

Traffic Control Signals – Dundas Street West and Quebec Avenue

Date: January 16, 2020
To: Toronto and East York Community Council
From: Acting Director, Traffic Management, Transportation Services
Wards: Ward 4 Parkdale - High Park

SUMMARY

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

Transportation Services is requesting approval from City Council to install traffic control signals at the intersection of Dundas Street West and Quebec Avenue. This installation will provide enhanced safety for pedestrians and motorists at the intersection and is technically justified.

RECOMMENDATIONS

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

1. City Council authorize the installation of traffic control signals at the intersection of Dundas Street West and Quebec Avenue.
2. City Council prohibit parking on both sides of Quebec Avenue, between Dundas Street West and a point 15 metres north, and on the east side of Quebec Avenue, between Dundas Street West and a point 15 metres south, in conjunction with the installation of traffic control signals at the intersection of Dundas Street West and Quebec Avenue.

FINANCIAL IMPACT

The estimated cost of installing traffic control signals at the intersection of Dundas Street West and Quebec Avenue is \$200,000.00. This installation will be considered in 2021, subject to the availability of funding and competing priorities.

DECISION HISTORY

This report addresses a new initiative.

COMMENTS

Transportation Services was requested by the former Councillor Sarah Doucette, on behalf of area residents, to investigate the feasibility of installing traffic control signals or a pedestrian crossover (PXO) at the intersection of Dundas Street West and Quebec Avenue.

Existing Conditions

Dundas Street West is a major arterial roadway which operates with two-way traffic on a pavement width of about 12.8 metres, and has a posted speed limit of 50 km/h and a daily two-way volume of about 24,000 vehicles. It has two lanes in each direction for general traffic, of which one lane in each direction is utilized for on-street parking during off-peak times.

Quebec Avenue is a local roadway which operates with two-way traffic on a pavement width of about 8.5 metres, and has a posted speed limit of 30 km/h and a daily two-way volume of about 1,900 vehicles. East/west traffic on Dundas Street West is free-flow and north/south traffic on Quebec Avenue is stop controlled.

TTC service in this section of Dundas Street West is provided by the "40 Junction - Dundas West" bus and there are east-west near-side stops located on Dundas Street West at Quebec Avenue.

Adjacent traffic control signals are located about 145 metres to the east at the intersection of High Park Avenue and 120 metres to the west at the Clendenan Avenue.

Collision Review

Collision statistics provided by Toronto Police Service for the three-year period ending December 31, 2018 disclosed that twelve collisions have occurred at the intersection of Dundas Street West and Quebec Avenue. Of these twelve collisions, one could be considered to be potentially preventable by the installation of traffic control signals.

Traffic Control Signals

The intersection of Dundas Street West and Quebec Avenue was reviewed for the feasibility of installing traffic control signals. Based on an eight-hour count of pedestrians and vehicles, as well as the collision history, the technical justifications for the installation of traffic control signals are satisfied to the following extent:

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|--------------------|--------------------------|------------|
| • Justification 1: | Minimum Vehicular Volume | 32 percent |
| • Justification 2: | Delay to Cross Traffic | 66 percent |
| • Justification 3: | Collision Hazard | 7 percent |

To meet the technical requirements for the installation of traffic control signals, one of the Minimum Vehicular Volume or Delay to Cross Traffic justifications must be 100 percent satisfied, or any two of the three justifications must be at least 80 percent satisfied. Based on the above results, the installation of traffic control signals is not warranted.

Pedestrian Crossover (PXO)

The intersection of Dundas Street West and Quebec Avenue was also reviewed for the feasibility of installing a PXO. During the busiest eight-hour period of a typical weekday, 233 pedestrians were recorded crossing Dundas Street West. Of these 233 pedestrians, 136 pedestrians were delayed for 10 seconds or more. Based on these volumes, the technical justifications for the installation of a PXO are satisfied to the following extent:

- Pedestrian Volume Justification – Met
- Pedestrian Delay Justification – Met

To meet the technical requirements for the installation of a PXO, both justifications must be met. Specifically, the justifications require a minimum of 200 pedestrians over eight hours, of which, at least 130 must be delayed more than ten seconds. Based on the above results, the installation of a PXO at this location is warranted at this time.

However, based on the environmental criteria, including the width, speed limit, curvature of the road, and presence of driveways and TTC stops, installation of a PXO is not suitable. Given the unsuitability of a PXO, the installation of traffic control signals is recommended instead at this intersection. A review of the environmental safety characteristics can be found in Appendix "A".

There will be a loss of about six paid parking spaces on Dundas Street West associated with the installation of traffic control signals at this intersection.

Summary

Transportation Services recommends the installation of traffic control signals at the intersection of Dundas Street West and Quebec Avenue to enhance pedestrian safety. TTC has been consulted about this proposal, but as of this writing no response has been received.

Councillor Gord Perks has been advised of the recommendations of this staff report.

CONTACT

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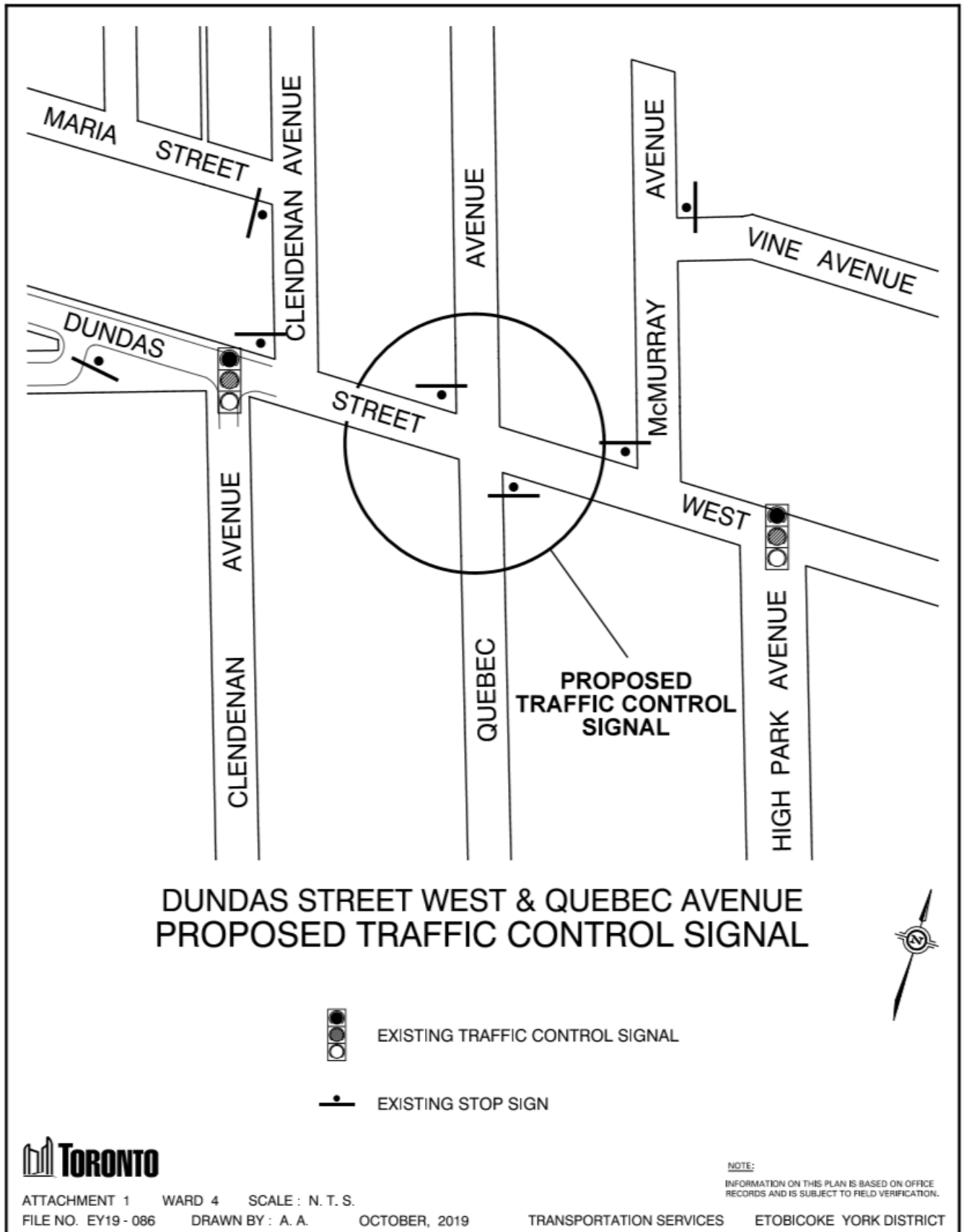
SIGNATURE

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

ATTACHMENTS

1. Drawing No. EY19-086, dated October 2019
2. Appendix A - Review of Environmental Safety Characteristics

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Appendix "A" - Review of Environmental Safety Characteristics

Dundas Street West and Quebec Avenue

Standard	Comments	Standard Met / Not Met
Speed - Vehicle operating speed less than 60 km/h	The posted speed limit on Dundas Street West is 50 km/h.	Met
Width - Not more than four lanes wide on a two-way street or more than three lanes wide on a one-way street	Dundas Street West operates with two lanes in each direction.	Met
Volume - Traffic volume not more than 35,000 vehicles per day	Dundas Street West carries approximately 24,000 vehicles per day.	Met
Turns - No significant volume of turning movements	The volume of traffic turning to/from Dundas Street West is moderate. (827 vehicles over busiest eight hours)	Met
Visibility - No visibility problems exist for either pedestrians or motorists	No visibility issues.	Met
Loading - No loading zones (including TTC) in the immediate area	Nearside TTC stops are located on Dundas Street West at Quebec Avenue.	Not Met
Driveways - No driveways or entrances nearby	No driveways of Dundas Street West	Met
Spacing - Not less than 200 metres to another pedestrian crossover or traffic control signal	High Park (TCS) - 145 metres east Clendenan Avenue (TCS) - 120 metres west.	Not Met