

Turn Prohibitions: Bayview Avenue and Parkhurst Boulevard/Soudan Avenue

Date: September 13, 2016
To: Public Works and Infrastructure Committee
From: Acting General Manager, Transportation Services
Wards: Ward 26 - Don Valley West; Ward 22 - St. Paul's

SUMMARY

This report recommends the implementation of eastbound and westbound left turn and through traffic prohibitions at the intersection of Bayview Avenue and Parkhurst Boulevard/Soudan Avenue. The implementation of these prohibitions is intended to reduce the likelihood of collisions at this intersection.

Transportation Services completed a safety review of the intersection of Bayview Avenue and Parkhurst Boulevard/Soudan Avenue that revealed a recent increase in collisions. The majority of these collisions involved eastbound and westbound through or left turning motorists crossing Bayview Avenue, and occurred during the weekday peak periods.

While traffic control signals are currently warranted, the proposed prohibitions are recommended as a less restrictive measure. Consultation with residents revealed concern that the installation of traffic control signals may result in traffic infiltration on Parkhurst Boulevard and Soudan Avenue. There is an existing Pedestrian Crossover at the intersection, which is deemed to be the appropriate device to facilitate pedestrian crossing at the north leg of the intersection.

This report is submitted to Public Works and Infrastructure Committee (PWIC) as Bayview Avenue forms a shared boundary between Toronto East York Community Council and North York Community Council.

RECOMMENDATIONS

The Acting General Manager, Transportation Services, recommends that:

1. City Council rescind the eastbound left-turn prohibition in effect from 4:00 p.m. to 6:00 p.m., Monday to Friday at Bayview Avenue and Parkhurst Boulevard/Soudan Avenue.
2. City Council prohibit eastbound left turns from 7:00 a.m. to 9:00 a.m. and from 3:00 p.m. to 7:00 p.m., Monday to Friday, at Bayview Avenue and Parkhurst Boulevard/Soudan Avenue.
3. City Council prohibit eastbound through traffic movements from 7:00 a.m. to 9:00 a.m. and from 3:00 p.m. to 7:00 p.m., Monday to Friday, at Bayview Avenue and Parkhurst Boulevard/Soudan Avenue.
4. City Council prohibit westbound left turns from 7:00 a.m. to 9:00 a.m. and from 3:00 p.m. to 7:00 p.m., Monday to Friday, at Bayview Avenue and Parkhurst Boulevard/Soudan Avenue.
5. City Council prohibit westbound through traffic movements from 7:00 a.m. to 9:00 a.m. and from 3:00 p.m. to 7:00 p.m., Monday to Friday, at Bayview Avenue and Parkhurst Boulevard/Soudan Avenue.

FINANCIAL IMPACT

All costs associated with the installation of signs for the proposed turn and through prohibitions are included within the Transportation Services 2016 Operating Budget. The approximate cost for all signage is \$2,000.00.

The Deputy City Manager & Chief Financial Officer has reviewed this report and agrees with the financial impact information.

DECISION HISTORY

This report is a new request being presented to PWIC.

COMMENTS

Transportation Services was requested by the Ward Councillor, on behalf of area residents, to conduct a safety review of the intersection of Bayview Avenue and Parkhurst Boulevard/Soudan Avenue.

Existing Conditions

Bayview Avenue is a four-lane arterial road with a daily two-way traffic volume of approximately 30,000 vehicles and a regulatory speed limit of 50 km/h. Parkhurst Boulevard is a two-way local roadway with a posted speed limit of 40 km/h that runs east from the intersection with Bayview Avenue. Soudan Avenue is a two-way collector road with traffic calming speed humps and a 30 km/h speed limit that runs west from the intersection with Bayview Avenue.

Parkhurst Boulevard and Soudan Avenue are stop controlled at the intersection with Bayview Avenue. There is a pedestrian crossover (PXO), on the north leg of the intersection. Traffic control signals are located on Bayview Avenue 260 metres to the north at Eglinton Avenue East and 200 metres to the south at Manor Road East/Fleming Crescent.

The TTC operates regular service on Bayview Avenue and there are northbound and southbound transit stops on the north leg of the intersection.

A review of the sightlines at this intersection indicated that motorist and pedestrian visibility is clear for all approaches. The stop signs are clearly visible and 'zebra' pavement markings have been applied in the PXO and side street crosswalks. Eastbound left turns from Soudan Ave to Bayview Avenue are prohibited at the intersection between 4:00 p.m. and 6:00 p.m., Monday to Friday. Southbound left turns are prohibited from 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m., Monday to Friday.

Parking is prohibited on both sides of Bayview Avenue, within 60 metres to the south of the intersection on the west side of the road and within 20 metres on the east side. Standing is prohibited on both sides of Bayview Avenue within 40 metres north of the intersection due to the TTC stops. Farther north and south of the intersection parking is allowed except during peak periods when stopping or parking is prohibited as follows:

East Side

- No Stopping from 4:00 p.m. to 6:00 p.m., Monday to Friday
- No Parking from 7:00 a.m. to 9:00 a.m., Monday to Friday

West Side

- No Stopping from 7:00 a.m. to 9:00 a.m., Monday to Friday
- No Parking from 4:00 p.m. to 6:00 p.m., Monday to Friday

Collision Review

Toronto Police Service collision records were reviewed and the data revealed that over a three-year period ending December 31, 2015, there were a total of 25 collisions at this intersection. Of these collisions, 13 involved a motorist crossing Bayview Avenue, either eastbound or westbound. One collision involved a pedestrian using the PXO being struck by a southbound motorist. These type of collisions are considered potentially preventable by the installation of turn prohibitions or traffic control signals.

The following table shows the distribution of the potentially preventable collisions between 2013 and 2015 and confirms the observed recent increase.

Table 1 - Collisions by Time of Day between 2013 and 2015

Time Period	2013	2014	2015	Total
7AM-9AM Mon-Fri	1	0	2	3
3PM-7PM Mon-Fri	1	2	4	7
Off Peak	0	2	2	4
Total	2	4	8	14

Since the majority of potentially preventable collisions involved motorists crossing Bayview Avenue during the weekday peak periods, Transportation Services considered prohibiting these movements between 7:00 a.m. and 9:00 a.m. and 3:00 p.m. and 7:00 p.m., Monday to Friday. This was considered as a less restrictive alternative to traffic control signals.

The following table shows the east/west through and turning movement volumes at the intersection and the potentially preventable collisions during weekday peak periods.

Table 2 - Turn and Through Movement Volumes and Collisions

Direction of Travel	Time Period	Left Turn Movement	Through Movement	Collisions (3-year)
Westbound Traffic	2 hr. A.M Peak	14	86	3
Eastbound Traffic		23	70	1
Westbound Traffic	4 hr P.M. Peak	22	59	0
Eastbound Traffic		28	65	6

Considering the above, the proposed weekday peak period through and left-turn prohibitions would reduce the likelihood of collisions at the intersection and thereby address safety concerns. A review of the operation of the existing pedestrian crossover revealed that it is adequately facilitating pedestrian crossings at the intersection.

Prohibiting the left-turn and through movements is expected to result in motorists either turning right at the intersection or diverting to other streets to cross Bayview Avenue, such as the signalized intersection of Bayview Avenue and Fleming Crescent/Manor Road. From a safety perspective this would be preferable to the current uncontrolled crossings. Motorists may also use Hillside Avenue and Eglinton Avenue East.

Transportation Services staff will continue to monitor the safety record at this intersection to ensure that these proposed turn prohibitions are effective.

Traffic Control Signals

In addition to turn prohibitions, Transportation Services reviewed the warrants for the installation of traffic control signals at the intersection of Bayview Avenue and Parkhurst Boulevard/Soudan Avenue.

To justify the installation of traffic control signals, one of either the Minimum Vehicular Volume or Delay to Cross Traffic warrants must be 100 percent satisfied, or both must be satisfied to the extent of 80 percent. For traffic control signals to be justified based on the Collision Hazard warrant there must be 15 potentially preventable collisions over a three-year period.

A second scenario was considered on the basis of anticipated traffic volumes and collision history with the proposed turn movement prohibitions in place. This analysis removed traffic volumes for the left-turn and through movements during the peak periods. Further, the collision warrant results were modified to include only off-peak collisions.

Under these two scenarios, warrants are satisfied to the following extent:

Table 3 - Traffic Signal Warrant Review Results

Warrants	Existing Conditions	With Proposed Prohibitions
Warrant 1 - Minimum Vehicular Volume	98%	90%
Warrant 2 - Delay to Cross Traffic	94%	68%
Warrant 3 - Collision Hazard	93%	27%

Considering the above results, traffic control signals are not justified if the proposed through and left-turn prohibitions are implemented.

The Ward Councillors have been advised of the recommendations of this staff report.

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SIGNATURE

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ATTACHMENTS

Attachment 1: Map showing Turn Prohibitions proposed for the intersection at Bayview Avenue and Parkhurst Boulevard/Soudan Avenue