

Mid-Block Pedestrian Traffic Control Signals - Queen's Park Crescent West, Queen's Park

Date: November 15, 2019
To: Toronto and East York Community Council
From: Acting Director, Traffic Management, Transportation Services
Wards: Ward 11, University - Rosedale

SUMMARY

As the Toronto Transit Commission (TTC) operates a transit service on Queen's Park and Queen's Park Crescent West, City Council approval of this report is required.

Transportation Services is requesting approval to install mid-block pedestrian traffic control signals at the following locations, surrounding Queen's Park:

- Queen's Park (North Roadway) and Queen's Park Crescent East
- Queen's Park Crescent West and a point 140 metres south of Hoskin Avenue
- Queen's Park Crescent West and a point 66 metres north of Queen's Park (south leg)

The installation of these mid-block pedestrian traffic control signals will provide a safe and effective crossing area for pedestrians in the vicinity of Queen's Park and the Legislative Precinct Grounds.

RECOMMENDATIONS

The Acting Director, Traffic Management, Transportation Services, recommends that:

1. City Council authorize the installation of a mid-block pedestrian traffic control signal on Queen's Park (north leg) and Queen's Park Crescent East.
2. City Council authorize the installation of a mid-block pedestrian traffic control signal on Queen's Park Crescent West and a point 140 metres south of Hoskin Avenue.
3. City Council authorize the installation of a mid-block pedestrian traffic control signal on Queen's Park Crescent West and a point 66 metres north of Queen's Park (south leg).

FINANCIAL IMPACT

The estimated cost of installing the mid-block pedestrian traffic control signals at the proposed locations is \$360,000.00. This installation would be subject to the availability of funding and competing priorities.

DECISION HISTORY

This report addresses a new initiative.

COMMENTS

Transportation Services, Toronto and East York District was requested by Councillor Mike Layton, City Planning, the Legislative Assembly of Ontario (Precinct Properties Branch) and the general public to investigate improving pedestrian connectivity and safety in the vicinity of Queen's Park and the Legislative Precinct Grounds.

Both the University of Toronto St. George Campus Secondary Plan, and Legislative Precinct ground upgrades also identified the need to improve the pedestrian environment, safety and connectivity by providing additional controlled crossing points in this area.

Existing Conditions

Queen's Park (north leg), between Queen's Park Crescent East and Bloor Street West is a six lane major arterial roadway that operates two-way (northbound and southbound). It has a regulatory speed limit of 50 km/h and a daily two-way traffic volume of about 36,000 vehicles. TTC service on Queen's Park is provided by the "5 Avenue Rd" bus. The south end of Queen's Park (north leg) is divided by a pedestrian refuge island that intersects with Queen's Park Crescent West and Queen's Park Crescent East.

Queen's Park Crescent West, between Queen's Park (north leg) and Queen's Park (south leg) is a three to four lane major arterial roadway that operates one-way in the southbound direction. It has a regulatory speed limit of 50 km/h and a daily one-way traffic volume of about 28,000 vehicles. TTC service on Queen's Park Crescent West is provided by the "5 Avenue Rd" bus.

The following locations surrounding Queen's Park and the Legislative Precinct Grounds currently have traffic control signals:

- Queen's Park Crescent West and Queen's Park (north leg)
- Queen's Park Crescent West and Hoskin Avenue
- Queen's Park Crescent East, south of Grosvenor Street
- Queen's Park Crescent East and Wellesley Street West
- Queen's Park Crescent East and St. Joseph Street
- Queen's Park Crescent East and a point 125 metres north of St. Joseph Street

Collision Review

Collision statistics provided by Toronto Police Service for the three-year period ending December 31, 2018, disclosed that:

- Two collisions occurred on Queen's Park (north leg) and Queen's Park Crescent East. Of these collisions, none were preventable by the installation of traffic control signals.
- Two collisions occurred on Queen's Park Crescent West and Queen's Park South Wellesley Ramp. Of these collisions, none were preventable by the installation of traffic control signals.
- One collision occurred mid-block on Queen's Park Crescent West, between Queen's Park South Wellesley Ramp and Queen's Park (south leg). This collision was potentially preventable by the installation of traffic control signals. The collision involved a cyclist and motorist.

Pedestrian Crossover (PXO)

Transportation Services conducted pedestrian volume and delay studies in April 2019, and reviewed the collision records to determine if the installation of a pedestrian crossover is justified on:

- Queen's Park (north leg) and Queen's Park Crescent East
- Queen's Park Crescent West and a point 140 metres south of Hoskin Avenue
- Queen's Park Crescent West and a point 66 metres north of Queen's Park (south leg)

Pedestrian crossovers (PXOs) are often not appropriate on arterial roadways in the City of Toronto. However, traffic control signals are considered at locations where pedestrian crossovers are technically justified, but their installation would be unsuitable or unsafe due to provincially established "environmental standards".

Pedestrian delay and classification studies were undertaken during the busiest eight-hour period of a typical weekday at the locations noted above. The counts recorded the number of pedestrians crossing at these locations, as well as the number of these that experienced delays more than ten seconds in crossing.

During the busiest eight-hour period, pedestrians were recorded crossing at the following locations:

Location of Crossing	Amount of Pedestrians Crossing	
	Total Pedestrians	Pedestrians Delayed >10 seconds
Queen's Park (north leg) and Queen's Park Crescent East	446	232
Queen's Park Crescent West and a point 140 metres south of Hoskin Avenue	1,323	891
Queen's Park Crescent West and a point 66 metres north of Queen's Park (south leg)	25	21

Based on these pedestrian volumes and delays, the technical justifications for the installation of a PXO are as follows:

Location	Justifications	
	Pedestrian Volume	Pedestrian Delay
Queen's Park (north leg) and Queen's Park Crescent East	Met	Met
Queen's Park Crescent West and a point 140 metres south of Hoskin Avenue	Met	Met
Queen's Park Crescent West and a point 66 metres north of Queen's Park (south leg)	Not Met	Not Met

To meet the technical requirements for the installation of PXO, both technical justifications of pedestrian volume and pedestrian delay must be satisfied. Based on the pedestrian volumes and delays, the installation of a PXO is technically justified on Queen's Park (north leg) and Queen's Park Crescent East and on Queen's Park Crescent West and a point 140 metres south of Hoskin Avenue.

The installation of a PXO is not technically justified on Queen's Park Crescent West and a point 66 metres north of Queen's Park (south leg).

An audit to assess any deficiencies in the operational and physical suitability of the potential PXO's at these locations was carried out. The results of the review indicated that these locations are unsuitable for pedestrian crossovers. The proximity of surrounding driveways and substantial road width will result in operational safety concerns between turning traffic and pedestrian crossings, as well as crossing distance for pedestrians. The standards and comparative characteristics at this location are described in more detail in the attached Appendix "A", "B" and "C".

Based on the PXO audits, the criteria for the proximity of driveways, road width and adjacent traffic control signals have not been met.

Summary

Transportation Services recommends the installation of mid-block pedestrian traffic control signals at all three locations, despite the fact that one location (Queen's Park Crescent West and a point 66 metres north of Queen's Park (south leg) is not technically warranted.

In view of the numerous pedestrian generators in the vicinity of Queen's Park and Legislative Precinct Grounds, Transportation Services further considered the installation of these mid-block pedestrian traffic control signals for the following reasons:

- The University of Toronto campus is located on the grounds that surround Queen's Park. The site encompasses 71 hectares (180 acres) bounded mostly by Bay Street to the east, Bloor Street to the north, Spadina Avenue to the west and College Street to the south. An enclave surrounded by university grounds, Queen's Park, contains the Ontario Legislative Building and several historic monuments. With its green spaces and many courtyards, the university forms a distinct region of urban parkland in the city's downtown core. In 2018/2019 the University of Toronto recorded a student enrollment of approximately 62,000 undergraduates/graduates.
- Legislative Assembly of Ontario - The Ontario Legislative Building is structure located on the grounds of Queen's Park. It houses the Legislative Assembly of Ontario, and the Lieutenant Governor of Ontario and offices for members of the provincial parliament (MPPs). The building is surrounded by Queen's Park, sitting on that part south of Wellesley Street, which is leased from the University of Toronto.

Considering the above, Transportation Services is recommending the installation of these mid-block pedestrian traffic control signals at the proposed locations surrounding Queen's Park and Legislative Precinct Grounds to improve pedestrian connectivity in this area and enhance safety for pedestrians, motorists and cyclists under existing and future conditions.

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

CONTACT

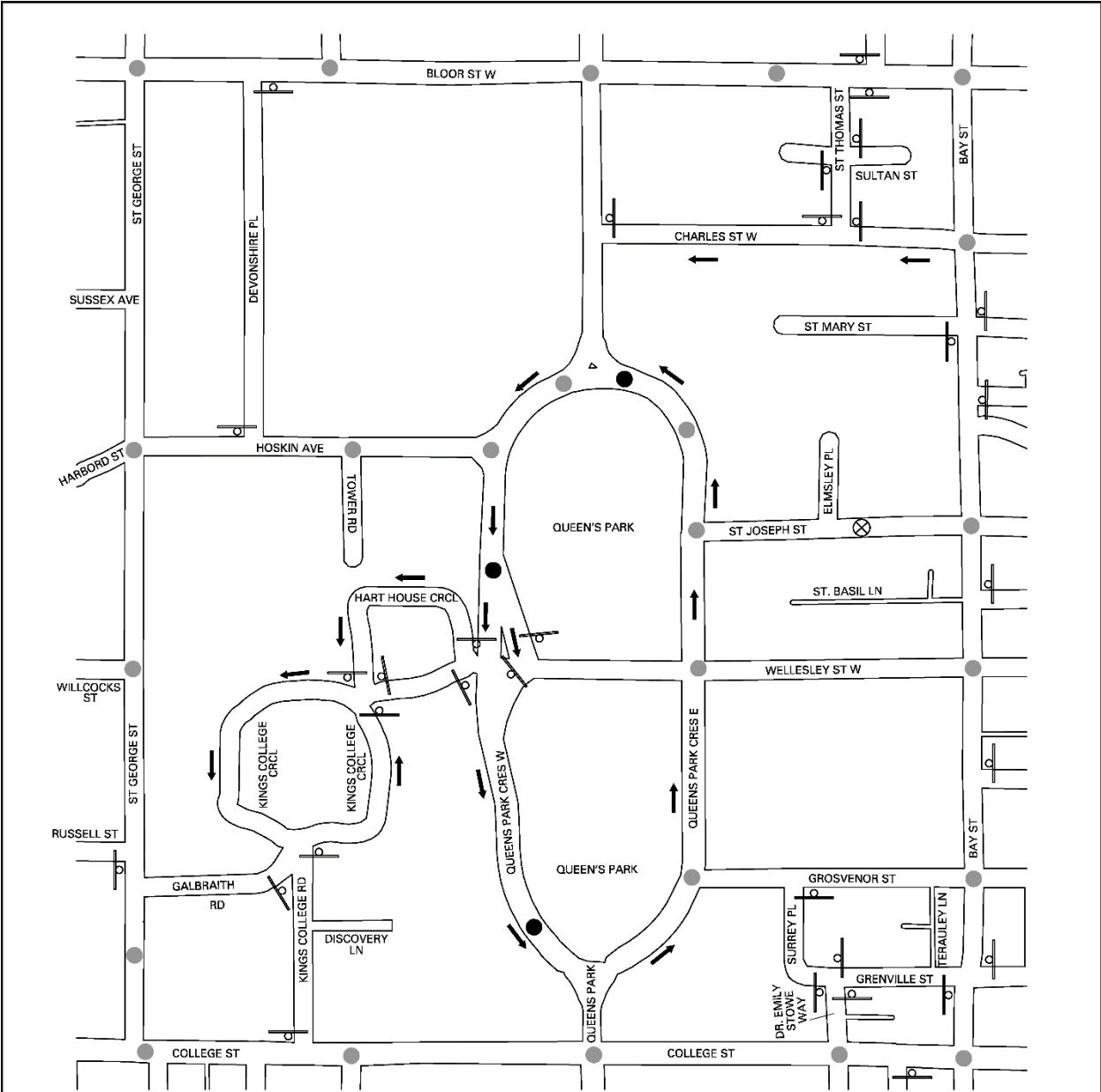
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SIGNATURE

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ATTACHMENTS

1. Drawing No. 421G-3549, dated October 2019
2. Appendix A - Audit of Pedestrian Crossover
3. Appendix B - Audit of Pedestrian Crossover
4. Appendix C - Audit of Pedestrian Crossover



TRAFFIC CONTROL LEGEND:

- PROPOSED SIGNALIZED INTERSECTION
- EXISTING SIGNALIZED INTERSECTION
- ⊗ PEDESTRIAN CROSSOVER
- ➔ ONE WAY STREET
- ⊥ STOP SIGN



NOTE:
 INFORMATION ON THIS PLAN IS BASED ON OFFICE RECORDS AND IS SUBJECT TO FIELD VERIFICATION.

QUEEN'S PARK CRES: PROPOSED TRAFFIC CONTROL SIGNALS

DWG. NO. 421G-3549 T.J.A. OCTOBER, 2019 TRANSPORTATION SERVICES TORONTO & EAST YORK DISTRICT

Appendix 'A'

Queen's Park (North Roadway) and Queen's Park Crescent East

Audit of potential pedestrian crossover

Standard	Comment	Standard Met/ Not Met
Speed – Vehicle operating speed less than 60 km/h	The posted speed limit on Queen's Park Crescent East 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	This section of Queen's Park Crescent East generally operates with three lanes of traffic one-way in the northbound direction.	Met
Volume – Traffic volume less than 35,000 vehicles per day (total of both directions)	Queen's Park Crescent East carries approximately 16,050 vehicles per day in the northbound direction.	Met
Turns – No significant volume of turning movements which interfere with PXO	There is no turning movements which interfere with PXO.	Met
Visibility – No visibility problems exist for either pedestrians or motorists	There are no visibility problems.	Met
Loading – No loading zones in the immediate vicinity	There are no loading zones in the immediate vicinity.	Met
Driveways – No driveways or entrances nearby	There are no driveway or entrances located in the immediate area.	Met
Spacing – Not less than 200 metres to another pedestrian crossover or traffic control signal (TCS)	Adjacent traffic control signals are located about 85 metres to the south on Queen's Park Crescent East and about 305 metres to the north at Bloor Street West.	Not Met

Appendix 'B'

Queen's Park Crescent West and Queen's Park South Wellesley Ramp

Audit of potential pedestrian crossover

Standard	Comment	Standard Met/ Not Met
Speed – Vehicle operating speed less than 60 km/h	The posted speed limit on Queen's Park Crescent 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	This section of Queen's Park Crescent West generally operates with four lanes of traffic one-way in the southbound direction.	Not Met
Volume – Traffic volume less than 35,000 vehicles per day (total of both directions)	Queen's Park Crescent West carries approximately 22,400 vehicles per day in the southbound direction.	Met
Turns – No significant volume of turning movements which interfere with PXO	There is no turning movements which interfere with PXO. However, the PXO at this location will be divided by a channel for Queen's Park South Wellesley Ramp users.	Not Met
Visibility – No visibility problems exist for either pedestrians or motorists	There are no visibility problems.	Met
Loading – No loading zones in the immediate vicinity	There are no loading zones in the immediate vicinity.	Met
Driveways – No driveways or entrances nearby	The existing circular driveway for the Hart House exits in the immediate area.	Not Met
Spacing – Not less than 200 metres to another pedestrian crossover or traffic control signal (TCS)	Adjacent traffic control signals are located about 135 metres to the north at Hoskin Avenue and about 650 metres to the south at College Street.	Not Met

Appendix 'C'

Queen's Park Crescent West and a point 66 metres north of Queen's Park (South Roadway)

Audit of potential pedestrian crossover

Standard	Comment	Standard Met/ Not Met
Speed – Vehicle operating speed less than 60 km/h	The posted speed limit on Queen's Park Crescent 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	This section of Queen's Park Crescent West generally operates with four lanes of traffic one-way in the southbound direction.	Not Met
Volume – Traffic volume less than 35,000 vehicles per day (total of both directions)	Queen's Park Crescent West carries approximately 22,400 vehicles per day in the southbound direction.	Met
Turns – No significant volume of turning movements which interfere with PXO	There is no turning movements which interfere with PXO.	Met
Visibility – No visibility problems exist for either pedestrians or motorists	There are no visibility problems.	Met
Loading – No loading zones in the immediate vicinity	There are no loading zones in the immediate vicinity.	Met
Driveways – No driveways or entrances nearby	There are no driveway or entrances located in the immediate area.	Met
Spacing – Not less than 200 metres to another pedestrian crossover or traffic control signal (TCS)	Adjacent traffic control signals are located about 490 metres to the north at Hoskin Avenue and about 165 metres to the south at College Street.	Not Met