

Traffic Control Signals – Annette Street and Quebec Avenue

Date: May 4, 2018
To: Etobicoke York Community Council
From: Director, Transportation Services, Etobicoke York District
Wards: Ward 13 – Parkdale - High Park

SUMMARY

The purpose of this report is to obtain approval for the installation of traffic control signals at the intersections of Annette Street and Quebec Avenue.

Transportation Services' study results indicate that pedestrian crossing volumes on Annette Street near Quebec Avenue satisfy the minimum criteria to warrant a pedestrian crossover. The results of the traffic control signal warrant indicate that the cross traffic volumes within the intersection are close to satisfying the minimum criteria. Although the warrants for the installation of traffic control signals are not met, Transportation Services staff feel that recommending traffic control signals rather than a pedestrian crossover will provide the enhanced pedestrian protection needed at the intersection of Annette Street and Quebec Avenue.

Since the Toronto Transit Commission (TTC) operates a transit service on Annette Street, City Council approval of this report is required. TTC staff has been consulted on the matter and as of the time this report was written, TTC have not objected to the proposal.

RECOMMENDATIONS

The Director, Transportation Services, Etobicoke York District recommends that:

1. City Council approve the installation of traffic control signals at the intersection of Annette Street and Quebec Avenue.

FINANCIAL IMPACT

The estimated cost for the installation of traffic control signals at Annette Street and Quebec Avenue is \$180,000.00. These funds would be included within the Transportation Services' 2019 Capital Budget subject to the availability of funding and competing priorities.

DECISION HISTORY

This report addresses a new initiative.

COMMENTS

Transportation Services staff received a request from the Ward Councillor, on behalf of an area resident, for pedestrian crossing protection on Annette Street in the area of Quebec Avenue. As a result, studies were conducted for both a pedestrian crossover and traffic control signals. A map of the area is shown on Attachment 1.

According to the City of Toronto's road classification system, Annette Street is classified as a 'Minor Arterial' roadway. Annette Street has one lane of traffic in each direction and separate bike lanes. The posted speed limit on Annette Street is 40 km/h, with sidewalks on both sides of the road. Right-of-way within the intersection is currently controlled by stop controls on Quebec Avenue at Annette Street. Quebec Avenue is a two-lane road designated in the City's Road Classification System as a 'Local' road. Traffic control signals exist approximately 130 metres to the east at the intersection of High Park Avenue at Annette Street and 115 metres to the west at Clendenan Avenue and Annette Street.

The Toronto Transit Commission (TTC) operates transit service on Annette Street. The bus stops for both directions are located to the east at High Park Avenue and to the west at Clendenan Avenue.

Traffic counts were undertaken at Annette Street and Quebec Avenue in May 2017. Based on the eight-hour vehicular and pedestrian traffic count, and the collision history, the following tables summarize the technical justification for the installation for both a pedestrian crossover and traffic control signals.

Pedestrian Crossover Warrant - Annette Street and Quebec Avenue

MTO - PXO Warrant	Required Volume	Recorded Volume (adjusted)	Compliance
Adjusted Pedestrian Volume	250*	378	100%
Pedestrian Delays Greater Than 10 Seconds	75	123	100%

* Based on a twelve-hour vehicular volume of 11,693

To warrant the installation of a pedestrian crossover, a compliance level of 100% is required in both of the above categories, which it has.

The PXO warrant provides an adjustment factor (of 2) for senior citizens, unassisted children and physically disabled pedestrians. The above table includes the adjusted number of pedestrians, crossing Annette Street in the area of Quebec Avenue.

Traffic Control Signal Warrant - Annette Street and Quebec Avenue

	Actual Hourly Average (A)	Minimum Required (B)	Warrant %	Criteria*		
				1	2	3
Warrant 1: Minimum Vehicular Volume Warrant (8 Hrs)	77	170	45%	100%	>80%	NOT MET
Warrant 2: Delay to Cross Traffic Warrant (8 Hrs)	89	75	93%	100%	>80%	NOT MET
Warrant 3: Collision Hazard Warrant (3 Years)	6	15	40%	100%	0%	NOT MET

*In order to meet the warrants for traffic control signals, 100 percent compliance is required in one of the three warrants or a minimum of 80 percent in both of the first two

warrants. The Collision Hazard warrant is based on the number of collisions susceptible to correction by the installation of traffic control signals and must be 100 percent satisfied.

The average recorded volume for Warrant 2: 'Delay to Cross Traffic' exceeds the warranted value, which is a result of one hour having a significantly higher volume (181) than the other seven hours. In order to warrant traffic control signals to a 100 percent value, each hour must meet or exceed the minimum criteria. During our studies we had three of the eight hours where the 'Delay to Cross Traffic' warrant did not meet the minimum threshold to 100 percent. However, the three-hours that did not satisfy the warrant were all close to meeting the minimum values. If the intersection was to be recounted using slightly different hours and/or daily fluctuations in the traffic, then the result would more than likely meet the warrants.

Our review of the collision records (over the last 3 years of complete data) reveals 6 preventable collisions.

Transportation Services has advised TTC of the proposed traffic control signals. At the time that this report was written, Transportation Services staff have not received any comments or concerns from TTC. The proposed traffic control signals will not affect any of the existing bus stop locations.

The installation of the traffic signal poles, handwells and ducts may necessitate the removal of private landscaping and/or fences located within the municipal right-of-way. In addition, the installation of traffic control signals at the intersection of Annette Street and Quebec Avenue may result in the loss of up to five on-street parking spots between Annette Street and Quebec Avenue, which can be accommodated within the area.

The results of our studies indicate that the pedestrian crossing volumes on Annette Street in the area of Quebec Avenue satisfy the minimum requirements to warrant a pedestrian crossover. However, when the results of our studies were compared to the traffic control signals warrants it revealed that the minimum criteria was almost met. Should additional studies be conducted during different hours and/or daily fluctuations may result in traffic control signals being warranted. As a result, Transportation Services is proposing the installation of traffic control signals at the intersection of Annette Street at Quebec Avenue. The installation of traffic control signals will provide the more appropriate form of crossing protection needed at this location.

The Ward Councillor was made aware of and supports the recommendation in this staff report.

Contact

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SIGNATURE

Steven T. Kodama, P.Eng.

Director, Transportation Services - Etobicoke York District

ATTACHMENT

1. Attachment 1: Location Plan - Annette Street and Quebec Avenue

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