TORONTO

SUPPLEMENTARY REPORT
INFORMATION ONLY

Bloor Street Bike Lane Pilot Project – Performance Evaluation and Additional Information (PW 12.1)

Date:	May 3, 2016
To:	City Council
From:	General Manager, Transportation Services
Wards:	19 Trinity-Spadina, 20 Trinity-Spadina
Reference Number:	P:\2016\Cluster B\TRA\TIM\pw16011tim.docx

SUMMARY

This report provides additional information regarding the Bloor Street Design Feasibility Study and Bike Lane Pilot Project to address questions that were raised at the April 25, 2016 meeting of the Public Works and Infrastructure Committee. Additional information is presented regarding the project context, traffic operations and parking, as well as the monitoring methodology that would be employed to evaluate the performance of the proposed pilot project.

Financial Impact

There are no financial implications resulting from the receipt of this supplementary report.

DECISION HISTORY

Please refer to PW 12.1
http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2016.PW12.1

The Public Works and Infrastructure Committee forwarded the item to City Council without recommendation as all motions lost on tie votes.

COMMENTS

Project Context

The Ten Year Cycling Network Plan currently under development has identified Bloor Street as a high priority through a process of geo-spatial planning analysis to assess the potential benefit of each proposed cycling route, as well as through public consultation rankings. In fall of 2016, a Major Corridor Study will be initiated to evaluate the feasibility of cycling facilities along a longer segment of Bloor Street, between Sherbourne Street and Keele Street, including an assessment of traffic capacity, public realm improvements, commercial pressures as well as consultation with affected stakeholders.

There are currently shared-lane pavement markings (sharrows) on Bloor Street between Avenue Road and Church Street, as well as bicycle lanes on Bloor Street East between Sherbourne Street and across the Prince Edward Viaduct to Broadview Avenue.

The proposed pilot project segment, Bloor Street West between Shaw Street and Avenue Road currently carries significant volumes of cyclists, averaging at 3350 per day (August, 2015). This segment of Bloor Street includes important cycling network connectivity to the following routes:

- Shaw Street – northbound contra-flow bicycle lane and southbound sharrows which carry average weekday volumes of 1220 cyclists per day (September, 2014)
- Montrose Avenue – northbound contra-flow bicycle lane and southbound sharrows
- Grace Street – southbound bicycle lane
- St. George Street – northbound and southbound bicycle lane which carries average weekday volumes of 3870 cyclists per day (September, 2014)

A context map of the existing cycling infrastructure that the proposed pilot project will connect to is provided as Appendix 1.

Upcoming planned capital projects for Bloor Street include:

- Bloor Street East – Church Street to Parliament Street: Road resurfacing and streetscaping (2017)
- Bloor Street West – Bathurst Street to Spadina Avenue: Road resurfacing and streetscaping (2018)

Additional details about project context, planning and consultation process that has been undertaken were included in the display boards from the two Public Drop-In Events that were held on December 2, 2015 and March 9, 2016 which have been attached as Appendix 2 and 3.

Traffic Operations and Parking

Reversible Lane
Traffic volumes on this segment of Bloor Street have a pattern of peak-directional flow which is dominated by eastbound traffic in the morning peak period and westbound traffic over the course of the evening peak period. At the April 25, 2016 meeting of the Public Works and Infrastructure Committee, some Councillors asked the General Manager of Transportation Services about the feasibility of a reversible centre-lane on Bloor Street.

Between Shaw Street and Bathurst Street, in order to implement a reversible centre-lane, all on-street parking and loading would need to be prohibited at all times. The configuration would be limited to one 3.3 metre motor vehicle lane in each direction, a 3.0 metre reversible centre-lane and 1.6 metre painted bicycle lanes in each direction. There would not be enough road width to provide for any additional painted buffers for the bicycle lanes and no dedicated left turn lanes at intersections would be provided.

Between Bathurst Street and Spadina Avenue, a reversible centre-lane could only be implemented through the prohibition of all on-street parking and loading, the acceptance of *substandard* motor vehicle lane widths of 3.1 metres in each direction with a 3.0 metre reversible centre-lane and 1.5 metre painted bicycle lanes in each direction. There would not be enough road width to provide for any additional painted buffers for the bicycle lanes and no dedicated left turn lanes at intersections would be provided.

Between Spadina Avenue and Avenue Road, a reversible centre-lane could be implemented while maintaining one side of on-street parking, however dedicated left turn lanes at intersections could not be accommodated.

Planned Maintenance / Construction and Emergencies
During planned TTC closures, the only "turn-around" subway station in the study area is St. George. Stacking of buses for boarding and alighting of passengers takes place on St. George Street, not Bloor Street. During planned or emergency subway closures, buses would stop at major intersections at the locations of existing TTC night stops, which have been accommodated into the proposed pilot project design. During planned weekend closures of the subway, the TTC has recently been restricting parking on Bloor Street in order to provide shortened travel times for TTC shuttle buses. With the proposed pilot project configuration, this option would no longer be available.

Where lane closures are be required for construction areas (i.e. utility, roadwork or development related work zones), temporary modifications to the cycling facility design resulting in temporary shared-lane conditions would likely be required.

Off-Street Parking
In addition to the approximately 135 on-street parking spaces that would be maintained on Bloor Street between Shaw Street and Avenue Road as part of the proposed pilot project, there are currently 860 off-street parking spaces managed by the Toronto Parking Authority within the study area. Transportation Services will continue to work closely with the Toronto Parking Authority on opportunities to minimize the potential impact to parking as a result of the proposed pilot project.

Pilot Project Evaluation Methodology

Performance evaluation of the pilot project would involve the collection of before and after data in order to assess the impacts and benefits of the project in the following areas:

- Effect on the cycling environment;
- Effect on the motoring environment;
- Effect on curbside demands and parking; and
- Public perception and level of support from residents and businesses.

Results of the performance evaluation would be included in a report to the Public Works and Infrastructure Committee in the third quarter of 2017 recommending if the pilot should be maintained, modified or removed. The estimated costs to remove the pilot project and reinstate the current roadway configuration would be approximately $425,000.

The monitoring methodology that would be employed for the Bloor Street pilot project would be the most comprehensive performance evaluation undertaken for a cycling project in the City of Toronto. While similar in approach to the monitoring and evaluation used for the Richmond and Adelaide Cycle Tracks Pilot Project, the methodology for the Bloor Street Pilot Project would also include consistent measurement of parallel corridors and an assessment of the impact to on-street parking which is in higher demand along the Bloor Street corridor. Transportation Services staff have consulted best practices from other jurisdictions in the area of performance measurement of cycling facilities such as the U.S. Department of Transportation's Guidebook for Developing Pedestrian & Bicycle Performance Measures (March, 2016) and New York City's report Measuring the Street: New Metrics for 21st Century Streets (2012).

The proposed monitoring strategy will involve baseline data collection across all metrics in May / June 2016 as well as follow-up data collection immediately following the installation in September 2016 and again in June 2017. A Summary Evaluation Table is included as Appendix 4.

Some existing motor vehicle and cycling volume count data is available for Bloor Street and parallel corridors which has been reviewed as a pre-baseline data set. The pre-baseline counts are summarized in the below table:

Existing Pre-Baseline Count Data				
Method: - **Before volumes on Bloor were collected by video using 24 hour video count technology over the course of three weekdays** - **Before volumes on Dupont and Harbord were collected by automated tube counters**				
Location	Intersection	Count Month - Year	24 hr Motor Vehicle Volume	24 hr Cycling Volume
Bloor Street	Bay St.	Aug-2015	21800	2930
	Spadina Ave.	Aug-15	19828	3409
	Bathurst St.	Aug-15	18521	3571
	Ossington Ave.	Aug-15	19145	3489
Dupont Street	Spadina Ave.	Apr-10	25,680	-
	Bathurst St.	Apr-10	25,395	-
	Ossington Ave.	Apr-10	23,228	-
Harbord Street	Huron St.	Jun-13		3884
	Spadina Ave.	May-10	21,084	-
	Bathurst St.	May-10	20,548	-
	Ossington Ave.	May-10	17,125	-

Further details on the monitoring methodology are included in the below tables:

Motor Vehicle Travel Time Data					
Method: Travel time runs with GPS tracker - **Three weekdays per corridor** - **Multiple runs during each of 7 am – 10 am, 11 am – 1 pm, & 4 pm – 7 pm** - **To be collected as a baseline in June 2016 and two additional times during the study period**					
Location	From	To	Baseline	Initial Installation	Follow-up
Bloor Street	Bay St.	Ossington Ave.	Jun- 16	Sept-16	Jun-17
Dupont Street	Avenue Rd.	Ossington Ave.	Jun- 16	Sept-16	Jun-17
Harbord Street	Queens Park Cres.	Ossington Ave.	Jun- 16	Sept-16	Jun-17

Motor Vehicle & Cyclist Volume and Mode Share Counts				
Method: 24 hour video count technology - **3 consecutive weekdays per corridor** - **To be collected as a baseline in May/June 2016 and two additional times during the study period**				
Location	Intersection	Baseline	Initial Installation	Follow-up
Bloor Street	Bay St.	May/Jun -16	Sept-16	Jun-17
	Spadina Ave.	May/Jun -16	Sept-16	Jun-17
	Bathurst St.	May/Jun -16	Sept-16	Jun-17
	Ossington Ave.	May/Jun -16	Sept-16	Jun-17
Dupont Street	Spadina Ave.	May/Jun -16	Sept-16	Jun-17
	Bathurst St.	May/Jun -16	Sept-16	Jun-17
	Ossington Ave.	May/Jun -16	Sept-16	Jun-17
Harbord Street	Spadina Ave.	May/Jun -16	Sept-16	Jun-17
	Bathurst St.	May/Jun -16	Sept-16	Jun-17
	Ossington Ave.	May/Jun -16	Sept-16	Jun-17

Parking Utilization			
Method: Toronto Parking Authority's Rate Review of On-Street Parking Locations and Off-Street Lots			
Main Objective	Assessment of	Before	After
Accommodate short-duration parking to serve commercial activity along Bloor Street	- Parking utilization rates - Hourly parking rates - Hours of operation	Summer 2016	Summer 2017

Public Perception				
Type	Target Audience	Before	After	Follow-up
Online Survey	Drivers, Pedestrians, Cyclists and Businesses	Jan-16	Begin Oct-16	Ongoing – survey to remain open until evaluation complete
Stakeholder Meetings	Area BIAs and Resident Associations	Oct-15	Ongoing	Ongoing
Intercept Surveys on Safety and Comfort	Cyclists	Jun-16	Oct-16	Jun-17

Operational Monitoring Methodology

If approved for installation, Transportation Services would monitor the pilot project in the following areas to address operational adjustments that may be required:

- Observations of traffic impacts to identify possible signal timing modifications along the corridor;
- Identification and mitigation of possible traffic infiltration issues on local streets:
    - Traffic counts would be undertaken on Barton Street to measure possible cut-through traffic infiltration before (May/June 2016) and after (September 2016 and June 2017) installation of the pilot project; and
    - Parking counts would be undertaken to measure reduced availability of space for parking permit holders, based on feedback from area residents;
- Modifications for loading issues as they may arise, in consultation with business owners and property managers, based on feedback from local businesses; and
- Observations of pedestrian impacts, including possible issues with crossing the cycle track.

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SIGNATURE

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ATTACHMENTS

Appendix 1 – Study Area Map
Appendix 2 – December 2, 2015 Drop-In Event Display Boards
Appendix 3 – March 9, 2016 Drop-In Event Display Boards
Appendix 4 – Summary Performance Evaluation Table