

Subject: Port Robinson Road Traffic Study Report

Recommendation:

BE IT RESOLVED THAT Council receive Report #2023-0156 – Public Works, for information.

Background:

At its regular meeting of January 30, 2023, Council endorsed the following motion:

WHEREAS the Council for the Town of Pelham is committed to the safety of the community;

AND WHEREAS Council for the Town of Pelham is concerned that the speed and flow of vehicular traffic on Port Robinson Road, particularly between Station Street and Rice Road, may have the capacity to create safety hazards;

AND WHEREAS Council for the Town of Pelham desires to mitigate this hazard by regulating the speed of vehicular traffic on Port Robinson Road, particularly between Station Street and Rice Road, and to consider various potential traffic calming methods for this purpose;

NOW THEREFORE BE IT RESOLVED THAT Council for the Town of Pelham direct staff to investigate the need for potential traffic calming methods to regulate and reduce the speed of vehicular traffic on Port Robinson Road, particularly between Station Street and Rice Road;

AND THAT Council direct staff to undertake a speed study to collect speed data and to undertake a warrant study for a stop controlled intersection at Lametti Drive and Port Robinson Road;

AND THAT Council direct staff to report on the speed and traffic volume data and complete a traffic calming point assessment to determine if Port Robinson Road meets the requirements for implementing traffic calming initiatives and to report back to Council by June, 2023;

AND THAT Council for the Town of Pelham direct staff to promote the Town's Neighborhood Traffic Management Policy S801-02 and information on road safety on the Town of Pelham website and social media.

This report serves to inform Council of the results and recommendations from the Traffic Study completed by CIMA+ Engineering on Port Robinson Road between Station Street and Rice Road, in the Town of Pelham.

Analysis:

The Town of Pelham retained CIMA+ engineering consultants to perform a number of traffic studies along Port Robinson Road, between Station Street and Rice Road including:

- 1) A speed and volume study on Port Robinson Road with recommendations for traffic calming based on the road's classification;
- 2) A stop control study at the intersection of Port Robinson Road and Lametti Drive;
- 3) A stop control study at the proposed intersection of Port Robinson Road and Klager Avenue.

The report received from CIMA+ is attached to this report as Appendix A.

This section of Port Robinson Road was designed and constructed as a two-lane urban cross-section with raised barrier curbs, storm sewers, and sidewalks running the entire length on either side of the roadway. The posted speed limit is 50km/h. The width of the cross-section is 9.7 metres. White edge line pavement markings narrow the travel lanes to 6.8 metres, resulting in 3.4-metre travel lanes. Typical urban travel lanes in Ontario range in width between 3m and 3.3m for posted speeds of 50km/h or less, and between 3m and 3.5m for posted speeds of 60km/h or more.

Speed and Volume Study

The daily traffic volume along Port Robinson Road (both directions) is in the range of 4,000 vehicles, which exhibits the characteristics of a collector roadway in accordance with the Transportation Association of Canada's "Geometric Design Guide for Canadian Roads" and is classified as a Class 4 road under the Minimum Maintenance Standards of Ontario Regulation 239/02, enacted under the *Municipal Act, 2001*, S.O. 2001, c.25, as amended.

Collector roads are low-to-moderate-capacity roadways whose intended function is to move traffic efficiently from local residential streets to arterial roads, as well as to provide access to adjacent properties.

Average speeds and particularly the 85th percentile speeds are higher in the eastbound direction as compared to westbound traffic. The average speeds are 58km/h eastbound and 53km/h westbound. The blended average speed is 55.5km/h. The 85th percentile speeds are 68.5km/h eastbound and 59.7km/h westbound. The blended 85th percentile speed is 64.1km/h.

The 85th percentile is the speed at which 85 percent of all vehicles are observed to travel under free-flowing conditions past a monitored point. Because it is the speed at which 85 percent of drivers feel comfortable driving, this metric was historically used to set the speed limit on roads and highways.

Staff utilized the speed and volume data to complete the Traffic Calming Point Assessment to determine if Port Robinson Road qualifies for Traffic Calming in accordance with Policy S801.02 Neighborhood Traffic Management. The Traffic Calming Point Assessment is attached this report as Appendix B.

As per the policy, a Collector Road must receive a minimum of 52 points to meet the requirements for traffic calming. The section of Port Robinson Road between Station Street and Rice Road received 40 points which disqualify the road section for further traffic calming planning or implementation. It is important to note that the eastbound 85th percentile was used instead of the intended blended value, which would have resulted in receiving only 30 points, according to the assessment.

Regardless of the point assessment, the CIMA+ report provides a number of options for permanent traffic calming features within this road section. These options include ladder crosswalks and lane-narrowing road markings, driving speed feedback signage, curb extensions, and raised median islands. Vertical center-line treatment was also identified as an option however with present staffing resources, Town staff are unable to provide the required level of maintenance.

This section of Port Robinson Road has yet to receive the top layer of asphalt which is scheduled to be completed within the next 2 to 3 years, as residential buildout nears completion. Permanent traffic calming features such as curb extensions or raised median islands, which would not impact bicycle lanes, may be designed and properly budgeted for at Council's direction.

Stop Control Warrants – Lametti Drive and Klager Avenue

Stop control warrant studies were undertaken at the intersection of Port Robinson Road and Lametti Drive and Port Robinson Road at the future Klager Avenue location. The analysis of both locations indicates that neither intersection is suitable for an all-way stop control intersection.

Council should be aware that unwarranted stop control intersections are not supported for the purpose of traffic calming by Town of Pelham Policy S801-02, the

Ministry of Transportation, the Transportation Association of Canada, the Ontario Traffic Council, the Ontario Provincial Police, the Niagara Regional Police, and the Canadian Institute for Traffic Engineers. Unwarranted stop control intersections lead to increased mid-block speeds due to driver frustration, increased motor vehicle collisions with both vehicles and pedestrians and general non-compliance to stop signs. Unwarranted stop controls increase the wear and tear on vehicles and increase the consumption of fossil fuels and emissions.

Financial Considerations:

There are no financial considerations as this report is for information only, however, Council could direct staff to add the additional traffic calming features to Port Robinson Road in future operational and capital budgets.

Alternatives Reviewed:

No alternatives were reviewed as this section of the road did not score the minimum number of points required to continue the traffic calming process.

Strategic Plan Relationship: Infrastructure Investment and Renewal

Maintaining a safe and reliable road network is critical to the Town of Pelham to ensure the safe and efficient movement of all forms of transportation.

Consultation:

CIMA+ provided traffic consulting services.

Other Pertinent Reports/Attachments:

Appendix A – CIMA+ Port Robinson Road Traffic Studies

Appendix B – Traffic Calming Point Assessment

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