HALDIMAND COUNTY

Report ECW-02-2019 All Way Stop Feasibility Review Tamarac Street, Dunnville



For Consideration by Council in Committee on August 27, 2019

OBJECTIVE:

To provide Council with information on the feasibility of installing all way stops at one or more intersections on Tamarac Street in Dunnville.

RECOMMENDATIONS:

- THAT Report ECW-02-2019 All Way Stop Feasibility Review Tamarac Street, Dunnville be received:
- 2. AND THAT no additional all way stop controls be installed on Tamarac Street as no intersections meet the All Way Stop Installation Warrant.

Respectfully submitted: Tyson Haedrich, M. Eng., P. Eng., General Manager of Engineering & Capital Works

Approved: Craig Manley, MCIP, RPP, Chief Administrative Officer

EXECUTIVE SUMMARY:

The Council approved All Way Stop Installation Warrant Policy provides staff with a consistent method of addressing requests for all way stops and helps manage public expectations. Staff have reviewed the intersections along Tamarac Street and no intersections meet the warrants for an all way stop.

In order to provide Council with further information regarding the implementation of all way stops staff have reviewed other factors and rated the suitability of each of the twelve Tamarac Street intersections for an all way stop installation.

BACKGROUND:

At the October 30, 2018 Council in Committee meeting, staff were given direction through the following resolution:

"THAT staff be directed to report back to Council in Committee regarding the installation of an all way stop at one or more intersections on Tamarac Street in Dunnville."

Under existing conditions Tamarac Street, classified as a collector road in the Dunnville Master Servicing Plan, runs north from the stop condition at Broad Street to Concession Street where it changes to Logan Road. There are no stop conditions along this section of Tamarac Street as the twelve intersecting side streets all have stop conditions at Tamarac Street.

The purpose of this report is to provide information to Council regarding staff's evaluation of implementing all way stop conditions on Tamarac Street between Broad Street and Concession Street.

ANALYSIS:

In order to evaluate the implementation of all way stop conditions on Tamarac Street, staff first reviewed each intersection using Haldimand County's All Way Stop Installation Warrant Policy No. 2007-03 (see Attachment 1). The policy provides criteria that must be met in order to consider an all way stop installation such as posted speeds, intersection layout and traffic volumes.

The first step of the warrant process is 'consideration' which is summarized as follows:

Part One - Consideration:

For a warrant to be considered, all of the following conditions must be satisfied:

- 1. A minimum posted speed of 50km/h.
- 2. The closest traffic control device is located at least 700 metres away for arterial intersection and
- 3. 250 metres away for secondary intersections.
- 4. The intersection has three or four legs with no more than two lanes on each leg. Each leg must be a minimum of 150 metres in length.
- 5. For arterial intersections the combined volume of vehicles and pedestrians entering from the minor street over eight hours must be at least 40% of the total volume.
- 6. For secondary intersections the combined volume of vehicles and pedestrians entering for the minor street over eight hours must be at least 25% of the total volume for a 3-way intersection or at least 35% of the total volume for a 4-way intersection.

The results of the Part One evaluation of the All Way Stop Installation Warrant are as follows:

Intersection	Existing Conditions	All Way Stop Warrant Part One Factors not Satisfied	Warranted
Concession Street/ Meadowbrook Court	Stop on Side Street	Part One - Consideration - Satisfied	No
Cleary Street	Stop on Side Street	5	No
Victoria Street/ Maplewood Court	Stop on Side Street	3, 5	No
Kneider Street	Stop on Side Street	5	No
Briar Glen Court	Stop on Side Street	3, 5	No
Gardiner Avenue	Stop on Side Street	5	No
Ramsey Drive	Stop on Side Street	Part One - Consideration - Satisfied	N/A
Fairview Avenue	Stop on Side Street	5	No
Park Avenue	Stop on Side Street	5	No
Cross Street	Stop on Side Street	3, 5	No
Forest Street	Stop on Side Street	3, 5	N/A
Alder Street	Stop on Side Street	2	No

Based on the All Way Stop Warrant Part One – Consideration, ten of the twelve intersections do not meet the conditions for an all way stop and therefore staff cannot recommend installing additional all way stop conditions at these locations on Tamarac Street.

As two of the intersections, Concession Street and Ramsey Drive, meet the Part One – Consideration conditions the evaluation for these intersections proceeds to the Part Two – Warrants analysis. The Part Two – Warrants analysis was completed with the following results:

Intersection	All Way Stop Warrant Part Two – Warrant Analysis	Warranted
Concession Street/ Meadowbrook Court	No Part Two Warrants satisfied	No
Ramsey Drive	No Part Two Warrants satisfied	No

Following the All Way Stop Warrant evaluation, staff reviewed the twelve intersections for other factors to rate their suitability for an all way stop control as follows:

Intersection	Comment	Suitability
Concession Street/ Meadowbrook Court	Relatively higher traffic count, classified as collector road	Medium
Cleary Street	Three way intersection, short street leg with low traffic	Low
Victoria Street/ Maplewood Court	Short street leg with low traffic/ short cul-de-sac	Low
Kneider Street	Three way intersection, short street leg with low traffic	Low
Briar Glen Court	Three way intersection, short cul-de-sac	Low
Gardiner Avenue	Three way intersection, close to potential all way stop location	Low
Ramsey Drive	Three way intersection, relatively higher traffic count, classified as collector road	Medium
Fairview Avenue	Three way intersection, close to potential all way stop location	Low
Park Avenue	Relatively low traffic on side street, short cul-de-sac on east leg	Low
Cross Street	Relatively low traffic on side street, short cul-de-sac on east leg	Low
Forest Street	Visibility on south approach	Low
Alder Street	Close to existing all way stop control, visibility on north approach	Low

Based on this analysis (see Attachment 2), only the intersections at Concession Street and Ramsey Drive are considered as having medium suitability for an all way stop. The rationale for a medium suitability at these two intersections is primarily based on traffic counts and the classification of these streets as collector roads in the Dunnville Master Servicing Plan.

It should be noted that in the analysis a holistic approach to the evaluation of the suitability of potential all way stops along Tamarac Street was taken by assuming the two medium suitability locations at

Concession Street and Ramsey Drive would provide an optimized length between stops and would in turn make the locations between these intersections less suitable for potential all way stop installations.

FINANCIAL/LEGAL IMPLICATIONS:

Not applicable.

STAKEHOLDER IMPACTS:

Not applicable.

REPORT IMPACTS:

Agreement: No

By-law: No

Budget Amendment: No

Policy: No

ATTACHMENTS:

1. All Way Stop Installation Warrant Policy No. 2007-03.

2. Tamarac Street - All Way Stop Suitability Map.