

## **Proposed Installation of Traffic Control Signals – Islington Avenue and Aviemore Drive**

**Date:** August 6, 2020  
**To:** Etobicoke York Community Council  
**From:** Acting Director, Traffic Management, Transportation Services  
**Wards:** Ward 7 – Humber River-Black Creek

### **SUMMARY**

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As the Toronto Transit Commission (TTC) operates bus service on Islington Avenue, City Council approval of this report is required. The TTC has been consulted on this matter.

Transportation Services is recommending installation of a traffic control signal on Islington Avenue and Aviemore Drive. This installation is recommended based on the long spacing to adjacent pedestrian crossing protection. A pedestrian signal will enhance safety for pedestrians but may increase delays for north-south motorists.

### **RECOMMENDATIONS**

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

1. City Council authorize the installation of traffic control signals at the intersection of Islington Avenue and Aviemore Drive.

### **FINANCIAL IMPACT**

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The estimated cost for the installation of the proposed traffic control signals is \$200,000. This installation will be considered in 2021, subject to the availability of funding and competing priorities.

## DECISION HISTORY

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This report addresses a new initiative.

## COMMENTS

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Transportation Services staff was requested by the Ward Councillor, on behalf of area residents, to review the need for pedestrian crossing protection on Islington Avenue at Aviemore Drive. This request is to address the long distance between protected pedestrian crossings on Islington Avenue, which is approximately 700 metres, and enhance safety for pedestrians and transit users generated by the TTC bus stops at Aviemore Drive. A map of the area is shown on Attachment 1.

Islington Avenue is classified as a major arterial road and has two-lanes in each direction with a centre left-turn lane and a daily traffic volume of approximately 30,000 vehicles. It has a pavement width of 17 metres with sidewalks located on both sides of the street and has a regulatory speed limit of 50 km/h. The land use in the area is residential (single and multi-unit dwellings) with a pedestrian access on the west side of Islington Avenue to the Humber River Recreational Trail. The TTC operates bus service on Islington Avenue with a southbound bus stop located at Aviemore Drive and a northbound bus stop located 65 metres north of Aviemore Drive.

Traffic control signals are located approximately 250 metres to the south of the subject location at Islington Avenue and Finch Avenue West and approximately 450 metres to the north of the subject location at Islington Avenue and Milady Road. There is no other pedestrian crossing protection provided on Islington Avenue between the two existing traffic control signals which are approximately 700 metres apart.

### **Pedestrian Crossover (PXO) Warrant Study**

Transportation Services staff conducted a pedestrian crossing protection review on Islington Avenue in the vicinity of Aviemore Drive, covering an area of approximately 150 metres in length. Pedestrian studies were undertaken during an eight-hour period in December 2019. The results are summarized as follows:

Location	Total Pedestrian Volume	Pedestrians Delayed >10 Seconds	Warrant Compliance		PXO Warrant? (Yes/No)
			Ped Vol	Ped Delay	
Islington Ave in the vicinity of Aviemore Drive	36	32	Not Met 18%	Not Met 0%	No

In order for a PXO to be numerically justified, both the "Pedestrian Volume" and "Pedestrian Delay" warrants must be 100% satisfied. Specifically, the warrants require

a minimum of 200 pedestrians over eight hours, of which at least 130 must be delayed more than 10 seconds. In this case there were only 36 pedestrians observed crossing during the study period and of those 36 pedestrians, 32 pedestrians experienced crossing delays greater than 10 seconds while waiting to cross Islington Avenue.

As outlined in the above table, neither warrant has been satisfied at the subject location.

Furthermore, a review of the design standards, or "environmental standards" for PXOs, reveals a PXO would not be suitable at this location. These standards prescribe a roadway environment and exposure factors suitable for this type of control, including the operating speed being less than or equal to 60 km/h, four lanes or less on a two-way street, and the traffic volumes less than or equal to 35,000 vehicles per day. A PXO would not be a suitable form of pedestrian crossing protection as the subject location has more than 4 lanes of traffic.

### Traffic Control Signal Warrant Study

To assess traffic conditions, an eight-hour turning movement count was conducted on a typical weekday (Thursday, December 12, 2019) at the intersection. The turning movement study results were applied to the Traffic Control Signal Warrant analysis. The study results are as follows:

Location	Minimum Vehicular Volume	Delay to Cross Traffic	Collision Hazard	TCS Warrant?
Islington Ave and Aviemore Drive	25 percent	23 percent	0 percent	No

In order to meet the warrants for traffic control signals, one of the "Minimum Vehicular Volume" or "Delay to Cross Traffic" or "Collision Hazard" warrants must be 100% satisfied, or both the "Minimum Vehicular Volume" and "Delay to Cross Traffic" warrants must be at least 80% satisfied. Our review of the Collision Hazard is based on the previous three-year (2017 – 2019) collision history available. An updated review of the Toronto Police Service collision records for the three year period ending December 31, 2019 are summarized below:

Collisions on Islington Avenue at Aviemore Drive.

3 Year Collision	2017	2018	2019
Collision involving Pedestrian or Cyclist Crossing Islington Avenue	0	0	1
Other Collisions	2	3	0

As shown in the above table, there was one collision involving a pedestrian crossing Islington Avenue at Aviemore Drive that resulted in a fatality.

In addition to the numerical justification for traffic control signals, other factors relevant to the traffic control signal warrant were also considered, including road width, operating speeds, adjacent land uses, presence of transit stops, sight lines, and distance between existing signalized crossings.

The above findings indicate that the numerical warrants for the installation of traffic control signals are not satisfied at this location. However, in view of the long spacing between pedestrian crossing protection on Islington Avenue (700 metres) and the pedestrian generators in the area, Transportation Services is recommending the installation of traffic control signals to enhance safety for pedestrians, including vulnerable types. This installation may result in increased delays for traffic on Islington Avenue as north-south traffic will no longer operate free flow.

The TTC has been consulted and advises that when traffic control signals are installed, consideration will be given to the construction of a northbound bus platform on the nearside of the intersection to facilitate the relocation of the northbound stop #3847 from a farside location to a nearside location. The relocation would bring the northbound stop closer to the protected crossing at Aviemore Drive in alignment with both the City of Toronto Vision Zero principals and general pedestrian safety guidelines.

The Ward Councillor has been advised of the recommendation of this report.

## **CONTACT**

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## **SIGNATURE**

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Roger Browne, M.A. Sc., P.Eng.  
Acting Director, Traffic Management  
Transportation Services

## **ATTACHMENTS**

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Attachment 1 - Area Map Islington Avenue and Aviemore Drive  
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