

Pedestrian Crossing Protection - Doris Avenue, approximately 45 metres north of Norton Avenue

Date: May 5, 2022
To: North York Community Centre
From: Director, Traffic Management, Transportation Services
Wards: Ward 18 - Willowdale

SUMMARY

This staff report is about a matter that Community Council has delegated authority from City Council to make a final decision.

Transportation Services has reviewed the need for pedestrian crossing protection on Doris Avenue, between Norton Avenue and McKee Avenue. Based on the assessment undertaken, Transportation Services is recommending the installation of a mid-block traffic control signal on Doris Avenue, approximately 45 metres north of Norton Avenue. The mid-block traffic control signal will provide enhanced safety for vulnerable road users.

RECOMMENDATIONS

The Director, Traffic Management, Transportation Services recommends that:

1. North York Community Council authorize the installation of a traffic control signal on Doris Avenue, approximately 45 metres north of Norton Avenue.

FINANCIAL IMPACT

The estimated cost for installing a mid-block traffic control signal is \$175,000.00. Funding would be subject to availability and competing priorities within the Transportation Services 2022 Capital Budget.

DECISION HISTORY

This report addresses a new initiative.

COMMENTS

Transportation Services staff was requested by the Ward Councillor, on behalf of area residents, to review the need for pedestrian crossing protection on Doris Avenue between Norton Avenue and McKee Avenue due to the pedestrian generators in the immediate area, which attract vulnerable pedestrians to cross the street.

Existing Conditions

Doris Avenue is characterized by the following conditions:

- It is a four-lane, north-south, minor arterial roadway
- It operates two-way traffic on a pavement width of approximately 14 metres
- The daily two-way traffic volume is approximately 14,000 vehicles
- The speed limit is 40 km/h
- Heavy trucks are prohibited at all times from Sheppard Avenue East and Finch Avenue East
- There is no TTC service provided
- There are sidewalks located on both sides of the street

The subject mid-block location is between two "T" type intersections with stop controls on Norton Avenue and McKee Avenue for eastbound traffic. Doris Avenue is free-flow traffic between Church Avenue and Empress Avenue.

The adjacent land uses in this area are high-rise residential buildings on the west side of Doris Avenue and single family dwellings on the east side. McKee Public School and Mitchell Field Community Centre are located northeast of the mid-block location at 35 Church Avenue with pedestrian access off of McKee Avenue.

The closest adjacent traffic controls are located approximately 360 metres to the south at Doris Avenue and Empress Avenue in the form of traffic controls signals and approximately 140 metres to the north at Doris Avenue and Church Avenue in the form of traffic controls signals.

A map of the area is shown in Attachment 1.

Transportation Services has reviewed the need for a PXO at this location to determine if it should be recommended as an appropriate form of pedestrian crossing protection.

Pedestrian Crossover (PXO)

To determine the need for a PXO on Doris Avenue, between Norton Avenue and McKee Avenue, staff rely on the justification criteria as outlined in the Ontario Traffic Manual (OTM) Book 12. The OTM justification criteria includes two main factors: the volume of vehicles and pedestrians; and, pedestrian delay to cross traffic. Based on the traffic volume on Doris Avenue, the warrants require a minimum of 340 pedestrian crossings over eight hours. Also, based on the pedestrian crossing volume, at least 75 pedestrians must be delayed more than 10 seconds.

An eight-hour pedestrian volume and delay study was conducted on Wednesday November 10, 2021, which recorded the total volume and delays of pedestrians crossing Doris Avenue. Seniors, unassisted children and people with disabilities that are observed crossing are given a higher weighting by a factor of two. The adjusted volume of pedestrians observed crossing was 150; of these, 30 experienced a delay greater than 10 seconds. The compliance level of the study results in relation to the warrant criteria is shown in Table 1 below.

Table 1: Pedestrian Crossover Warrant Criteria and Compliance at Doris Avenue between, Norton Avenue and McKee Avenue

Criteria	Compliance
Pedestrian Volume	47%
Pedestrian Delay	40%

In order to meet the warrant criteria, 100 percent compliance is required in both categories. Based on the results of the study, a PXO is not technically justified as the compliance levels did not meet the minimum requirements.

Staff also reviewed the collision history at this location. Collision statistics provided by the Toronto Police Service for the three-year period ending December 31, 2021 disclosed no collisions in the area of Doris Avenue between Norton Avenue and McKee Avenue that involved crossing pedestrians.

In addition to the technical criteria, consideration of the surrounding area is given and in some cases engineering judgement may be applied to recommend a PXO even if the number of pedestrians do not meet the threshold of the technical warrants. Due to the pedestrian generators in the immediate area that attract vulnerable pedestrians to cross the street, including McKee Public School and Mitchell Field Community Centre, Transportation Services is recommending the installation of pedestrian crossing protection on Doris Avenue, between McKee Avenue and Norton Avenue.

Environmental safety characteristics were also evaluated to ensure that the installation of a PXO would be appropriate at this location. To maintain consistency along Doris Avenue, a mid-block traffic control signal is recommended rather than a PXO as audible pedestrian signals can be incorporated to accommodate the visually impaired, and traffic signals will be part of the existing control area between Greenfield Avenue and Byng Avenue.

Other Considerations

It should also be noted that the installation of a traffic control signal on Doris Avenue, approximately 45 metres north of Norton Avenue will result in the following impacts:

- Tree removal may be required on both the east and west sides of Doris Avenue to accommodate the installation
- Minor increases in the delays to north/south vehicular traffic on Doris Avenue in the immediate area.

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

CONTACT

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SIGNATURE

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

ATTACHMENTS

Attachment 1: Map - Traffic Control Signal - Doris Avenue, 45 metres north of Norton Avenue

Attachment 1: Traffic Control Signals - Doris Avenue, approximately 45 metres north of Norton Avenue

