

## **Proposed Installation of Traffic Control Signals – Dufferin Street and Geary Avenue**

Date: August 21, 2020  
To: Toronto and East York Community Council  
From: Acting Director, Traffic Management, Transportation Services  
Wards: Ward 9 - Davenport

### **SUMMARY**

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As the Toronto Transit Commission (TTC) operates a transit service on Dufferin Street, City Council approval of this report is required.

Transportation Services is requesting approval from City Council to install traffic control signals at the intersection of Dufferin Street and Geary Avenue. This installation will provide enhanced safety for pedestrians, cyclists and motorists at this intersection and it is technically justified.

### **RECOMMENDATION**

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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 Dufferin Street and Geary Avenue.

### **FINANCIAL IMPACT**

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The estimated cost of installing traffic control signals at the intersection of Dufferin Street and Geary Avenue is \$200,000.00. 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 was requested by Deputy Mayor Ana Bailao, on behalf of area residents, to investigate the feasibility of installing traffic control signals at the intersection of Dufferin Street and Geary Avenue.

### Existing Conditions

Dufferin Street is a four-lane major arterial road with a speed limit of 40 km/h and a daily two-way volume of about 28,000 vehicles. Geary Avenue is two-lane collector road east of Dufferin Street and a two-lane local road west of Dufferin Street. Geary Avenue is controlled with stop signs at Dufferin Street.

Adjacent traffic control signals are located about 120 metres to the south at Dupont Street and about 100 metres to the north at Brandon Avenue. TTC service on Dufferin Street is provided by the "29 Dufferin" bus route. The southbound TTC stop is located north of Geary Avenue while the northbound TTC stop is located at Brandon Avenue.

### Collision Review

Collision statistics provided by the Toronto Police Service for the three-year period ending December 31, 2019 disclosed that 36 collisions have occurred at the intersection of Dufferin Street and Geary Avenue. Of these 36 collisions, nine could be considered to be potentially preventable by the installation of traffic control signals. None of the preventable collisions involved a pedestrian or a cyclist.

### Traffic Control Signals

The intersection of Dufferin Street and Geary Avenue was reviewed for the feasibility of installing traffic control signals. Based on an eight-hour count of pedestrians and vehicles, as well as the collision history, the technical justifications for the installation of traffic control signals are satisfied to the following extent:

- Justification 1: Minimum Vehicular Volume 95 percent
- Justification 2: Delay to Cross Traffic 94 percent
- Justification 3: Collision Hazard 60 percent

To meet the technical requirements for the installation of traffic control signals, one of the Minimum Vehicular Volume or Delay to Cross Traffic justifications must be 100 percent satisfied, or any two of the three justifications must be at least 80 percent satisfied. Based on the above results, the installation of traffic control signals is warranted at this intersection.

There will be no loss of parking associated with the installation of traffic control signals at this intersection.

## **TTC Comments**

The TTC has been consulted about this proposal and, given the short spacing between this intersection and adjacent traffic signals, does not support the installation of traffic control signals as the proposed traffic signal would have a significant negative impact on transit. These new traffic signals coupled with the Galleria Mall development-related proposed traffic signals on Dufferin Street about 120 metres south of Dupont Street, would result in four signals within a 350-metre segment of Dufferin Street.

Such close signal spacing would degrade the effectiveness of the transit signal priority at the existing traffic signals at Dupont Street and at Brandon Avenue and it would limit effectiveness of transit signal priority at the newly signalized intersections. As Dufferin Street is one of TTC's busiest corridors, the additional new signals and the degradation of the transit signal priority at the existing signals would likely make the 29 Dufferin service slower and less reliable.

If the traffic signals are installed at this intersection, the southbound request loops for the existing transit signal priority at Dupont Street and the northbound request loops for the transit signal priority at Brandon Avenue would have to be moved to just farside of the crosswalks at the new traffic signals as part of the installation. To mitigate the negative impact of the new signals and the degradation of existing transit signal priority at adjacent traffic signals, TTC has asked, and Transportation Services staff supports, that the new traffic signals be equipped with transit signal priority and all three intersections will need to employ signal timing algorithms that reduce TTC delays.

## **Summary**

Transportation Services recommends the installation of traffic control signals at the intersection of Dufferin Street and Geary Avenue to enhance safety for pedestrians, cyclists and motorists.

Deputy Mayor Ana Bailao has been advised of the recommendation of this staff report.

## **CONTACT**

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## **SIGNATURE**

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## **ATTACHMENTS**

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1. Drawing No. 421T-0027, dated August 2020

