



City of North Bay Report to Council

Report No: IO-2023-008

Date: April 27, 2023

Originator: Megan Rochefort, P.Eng.

Business Unit:

Department:

Infrastructure and Operations

Engineering

Subject: All-way Stop at Massey Drive and Blair Street

Closed Session: yes ☐ no ☒

Recommendation

That Council authorize an amendment to Traffic By-law 2014-38 to modify the traffic control at the intersection of Massey Drive and Blair Street to All-way stop control, as set out in Report to Council No. IO-2023-008.

Background

Over the past few years, City staff has received requests to review the intersection of Massey Drive and Blair Street. In 2017, staff collected and reviewed traffic data at the intersection to determine if All-way stop control was warranted. The traffic data did not meet the warrants for All-way stop control at that time.

Near the end of 2022, staff received another request to review the intersections traffic control. Given that 5 years had passed since the last review, new traffic data was collected for a subsequent review.

For the basis of this report, Blair Street runs north to south, and Massey Drive runs east to west. Both roads are local roads in a residential neighborhood. Traffic on Massey Drive is controlled by stop signs, while traffic on Blair Street is free flowing.

Warrant Analysis:

A warrant analysis was undertaken following guidelines in Book 5 of the Ontario Traffic Manual (OTM). The OTM states that All-way stop controls should only be considered at the intersection of two relatively equal roadways

having similar traffic volume demand and operating characteristics. The traffic warrants for minor and local roads are for traffic volume and volume split, or for collision history.

For the volume split, the volume of the minor street must not be less than 30% of the total volume entering the intersection, which was met for the Massey Drive and Blair Street intersection. The minimum intersection volume warrant (the total number of vehicles using the intersection during peak hours) was not met for the required time period.

All-way stop conditions can be considered at intersections where there is a high accident frequency (an average of 3 collisions per year over a 3-year period). Only collisions susceptible to relief through an All-way stop are to be considered. During the period reviewed, there were only 2 reported collisions at the intersection that met the criteria for this warrant.

It was found that Massey Drive has a higher volume of traffic compared with Blair Street and that the stop control should be reversed. Based on this and that all-way stop control is partially warranted, implementation of all-way stop control is supported by the Engineering Department.

Financial/Legal Implications

There are no financial or legal implications.

Corporate Strategic Plan

- | | |
|--|---|
| <input type="checkbox"/> Natural North and Near | <input type="checkbox"/> Economic Prosperity |
| <input type="checkbox"/> Affordable Balanced Growth | <input checked="" type="checkbox"/> Spirited Safe Community |
| <input type="checkbox"/> Responsible and Responsive Government | |

Specific Objectives

- Work with community stakeholders to enhance safety and integration throughout the City.

Options Analysis

Options

Option 1: Authorize an amendment to Traffic By-law 2014-38 to modify the traffic control at the intersection of Massey Drive and Blair Street to All-way stop control, as set out in Report to Council No. IO-2023-008.

Option 2: Do not install an All-Way Stop at Massey Drive and Blair Street. This option is not recommended because All-way stop control at the intersection is supported by the Engineering Department.

Recommended Option

Option 1: Authorize an amendment to Traffic By-law 2014-38 to modify the traffic control at the intersection of Massey Drive and Blair Street to All-way stop control, as set out in Report to Council No. IO-2023-008.

Respectfully submitted,

Name: Megan Rochefort, P.Eng.

Title: Municipal Engineer

I concur with this report and recommendation

Name Adam Lacombe, P. Eng.

Title: Senior Capital Program Engineer

Name John Severino, P.Eng., MBA

Title: Chief Administrative Officer

Personnel designated for continuance:

Megan Rochefort, P.Eng.

Municipal Engineer