

Traffic Control Signals - Morningside Avenue and Warnsworth Street

Date: February 7, 2023

To: Scarborough Community Council

From: Director, Traffic Management, Transportation Services

Wards: Ward 24 - Scarborough-Guildwood

SUMMARY

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

Transportation Services has reviewed the need for traffic control signals at the intersection of Morningside Avenue and Warnsworth Street. Based on the assessment undertaken, Transportation Services does not recommend the installation of traffic control signals at this intersection as the warrant criteria was not met.

RECOMMENDATIONS

The Director, Traffic Management, Transportation Services recommends that:

1. City Council not authorize the installation of traffic control signals at Morningside Avenue and Warnsworth Street.

FINANCIAL IMPACT

There is no financial impact resulting from the adoption of the recommendation in the report.

If City Council amends the recommendation in this report and authorizes the installation of traffic control signals at the intersection of Morningside Avenue and Warnsworth Street, the estimated cost is \$200,000.00. This installation would be considered in 2023 subject to availability of Capital funding and competing priorities.

DECISION HISTORY

This report addresses a new initiative.

COMMENTS

Transportation Services was requested by the Ward Councillor, on behalf of local residents to investigate the feasibility of installing traffic control signals at the intersection of Morningside Avenue and Warnsworth Street.

Existing Conditions

Morningside Avenue is characterized by the following conditions:

- It is a four-lane, north-south, major arterial roadway
- It operates two-way traffic on a pavement width of approximately 15 metres
- The daily two-way traffic volume is approximately 22,000 vehicles
- The speed limit is 50 km/h
- Heavy trucks are permitted at all times
- There is TTC service provided by the 116 Morningside bus
- There are sidewalks located on both sides of the street
- There are curb side Bus Reserved lanes
- Northbound left and southbound right turns are prohibited from 7:00 a.m. to 9:00 a.m., Monday to Friday (buses and bicycles excepted) at the intersection with Warnsworth Street

Warnsworth Street is characterized by the following conditions:

- It is a two-lane, east-west, local roadway
- It operates two-way traffic on a pavement width of approximately 8.5 metres
- The daily two-way traffic volume is approximately 650 vehicles
- The speed limit is 30 km/h
- Heavy trucks are prohibited at all times
- There is no TTC service provided
- There are sidewalks located on both sides of the street

Morningside Avenue and Warnsworth Street form a "T" type intersection where Warnsworth Street is stop controlled while Morningside Avenue is uncontrolled free-flow.

The adjacent land use in this area is a mix of residential, secondary high school to the north and elementary school to the south of the road, as well as businesses further south near Kingston Road.

The closest adjacent traffic control signals are located approximately 140 metres to the north fronting West Hill Collegiate Institute (350 Morningside Avenue) and approximately 160 metres to the south at Tefft Road.

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 Morningside Avenue and Warnsworth Street, staff rely on 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 consider an environmental checklist which includes: consideration of road width, posted speed limit, 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 February 1, 2022 at the subject Morningside Avenue and Warnsworth Street. 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 December 31, 2022 disclosed eight collisions that were potentially preventable by the installation of traffic control signals. Two of these eight collisions involved a cyclist and none involved a pedestrian.

Table 1: Warrant Compliance - Morningside Avenue and Warnsworth Street

| Justification | Compliance level |
|---|-------------------------|
| Minimum vehicle volume | 48% |
| Delay to cross traffic (pedestrians and vehicles) | 72% |
| Collision hazard | 53% |

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 technical warrant criteria, the installation of traffic control signals is not justified.

In regards to the environmental checklist, staff completed an assessment and determined that there are no other environmental or external factors that would justify the need for traffic control signals at this time.

The TTC has been consulted but has not yet provided feedback on this request at the timing of writing this report.

Transportation Services does not recommend the installation of traffic control signals as they are not justified based on the technical and environmental criteria that was evaluated.

Other Considerations

If, despite the findings above, Scarborough Community decides to proceed with installing traffic control signals, the following impacts should be noted:

- There will be a loss of approximately six on-street parking spaces on Warnsworth Street associated with the installation of traffic control signals at this intersection.
- There is potential for increase in delays to transit service on Morningside Avenue.

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

CONTACT

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SIGNATURE

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

ATTACHMENTS

Attachment 1: Map - Traffic Control Signals - Morningside Avenue and Warnsworth Street

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