

Traffic Control Signals - St. Dennis Drive and Linkwood Lane

Date: September 6, 2024

To: North York Community Council

From: Director, Traffic Management, Transportation Services

Wards: Ward 16 - Don Valley East

SUMMARY

As the Toronto Transit Commission (TTC) operates a transit service on St. Dennis Drive and Linkwood Lane, City Council approval of this report is required.

Transportation Services is requesting approval to install traffic control signals at the intersection of St. Dennis Drive and Linkwood Lane. The traffic control signals will provide enhanced safety for all road users and is justified based on the assessment undertaken.

RECOMMENDATIONS

The Director, Traffic Management, Transportation Services recommends that:

1. City Council authorize the installation of traffic control signals at the intersection of St. Dennis Drive and Linkwood Lane.
2. Subject to approval of Recommendation 1 above, City Council rescind the existing all-way compulsory stop control at the intersection of St. Dennis Drive and Linkwood Lane.

FINANCIAL IMPACT

The estimated cost for installing traffic control signals at the intersection of St. Dennis Drive and Linkwood Lane is \$250,000. Funding would be subject to availability and competing priorities within the Transportation Services 2024 Capital Budget.

DECISION HISTORY

This report addresses a new initiative.

COMMENTS

Transportation Services was requested by the Ward Councillor and local residents to investigate the feasibility of installing traffic control signals at the intersection of St. Dennis Drive and Linkwood Lane.

Existing Conditions

St. Dennis Drive is characterized by the following conditions:

- It is a two-lane, east/west collector roadway on the west leg of the intersection that curves north and becomes a two-lane, north/south minor arterial roadway.
- It operates with two-way traffic on a pavement width of approximately 17 metres
- The daily two-way traffic volume is approximately 9,500 vehicles
- The speed limit is 40 km/h
- Heavy trucks are prohibited at all times
- There is TTC service provided by the 100 and 34C bus
- There are sidewalks on both sides of the street on the west leg and on the west side on the north leg

(add bullet) There are bicycle lanes on the west leg of the intersection

Linkwood Lane is characterized by the following conditions:

- It is a two-lane, north/south collector roadway
- It operates with two-way traffic on a pavement width of approximately 11 metres
- The daily two-way traffic volume is approximately 5,700 vehicles
- The speed limit is 40 km/h
- Heavy trucks are prohibited at all times
- There is TTC service provided by the 100 and 34C bus
- There are sidewalks on both sides of the street

The intersection of St. Dennis Drive and Linkwood Lane is currently all-way stop controlled. Linkwood Lane forms a T-type intersection on the south/east side of St. Dennis Drive.

The adjacent land use in this area is a high rise residential and parkland.

The closest adjacent traffic controls are located approximately 300 metres to the west at Deauville Lane.

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 St. Dennis Drive and Linkwood Lane, 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, 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 April 16, 2024 at the subject St. Dennis Drive and Linkwood Lane. 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, 2024 disclosed five collisions at the subject intersection that were potentially preventable by the installation of traffic control signals. Two of these collisions involved a pedestrian.

Table 1: Warrant Compliance - St. Dennis Drive and Linkwood Lane

Justification	Compliance level
Minimum vehicular volume	94%
Delay to cross traffic (pedestrians and vehicles)	88%
Collision hazard	33%

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 justified.

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

- the presence of transit stops in both directions on St. Dennis Drive that attract pedestrians to cross the street.

In considering the above environmental factors, Transportation Services recommends the installation of traffic control signals at St. Dennis Drive and Linkwood Lane as it will provide enhanced safety for all road users.

The TTC has been consulted and concurs with these findings.

Staff recommend the installation of traffic control signals based on the technical and environmental criteria.

Other Considerations

It should be noted that the installation of traffic control signals will have the following additional impacts:

- There is potential for increase in delays to transit service on St. Dennis Drive and Linkwood Lane.

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 Signals - St. Dennis Drive and Linkwood Lane

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