



STAFF REPORT ACTION REQUIRED

Pedestrian-Cyclist Crossings – Avenue Road, Bathurst Street and Oriole Parkway at the Beltline Trail crossings

Date:	August 21, 2013
To:	Toronto and East York Community Council
From:	Director, Transportation Services, Toronto and East York District
Wards:	St. Paul's, Wards 21 and 22
Reference Number:	Ts2013158te.top.doc

SUMMARY

Toronto and East York Community Council at its meeting on January 22, 2013, directed Transportation Services to report on viable options for installing signalized pedestrian/cyclist crossings on Avenue Road, Bathurst Street and on Oriole Parkway, where they intersect with the Beltline Trail. (Item TE21.100)

The installation of crossing devices on Avenue Road and on Oriole Parkway, where they intersect with the Beltline Trail are recommended by Transportation Services. However, the installation of a pedestrian/cyclist crossing device on Bathurst Street where it intersects with the Beltline Trail is not recommended based on safety concerns and insufficient distance to the existing adjacent traffic control signals.

RECOMMENDATIONS

Transportation Services recommends that:

1. City Council approve the installation of signalized pedestrian/cyclist traffic control signals on Avenue Road, at its intersection with the Kay Gardner Beltline Trail, approximately 60 metres south of Chaplin Crescent.
2. City Council not approve the installation of pedestrian/cyclist traffic control signals on Bathurst Street at its intersection with the Kay Gardner Beltline Trail.
3. City Council approve the installation of a pedestrian refuge island on Oriole Parkway at its intersection with the Kay Gardner Beltline Trail, generally as shown on Drawing No. 421G-1150, dated July 2013, attached to the August 21, 2013 report entitled "Pedestrian-Cyclist Crossings - Avenue Road, Bathurst Street and

Oriole Parkway at the Beltline Trail crossings", from the Director, Transportation Services, Toronto and East York District.

4. City Council approve the installation of a westbound "Stop" control sign on Oxtown Avenue at its intersection with Avenue Road.

Financial Impact

The estimated cost of installing traffic control signals on Avenue Road at the Beltline Trail is \$130,000.00. The estimated cost of the proposed road alterations on Oriole Parkway in the vicinity of the Beltline Trail is \$45,600.00. Funds to undertake the installation of traffic control signals and the road alterations are contained in the Transportation Services 2013 Capital Budget.

DECISION HISTORY

Item No. TE21.100, entitled "Request for a Report – Signalized Crossing Along the Belt Line Trail Park" that was adopted by Toronto and East York Community Council at its meeting held on January 22, 2013, directed Transportation Services to report on viable options for implementing signalized pedestrian crossing devices on Avenue Road, Bathurst Street and on Oriole Parkway, where they intersect with the Kay Gardner Beltline Trail access points.

BACKGROUND

Currently, there are no traffic control devices across Avenue Road, Bathurst Street, or Oriole Parkway at the Beltline Trail. However, the Beltline Trail crosses each of these streets about 40 to 60 metres south of an existing intersection that is controlled by traffic signals. Many of the pedestrians crossing at the unprotected Beltline Trail locations choose not to walk the short distance to the signalized crossings, but choose to cross the roadways during breaks in traffic.

Transportation Services staff have carefully reviewed each of these crossings to determine what improvements could be made to assist pedestrians and cyclists without jeopardizing their safety and that of other road users.

COMMENTS

The Beltline Trail is a popular pedestrian and cyclist pathway that travels through Wards 21 and 22, generally in the northwest and southeast direction from W.R. Allen Road to Moore Avenue.

Avenue Road, in the vicinity of the Beltline Trail, is classified as a major arterial roadway that operates two-way, with four lanes of traffic and a maximum speed limit of 50 km/h. The Beltline Trail crosses Avenue Road approximately 60 metres south of the signalized intersection at Chaplin Crescent. Avenue Road in the vicinity of the Beltline Trail has a daily, two-way traffic volume of approximately 32,000 vehicles. TTC operates the No. 5 Avenue Road bus route on this section of Avenue Road.

Bathurst Street, in the vicinity of the Beltline Trail, is also classified as a major arterial roadway that operates two-way, with four lanes of traffic and a maximum speed limit of 50 km/h. The Beltline Trail crosses Bathurst Street approximately 40 metres south of the signalized intersection at Roselawn Avenue/Elm Ridge Drive. Bathurst Street, in the vicinity of the Beltline Trail has a daily, two-way traffic volume of approximately 29,000 vehicles. TTC operates the No. 7 Bathurst bus route on this section of Bathurst Street.

Oriole Parkway, in the vicinity of the Beltline Trail, is also classified as a major arterial roadway that operates two-way, with four lanes of traffic and a maximum speed limit of 50 km/h. The Beltline Trail crosses Oriole Parkway immediately south of Frobisher Avenue at a point approximately 60 metres south of the signalized intersection at Chaplin Crescent. Oriole Parkway in the vicinity of the Beltline Trail has a daily, two-way traffic volume of approximately 20,000 vehicles. The TTC operates the No. 142 Downtown/Avenue Road Express bus route on this section of Oriole Parkway.

Signalized Pedestrian Crossing on Avenue Road at its intersection with the Beltline Trail

We are proposing that a traffic control signal, for pedestrians and cyclists only, be provided on Avenue Road 70 metres south of Chaplin Crescent. This crossing location will require the trail on the west side of the road to be extended southerly. It will also require that the westbound right turn movement from Oxtan to Avenue Road be stop-controlled. The attached Drawing No. 421G-1149 dated July 2013 shows the proposed crossing.

The minimum recommended distance between traffic control signals is 200 metres. This is the distance that has been determined as the minimum distance required which allows motorists to detect a traffic signal and perform any required action safely. However, this distance has been reduced in the downtown core or in densely built up areas where numerous pedestrians cross the roadway. Although the reduction of this distance is generally not recommended, in this instance numerous pedestrians and cyclists have chosen to cross this busy, four-lane, major arterial roadway at this location, rather than to walk the relatively short distance to the protected signalized crossing at Avenue Road and Chaplin Crescent. As a means to improve safety for the pedestrians and cyclists crossing at this location and to provide an adjacent link between the pathway openings, we could support the implementation of a pedestrian/cyclist activated signalized crossing at this location.

The proposed signal would be connected to the signal at Chaplin Crescent to ensure that both signals always have the same display for north/south motorists, minimizing potential confusion between them.

The installation of a signalized pedestrian crossing on Avenue Road at its intersection with the Beltline Trail would require that the stop line for northbound motorists be positioned approximately 33 metres north of Oxtan Avenue. The high volumes of free-flow westbound traffic that are exiting Oxtan Avenue onto northbound Avenue Road with a sharp turn could be immediately faced with a traffic queue from northbound

motorists facing a red signal at the proposed pedestrian crossing. As this is the case, the approval of the pedestrian/cyclist activated signal would be dependent upon implementing a "Stop" sign control for westbound motorists exiting Oxton Avenue onto Avenue Road. The installation of a "Stop" control at this location will decrease the potential of rear-end collisions on Avenue Road.

Bathurst Street at its intersection with the Beltline Trail

We are not recommending the installation of a traffic control signal or any other type of pedestrian crossing device on Bathurst Street at the Beltline Trail.

There is a signalized intersection on Bathurst Street at Elm Ridge Drive/Roselawn Avenue, only approximately 40 metres north of where the Beltline Trail intersects with Bathurst Street. The attached Drawing No. 421G-1148 dated July 2013 shows what a signalized pedestrian crossing would look like at this location. Unlike Avenue Road, there is no opportunity to relocate the trail further from the intersection. The introduction of a "Stop" bar for southbound Bathurst Street traffic south of Elm Ridge Drive/Roselawn Avenue would be a minimum 12-15 metres back of where pedestrians would cross. This would leave a greatly reduced vehicle storage area between the requested signalized crossing at the Beltline Trail and the traffic control signal at Elm Ridge Drive/Roselawn Avenue.

Pedestrian crossing signals that are installed too close together can present significant safety problems associated with drivers who may focus on the downstream signal, and failing to notice the signal they are approaching. Also, motorists may proceed quickly through the first green signal with the intention of making it through the next closely located downstream signal.

If a signal were to be installed for the Beltline Trail, it would be connected to the adjacent signal at Bathurst Street and Elm Ridge Drive/Roselawn Avenue. The green signal to cross would be displayed at the same time as the green signal for east/west traffic at the adjacent intersection. This would create potential confusion and conflicts between eastbound right turns from Elm Ridge Drive, westbound left turns from Roselawn Avenue, and crossing pedestrians and cyclists. Also, these vehicles could back-up into the intersection as a result of the limited spacing between this intersection and the requested signalized pedestrian crossing at the Beltline Trail.

Oriole Parkway at its intersection with the Beltline Trail

On Oriole Parkway, south of Chaplin Crescent, we are proposing to expand the existing median island so that it may be used as a refuge by pedestrians and cyclists from the Beltline Trail. The proposed modifications are shown on Drawing No. 421G-1150 dated July 2013.

The Beltline Trail meets Oriole Parkway 60 metres south of Chaplin Crescent on the west side, and 80 metres south of Chaplin Crescent on the east side. There is very little

opportunity to realign the trail as Frobisher Avenue is immediately to the north of the trail on the east side. Frobisher Avenue is located adjacent to the Beltline Trail, the installation of traffic signals at this location would also have to encompass the Oriole Parkway and Frobisher Avenue intersection. As noted for the Beltline Trail location at Bathurst Street, installing a stop bar for southbound traffic north of Frobisher Avenue a minimum of 12-15 metres back of the crossings would leave a greatly reduced motorist storage area between the requested signalized crossing and those at Chaplin Crescent. A storage area of this size within the one available southbound through lane would not be adequate for this major roadway.

It should also be noted that the introduction of a signalized pedestrian crossing at this location would increase the amount of time that pedestrians/cyclists would have to wait prior to being able to cross Oriole Parkway. Site visits to this location have revealed that there are numerous gaps in the northbound and southbound traffic on Oriole Parkway that easily allow pedestrians and cyclists to cross to the mid-point median, or the entire span of the roadway with little to no delays.

A refuge island at this location would effectively replace the existing traffic median that pedestrians and cyclists are currently using as a mid-point stopping area before proceeding across the remainder of the roadway. As a high number of pedestrians and cyclists are already choosing to cross Oriole Parkway at the Beltline Trail unprotected, the construction of a pedestrian refuge island at this location would enhance pedestrian/cyclist safety by providing an improved pedestrian and cyclist environment in the centre of Oriole Parkway.

CONTACT

Randy Hillis, Engineering Technologist
Traffic Operations, Toronto and East York District
Tel: (416) 338-5430; Fax: (416) 392-1920
e-mail: rhillis@toronto.ca

SIGNATURE

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

LIST OF ATTACHMENTS

- (1) Drawing No. 421G-1148, dated July 2013
- (2) Drawing No. 421G-1149, dated July 2013
- (3) Drawing No. 421G-1150, dated July 2013

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