

Traffic Control Signals and Pedestrian Crossover - Lansdowne Avenue, between Whytock Avenue and Bloor Street West

Date: April 27, 2018
To: Toronto and East York Community Council
From: Acting Director, Transportation Services, Toronto and East York District
Wards: Ward 18, Davenport

SUMMARY

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

Transportation Services does not support the installation of traffic control signals at the intersection of Lansdowne Avenue and Whytock Avenue and is also not recommending a pedestrian crossover (PXO) near the TTC bus stops at No. 424 Lansdowne Avenue. The technical justifications for these installations are not satisfied. Therefore, the installation of traffic control signals at the intersection of Lansdowne Avenue and Whytock Avenue and a pedestrian crossover at No. 424 Lansdowne Avenue is not recommended.

RECOMMENDATIONS

The Acting Director, Transportation Services, Toronto and East York District, recommends that:

1. City Council not authorize the installation of traffic control signals at the intersection of Lansdowne Avenue and Whytock Avenue.
2. City Council not authorize the installation of a pedestrian crossover at No. 424 Lansdowne Avenue (approximately 300 metres south of Bloor Street West).

FINANCIAL IMPACT

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

DECISION HISTORY

This report addresses a new initiative.

COMMENTS

Lansdowne Avenue is a two-lane minor arterial roadway, with a daily two-way volume of about 14,000 vehicles. Lansdowne Avenue has a pavement width of 8.1 metres, a posted speed limit of 40 km/h, and sharrows in both directions. TTC service is provided by the "47 Lansdowne" bus route which operates in a mixed traffic environment. Parking is provided on the west side of Lansdowne Avenue in dedicated parking bays. There are no horizontal or vertical curves along this segment of Lansdowne Avenue.

Whytock Avenue is a local two-way roadway and is "Stop" controlled at the intersection with Lansdowne Avenue. It has a pavement width of about 7.3 metres, a posted speed limit of 30 km/h and daily volume of about 1,500 vehicles. Parking is provided on the north side of Whytock Avenue.

There is an existing pedestrian crossover at the south side of the intersection of Lansdowne Avenue and Whytock Avenue. Adjacent traffic control signals are located about 510 metres to the north at Bloor Street West and 330 metres to the south at College Street.

Analysis

Transportation Services conducted a review in March 2018 to analyze the operating characteristics of the existing pedestrian crossover and the technical justification for the installation of traffic control signals at the intersection of Lansdowne Avenue and Whytock Avenue. Also, we reviewed technical justification for a new pedestrian crossover near the TTC bus stops at No. 424 Lansdowne Avenue, approximately 300 metres south of Bloor Street West. Councillor Ana Bailão has requested that we report based on these studies.

Traffic Control Signals at Lansdowne Avenue and Whytock Avenue

An analysis was conducted to determine if traffic control signals are warranted at the intersection of Lansdowne Avenue and Whytock Avenue, based on traffic data and collision history. The traffic signal warrant criteria were satisfied to the following extent:

Justifications	Warrant Compliance
Minimum Vehicular Volume	38 %
Delay to Cross Traffic	57 %
Collision Hazard	0 %

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 justified at the intersection of Lansdowne Avenue and Whytock Avenue. Furthermore, based on a traffic impact study, it is not expected that the development at No. 138 St. Helen's Avenue will increase traffic enough to warrant traffic control signals.

An audit of the existing pedestrian crossover was conducted, and no operational issues were identified. The pedestrian crossover is operating under satisfactory conditions.

Collision statistics provided by Toronto Police Service for the three-year period ending December 31, 2017 disclosed that no collisions were recorded at this intersection over that period.

Pedestrian Crossover Evaluation at No. 424 Lansdowne Avenue

Traffic studies recorded the number and type of pedestrians crossing Lansdowne Avenue in the vicinity of the bus stops at No. 424 Lansdowne Avenue during the busiest eight-hour period of a typical weekday. There were 69 pedestrians recorded crossing during an eight-hour period.

The technical justifications for installing a pedestrian crossover at No. 424 Lansdowne Avenue was satisfied to the following extent:

Total pedestrian volume	69
Total pedestrian delays more than 10 seconds	69
Pedestrian Volume justification	Not Met
Pedestrian Delay Justification	Not Met

To meet the technical requirements for the installation of a pedestrian crossover, both technical justifications of pedestrian volume and pedestrian delay must be satisfied. Generally, at least 200 pedestrians are required over an eight-hour period for a pedestrian crossover to be technically warranted. Based on the above results, the installation of a pedestrian crossover is not justified at No. 424 Lansdowne Avenue.

Furthermore, the installation of a pedestrian crossover at this location may require reconstruction of Lansdowne Avenue on the west side, leading to the loss of some parking.

Collision statistics provided by Toronto Police Service for the three-year period ending December 31, 2017 disclosed that no collisions involving a pedestrian occurred in this area of Lansdowne Avenue.

Conclusions

Transportation Services does not support the installation of traffic control signals at the intersection of Lansdowne Avenue and Whytock Avenue or the installation of a pedestrian crossover at No. 424 Lansdowne Avenue based on the above noted information. Traffic and pedestrian volumes at these locations are not high enough to justify these installations. Furthermore, the installation of traffic control signals at the intersection of Lansdowne Avenue and Whytock Avenue would result in the following negative impacts:

- Loss of Parking:
 - As many as three overnight permit parking spaces may need to be removed on the west side of Lansdowne Avenue; and
 - As many as three overnight permit parking spaces may need to be removed on the north side of Whytock Avenue.
- There may be an increase in delays to pedestrians, who will be required to wait for a "Walk" signal, rather than using the existing pedestrian crossover.
- The potential for increase in delays to TTC service on Lansdowne Avenue.

Councillor Ana Bailão has been advised of the recommendations of this report.

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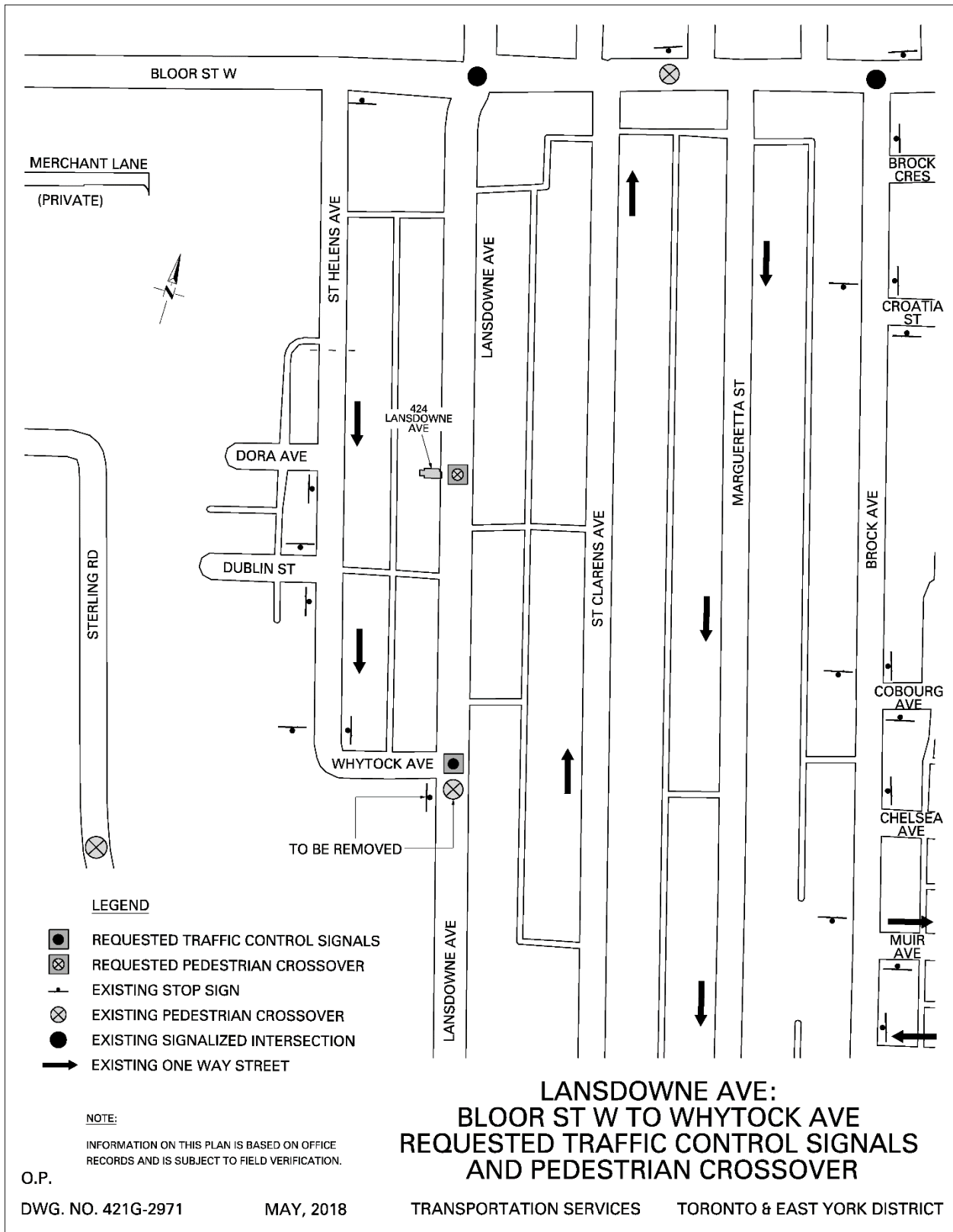
SIGNATURE

Dave Twaddle, C.E.T.
Acting Director, Transportation Services
Toronto and East York District

ATTACHMENTS

1. Drawing No. 421G-2971, dated May 2018
2. Appendix A – Pedestrian Crossover Audit

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Appendix A - Pedestrian Crossover Audit (Lansdowne Avenue and Whytock Avenue)

Standard	Comments	Standard Met / Not Met
Speed - Vehicle operating speed less than 60 km/h	The posted speed limit on Lansdowne Avenue is 40 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	Lansdowne Avenue operates with one lane in each direction.	Met
Volume - Traffic volume not more than 35,000 vehicles per day	Lansdowne Avenue carries approximately 14,000 vehicles per day	Met
Turns - No significant volume of turning movements	The turning volume of traffic to/from Lansdowne Avenue is moderate (approx. 800 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	TTC stops are located nearby, but narrow cross-section means traffic cannot pass stopped buses.	Met
Driveways - No driveways or entrances nearby	None	Met
Spacing - Not less than 200 metres to another pedestrian crossover or traffic control signal	Bloor St W (TCS) - 520 metres north College St (TCS) - 320 metres south	Met