



Speed Limit Review - Midland Avenue between St. Clair Avenue East and Kingston Road

Date: August 16, 2019
To: Scarborough Community Council
From: Acting Director, Traffic Management, Transportation Services
Wards: Ward 20 – Scarborough Southwest

SUMMARY

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

The purpose of this report is to recommend that the speed limit on Midland Avenue, between St. Clair Avenue East and Kingston Road, not be reduced from 50 km/h to 40 km/h. Staff's review indicated that reduction of the speed limit to 40 km/h is not technically justified along this section of Midland Avenue.

RECOMMENDATIONS

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

1. City Council NOT reduce the speed limit from 50 km/h to 40 km/h on Midland Avenue, between St. Clair Avenue East and Kingston Road.

FINANCIAL IMPACT

There would be no financial impact associated with this staff recommendation.

DECISION HISTORY

This report addresses a new initiative.

COMMENTS

In response to requests from Councillor Gary Crawford, an area resident and school principal, Transportation Services staff reviewed the feasibility of reducing the speed limit from the current 50 km/h to 40 km/h on Midland Avenue, between St. Clair Avenue East and Kingston Road.

Existing Conditions

The following characteristics describe Midland Avenue:

- Midland Avenue is a four-lane minor arterial road with a regulatory speed limit of 50 km/h.
- Sidewalks are located on the both sides of Midland Avenue.
- The land use in the surrounding area consists mainly of single family residential dwellings, with high-density residential units on the southeast end.
- John A Leslie Public School is located on the east side of Midland Avenue north of Kingston Road.
- Traffic control signals are located on Midland Avenue at Kingston Road and at St. Clair Avenue, and a pedestrian crossover is provided in the immediate vicinity of John A Leslie Public School at Aylesworth Drive.
- U-turns are currently prohibited within the school limits in front of John A Leslie Public School.
- TTC operates a transit service on Midland Avenue.

Analysis

Vehicle Volume and Speed Study

The results of a 24-hour vehicle volume study, revealed that the recorded daily vehicle volumes at three locations on Midland Avenue are as follows: 8,692 vehicles per day between Reeves Avenue and Wilke Avenue, 8,377 vehicles per day between Wilke Avenue and Aylesworth Avenue and 7,944 vehicles per day between Aylesworth Avenue and Park Street.

The vehicle volume range for a minor arterial road classification is between 8,000 and 20,000 vehicles per day. The current traffic volume on Midland Avenue is within or close to the vehicle volume range for a minor arterial road.

The speed study revealed that the 85th percentile (speed at which 85 percent of motorists travel at or below) on Midland Avenue is 57 and 56 km/h respectively for northbound and southbound vehicles.

A review of the collision records revealed that during the three-year period ending December 31, 2018, there were no reported speed related collisions.

Based on the 40 km/h Speed Limit Warrant criteria, Midland Avenue, between St. Clair Avenue East and Kingston Road, does not meet the technical requirements to reduce the speed limit from 50 km/h to 40 km/h. This is because the Wide Roads and the Road and Traffic Environment warrants were not met along Midland Avenue. Technical Summary is attached.

The current speed limit of 50 km/h for a Minor Arterial is consistent with the recommendations from the Vision Zero 2.0 - Road Safety Plan.

Alternate Recommendation

If, despite the above, the Scarborough Community Council determines that a reduction of the speed limit to 40 km/h would be beneficial along Midland Avenue, between Kingston Road and St. Clair Avenue, it may approve the following as to form:

1. City Council reduce the speed limit from 50 km/h to 40 km/h on Midland Avenue, between St. Clair Avenue East and Kingston Road.

The estimated cost for installing the signs would be approximately \$4,000. The funding for these signs is available in the Transportation Services Division's 2019 Operating Budget.

TECHNICAL SUMMARY

Midland Avenue between St. Clair Avenue East and Kingston Road

Roadway Classification

Roadway	Classification	Typical Daily Vehicle Volume For Subject Road Classification	Recorded Daily Vehicle Volume For Subject Road
Midland Avenue	Minor Arterial Road	Between 8,000 to 20,000 vehicles per day (vpd)	Wednesday, May 9, 2018 Between Reeve Avenue and Wilke Avenue 8,692 vpd
			Wednesday, June 6, 2018 Between Wilke Avenue and Aylesworth Avenue 8,377 vpd
			Wednesday, June 6, 2018 Between Aylesworth Avenue and Park Street 7,944 vpd

As evidenced in the above table, Midland Avenue is functioning well within the vehicle volume range of a minor arterial road.

COLLISION ANALYSIS – Speed-Related

Speed-related collisions during a three-year period from January 1, 2016 to December 31, 2018:

Roadway	2016	2017	2018	Total
Total Speed Related Collisions on Midland Avenue	0	0	0	0

As shown above, the reported collision records on the above noted roadway are not indicative of a safety problem due to speed at this time.

24-Hour Speed Study Summary

Location: Midland Avenue
Speed Limit: 50 Km/h (Posted Speed Limit)

Wed, May 9, 2018 Between Reeve Avenue & Wilke Avenue	Speed Ranges – Km/h					Total Vehicles 24 Hours	85th Percentile Speed*
	1 - 40	41 - 50	51 - 60	61 - 65	> 65		
Northbound	790	1,882	1,065	120	70	3,927 vpd	56 Km/h
Southbound	1,614	2,151	839	97	64	4,765 vpd	53 Km/h
Totals	2,404	4,033	1,904	217	134	8,692 vpd	Average 55 Km/h

Wed, June 6, 2018 Between Wilke Avenue & Aylesworth Av.	Speed Ranges – Km/h					Total Vehicles 24 Hours	85th Percentile Speed*
	1 - 40	41 - 50	51 - 60	61 - 65	> 65		
Northbound	536	1,211	1,708	401	241	4,097 vpd	61 Km/h
Southbound	635	1,115	1,834	436	260	4,280 vpd	61 Km/h
Totals	1,171	2,326	3,542	837	501	8,377 vpd	Average 61 Km/h

Wed, June 6, 2018 Between Aylesworth Av. & Park Street	Speed Ranges – Km/h					Total Vehicles 24 Hours	85th Percentile Speed*
	1 - 40	41 - 50	51 - 60	61 - 65	> 65		
Northbound	685	1,661	1,320	107	28	3,801 vpd	55 Km/h
Southbound	513	2,075	1,387	127	41	4,143 vpd	55 Km/h
Totals	1,198	3,736	2,707	234	69	7,944 vpd	Average 55 Km/h

* The 85th percentile speed is the speed at or below which the majority of motorists are travelling. This generally reflects the speed at which most motorists feel comfortable travelling on a given section of roadway, taking into consideration traffic volumes and surrounding conditions.

40 km/h Speed Limit Warrant Summary

A permanent 40 km/h maximum speed limit may be implemented on a street where **one or more of the following warrants A&B OR A&C are met.**

Warrant "A" – WIDE ROADS	
Pavement width is less than 10.5 metres	Yes ☒ No

AND ONE OF THE FOLLOWING

Warrant "B" – PEDESTRIAN ENVIRONMENT	
Elementary or junior high school abuts the road. *	Yes ☒ No
OR	
Parkland abuts the road which is contiguous to and used to gain access to an elementary or junior high school. *	Yes ☒ No
OR	
No sidewalk on either side of the road or a major portion of the road.	Yes ☒ No
OR	
The sidewalk is immediately adjacent to and not separated from the flow of motor vehicles by long term parking (>3 Hours) or bike lanes, where the travelled portion of the road width is less than 5.7 metres for two way operation or less than 4.0 metres for one way operation	Yes ☒ No

Warrant "C" – ROAD & TRAFFIC ENVIRONMENT	
Two or more locations of concern where: - Grades are greater than 5%; and/or - Safe speed on curves is less than 50 km/h	Yes ☒ No
OR	
Lack of sufficient distance to stop safely at two or more locations when traveling at 50 km/h.	Yes ☒ No
OR	
Pattern of collisions where vehicle speed was identified as a factor: - Local streets – 3 or more over 3 years - Other streets – 5 or more over 3 years	Yes ☒ No
OR	
Where long term parking (>3 Hours) is permitted on one or both sides and the remaining traveled portion of the road is less than 5.7 metres for two way operation or 4.0 metres for one way operation.	Yes ☒ No

OVERALL WARRANT SUMMARY

Warrants "A" and "B" or "A and "C" must be met	Yes ☒ No
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*Note: 40 km/h maximum speed limit must extend no less than 150 metres beyond the boundary of school property and/or contiguous parkland.

CONTACT

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SIGNATURE

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ATTACHMENTS

1. Attachment 1: Location Plan (Speed Limit Review - Midland Avenue between St. Clair Avenue East and Kingston Road).

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