

Traffic Control Signals – Brown's Line and Woodbury Road

Date: December 12, 2017
To: Etobicoke York Community Council
From: Director, Transportation Services, Etobicoke York District
Wards: Ward 6 – Etobicoke - Lakeshore

SUMMARY

The purpose of this report is to obtain approval for the installation of traffic control signals at the intersections of Brown's Line and Woodbury Road.

Although the warrants for the installation of traffic control signals are not met, a safety audit of the existing pedestrian crossover on Brown's Line Road and Woodbury Road revealed that this location is no longer environmentally suitable for a pedestrian crossover given the operating speed of vehicular traffic on Brown's Line. Based on the results of the pedestrian crossover audit, staff is recommending that the pedestrian crossover be replaced with traffic control signals.

Since the Toronto Transit Commission (TTC) operates a transit service on Brown's Line, City Council approval of this report is required. TTC staff has been consulted on the matter and have not objected to the proposal.

RECOMMENDATIONS

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

1. City Council approve the removal of the pedestrian crossover on Brown's Line at Woodbury Road as this location fails the pedestrian crossover safety audit.
2. City Council approve the installation of traffic control signals at the intersection of Brown's Line and Woodbury Road.

FINANCIAL IMPACT

The estimated cost for the installation of traffic control signals at Brown's Line and Woodbury Road is \$180,000.00. These funds are included within the Transportation Services 2018 Operating 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, to replace the existing split pedestrian crossover on Brown's Line at Woodbury Road with traffic control signals. A map of the area is shown on Attachment 1.

According to the City of Toronto's road classification system, Brown's Line is classified as a 'Major Arterial' roadway. Brown's Line has a four lane cross section and a 50 km/h speed limit. Sidewalks exist on both sides of the road. Woodbury Road is a two-lane road designated in the City's Road Classification System as a "Local" road. Traffic control signals exist approximately 270 metres to the north at the intersection of Horner Avenue and Brown's Line. An existing split pedestrian crossover is located on the south approach of Brown's Line at Woodbury Road.

The Toronto Transit Commission (TTC) operates transit service on Brown's Line with the bus stops for both directions are located just north of the subject intersection.

Traffic counts were undertaken at Brown's Line and Woodbury Road in June 2017. Based on the eight-hour vehicular and pedestrian traffic count, and the collision history, the technical justification for the installation of traffic control signals are satisfied to the following extent:

Traffic Control Signal Warrant - Brown's Line and Woodbury Road

	Actual Hourly Average (A)	Minimum Required (B)	Warrant % (A/B)	Criteria		
				1	2	3
Warrant 1: Minimum Vehicular Volume Warrant (8 Hrs)	15	255	6%	100%	>80%	NOT MET
Warrant 2: Delay to Cross Traffic Warrant (8 Hrs)	26	75	34%	100%	>80%	NOT MET
Warrant 3: Collision Hazard Warrant (3 Years)	2	15	13%	100%	0%	NOT MET

*In order to meet the warrants, 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.

Our review of the collision records (over the last 3 years of complete data) reveals 2 preventable collisions.

Given the failure of the intersection to meet the traffic control signal warrants, the safety protocol requires that staff conduct a safety audit of the existing pedestrian crossover. One of the primary safety criteria is the road's vehicular operating or 85th percentile speed. Pedestrian crossovers are not environmentally suitable if vehicle operating speeds exceed 60 km/h. Our most recent (April 2016) speed studies on Brown's Line in the area of Woodbury Road revealed 85th percentile speeds of 63 km/h. Given the excessive operating speeds on Brown's Line, the existing pedestrian crossover near Woodbury Road is no longer considered environmentally suitable for safe pedestrian crossings. Since pedestrian crossing assistance is essential in the area, the existing pedestrian crossover should be replaced with traffic control signals.

As part of our review we did look for optional locations for a traffic control signal in the area. However, due to driveway locations and the presence of the parking layby on the west side of Brown's Line, the only option in the area is to signalise the intersection of Brown's Line and Woodbury Road.

In order to accommodate the installation of traffic control signals, three city trees will need to be removed, in addition some of the remaining trees may need to have branches trimmed. Transportation Services has consulted with City of Toronto, Forestry Division in regards to be required tree removals.

Transportation Services has also consulted with TTC and have determined that the northbound bus stop on Brown's Line will have to be relocated. During our meeting, a nearside bus stop location was chosen as the preferred location and will be accommodated with the signal installation. The existing southbound stop can be accommodated in the current location.

The existing split pedestrian crossover will remain operational until the traffic control signals can be activated. However, due to the location of the pedestrian crossover, the pedestrian crossing on the south leg of the traffic control signals will not be operational, until such a time that the existing split pedestrian crossover can be removed and the required civil work can be completed.

Based on the findings of the pedestrian crossover safety audit, it is recommended that the existing pedestrian crossover be removed and be replaced by traffic control signals at the intersection of Brown's Line and Woodbury Road. The installation of traffic control signals will provide a more appropriate form of crossing protection at this location.

The Ward Councillor is aware 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

ATTACHMENTS

1. Location Plan - Brown's Line and Woodbury Road

Location Plan: Brown's Line and Woodbury Road

