



Bicycle Traffic Control Signal - St. Clair Avenue West and Poplar Plains Road

Date: November 4, 2016
To: Public Works and Infrastructure Committee
From: Acting General Manager, Transportation Services
Wards: Ward 22 - St. Paul's
Reference: P:\2016\Cluster B\TRA\TIM\Pw16019tim.docx

SUMMARY

This report recommends the installation of a bicycle traffic control signal at the intersection of St. Clair Avenue West and Poplar Plains Road. The purpose of this signal would be to provide a northbound bicycle crossing of the elevated streetcar right-of-way, at the point where cyclists are exiting the bicycle lane on Poplar Plains Road and crossing St. Clair Avenue West to connect to the Dunvegan Road cycling route.

This report is submitted to Public Works and Infrastructure Committee in response to this Committee's March 4, 2014 request that staff report back on a direct and safe northbound crossing of St. Clair Avenue West for this bike route.

The Toronto Transit Commission has been consulted regarding this matter and has indicated that they do not support the installation of an additional traffic control signal due to the proximity of adjacent signals and the impact of additional traffic signals on transit service travel times. The TTC generally objects to the installation of new traffic signals on surface routes.

The proposed bicycle signal at St. Clair Avenue and Poplar Plains Road would be designed as fully-actuated (so would only be called at the presence of a cyclist) and to coordinate with the existing mid-block pedestrian signal, in order to minimize travel time impacts to both TTC service and motor vehicles.

RECOMMENDATIONS

The Acting General Manager, Transportation Services recommends that:

1. City Council approve the installation of a bicycle traffic control signal at St. Clair Avenue West and Poplar Plains Road.

FINANCIAL IMPACT

The estimated cost to install the bicycle traffic control signal included in this report is approximately \$200,000. Funding is available within the 2017-2026 Capital Budget & Plan submission for Transportation Services (Cycling Infrastructure).

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

DECISION HISTORY

At its meeting on October 23, 2013, the TTC Board requested staff to report back regarding the feasibility of providing a curb cut for bicycles crossing St. Clair Avenue West at Poplar Plains Road. On December 19, 2013, the TTC Board received a TTC staff report entitled "Bicycle Crossing on St. Clair Avenue" and referred this report to the Public Works and Infrastructure Committee without recommendation.

The Board decision can be found at:

[https://ttc.ca/About the TTC/Commission reports and information/Commission meetings/2013/December 19/Agenda/Agenda-December 19-2013.pdf](https://ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2013/December%2019/Agenda/Agenda-December%2019-2013.pdf)

At its meeting on March 4, 2014, the Public Works and Infrastructure Committee requested that staff report back on a direct and safe northbound crossing of St. Clair Avenue West for this bike route. The Council decision can be found at:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2014.PW29.9>

COMMENTS

Background

Poplar Plains Road was the first street to have a bicycle lane installed in the City of Toronto in 1978. This bicycle lane is a key link in Toronto's cycling network between downtown and midtown, connecting the bicycle lanes on Davenport Road to signed routes north of St. Clair Avenue West. The Poplar Plains Road bike lane carries cyclists northbound from downtown to midtown, and works as a two-way pair with the Russell Hill Road bicycle lane, which is used for southbound travel from midtown to downtown.

When the St. Clair Avenue West TTC streetcar route was upgraded with a dedicated right-of-way in 2005, the design did not include crossing accommodations for the cycling

network route on Poplar Plains Road. Following the introduction of this elevated right-of-way to the pre-existing cycling route, cycling travel is now taking place in ways which present safety concerns, including cycling on the streetcar right-of-way and cycling on the sidewalk.

The following characteristics describe the area in the vicinity of St. Clair Avenue West at the intersection with Poplar Plains Road, as shown in Attachment 1:

- St. Clair Avenue West, at Poplar Plains Road is a 21m wide four-lane major arterial roadway, with a 7.2m elevated streetcar right-of-way between the eastbound and westbound traffic lanes;
- St. Clair Avenue West operates according to the default speed limit of 50 kilometers per hour;
- As part of the streetcar right-of-way reconstruction in 2005, a signalized pedestrian crossing was installed approximately 112m west of the intersection of St. Clair West and Poplar Plains Road;
- Traffic control signals are located at the intersection of St. Clair Avenue West and Avenue Road, located approximately 195m west of Poplar Plains Road; and
- Sidewalks are located on both sides of St. Clair Avenue West and on Poplar Plains Road, in the vicinity of this intersection.

Crossing Protection Warrant Assessment

Transportation Services staff conducted a Crossing Protection Warrant Assessment on October 4 and 5, 2016 at the intersections of St. Clair Avenue West and Poplar Plains Road, St. Clair Avenue West and Dunvegan Road, and St. Clair Avenue West and the pedestrian signal located at Timothy Eaton Memorial Church, 112m west of Poplar Plains Road. The study provided an assessment of the need for a bicycle crossing, based on the existing volumes of cyclists at these combined locations.

The Transportation Services Crossing Protection Warrant Assessment is based on existing volumes and delays of pedestrian and cyclist crossings and is expressed in terms of percent compliance with accepted thresholds. The 100% threshold is approximately 200 pedestrian/cyclist crossings in an eight-hour period. This standard is typically used for the warrant assessment of a distinct location, and so was adapted to measure the Poplar Plains Road bike lane crossings of St. Clair Avenue West.

Counts were undertaken during the 7:00am to 9:30 am and 4:00pm to 6:00pm peak periods. During these peak periods, 128 cyclists were counted crossing St. Clair Avenue West at these locations. The combined morning and afternoon counts found 73 cyclists (57%) crossed the street from Poplar Plains Road by travelling to the pedestrian signal 112m west of Poplar Plains Road, predominantly cycling illegally along the sidewalk. The remaining 54 cyclists (42%) were observed to cross St. Clair Avenue West at Poplar Plains Road directly, by "hopping" the elevated streetcar right-of-way or by dismounting and then carrying their bicycles over the elevated streetcar right-of-way.

The majority of the cyclists who were observed crossing St. Clair Avenue West were crossing in a manner which represents a safety concern. The cycling route is inducing both sidewalk riding, which presents a safety risk for pedestrians and cycling on streetcar right-of-way. Transportation Services is therefore recommending the

signalization of the intersection of Poplar Plains Road and St. Clair Avenue West, as a preventative measure to ensure the safety of cyclists, pedestrians, and TTC operations.

An option was considered to facilitate this crossing by providing a curb depression of the elevated streetcar right-of-way on St. Clair Avenue at Poplar Plains Road, in order to allow cyclists to ride across the streetcar right-of-way. This option was deemed not acceptable from a safety perspective because it would violate the fundamental design premise that all vehicles, including bicycles, be prohibited and physically deterred from crossing the right-of-way anywhere other than at signalized locations.

TTC Support

The Toronto Transit Commission has been consulted regarding this matter and has indicated that they do not support the installation of an additional traffic control signal due to the proximity of adjacent signals and the impact of additional traffic signals on transit service travel times. The TTC generally objects to the installation of new traffic signals on surface routes.

The proposed bicycle signal at St. Clair Avenue and Poplar Plains Road would be designed as fully-actuated (so would only be called at the presence of a cyclist) and to coordinate with the existing mid-block pedestrian signal, in order to minimize travel time impacts to both TTC service and motor vehicles.

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SIGNATURE

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ATTACHMENTS

Attachment 1 – St. Clair Avenue West Proposed Traffic Control

PW17.11 - Attachment 1

Attachment 1 St. Clair Avenue West Proposed Traffic Control

