

Traffic Control Signal - Sheppard Avenue East and Brownspring Road

Date: June 19, 2025

To: Scarborough Community Council

From: Director, Planning, Design and Management, Transportation Services

Wards: Ward 23, Scarborough North

SUMMARY

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

Transportation Services is requesting approval to install a traffic control signal at the intersection of Sheppard Avenue East and Brownspring Road. A traffic control signal will provide enhanced safety for all road users and installation is justified based on the assessment undertaken.

RECOMMENDATIONS

The Director, Planning, Design and Management, Transportation Services recommends that:

1. City Council authorize the installation of a traffic control signal at the intersection of Sheppard Avenue East and Brownspring Road.

FINANCIAL IMPACT

The estimated cost for installing a traffic control signal at the intersection of Sheppard Avenue East and Brownspring Road is approximately \$250,000.00. Funding is available for the project, categorized as health and safety, in the 2025-2034 Capital Budget and Plan for Transportation Services.

DECISION HISTORY

This report addresses a new initiative.

COMMENTS

Transportation Services, in coordination with the TTC, is proactively investigating locations with mid-block TTC bus stops that are considered to pose a higher risk to pedestrians. One of the safety improvements considered during these investigations is the installation of new traffic control signals. The bus stops at Sheppard Avenue East and Brownspring Road were identified as part of a systemic review initiative as operationally important bus stops without a protected crossing opportunity. Mid-block crossings are the most prevalent type of pedestrian collisions resulting in serious injuries or fatalities, accounting for 29% of these incidents in the city. Sheppard Avenue East at Brownspring Road was identified as a wide arterial road with several lanes of traffic, high travel speeds, and long distances between signalized crossing opportunities, which all contribute to defining a high-risk mid-block crossing.

Existing Conditions

Sheppard Avenue East is characterized by the following conditions:

- It is a four-lane, east-west, major arterial roadway, with an additional two-way left turn lane, and a bus bay in both directions;
- It operates two-way traffic on a pavement width of approximately 18 metres;
- The daily traffic volume is approximately 26,300 vehicles;
- The posted speed limit is 50 km/h;
- Heavy trucks are permitted at all times;
- There is TTC service provided by the 85 and 385 bus routes; and
- There are sidewalks located on both sides of the roadway.

The proposed location for the traffic control signals at the intersection of Sheppard Avenue East and Brownspring Road is characterized by the following conditions:

- T-intersection with Brownspring Road connecting on the south side of Sheppard Avenue East;
- TTC bus stops on both sides of Sheppard Avenue East and
- Commercial plaza spaces on both sides of Sheppard Avenue East (as part of the Sheppard East Village Business Improvement Area), with residential neighbourhood access through Brownspring Road to the south.

The land use in the surrounding area is primarily mixed-use with both commercial and residential uses.

Adjacent traffic control signals are located at Sheppard Avenue East and McCowan Road 281 metres to the east and at Sheppard Avenue East and Brimley Road 465 metres to the west.

A map of the area is included in Attachment 1.

Traffic Control Signals

To determine the need for traffic control signals at the intersection of Sheppard Avenue East and Brownspring Road, staff first consider the justification criteria as outlined in the Ontario Traffic Manual (OTM) Book 12. The OTM justification criteria includes factors such as volume of vehicles and pedestrians, delay to cross traffic, and collision history. In addition to these technical justifications, staff also consider an environmental checklist, which includes consideration of road width, posted speed limit, operating speeds, adjacent land uses, pedestrian desire lines and demographics, presence of a transit stop, sight lines, and distance between existing crossing opportunities.

As part of the investigation, staff conducted vehicle and pedestrian counts on October 30, 2024 at the subject location. The results of the counts and collision hazard are summarized in Table 1. The "collision hazard" criterion is based on the number of collisions potentially preventable by the installation of traffic control signals. Collision history provided by the Toronto Police Service for the three-year period ending May 2025 disclosed six (6) collisions at the subject location that were potentially preventable by the installation of traffic control signals.

Table 1: Warrant Compliance - Sheppard Avenue East and Brownspring Road

Justification	Compliance level
Minimum vehicular volume	46%
Delay to cross traffic (pedestrians and vehicles)	87%
Collision hazard	40%

To meet the justification criteria for the installation of traffic control signals, one of the justifications must be 100 percent satisfied or both the minimum vehicular volume and delay to cross traffic justifications must be at least 80 percent satisfied. Based on the results in Table 1, the installation of traffic control signals is not numerically justified.

In regard to the environmental checklist, staff noted the following environmental factors:

- 746 metres between pedestrian crossing protection on Sheppard Avenue East;
- The presence of transit stops in both directions on Sheppard Avenue East that encourage mid-block pedestrian crossings;
- The pedestrian generators in the immediate area, including retail stores on the north side and residential housing and retail stores on the south side, that encourage mid-block pedestrian crossings;
- Residential housing on the south side of the road with access from Brownspring Road;

- The cross-section is seven lanes wide with 2 lanes of through traffic in each direction, a two-way left turn lane, and bus bays in both directions on Sheppard Avenue East; and
- Farquharson Park green space with a primary access point from Brownspring Road.

In considering the above environmental factors, Transportation Services recommends the installation of traffic control signals at the intersection of Sheppard Avenue East and Brownspring Road, as it will provide enhanced safety for all road users with a focus on the local senior population. Proximity to driveway access points will be mitigated in the design phase.

The TTC has been consulted and concurs with these findings.

Other Considerations

Transportation Services understands an equitable transportation system to be one that provides equal opportunity to all, taking social differences and access (e.g. income, race, gender) into consideration. This allows residents to benefit from a safe, comfortable public right-of-way with multi-modal access to opportunities essential for human development, health, and social belonging, and to be protected from environmental, economic, and social burdens of the transportation system.

Installation of traffic control signals at locations where TTC bus stops are deemed operationally necessary facilitates safe and accessible crossing opportunities. Distance to nearby traffic control signals can often be a prohibitive barrier for individuals looking for a protected crossing to access a bus stop, leading to a greater risk of death or injury when crossing mid-block. While all people benefit from improved accessibility and road safety infrastructure, Transportation Services recognizes car-oriented environments create road safety risks, particularly to seniors, children, and people with disabilities. Traffic control signals are an important corrective measure for meeting the needs of these groups.

It should be noted that the installation of traffic control signals may increase delays to transit service on Sheppard Avenue East; however, Transportation Services and TTC staff consider this impact minimal compared to the safety benefits the proposed crossing protection would provide.

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

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SIGNATURE

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ATTACHMENTS

Attachment 1: Map - Traffic Control Signals - Sheppard Avenue East and Brownspring Road