

Road Safety Review – Intersection of Paul Street, Laurier Street West, and Hollybrook Crescent

Presented To:	Operations Committee
Meeting Date:	May 21, 2024
Type:	Correspondence for Information Only
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Report Summary

This report presents the results of a road safety review for the intersection of Paul Street at Laurier Street West and Hollybrook Crescent.

Relationship to the Strategic Plan, Health Impact Assessment and Climate Action Plans

This report refers to operational matters.

Financial Implications

There are no financial implications associated with this report.

Background

On November 14, 2023, Operations Committee resolution OP2023-35 was passed stating:

WHEREAS in 2019 the City reassigned the right-of-way at the intersection of Paul Street at Laurier Street West and Hollybrook Crescent in order to implement a standard uniform system of traffic control;

AND WHEREAS when considering the reassignment of the right-of-way at that intersection, staff first reviewed whether an all-way stop was warranted, and a turning movement count was completed at the intersection on July 11, 2019.

AND WHEREAS in 2019 applying the data to the City's minimum vehicle volume warrant indicated that the total vehicle volume met only 47% of the minimum volume requirements and a review of the City's collision data from 2015 to July of 2019 revealed that there were no reported collisions at the intersection during this period;

AND WHEREAS in July of 2019 the City had only recently assumed Hollybrook Crescent;

AND WHEREAS residents in the area have expressed concerns about the safety of pedestrians, cyclists, and drivers at that intersection;

AND WHEREAS no review of that intersection has occurred since 2019 despite significant growth in the area leading to increased traffic;

THEREFORE BE IT RESOLVED that the City of Greater Sudbury directs staff to undertake a review/traffic study of the intersection of Paul Street at Laurier Street West and Hollybrook Crescent and to provide the results of their findings together with any recommendations to the Operations Committee during the 2nd quarter of 2024.

The intersection of Paul Street at Laurier Street West and Hollybrook Crescent, consists of three roads. Paul Street, which is north of the intersection, Hollybrook Crescent is west of the intersection, and Laurier Street West is south and east of the intersection. The intersection is stop-controlled on the east-west direction, on Hollybrook Crescent and Laurier Street West.

Paul Street is a collector road constructed to a rural standard with a width of 7 metres. It is 0.5 Km long and starts at St Agnes in the north and becomes Laurier Street West, south of the intersection with Hollybrook Crescent.

Hollybrook Crescent is a local road built to an urban standard and intersects Paul Street on the south and west. Hollybrook Crescent was built as part of the Creekside Subdivision and there are plans to connect the road to St. Agnes Street to the north (See Figure 1 below).

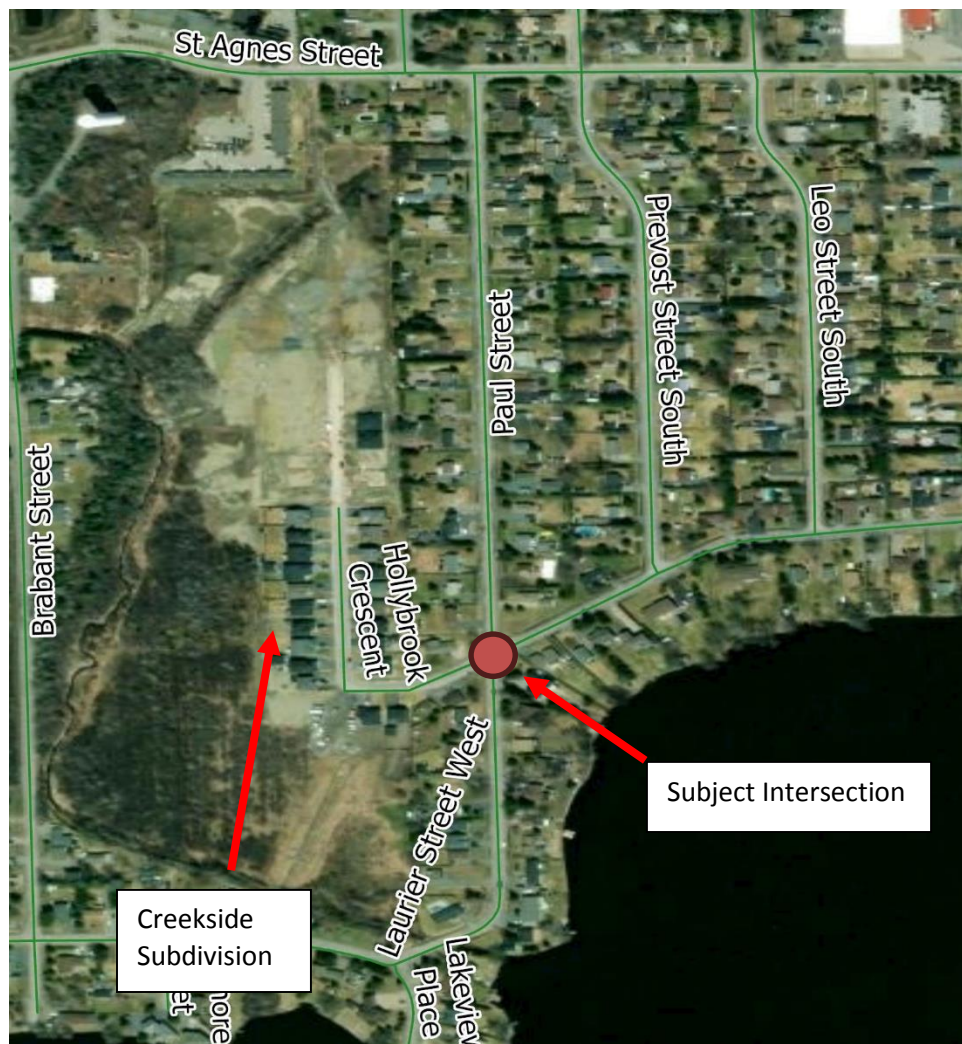


Figure 1: Subject Area

In 2019 the City assumed Hollybrook Crescent. City staff reviewed the intersection as requested by area residents due to the existing non-standard system of traffic control.

The analysis determined that an all-way stop was not warranted based on the vehicle volume and collision history. Staff recommended that the intersection be controlled with a stop sign facing eastbound traffic on Hollybrook Crescent and westbound traffic on Laurier Street West (see Figure 2 below).

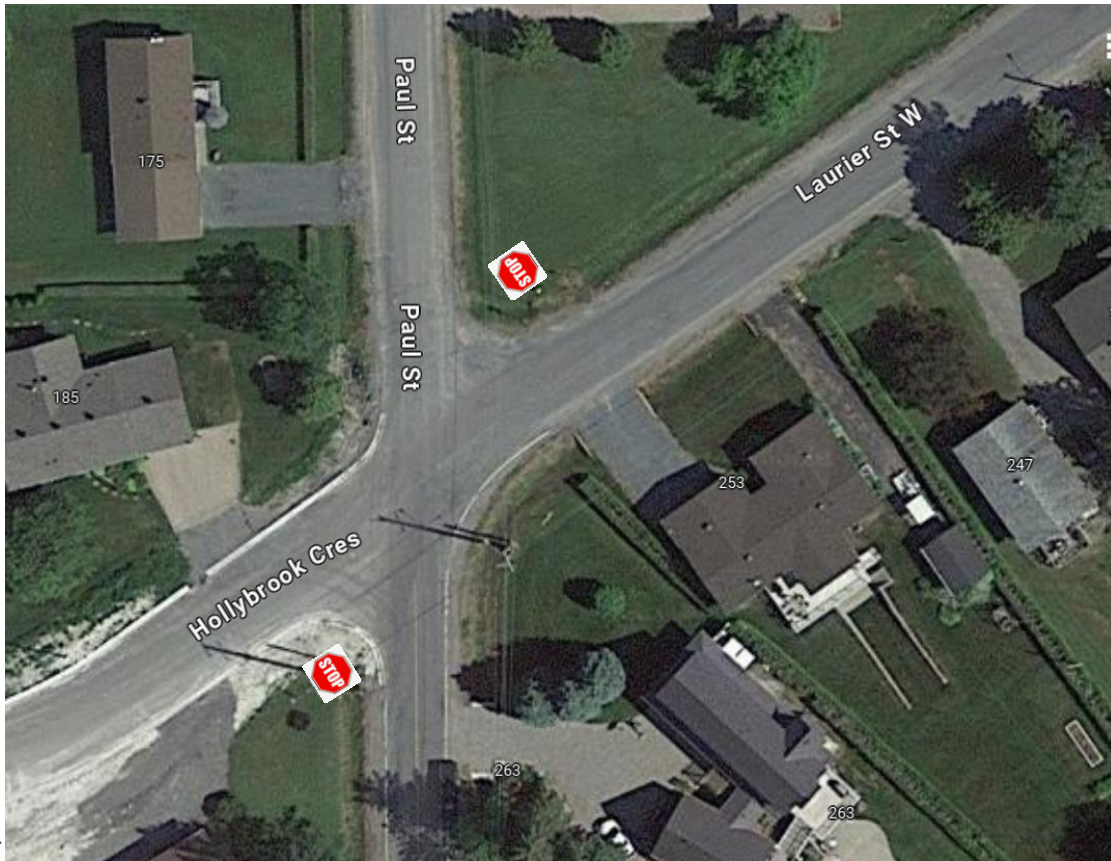


Figure 2: Intersection Control

Data Collection and Analysis

As part of the traffic study, Transportation and Innovation staff completed an updated all-way stop warrant and analyzed the sightlines approaching the intersection.

In 2008, City Council adopted an All-Way Stop policy for the City of Greater Sudbury. The policy is based on a jurisdictional scan of Ontario municipalities and reduces the requirements to have all-way stops installed. The purpose of an all-way stop is to control right-of-way at an intersection. They are not to be used as a speed control device. When all-way stops are implemented at unwarranted locations, there are several negative effects:

- Driver frustration,
- Non-compliance at stop signs,
- Increases travel speed (to make up for lost time),
- Increases idling and air pollution,
- Increases fuel consumption,
- Increases the potential for rear-end collisions,
- Creates a false sense of pedestrian/cyclist safety.

On November 16, 2023, staff conducted a turning movement count at this intersection and applied the data to the all-way stop policy. As shown in Appendix A, the total vehicle volume from all approaches at this specific intersection meets only 42% of the minimum vehicle volume required to warrant an all-way stop.

A review of the collision history from 2021 to 2023 year-to-date revealed that no collisions occurred at the intersection. The all-way stop warrant for a local and collector road requires there be a minimum of two and three collisions per year respectively over a three-year period to qualify for the installation of an all-way stop.

The sightline assessment determined the sightlines are unobstructed at the intersection on all approaches. The minimum sight distance of 85 meters, based on the design speed of 60km/h, was met on all approaches, with values greater than 90 meters.

Conclusion

Based on the analysis of the vehicle volumes, collision history and sightlines at the intersection, the current stop control at the intersection is appropriate.

Resources Cited

Ontario Traffic Manual, Book 5 – Regulatory Signs, March 2000.

Operation Committee Report dated December 2, 2019, titled “Right of Way Reassignment - Paul Street at Laurier Street West and Hollybrook Crescent”:

<https://pub-greatersudbury.escribemeetings.com/filestream.ashx?documentid=1574>