



REPORT FOR ACTION

Traffic Calming, Speed Limit and U-Turn Prohibition Review - Cass Avenue, between Warden Avenue and Birchmount Road

Date: October 10, 2019
To: Scarborough Community Council
From: Acting Director, Traffic Management, Transportation Services
Wards: Ward 22 – Scarborough-Agincourt

SUMMARY

This staff report is about a matter for which the Community Council has delegated authority from City Council to make a final decision.

As a result of requests from the Councillor, Lynngate Junior Public School and residents' concerns regarding the speeds of vehicles on Cass Avenue, Transportation staff reviewed the need for traffic calming on Cass Avenue, between Warden Avenue and Birchmount Road. Our assessment indicates the criteria as set out in the Traffic Calming Policy, Warrant 3.2 (Collector Road Traffic Volumes), has not been satisfied. Therefore, traffic calming should not be installed on Cass Avenue.

Transportation staff also reviewed the feasibility of reducing the speed limit from 40 km/h to 30km/h. The reduction of the speed limit to 30 km/h is not recommended for Cass Avenue, between Warden Avenue and Birchmount Road, as the warrant criteria for speed reduction was not satisfied

Staff recommend prohibiting U-turn movements on Cass Avenue, between Marlbank Road and Amethyst Road, to reduce conflicts between all roadway users and improve safety along this section of Cass Avenue in the vicinity of Lynngate Junior Public School.

RECOMMENDATIONS

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

1. Scarborough Community Council not authorize the installation of traffic calming measures on Cass Avenue, between Warden Avenue and Birchmount Road.
2. Scarborough Community Council not reduce the speed limit from 40 km/h to 30 km/h on Cass Avenue, between Warden Avenue and Birchmount Road.
3. Scarborough Community Council prohibit eastbound and westbound U-turn movements at all times on Cass Avenue, between Marlbank Road and Amethyst Road.

FINANCIAL IMPACT

The cost to install the "No U-Turn" signs is approximately \$600, funding for which is available within the Transportation Services 2019 Operating Budget.

DECISION HISTORY

This report addresses a new initiative.

COMMENTS

Existing Conditions

- Cass Avenue, between Warden Avenue and Birchmount Avenue is a two-way collector road.
- Lynngate Junior Public School is located on the south side of Cass Avenue, between Amethyst Road and Marlbank Road.
- The pavement width is approximately 8.5 metres and the posted speed limit on Cass Avenue is 40 km/h.
- There are municipal sidewalks along both sides of Cass Avenue.
- The land use in the surrounding area consists of mainly of single family residential dwellings and an elementary public school.

Analysis

Traffic Calming Warrants

To address speeding concerns on Cass Avenue, between Warden Avenue and Birchmount Road, 24-hour vehicle volume and speed studies were conducted during a mid-week period in October 2018. The study found vehicular operating speeds to be between 49 km/h and 51 km/h and an average daily traffic volume of approximately 1,836 vehicles on Cass Avenue, between Amethyst Road and Marlbank Road. Details of the Traffic Calming Warrant Criteria analysis are included in Attachment: 1 under Traffic Calming Summary on Cass Avenue, between Warden Avenue and Birchmount Road.

The results of the speed studies are summarized in the following table:

Roadway	Speed Limit	Direction	85th percentile	Vehicle Volume
Cass Avenue, between Amethyst Road and Marlbank Road	40	Eastbound	51 km/h	831
Cass Avenue, between Amethyst Road and Marlbank Road	40	Westbound	49 km/h	895
Cass Avenue, between Amethyst Road and Birchmount Road	40	Eastbound	50 km/h	885
Cass Avenue, between Amethyst Road and Birchmount Road	40	Westbound	51 km/h	945

The warrants were not met based on the following criteria:

Traffic Volumes: The collector road traffic volume must be between 2,500 and 8,000 vehicles per day (vpd). On Cass Avenue, between Warden Avenue and Birchmount Road, the vehicle volume studies counts recorded over a 24-hour period revealed a total of 1,836 vpd. Traffic Calming Warrant criteria requires that that traffic volumes for collector road classification must be between 2,500 and 8,000 vpd. Therefore, the installation of traffic calming on Cass Avenue between Warden Avenue and Birchmount Road is not warranted.

Staff applied this data to the City of Toronto Traffic Calming Policy. According to the policy, the principal criterion for installing physical traffic calming are vehicle speed and volume. Other environmental factors are considered, such as road width, pedestrian facilities and grade. The proposal was evaluated under these technical criteria, with the results summarized in Attachment 1.

Vision Zero – Toronto's Road Safety Plan

The City of Toronto is committed to eliminating traffic related deaths and serious injuries on its roadways and protecting its most vulnerable road users (VRU), including pedestrians and cyclists. To help the City achieve that goal, City Council adopted the Vision Zero Road Safety Plan in July 2016, which is a comprehensive, city-wide strategy that includes many road safety countermeasures that address all road users, but with particular emphasis on VRU. "School Children" is one of six emphasis areas identified in the plan.

To improve safety in areas around schools, the City is designating School Safety Zones and Community Safety Zones at all schools across the City, starting with elementary (grades K-8) schools. The School Safety Zones program involves the installation of various signs and pavement markings enhancements along frontages of schools within 150 metres of the school property, including new School Zone signs with flashing beacons, radar speed display signs (also referred to as driver feedback signs), "SCHOOL" and speed limit stencils painted on the roadway and zebra crossings at all stop-controlled intersections.

With regards to Community Safety Zones, in 2018 City Council authorized the designation of Community Safety Zones within approximately 150 metres of the school property in front of all elementary schools.

To date, nine schools in Ward 22 have received School Safety Zone treatments and the above countermeasures have already been implemented. Currently, Lynngate Junior Public School is ranked 26th among 33 schools identified in Ward 22. School Safety Zone treatments namely School Area Signs with flashing beacons, Watch Your Speed signs (if applicable) and pavement markings by way of stencils and zebra crosswalks are expected to be implemented in the future.

30 km/h Warrant Criteria

Staff also reviewed the feasibility of reducing the speed limit to 30 km/h. The City of Toronto's 30 km/h Speed Limit Policy allows 30 km/h speed limits on local and collector roads that abut schools. The technical road environment warrant criteria must also be met, which dictates that road classification must be either local or collector, the pavement width must not be greater than 8.5 metres, the operating speed be no greater than 50 km/h and the daily traffic volume be no greater than 8,000 vehicles per day.

Cass Avenue, between Warden Avenue and Birchmount Road, did not satisfy all the criteria for a 30 km/h speed limit given the operating speeds were found to be in excess of 50 km/h.

Given that all criteria for a 30 km/h speed limit are not met, staff are not recommending a reduction of the speed limit to 30 km/h on Cass Avenue, between Warden Avenue and Birchmount Road. Details of the 30 km/h Warrant Criteria analysis are included in Attachment 2 - Table 2.

U-Turn Prohibition

Considering that this is a school zone with access to a park nearby, to complement the existing parking regulations already in place on the road in advance of the school and park, a U-turn prohibition on Cass Avenue, between Marlbank Road and Amethyst Road, is feasible. It will enhance and improve safety for all road users by minimizing vehicular conflicts, allow for enforcement by Toronto Police Service, and bring this community one step closer to the City wide "Vision Zero" initiative.

Collision Analysis

A review of Toronto Police Service collision records for a three-year period ending December 31, 2018, did not find any reported collisions attributed to speeding on Cass Avenue, between Marlbank Road and Amethyst Road.

Alternate Recommendations

If, despite the findings above, the Scarborough Community Council determines that traffic calming would be beneficial, it may approve the following as to form:

1. Scarborough Community Council direct the Acting Director of Transportation Services, Traffic Management to request the City Clerk to poll eligible householders on Cass Avenue, between Warden Avenue and Birchmount Road. The poll is to determine whether residents support the installation of traffic calming, in accordance with the City of Toronto Traffic Calming Policy.
2. Subject to favourable results of the poll:
 - a. Scarborough Community Council authorize the installation of traffic calming (speed hump) on Cass Avenue, between Warden Avenue and Birchmount Road.
 - b. Scarborough Community Council direct the City Solicitor to prepare a by-law to alter the roadways of Cass Avenue, between Warden Avenue and Birchmount Road for traffic calming purposes, generally as shown on the location Plan, attached to the report entitled "Traffic Calming - Cass Avenue".

c. Scarborough Community Council reduce the speed limit from 40 km/h to 30 km/h on Cass Avenue, between Warden Avenue and Birchmount Road in conjunction with the installation of speed humps.

The estimated cost of installing the speed humps on Cass Avenue, between Warden Avenue and Birchmount Road is approximately \$28,000.00. Installation would be subject to the availability of funding in Transportation Services Capital Budget and subject to competing priorities.

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ATTACHMENTS

1. Attachment 1: Table 1: Traffic Calming Warrant Criteria - Cass Avenue, between Warden Avenue and Birchmount Road.
2. Attachment 2: Table 2: 30 km/h Warrant Criteria Cass Avenue.
3. Attachment 3: Location Map -Traffic Calming, U-Turn Prohibition Review - Cass Avenue.

Attachment 1: Table 1: Traffic Calming Warrant Criteria - Cass Avenue, between Warden Avenue and Birchmount Road

All three of the following warrants must be achieved

Warrant	Criterion	Requirement		Warrant Satisfied
Warrant 1 Petition	1.1 Petition	Petition signed by at least 25% of the households on the street and/or 10% multiple family rental dwellings		YES
Warrant 2 Safety Criteria [all three criteria must be fulfilled to satisfy warrant]	2.1 Sidewalks	Are there continuous sidewalks on at least one side of street [both sides for collector of higher classification] OR On streets where no sidewalks exist, installation of sidewalks on at least one side must first be considered		Yes
	2.2 Road Grade	Road grade does not exceed 8% [Traffic calming measures must not be installed at or near these locations where grade exceeds 8%]		Yes
	2.3 Emergency Response	Emergency Services have noted that the impact of traffic calming, specifically speed humps, will not significantly affect service delivery		N/A
Warrant 3 Technical Requirement [all four criteria must be fulfilled to satisfy warrant]	3.1 Minimum Speed	The 85th percentile speed must be a minimum of 10 km/h over the warranted speed limit and the volume warrant [3.2] must be fulfilled*		Yes (51 km/h)
	3.2 Traffic Volumes	Local Road Traffic volume must be between 1,000 and 8,000 vehicles per day	Collector Road Traffic volumes must be between 2,500 and 8,000 vehicles per day	NO (1,836 vpd)
	3.3 Minimum Block Length	On streets where mid-block traffic calming measures are proposed, the minimum block length must exceed 120 metres		Yes
	3.4 Transit Service	Impacts on regularly scheduled Toronto Transit Service vehicles will not be significant [as determined in consultation with TTC staff]		N/A
Warranted [yes/no]				No

Attachment 2 - Table 2: 30 km/h Warrant Criteria Cass Avenue

30 km/h Warrant Summary

- i. Implementation must be approved by Community Council.
- ii. 30 km/h speed limit can be implemented (without traffic calming) if either Warrants "B" and "C" are met **OR** "B" and "D" are met.
- iii. In situations where a road has existing scheduled transit service, staff will confirm that as a result of a speed limit reduction no significant impacts will be experienced by transit.

Warrant "A" – PETITION	
Consideration of 30 km/h speed limit on a street upon receipt of a petition signed by at least 25% of affected households (or 10% in the case of multiple family rental dwellings).	Yes / No
Warrant "B", "C" and "D" will not be considered until Warrant "A" is satisfied.	

ROAD ENVIRONMENT

Warrant "B" – <u>ALL</u> of the following criteria must be met	
1. Local or collector road	Yes / No
AND	
2. Pavement width less or equal to 8.5 metres	Yes / No
AND	
3. Operating speed (85 th percentile) no greater than 50 km/h	Yes / No
AND	
4. Maximum traffic volume Local & Collector – less than 8,000 vehicles/day	Yes / No

SCHOOL AND CYCLING ENVIRONMENT

Warrant "C" – At least <u>ONE</u> of the following criteria must be met	
1. Elementary or junior high school abuts the road (The 30 km/h maximum speed limit must not extend no less than 150 metres beyond the boundary of the school property)	Yes / No
OR	
2. Parkland abuts the road that is contiguous to and used to gain access to an elementary or junior high school (The 30 km/h maximum speed limit must extend at a minimum 150 metres beyond the boundary of school property and can be extended to include full road section)	Yes / No
OR	
3. Presence of cycling facilities identified by means of a contra-flow bicycle lane, mid-block sharrows or signed bicycle route	Yes / No

PEDESTRIAN AND TRAFFIC ENVIRONMENT

Warrant "D" – At least THREE of the following criteria must be met	
1. Absence of continuous sidewalk on both sides of the road or major portion of the road	Yes ☐ No ☒
OR	
2. 'Significant parking activity' that results in cars being parked most of the time on both sides of the road or parking on one side, and the pavement width is less than 6.5 metres	Yes ☐ No ☒
OR	
3. 2 or more curves in short distance from each other (<200 metres) with a safe operating speed less than 30 km/h	Yes ☐ No ☒
OR	
4. Lack of sufficient safe stopping distance (65 metres) based on the operating speed of 40 km/h at two or more locations	Yes ☐ No ☒

OVERALL WARRANT SUMMARY

Warrants "B" and "C" met OR "B and "D" met	Yes ☐ No ☒
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Attachment 3: Location Map -Traffic Calming, U-Turn Prohibition Review - Cass Avenue

