

Report

Report No. OCS 2023-06	To: Council	Prepared By: Shawn Binns
Meeting Date: May 10, 2023	Subject: Line 15 North Traffic Calming – Pilot Project Review	Motion # _____
Roll #:		R.M.S. File #:

Recommendation(s):	Requires Action <input checked="" type="checkbox"/>	For Information Only <input type="checkbox"/>
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It is recommended that:

1. Report No. OCS 2023-06 be received;
2. That Council support the recommended changes to remove the directional closure and re-configure the traffic calming as outlined in Report OCS2023-06 for implementation as soon as feasible;
3. That staff bring forward the requisite amendments to Traffic By-laws for Council's ratification;
4. That staff continue to review effectiveness of the revised measures and report back to Council through the monthly project update report;
5. That staff continue to liaise with the City of Orillia to address growth and traffic planning impacts and report back to Council prior to the end of 2023.

Background:

As identified in the *2019 Oro-Medonte Road Network Plan – Road Systems & Operations Report*, travel speeds and traffic volumes along Line 15 North between Bass Lake Sideroad to Highway 12 have become an increasing concern.

This section of road was originally intended to serve a local function, providing direct access to several homes and side streets as well as the Bass Lake beach area and Provincial Park. As the population and community around the area has grown and changed, the roadway has evolved into a collector roadway routing traffic between Old Barrie Road and Highway 12 via Line 15N with traffic volumes upwards of 4300 vehicles per day (2019 traffic counts).

The traffic volumes are expected to increase with the continued development of the West Orillia area. Furthermore, as volumes on Highway 12 increase, motorists divert to Line 15 North to avoid Highway congestion.

The beach area and associated on-street parking experiences relatively high recreational demand during the summer months which further compounds traffic safety concerns.

In response to the above, a number of traffic calming initiatives have been piloted over the past several years. The initial pilot program, consisting of temporary speed cushions, painting of edge lines and dragon’s teeth through the beach area along with the use of dynamic radar signs and targeted traffic enforcement have had a marginal effect on travel speeds and traffic volume. In light of this, more restrictive measures were reviewed in 2022. At its meeting of May 11, 2022, Council passed Motion No. C220511-6 providing direction to implement a northbound directional closure at Bass Lake Sideroad and additional traffic calming in 2022 for a one-year pilot program.

Background Reports

[OCS2022-10](#)

[OCS2022-13](#)

The traffic calming consisting of chicanes, gating (flexible delineators) and a north bound directional closure at Bass Lake Sideroad was implemented mid-August 2022 and was supplemented with targeted police enforcement and dynamic radar signs (**Appendix 1**). Traffic calming was removed for winter operations while the directional closure remained in effect.

The intent of this report is to provide an assessment of the pilot project and provide recommendations for Council’s consideration.

Analysis:

Traffic data was collected at various stages of the pilot project using the Township’s Blackcat Traffic Radar which allows for accurate undetectable collection of comprehensive traffic data. A summary is depicted in *Table 1*.

TRAFFIC DATA COLLECTED	2019 July 9-27	2022 April 28 -May 24	2022 August 17-24 (Traffic Calming Only)	2022 August 24 - September 9 (Dir. closure and calming)	2023 Feb 22-March 6 (Dir. Closure only)
Volume (Average Daily Traffic)	4281	3252	2438	1616	1031
Speed (85th percentile)	59	53.4	53.9	55.4	54.9
Truck Traffic (% of volume)	n/a	9%	5%	4%	4%
Directional Closure Non-Compliance (Avg. Vehicles per day)	n/a	n/a	n/a	n/a	94

Table 1: Summary of traffic information collected

Summary of observations/findings

- A submission was made to Google maps / Waze as map editors – Updated to reflect restrictions which may have contributed to a reduction in truck traffic.
- Targeted paid duty OPP traffic enforcement occurred on several occasions and had little impact on compliance with directional closure. OPP enforcement capability is limited amidst other priorities across the Township.
- Space limitations for placement of chicanes created issues for the safety of mail delivery. Canada Post will not deliver mail if the existing configuration remains.
- Despite advisory signage, the chicanes presented confusion for drivers (i.e. the majority of drivers failed to understand which direction of travel had right of way despite signage)
- Emergency services have reported safety concerns regarding non-compliance with directional closure and chicanes, as well as impacts on response time for volunteer firefighters.
- Complaints from residents on Hepinstall Place, Orsi and Sunset Drive as well as Bass Lake Side Road, that traffic volume and truck traffic have increased since the installation of the closure. The Township has received a petition from a number of residents on Hepinstall Place.
- Traffic volume appears to decrease slightly in the winter months likely due to vehicles remaining on highway or county roads given higher winter maintenance service levels.
- The directional closure has not been well received by the general public (outside of those residents along the segment) and has created animosity and “us vs. them” situation.
- The narrow road width and characteristics of the roadway present limited opportunities for improving the roadway for motorists and pedestrians.

Travel speeds

- Traffic calming has been effective at the location of installation but had little impact on overall travel speeds. A slight increase of 1-2km/h was seen with the addition of traffic calming which is indicative of motorists speeding up after traffic calming implements.
- There was no impact on speed following the seasonal removal of chicanes and lane constrictions. This could be a result of motorists understanding traffic calmed neighbourhood and/or seasonality.

Traffic Volume

- Average Daily Traffic (ADT) Traffic volume decreased from 4281 in July 2019 to 3252 in May 2022 (24%); likely the result of the completion of Hwy 12 projects.
- Traffic volume reduced by approx. 25% following installation of traffic calming (chicanes and lane constrictions)
- Following implementation of the directional closure, traffic volumes were reduced by 50% from pre traffic calmed conditions and 33% from traffic calmed conditions.

Truck Traffic

- Traffic calming/mapping adjustment (Google Maps/Waze) was effective at reducing heavy trucks by over 40%. The directional closure did not have an impact on % of trucks in overall volume but would have decreased proportionally with overall traffic.

Chicanes

- The chicane placement resulted in implications for Canada Post mail delivery as well as confusion with motorists (right of way/yield) resulting in safety concerns. There are no other options for chicane placement due to road characteristics.

Traffic Gates (Flexible Delineators)

- Were successful in reducing travel speed at the location of installation however, vehicles may be accelerating quicker following the installation.
- Did require ongoing maintenance due to vehicles damaging the installation.

Directional Closure

- Was effective at reducing traffic volume.
- High degree of non-compliance. Approximately 100 non-compliant vehicles per day and limited ability to enforce has created a significant hazard at the Line 15N – Bass Lake Side Road Intersection that requires intervention.
- No feasible short-term measures to make intersection improvements.

Other considerations

The Westridge-Trailside Plan in the City of Orillia (**Appendix 2**) includes plans for the addition of 1,300 new residential units, commercial space and lands for schools. The plan includes build out in proposed phases as follows:

Year	Total Units
2025	107
2027	248
2030	138
2032	63
2035	295
2038	205
2042	24
2047	227

In 2021, the Township provided comments through the City of Orillia planning process requesting that the Traffic Impact Study provide additional analysis of traffic impacts and infrastructure requirements in the segment of Line 15 North from Highway 12 to Old Barrie Road, in addition to reviewing Bass Lake Side Road from Line 15 North to Atlantis Drive. An updated traffic impact study was completed in February 2023 and is currently under review by Township and City of Orillia staff.

The growth of West Orillia will further compound traffic on Line 15N as well as other Township roads such as Bass Lake Sideroad, Hepinstall Place, Orsi Drive and Sunset Crescent, and will be subject of coordinated planning between the Township and the City of Orillia.

Recommended approach

The objective of the continuation of the pilot project on Line 15N has been to improve traffic safety. Traffic calming measures have worked well in achieving this objective. While the directional closure has been effective at reducing traffic volume, it has created a significant hazard at the Line 15N – Bass Lake Sideroad Intersection through a high degree of non-compliance. Considering these factors and a thorough review of the 2022 pilot project, the following changes are recommended:

1. Discontinuation of the directional closure;
2. Reconfiguration of traffic calming to remove chicanes and replace with additional vertical gates and speed humps;
3. Extend the Community Safety Zone to year-round application;
4. Reconfiguration of permit parking area and installation of planters;
5. Implementation of pedestrian cross over and all-way stop at Barr Avenue intersection;
6. Installation of additional pedestrian signage;
7. Work with OPP for continued targeted enforcement;
8. Continue discussion and traffic planning with the City of Orillia;
9. Continue with monitoring and collection of data to make adjustments as necessary.

Removal of the directional closure will result in additional traffic volume. However, it is anticipated the increase in volume will be less than the pre-traffic calmed conditions due to proposed traffic calming measures. Proposed traffic calming measures will be effective in reducing travel speeds and addressing traffic safety associated with increased volume.

A graphical illustration of the recommended traffic calming configuration is provided as **Appendix 3**.

Financial / Legal Implications / Risk Management:

A budget allocation of \$48,000 is included in the 2023 capital budget to address Line 15 traffic calming initiatives. The proposed measures will be addressed within this allocation. Anticipated costs for the proposed 2023 changes will be finalized following the direction of Council and reported back through the Monthly Project Update report.

The proposed measures address traffic safety on the segment of Line 15N between Hwy 12 and Bass Lake Sideroad, as well as the intersection of Line 15N and Bass Lake Side Road.

Policies/Legislation:

Ontario Highway Traffic Act

Corporate Strategic Goals:

Prepare for Our Future
Foster Safe and Inclusive Community Living & Business Growth
Modernize Township Services

Consultations

An information session was held on April 25, 2023 at the Orillia Fish and Game Conservation Club for residents along this segment of Line 15 and adjacent side streets. The purpose of the information session was to share background, findings, and recommendations on the pilot project prior to finalization of this staff report. Approximately 30 people were in attendance.

Feedback from residents along this segment, as well as feedback from the extended community has been solicited and included for Council's consideration.

Additional consultations:

- Ontario Provincial Police
- Oro-Medonte Fire and Emergency Services
- Superintendent, Bass Lake Provincial Park
- Director, Development Services
- Manager, Operations
- Manager, Infrastructure and Capital Projects

Attachments:

Appendix 1 – Current (August 2022) Traffic Calming Configuration
Appendix 2 – Westridge-Trailside Plan Orillia
Appendix 3 – Proposed revised configuration from implementation in 2023

Conclusion:

In August 2022, traffic calming consisting of chicanes, gating (flexible delineators) and a directional closure was implemented to address traffic safety on the segment of Line 15N between Hwy 12 and Bass Lake Sideroad as a one-year pilot project.

The objective of the continuation of the pilot project on Line 15N has been to improve traffic safety. Traffic calming measures have worked well in achieving this however, following the assessment of the pilot project over the past 8 months, modifications are necessary to address safety and operational issues emanating from the review of the pilot project.

Respectfully submitted:

Shawn Binns, PBDM, MBA
Director, Operations and Community Services

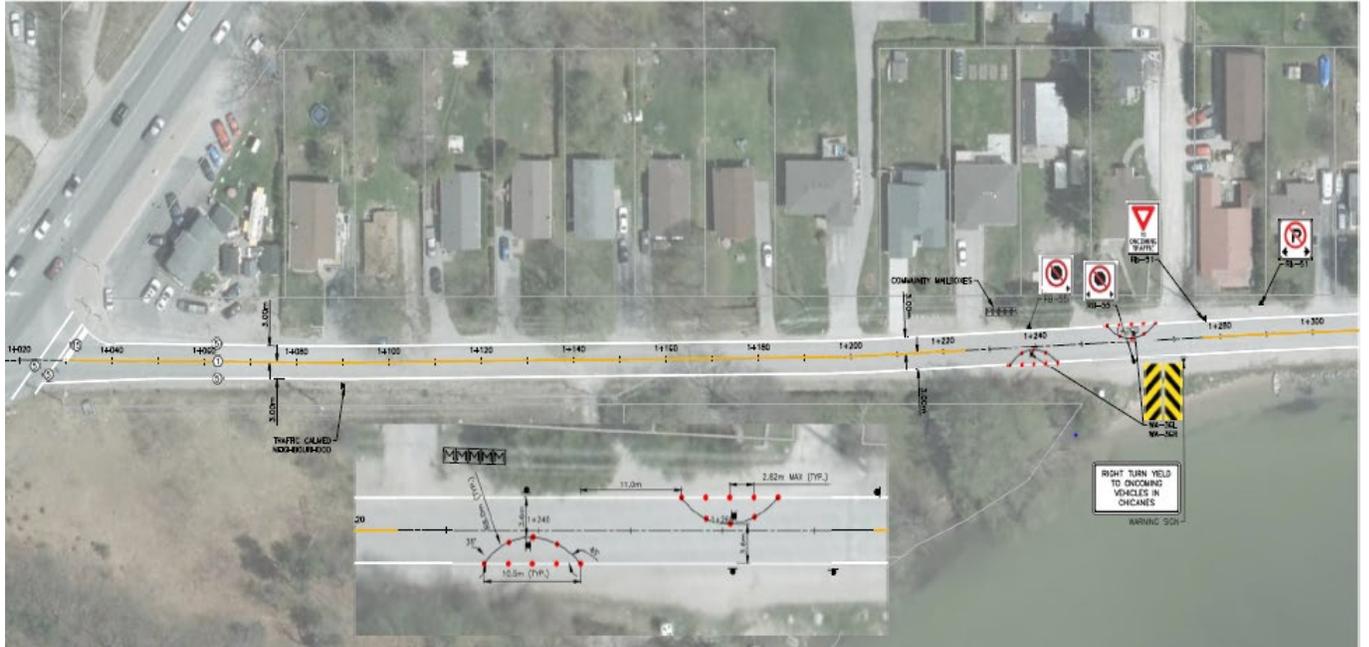
Approvals:

Robin Dunn, CAO

Date:

May 5, 2023

Appendix 1 – Current (August 2022) Traffic Calming Configuration



Appendix #2 – Westridge-Trailside Plan Orillia



SOURCE: SIMCOE MAPS, 2020

WEST RIDGE - TRAILSIDE NEIGHBOURHOOD PLAN CITY OF ORILLIA

-  SUBJECT LANDS
-  CITY OF ORILLIA BOUNDARY

Appendix 3 – Proposed revised configuration from implementation in 2023





 Vertical Gates

 All Way Stop – W Crosswalk

 Seasonal Speed Humps