

The Corporation of the City of Kawartha Lakes

Committee of the Whole Report

Report Number ENG2019-010

Date: May 7, 2019
Time: 1:00 p.m.
Place: Council Chambers

Ward Community Identifier: 2, 3, 4, 5, 6

Subject: Consolidated Stop Control Review on Various Roads

Author Name and Title: Joseph Kelly, Senior Engineering Tech

Recommendation(s):

That Report ENG2019-010 **Consolidated Stop Control Review on Various Roads**, be received;

That an all-way stop with flashing beacons be installed at the intersection of Sturgeon Road and Peace Road;

That an all-way stop be installed at the intersection of Francis Street East and Concession Road;

That an all-way stop be installed at the intersection of Stinson's Bay Road and Graham Drive;

That an all-way stop be installed at the intersection of Quaker Road and Taylor's Road;

That an all-way stop be installed at the intersection of Quaker Road and Eden Road;

That an all-way stop be installed at the intersection of Summer Drive and Ball Point Road;

That a stop control be installed on the south approach of Springdale Drive at Champlain Boulevard;

That a stop control be installed on Strawberry Street at Naylor Road;

That a stop control be installed on Lyles Line at Devitt's Road;

Department Head: _____

Financial/Legal/HR/Other: _____

Chief Administrative Officer: _____

That the necessary By-laws for the above recommendations be forwarded to council for adoption;

That the Mayor and Clerk be authorized to execute any documents and agreements required by the approval of this application/agreement/decision.

Background:

The Engineering – Technical Services Division reviews the appropriateness of current stop controls and the feasibility of installing new stop controls by way of request from residents, Public Works, and Council. This report represents the latest consolidated review of stop controls on various roads where action is recommended, and where a by-law for the stop or all-way stop is required.

Rationale:

The following intersections have no legal right-of-way control at this time. A single stop sign is recommended or in the case of Summer Drive and Ball Point Road, an all-way stop is recommended due to sightlines. (Maps can be seen in Appendix A):

Road 1	Road 2	Ward	Intersection Type	Current Control	Recommendation
Springdale Drive	Champlain Boulevard	5 (Lindsay)	3-way west facing T	No by-law, sign installed on south approach only	Pass by-law to make sign legal, perform all-way warrant when development complete
Strawberry Street	Naylor Road	3	3-way south facing T	None	Stop on Strawberry Street
Lyles Line	Devitt's Road	2	3-way east facing T	None	Stop on Lyles Line
Summer Drive	Ball Point Road	4	3-way south T	None	All-way

The following intersections have inappropriate right-of-way control. The current stop controls at these intersections contribute to increased conflict potential due to driver confusion for a stop control placed on an illogical approach or in the case of Sturgeon Road and Peace Road, due to the volume split reaching 50/50. An all-way stop is recommended at these locations (Maps can be seen in Appendix B):

Road 1	Road 2	Ward	Intersection Type	Current Control	Recommendation
Sturgeon Road	Peace Road	6	4-way	Stops at Peace Road approaches	All-way with beacons
Francis Street East	Concession Road	3	3-way east facing T	North approach only	All-way
Stinson's Bay Road	Graham Drive	2	3-way south facing T	East approach only	All-way
Quaker Road	Taylor's Road	4	3-way north facing T	West approach only	All-way
Quaker Road	Eden Road	4	3-way south facing T	East approach only	All-way

Comments on Warrants:

Typically, staff performs warrants to determine the need and type of stop controls. At intersections where no stop-control exists, Ontario Traffic Manual (OTM) recommends a yield sign or a stop sign where the use of a yield control would be unduly hazardous. Yield signs have historically seen limited use at T-intersection in CKL, therefore it is recommended stop signs be used.

CKL follows the OTM warrant requirements for all-way stops. None of the recommended all-way stops would meet the conditions of the warrant. All but Sturgeon Road and Peace Road are found to have the stop on an inappropriate approach.

Solutions for rectifying controls on an inappropriate approach include realigning the single stop control or installing an all-way stop regardless of the warrant. When realigning a stop control from one approach to another, it is required to have a transition period where an all-way stop would be installed. Due to the rural nature of these stops, it is recommended that the all-way stops be permanent or left in place longer than a typical transition period of 15 days, depending on how the all-way functions once installed.

The intersection of Sturgeon Road and Peace Road has been monitored for volumes and collisions as per the recommendation from report DEV2011-080 where it was found an all-way stop was not warranted at the time. Latest counts show an almost 50/50 split. There is elevated conflict potential when two arterial roads of equal volumes intersect, yet the right-of-way is granted to only one road. It is in using good engineering judgment to recognize the 50\50 split to be severe enough for arterial intersections to recommend an all-way stop regardless of a failing warrant.

Financial/Operation Impacts:

Estimated cost to bring the By-laws into effect including installation by staff

15 new stop signs and 19 all-way tabs

$\$450 \times 15 = \6750

Four flashing beacons

$\$2100 \times 4 = \8400

12 Temporary stop ahead signs with "new" sign above (may be in inventory from previous all-way stop installations)

Total Estimate: \$15150

\$6750 through Public Works general operating budget

\$8400 through RD 1911, Traffic Signals

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.

Consultations:

Attachments:

Appendix A –



ENG2019-010-Appendix A.pdf

Appendix B –



ENG2019-010-Appendix B.pdf

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Department Head: Juan Rojas, Director of Engineering & Corporate Assets

Department File: Engineering