

The Corporation of the City of Kawartha Lakes
Council Report

Report Number ENG2019-006

Date: March 26, 2019
Time: 2:00 p.m.
Place: Council Chambers

Ward Community Identifier: 5

Title: Request for Speed Reduction – CKL Road 36

Author and Title: Joseph Kelly, Senior Engineering Technician

Recommendation(s):

That Report ENG2019-006, **Request for Speed Reduction – CKL Road 36**, be received;

That large warning signage with educational text be installed as outlined as Option 2 of this report.

Department Head: _____

Financial/Legal/HR/Other: _____

Chief Administrative Officer: _____

Background:

At the Council Meeting of January 5, 2019 Council adopted the following resolution:

CR2019-028

RESOLVED THAT the memo from Councillor Pat Dunn dated January 15, 2019 and entitled,

Speeding in School Pick-up and Drop-off Zones, be received;

That staff be directed to review the feasibility of reducing the speed limit from 80km/hr to 60km/hr between Snug Harbour Road and the Central East Correctional Facility on City Road 36 during school bus pick-up and drop-off times; and

That staff report back to Council no later than the end of the first quarter of 2019.

This report addresses those directions. The memo can be seen in Appendix A.

Rationale:

CKL Road 36 from the Central East Correction Facility (CECF) to Snug Harbour Road is a 4.3 km long stretch of Class 2, arterial road with a speed limit of 80 km/hr. There are three curves on this stretch, two of which are in close proximity to each other.

In discussion with the Trillium Lakelands District School Board Transportation Supervisor, who coordinates transportation needs for both the Public and Catholic School Boards, it was discovered that there are currently seven school bus stop locations within a 1.7 km stretch, all near the two curves. One location has three busses stopping there, while another has two. All other locations are single bus stops for a total of 10 bus stops at seven locations.

In light of this, the subject area should be contained from the CECF to before the final curve. A key map can be seen in Appendix B.

School Board Policy

According to the School Board Transportation Supervisor, in general students are not asked to walk in a posted 80km/h or greater zones. For lower speeds, students can be required to walk up to the board designated distance to a predetermined stop. For TLDSB, that distance is up to 0.8 km for elementary students and 1.6 km for secondary students. For the Catholic School Board it is up to 1 km and 1.6 km for elementary and secondary students respectively.

Further Board guidelines are that in zones where students are required to walk, stops are not to be placed closer than 200m.

Should this stretch become a 60 km/h regulatory speed zone, Board policy could allow for the consolidation of the bus stops, requiring both elementary and secondary students to walk to the nearest stop. Under these guidelines, the seven stop locations could become three. An example of a possible scenario under the Board guidelines can be seen in Appendix C.

Collision Rate

When reviewing the relative safety of a stretch of road as it relates to its speed limit, it is more appropriate to analyze its collision rate over its collision frequency. That is, the number of collisions in relation to traffic volume and length tells us more about the roads safety conditions compared to just the amount of collisions per year. For example, this can reveal that a high volume road with 12 collisions is relatively safer than a low volume road with five collisions.

From CECF to Snug Harbour Road, using the latest available 36 months of collision data, the collision rate is 1.1 collisions per million vehicle kilometres. Analyzing just the area of the two curves with the bus stops, the collision rate is 1.4 collisions per million vehicle kilometres.

These rates are comparable to the average arterial road in CKL which have been analyzed and represent a comparable overall risk. Although collision rate comparisons have not been analyzed on every road in CKL, best practices would use the following ranges: ≤ 1.6 is low risk, 1.7 to 2.9 is below average risk, 2.9 to 3.5 is average risk, 3.6-5.3 is above average risk and > 5.3 is high risk.

Speed Reduction Warrant

Collision rates alone do not determine the relative safety of the road. CKL Engineering follows The Transportation Association of Canada's (TAC) "Guidelines for Establishing Posted Speed Limits" as part of its formal speed reduction warrant process. The TAC guide recommends a road risk method to determine appropriate speed limits according to road engineering characteristics, geometry, roadside environment, classification, land use, access/intersection density, and vulnerable road users. This guide along with good engineering judgment represents a consistent, repeatable, and defensible method of determining speed limits.

When considering the 4.3km of CKL Road 36 between CECF and Snug Harbour Road using the TAC Speed Guidelines the recommended posted speed limit as determined by rural road characteristics is 80 km/h (Appendix D).

Options

In light of the School Board Policy which may consolidate bus stops, requiring students to walk should the regulatory speed be reduced to 60 km/h, the average collision rate, and the TAC recommended speed of 80 km/h, staff does not recommend that this section of CKL Road 36 have its speed reduced. However, due to the high concentration of school bus stops at or near the two curves it would be prudent to educate drivers, regardless that sightlines meet OTM requirements for school bus stops.

Option 1

Install standard school bus stop ahead signs with hazard length tab. This would be seen as School Bus Stop Hazard For 2 km which is not typically seen. Its novelty would add extra emphasis and make drivers aware of the bus stops; however it could also be confusing for some drivers. A flashing beacon would be able to be retrofitted at a later date should extra emphasis be required.

Should a beacon deemed to be necessary at a later date, a passive beacon is not recommended. Either a radio or otherwise controlled beacon or timed beacon should be installed as to not desensitize drivers to the beacon.



Option 2

Install a large information board with both text and the visual school bus stop ahead warning. This is in keeping with the spirit of the OTM, while adding a large amount of education and emphasis. To reduce confusion the text could read “CAUTION SCHOOL BUS STOP HAZARD NEXT 2KM”



As a result of the justification review carried out by staff, it is recommended that Option 2 be selected.

Other Alternatives Considered:

N/A

Financial/Operation Impacts:

The cost of the two signs plus installation would cost approximately \$3500.

Relationship of Recommendation(s) to the 2016-2019 Strategic Plan:

The City’s Strategic Plan outlines Council’s Vision of a Vibrant and Growing Economy, Quality of Life and a Healthy Environment.

Providing life safety and protection is a priority objective of the City.

Review of Accessibility Implications of Any Development or Policy:

N/A

Servicing Implications:

N/A

Consultations:

Patricia Hayward, Transportation Supervisor
Trillium Lakelands District School Board

Mike Farquhar, Supervisor
Engineering & Corporate Assets - Technical Services

Juan Rojas, Director
Engineering & Corporate Assets

Attachments:

Appendix A – Memo



ENG2019-006 -
Appendix A.pdf

Appendix B – Key Map



ENG2019-006 -
Appendix B.pdf

Appendix C – Stop Consolidation Map



ENG2019-006 -
Appendix C.pdf

Appendix D – Speed Reduction Warrant



ENG2019-006 -
Appendix D.pdf

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Department Head: Juan Rojas, Director of Engineering and Corporate

Assets

Department File: