

Lane Designations – McCowan Road at Eglinton Avenue East

Date: April 29, 2021

To: Scarborough Community Council

From: Director, Project Design & Management, Transportation Services

Wards: Ward 20 – Scarborough-Southwest, Ward 21 – Scarborough Centre

SUMMARY

As the Toronto Transit Commission (TTC) operates transit service on Eglinton Avenue East and McCowan Road, City Council approval of this report is required.

In support of planned interim geometric safety improvements at the intersection of McCowan Road and Eglinton Avenue East, Transportation Services recommends that the northbound curb lane on McCowan Road approaching Eglinton Avenue East be designated for right-turns only, bicycles excepted and a southbound left-turn only lane be designated at the same intersection.

RECOMMENDATIONS

The Director, Project Design & Management, Transportation Services recommends that:

1. City Council designate the easterly northbound lane on McCowan Road, between Eglinton Avenue East and a point 60 metres south for northbound right-turns only, bicycles excepted.
2. City Council designate the easterly southbound lane on McCowan Road, between Eglinton Avenue East and a point 30 metres north for southbound left-turns only
3. City Council designate the westerly southbound lane on McCowan Road, between Eglinton Avenue East and a point 30 metres north for southbound through and right-turns only.

FINANCIAL IMPACT

The cost of installing the required signs is approximately \$1,000. The funding for these signs is available in the Transportation Services Division's 2021 Capital Budget.

DECISION HISTORY

This report addresses a new initiative.

COMMENTS

In 2020, a road safety review was conducted for the intersection of McCowan Road and Eglinton Avenue East, recommending geometric changes and safety counter-measures.

Informed by this review, Transportation Services has programmed the following geometric improvements at this intersection for installation in summer 2021, as shown in Attachment 1:

- Reduction of curb radii at all corners;
- Reduction of excess lane width in the northbound direction on McCowan Road, north of Eglinton Avenue East; and
- Utilization of interim pavement markings and bollards to achieve the radii and lane width reductions.

These modifications are expected to help improve safety for all users at this intersection by slowing down the speed of right-turning vehicles, improving visibility, and reducing driver workload. These changes will reduce the likelihood and severity of potential collisions, particularly between motor vehicles and vulnerable road users.

In support of the planned interim geometric safety improvements, this report seeks approval for the designation of the northbound curb lane as a right-turn only lane, excepting bicycles (as shown in Attachments 1 and 2) and a new dedicated southbound left-turn lane and a shared through and right-turn lane (as shown in Attachment 1).

Existing Conditions

McCowan Road is characterised by the follow conditions:

- McCowan Road at Eglinton Avenue East is a signalized intersection
- McCowan Road, south of Eglinton Avenue East, is a five-lane major arterial, and north of Eglinton Avenue East is a three-lane local road
- The regulatory speed limit is 50 km/h
- It operates two-way north-south traffic on a pavement width of approximately 15.2 metres north of Eglinton Avenue East, and 20.1 metres south of Eglinton Avenue East
- The daily traffic volume at the intersection is approximately 16,130 vehicles per day
- The lane configuration for the northbound direction on McCowan Road approaching Eglinton Avenue East consists of one combined through-right turn lane, one dedicated through lane and one left-turn lane.

- The lane configuration for the southbound direction on McCowan Road approaching Eglinton Avenue East consists of one wide lane for combined right-turns, through movements and left-turns.
- TTC services is provided by the 9 Bellamy bus, which travels northbound on McCowan Road, and turns right onto Eglinton Avenue East
- There is also a number of existing TTC routes for eastbound and westbound passengers on Eglinton Avenue East
- The area is composed of residential and commercial land uses on both sides of McCowan Road.

Analysis and Proposed Lane Designation

Collision history provided by the Toronto Police Service for the five-year period ending December 31, 2019, disclosed that twelve reported collisions occurred at this intersection and four of these collisions resulted in injuries to pedestrians and one resulted in an injury to a person cycling.

Transportation Services conducted an eight-hour turning movement count in December of 2018 at the intersection of Eglinton Avenue East and McCowan Road. The results of the study revealed a total of 2,571 vehicles travelling in the northbound direction, more specifically:

- 29% made a right-turn manoeuvre,
- 27% made a through manoeuvre, and
- 44% made a left-turn manoeuvre.

The same study revealed a total of 1693 vehicles travelling in the southbound direction during an eight-hour period on McCowan Road approaching Eglinton Avenue East. Of these:

- 41% made a right-turn manoeuvre,
- 40% made a through manoeuvre, and
- 19% made a left-turn manoeuvre.

Given low through traffic volumes in the northbound direction on McCowan Road, approaching Eglinton Avenue East, vehicular demand at the intersection can be met with one northbound left-turn lane, one through lane and one right-turn lane.

The "Bicycles Excepted" tab signs will clearly define traffic lane usage and eliminate confusion and potential for conflicts as people cycling continue to travel through the intersection in the northbound direction from the curb lane.

The adoption of the lane designations identified in this report will provide positive guidance to northbound motorists by clearly identifying lane direction and mitigate potential vehicular conflicts between northbound motorists on McCowan Road and other motorists, including westbound motorists from Eglinton Avenue East turning right onto McCowan Road. As there are two far side receiving lanes at the north leg of the intersection, a designated right turn lane at the south leg is required.

Splitting the single wide southbound lane into two lanes and designating a dedicated southbound left turn lane, through and right-turn lane will further improve intersection operations.

Finally, the proposed lane designations at this intersection will allow for enforcement of the lane designation by Toronto Police Service.

CONTACT

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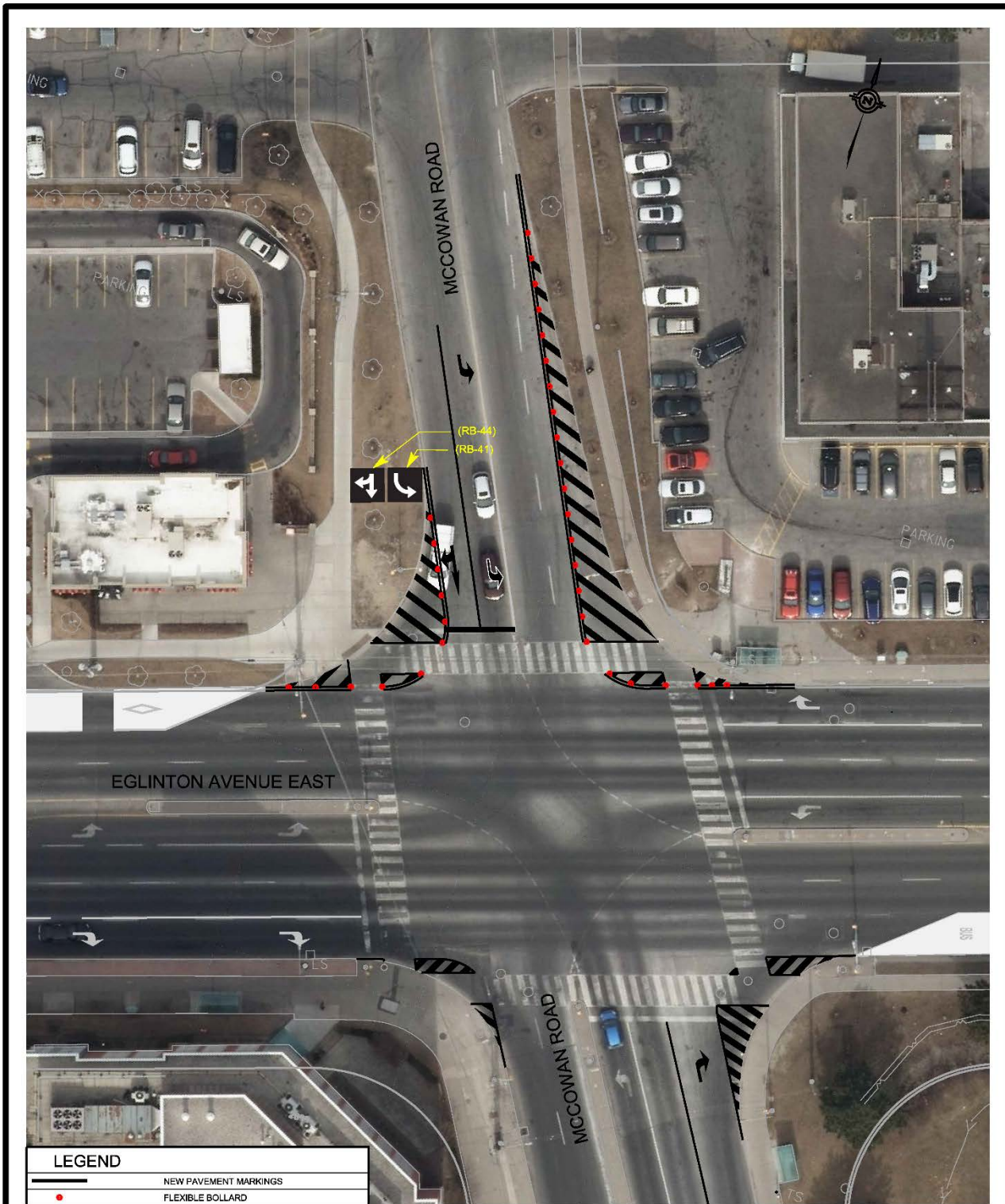
SIGNATURE


Jacquelyn Hayward
Director, Project Design & Management
Transportation Services

ATTACHMENTS

Attachment 1: Preliminary Interim Geometric Safety Improvements - McCowan Road at Eglinton Avenue East
Attachment 2: Location Plan - Right Turn Lane Designation - McCowan Road at Eglinton Avenue East.

Attachment 1: Preliminary Interim Geometric Safety Improvements - McCowan Road at Eglinton Avenue East



	TRANSPORTATION SERVICES	DRAWING NUMBER	2021-IGSI-05
	EGLINTON AVENUE EAST AND MCCOWAN ROAD	SCALE	1:500
	PRELIMINARY INTERIM GEOMETRIC SAFETY IMPROVEMENT PLAN	DESIGN & DRAWN BY:	K.R.
		DATE	APRIL 2021

Attachment 2: Location Plan - Right Turn Lane Designation - McCowan Road at Eglinton Avenue East.



	TRANSPORTATION SERVICES	DRAWING NUMBER	2021-LM-01
	EGLINTON AVENUE EAST AND MCCOWAN ROAD	SCALE	1:500
	NORTHBOUND RIGHT-TURN BY-LAW	DESIGN & DRAWN BY:	K.R.
	LOCATION PLAN	DATE	APRIL 2021