bay Street and Davenport Road.
3. City Council designate the most easterly northbound lane on Bay Street, from Davenport Road to a point 30.5 metres south, for right turns only, TTC vehicles and Bicycles excepted.

4. City Council designate the most southerly eastbound lane on Davenport Road, from Bay Street to Berryman Street, for right turns only.

### **Financial Impact**

The cost for the roadway and signal modifications on Bay Street, between Davenport Road and Bloor Street West, have been allocated in the Transportation Services 2013 Capital Budget under Contract No. 13TE – 15RD. If the installation of traffic control signals are approved at the intersection of Bay Street and Cumberland Street by City Council, the cost will also be included as part of this project.

### **ISSUE BACKGROUND**

Bay Street, from Davenport Road to Bloor Street West, is scheduled for reconstruction in 2013. In anticipation of this work, a full review was completed on this section of Bay Street to improve the environment for all road users. During the design process Councillor Wong-Tam, Bloor Yorkville BIA, staff of Technical Services, Transportation Services, Toronto Transit Commission, Public Realm, Cycling Infrastructure Management, Parks, Forestry and Recreation and Urban Design have worked together to coordinate a number of improvements to the pedestrian and cycling environment on Bay Street, between Bloor Street West and Davenport Road. As a result, a road alteration by-law report is required due to the proposed modifications and improvements on Bay Street.

### **COMMENTS**

#### **Existing Conditions**

Bay Street is a major north/south arterial roadway, between Bloor Street and Davenport Road. It consists of two lanes for general traffic and a bicycle lane in each direction, north of the Cumberland Street intersection. South of Cumberland Street, Bay Street consists of two lanes in each direction. The curb lane for each direction is a High Occupancy Vehicle (HOV) lane, reserved for the use of buses, taxis and bicycles, between the hours of 7:00 a.m. and 7:00 p.m., Monday to Friday.

Davenport Road is a major arterial roadway that generally runs east/west. It consists of two lanes for general traffic and a bicycle lane in each direction. At the signalized intersection with Bay Street, eastbound motorists can travel eastbound on Davenport Road or travel southbound on Bay Street. A large traffic island separates the two separate lane groupings. Currently, westbound left turns are prohibited from Davenport Road to Bay Street.

#### **Proposed Changes at Bay Street and Davenport Road**

Transportation Services is proposing to reconfigure this intersection by eliminating the existing eastbound to southbound right-turn channel from Davenport Road to Bay Street and replacing it with a wide boulevard space with streetscape enhancements and an improved pedestrian environment. With the removal of the traffic island, this intersection

will be transformed into a "T" type intersection with Bay Street terminating at Davenport Road. Additional changes to widen the sidewalks on the south-east corner of this intersection and on the north side of Davenport Road, just west of Bay Street, will provide wider sidewalks and an improved crossing environment for pedestrians at this intersection. The new intersection design and lane configurations are generally as shown on attached Drawing Nos. 421G-0804 and 421G-0847.

### **Requested Changes on Bay Street**

There are two existing lay-bys on the west side of Bay Street, one just south of Cumberland Street that is used by TTC, and one south of Yorkville Avenue, that is used as a pick-up and drop-off area by Pusateri's. There has been strong public support to have the sidewalks widened at these two locations to provide additional boulevard space to accommodate pedestrians and urban design elements. The removal of both lay-bys is feasible, generally as shown on attached Drawing Nos. 421G-0802 and 421G-0803. With the removal of the lay-bys, the sidewalks will extend to the roadway. As this section has a dedicated bicycle lane, stopping will be prohibited at all times.

### **Bay Street and Cumberland Street**

Cumberland Street is a collector roadway that is located approximately 100 metres north of Bloor Street West and is controlled by "Stop" signs on the eastbound and westbound approaches. Cumberland Street consists of a single one-way eastbound lane west of Bay Street and a single lane in each direction east of Bay Street. Eastbound left turns and through movements from Cumberland Street at Bay Street are prohibited at all times and are reinforced by a "channelled" lane on the eastbound approach to force motorists to make right turns only.

Based on the traffic count data and the collision history at this intersection, the technical warrants for the installation of traffic control signals are satisfied to the following extent:

- |              |                          |             |
|--------------|--------------------------|-------------|
| • Warrant 1: | Minimum Vehicular Volume | 93 percent  |
| • Warrant 2: | Delay to Cross Traffic   | 100 percent |
| • 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.

The "Collision Hazard" warrant is based on the number of collisions potentially preventable by the installation of traffic control signals. Collision statistics provided by the Toronto Police Service for the three-year period ending December 31, 2011 did not indicate any pedestrian or vehicle collisions that may have been preventable with the installation of traffic control signals.

Based on the above results, the installation of traffic controls signals is warranted. However, there are several elements of installing traffic control signals which include

traffic control device spacing, pedestrian volumes, traffic volumes, collisions and coordination with adjacent devices that must be considered. A minimum spacing of 200 metres between traffic control devices is preferred. This is a minimum distance at which a motorist can detect a signal or hazard in a cluttered environment, recognize it, and perform the required action in safety. In the downtown core, the spacing between traffic control signals varies depending on the local environment. In this case, Cumberland Street at Bay Street is located approximately 100 metres north of the traffic control signals at Bloor Street West and 100 metres south of the traffic control signals at Yorkville Avenue, as shown on Drawing No. 421G-0877. Due to the short spacing to adjacent control devices, Transportation Services does not support the installation of traffic control signals at Bay Street and Cumberland Street due to safety and congestion impacts. Delays to northbound and southbound traffic on Bay Street could increase significantly, impacting the traffic control signals at Bloor Street West and Yorkville Avenue.

If, however, City Council should deem it advisable and in the best interest of the community to install traffic control signals on Bay Street at Cumberland Street, it should adopt the following alternate recommendations:

1. City Council authorize the installation of traffic control signals at the intersection of Bay Street and Cumberland Street.

## **Proposed bicycle lanes on Bay Street, between Cumberland Street and Bloor Street West**

With the proposed changes to the lay-by on the west side of Bay Street, just south of Cumberland, there is an opportunity to extend the existing bicycle lanes on Bay Street southerly from Cumberland Street to Bloor Street West. To accommodate the bicycle lanes, it would be necessary to remove the existing north-south exclusive left-turn lanes and prohibit north-south left turns at Bloor Street West. This proposal is feasible, given that north-south left turns are relatively low, approximately 30 to 50 vehicles per hour, and that north-south left turns can be accommodated at alternate locations. An accompanying report will be presented to Public Works and Infrastructure by Cycling Infrastructure and Programs regarding this matter.

### **CONTACT**

Roman Oleksij, Supervisor, Traffic Operations  
Toronto and East York District  
Phone: 416-392-1806  
Fax: 416-392-1920  
e-mail: roleksij@toronto.ca

### **SIGNATURE**

Jacqueline White, P. Eng.  
Acting Director, Transportation Services  
Toronto and East York District

### **LIST OF ATTACHMENTS**

- (1) Drawing Nos. 421G-0802, dated August 2012
- (2) Drawing Nos. 421G-0803, dated August 2012
- (3) Drawing Nos. 421G-0804, dated August 2012
- (4) Drawing Nos. 421G-0847, dated September 2012
- (5) Drawing Nos. 421G-0877, dated October 2012

P:\2013\Cluster B\TRA\Toronto and East York District\TOP\ts2013026te.top.doc – cag