



Town of Newmarket
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Art West Avenue and Frederick Curran Lane All-way stop Request Staff Report to Council

Report Number: 2022-03

Department(s): Engineering Services

Author(s): M. Kryzanowski, Manager, Transportation Services

Meeting Date: January 31, 2022

Recommendations

1. That the report entitled Art West Avenue and Frederick Curran Lane intersection – All-way Stop Review dated January 31, 2022 be received; and,
2. That an all-way stop control not be implemented at this intersection; and,
3. That Staff be authorized and directed to do all things necessary to give effect to this resolution.

Purpose

The purpose of this report is to summarize the findings and recommendations of the all-way stop review for the Art West Avenue and Frederick Curran Lane All-Way Stop Control request.

Background

At its regular meeting of June 14, 2021, Town Council referred to staff the request to install an All-Way Stop at the Art West Avenue and Frederick Curran Lane intersection.

Discussion

Art West Avenue is a local residential road that intersects Woodspring Avenue and ends in a cul-de-sac. Frederick Curran Lane is a local residential road that intersects Art West Avenue and terminates in a cul-de-sac. The intersection under review is a 'T' intersection which would provide traffic control for 2 residential cul-de-sacs.

Staff proceeded by conducting a 5-hour traffic count at the intersection. The traffic count was performed in conformance with the Town's Transportation Management Policy, which requires that the number of vehicle turning movements and pedestrian activity be counted between 7:00 AM and 9:00 AM and between 3:00 PM and 6:00 PM.

The subject intersection was then analysed to determine if the All-Way Stop warrants were met. The All-Way Stop warrant consists of three (3) parts. The first part addresses the future signalization of intersections. This part does not apply, since traffic signals are not planned for the intersection.

The second part of the All-Way Stop warrant examines the frequency of recorded vehicle collisions in, or adjacent to, the intersection for the twelve (12) month period prior to the review. A search of our records indicated that no vehicle collisions occurred within the intersection during that time period.

The third part of the warrant deals with both traffic and pedestrian volumes on the major and minor streets of the intersection. Accordingly, staff calculated the total number of vehicles and pedestrians approaching the intersection on an hourly basis, and the average volume on the minor street (Frederick Curran Lane, in this case).

The results of the all-way stop warrant analysis confirmed that the all-approach volume reached only 31% of the required minimum warrant volume of 200, and the minor street volume was only 32% of the required minimum warrant volume of 100. Therefore, the intersection does not meet the warrants for an All-Way Stop control.

The technical reference documents based on research and experience indicate that All-Way Stop controls are to be used for right-of-way control, and they have been proven ineffective as speed control measures. Unwarranted All-Way Stops create additional issues, such as stop non-compliance, thereby posing a potential new danger to pedestrians. The compliance rate for motorists stopping at unwarranted All-Way Stop controlled intersections has been shown to be low as it has been observed that a number of vehicles will disobey the stop sign or attempt a rolling stop in light of very infrequent conflicting vehicles at the intersection. Another issue caused by unwarranted stop signs is an increase in speeds as drivers accelerate away from the intersection to make up for lost time.

Further, traffic volumes are unlikely to increase significantly since both streets end in a cul-de-sac abutting green space.

Conclusion

Upon review and analysis of current traffic and pedestrian volumes as well as traffic collision history in comparison to established threshold values for installation of all-way stop controls, it is recommended that an all-way stop control at the Art West Avenue and Frederick Curran Lane intersection not be implemented.

Business Plan and Strategic Plan Linkages

Well-planned and connected...strategically planning for the future to improve information, access and enhance travel to, from, and within Newmarket.

Consultation

There was not direct consultation with the preparation of this report.

Human Resource Considerations

None.

Budget Impact

None

Attachments

None

Approval

Sepideh Majdi, Acting Director, Engineering Services

Peter Noehammer, Commissioner, Development & Infrastructure Services

Contact

For more information or questions regarding this report, please contact Mark Kryzanowski, Manager, Transportation Services, at 905-895-5193 extension 2508 or mkryzanowski@newmarket.ca.