

Traffic Control Signal Review - Kingston Road and Brinloor Boulevard

Date: February 24, 2020
To: Scarborough Community Council
From: Acting Director, Traffic Management, Transportation Services
Wards: Ward 24 – Scarborough-Guildwood

SUMMARY

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

This report recommends the installation of traffic control signals at the intersection of Kingston Road and Brinloor Boulevard. Currently, as Kingston Road is designated as a through highway, northbound traffic on Brinloor Boulevard is required to stop at Kingston Road.

Although, the technical warrants for the installation of traffic control signals are not met, installation of traffic control signals is recommended due to other relevant factors/operating conditions.

RECOMMENDATIONS

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

1. City Council authorize the installation of traffic control signals at the intersection of Kingston Road and Brinloor Boulevard.

FINANCIAL IMPACT

The estimated cost of installing traffic control signals at Kingston Road and Brinloor Boulevard is \$200,000. This installation will be considered in 2021, subject to availability of funding and competing priorities.

DECISION HISTORY

This report addresses a new initiative.

COMMENTS

In response to a request from Councillor Paul Ainslie, Transportation Services staff reviewed the feasibility of installing traffic control signals on Kingston Road at Brinloor Boulevard.

Existing Conditions

The following characteristics describe Kingston Road at Brinloor Boulevard:

- This intersection is located east of Markham Road, west of Scarborough Golf Club Road, and south of Eglinton Avenue East.
- Kingston Road is a six-lane major arterial road with a regulatory speed limit of 60 km/h. There is an existing concrete centre median on Kingston Road near the intersection.
- Brinloor Boulevard is a two-lane local road with a regulatory speed limit of 40 km/h.
- To the immediate south and parallel to Kingston Road is Service Road.
- Service Road is a two-lane local road with a regulatory speed limit of 40 km/h.
- Currently, northbound traffic on Brinloor Boulevard is required to stop at Kingston Road.
- Adjacent traffic control signals are located on Kingston Road approximately 330 metres to the west at Markham Road and approximately 360 metres to the east at Eglinton Avenue East. The distance between the existing signalized crossings is approximately 640 metres.
- Sidewalks are located on the north side of Kingston Road. Sidewalks are located on the north side of Service Road. There are no sidewalks on Brinloor Boulevard.
- The TTC operates bus service on Kingston Road. A TTC stop is located on Kingston Road for westbound traffic just east of Brinloor Road.
- The land use in the surrounding area consists mainly of single family residential dwellings, seniors' health care residence, townhouse complexes, multi-level residential buildings, community recreation centre, historic Cornell Campbell House, and a park.

Analysis

Traffic Control Signal Justification Study

Using traffic volumes recorded during the peak eight hours on Thursday, March 22, 2018, the following results were obtained:

Traffic Control Signal Warrant	Compliance Level
Minimum Vehicular Volume	6%
Delay To Cross Traffic	17%
Collision Hazard	7%

This study has been evaluated using the updated warrant calculations as adopted by City Council on July 16, 17 and 18, 2019 in the Vision Zero 2.0 Road Safety Plan Update Report (Item IE6.8). The results of our study indicated that the technical warrants for the installation of a traffic control signals are not met.

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 (2015 – 2017) collision history available.

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.

Although the numerical requirements of the traffic control signal warrants are not met, based on an assessment of relevant factors, mentioned in the above paragraph and by applying engineering judgement, Transportation Services staff recommend the installation of traffic control signals at the intersection of Kingston Road and Brinloor Boulevard.

A review of the Toronto Police Service collision records revealed that there was one preventable collision reported at this intersection during the three-year period ending December 31, 2017.

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

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SIGNATURE

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ATTACHMENTS

1. Attachment 1 - Location Plan (Traffic Control Signal Review Kingston Road and Brinloor Boulevard)

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