

All-way Stop Control - Brentdale Drive at Lawton Boulevard and at Lascelles Boulevard

Date: September 24, 2019
To: Toronto and East York Community Council
From: Acting Director, Traffic Management, Transportation Services
Wards: Ward 12, Toronto - St. Paul's

SUMMARY

This staff report is about a matter that Community Council has delegated authority to make a final decision, provided that it is not amended so that it varies with City Policy or by-laws.

Transportation Services staff is recommending all-way stop controls on Brentdale Drive at Lawton Boulevard and at Lascelles Boulevard to enhance safety for all road users at these intersections. Based on our review, while the installation of all-way stop control is not technically warranted at these intersections, we can support these installations based on improvements to the operating environment for all road users at these two intersections.

RECOMMENDATIONS

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

1. Toronto and East York Community Council authorize all-way stop control at the intersection of Brentdale Drive and Lawton Boulevard.
2. Toronto and East York Community Council authorize all-way stop control at the intersection of Brentdale Drive and Lascelles Boulevard.

FINANCIAL IMPACT

All costs associated with the necessary signage changes are included within the Transportation Services 2019 Operating Budget.

DECISION HISTORY

This report addresses a new initiative.

COMMENTS

Transportation Services was requested by Councillor Josh Matlow, on behalf of area residents, to investigate the feasibility of installing all-way stop control at the intersections of Brentdale Drive at Lawton Boulevard and at Lascelles Boulevard.

Brentdale Drive at Lawton Boulevard

Existing Conditions

Lawton Boulevard is a local road that operates two-way in the northbound and southbound directions. It has a pavement width of 7.3 metres, a posted speed limit of 30 km/h and sidewalks on both sides of the roadway. Heavy vehicles are prohibited at all times on Lawton Boulevard. Brentdale Drive operates east/west with a 30 km/h speed limit from Lawton Boulevard and connects at a curvilinear point with Lawton Boulevard, which operates north/south. Currently, traffic at the intersection of Brentdale Drive at Lawton Boulevard is free-flow. There is no TTC service provided on the subject sections of Lawton Boulevard or Brentdale Drive.

Analysis

In order for all-way stop control to be justified at an intersection, established warrant criteria must be satisfied. The criteria, as adopted by City Council, include such factors as collision history, total vehicle volume, the percentage of traffic on the major road and combined vehicle and pedestrian volumes crossing the major road.

Transportation Services reviewed the intersection of Brentdale Drive at Lawton Boulevard and applied the results of the vehicle/pedestrian study and Toronto Police Service collision records to the all-way stop control warrant criteria.

A review of the Toronto Police Service collision records over a three-year period ending December 31, 2018 disclosed that there were no collisions reported at this intersection during this time period.

The results of the all-way stop control warrant study, taking into account the new Vision Zero 2.0 warrants, at the intersection of Brentdale Drive at Lawton Boulevard is summarized in the following table:

Warrant A: Collision History	Warrant B-1A: Total Approach Vehicular Volume	Warrant B-1B: Combined Crossing Volume (Vehicles & Pedestrians)	Warrant B-2: Main Street/Side- Street Volume Split	All-way Stop Warrants Satisfied (Yes/No)
Required: ≥ 2 Collisions/Year Actual: 0 Collisions/year (Not Met)	Required: 250 Vehicles/Hour Actual: 73 Vehicles/Hour (Not Met)	Required: 100 Units/Hour Actual: 86 Units/Hour (Not Met)	Required: $\leq 70\%/30\%$ Actual: 43%/57% (Met)	No

In order for the installation of all-way stop control to be warranted, Warrant A, Warrant B-1A or Warrant B-1B must be met in addition to Warrant B-2. Based on the above review, the technical warrants for the installation of all-way stop control at the intersection of Brentdale Drive at Lawton Boulevard are not satisfied. However, we can support all-way stop control based on the unusual geometry and the fact that this will improve the operating environment for all road users at this intersection.

Brentdale Drive at Lascelles Boulevard

Existing Conditions

Lascelles Boulevard is a local road that operates two-way in the northbound and southbound directions. It has a pavement width of 8.5 metres, a posted speed limit of 30 km/h and a daily two-way traffic volume of about 950 vehicles. Heavy vehicles are prohibited at all times on Lascelles Boulevard. Brentdale Drive is a local road that operates two-way in the westbound and eastbound direction. It has a pavement width of 9.4 metres, a posted speed limit of 30 km/h and a daily one-way traffic volume of about 700 vehicles. Lascelles Boulevard and Brentdale Drive form a "T" type intersection. Currently, northbound and westbound traffic is required to stop and southbound traffic is free-flow. There is no TTC service provided at this intersection.

Analysis

In order for all-way stop control to be justified at an intersection, established warrant criteria must be satisfied. The criteria, as adopted by City Council, include such factors as collision history, total vehicle volume, the percentage of traffic on the major road and combined vehicle and pedestrian volumes crossing the major road.

Transportation Services reviewed the intersection of Brentdale Drive at Lascelles Boulevard and applied the results of the vehicle/pedestrian study and Toronto Police Service collision records to the all-way stop control warrant criteria.

A review of the Toronto Police Service collision records over a three-year period ending December 31, 2018 disclosed that there were no collisions reported at this intersection during this time period.

The results of the all-way stop control warrant study, taking into account the new Vision Zero 2.0 warrants, at the intersection of Brentdale Drive at Lascelles Boulevard is summarized in the following table:

Warrant A: Collision History	Warrant B-1A: Total Approach Vehicular Volume	Warrant B-1B: Combined Crossing Volume (Vehicles & Pedestrians)	Warrant B-2: Main Street/Side- Street Volume Split	All-way Stop Warrants Satisfied (Yes/No)
Required: ≥ 2 Collisions/Year	Required: 250 Vehicles/Hour	Required: 100 Units/Hour	Required: $\leq 70\%/30\%$	No
Actual: 0 Collisions/year (Not Met)	Actual: 86 Vehicles/Hour (Not Met)	Actual: 53 Units/Hour (Not Met)	Actual: 60%/40% (Met)	

In order for the installation of all-way stop control to be warranted, Warrant A, Warrant B-1A or Warrant B-1B must be met in addition to Warrant B-2. Based on the above review, the technical warrants for the installation of all-way stop control at the intersection of Brentdale Drive at Lascelles Boulevard are not satisfied. However, because only two of the three approaches are stop-controlled, and northbound traffic is stop-controlled while southbound traffic is not, we support the installation of all-way stop control at this location. This will improve the operating environment for all road users at this intersection.

Councillor Josh Matlow has been advised of the recommendations of this staff report.

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SIGNATURE

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ATTACHMENTS

1. Drawing No. 421G-3533, dated September 2019.

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