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Report 2024-137

Report Title: Traffic Calming in Hamlets Update

Committee Name: Public Works

Committee Meeting Date: November 4, 2024

Prepared by: Chad McCormick
Engineering Technician
Public Works

Reviewed by: Peter Deshane
Manager of Infrastructure
Public Works

Carol Coleman
Associate Director of Engineering
Public Works

Denise Marshall
Director
Public Works

Approved by: Jennifer Moore, CAO

Council Meeting Date: November 20, 2024

Strategic Plan Priorities: Innovate for Service Excellence
 Ignite Economic Opportunity
 Foster a Thriving Community
 Propel Sustainable Growth
 Champion a Vibrant Future

Information Report

That the Public Works Committee, receive Report 2024-137 'Traffic Calming in Hamlets Update' for information; and

Further That the Committee recommend that County Council receive this report for information."

Purpose

The purpose of this report is to provide an update and information regarding the traffic calming measures that have been and will continue to be implemented by County staff based on Council's previous direction. This approach aims to provide consistency with respect to traffic calming throughout the County.

Background

Staff are contacted regularly by Northumberland residents from across the County regarding concerns with the operating speeds of vehicles. To address the concerns, the Transportation Master Plan (TMP) 2017 recommended that the County develop a Hamlet Entry Treatment Plan in order to mitigate speeding and other unsafe behaviors of drivers. Staff have since implemented entry treatments and traffic calming measures in a number of Hamlets throughout the County over the past seven years aiming to improve public safety for all road users.

Traffic calming is a combination of measures such as physical design and other methods that aim to improve safety for motorists, car drivers, pedestrians and cyclists. Traffic calming is a tool for road authorities use to combat speeding and other unsafe behaviors of drivers. These tools, when implemented, have proven to alter driver behavior and to reduce speeding which in turn reduces the potential of negative impacts resulting from speeding or other unsafe behaviors. This is done by employing the use of different methods such as physical barriers, narrowing of roads, visual awareness, education, and enforcement.

There are many misunderstandings regarding what constitutes "traffic calming". If properly engineered traffic calming solutions are not utilized, traffic calming measures will not be effective.

The following list (not a comprehensive list) of traffic calming methods are considered as viable options to implement as traffic calming measures:

- Police Enforcement
- Community Safety Zones
- Radar speed display signs
- Lane narrowing via pavement markings
- Curb extensions
- Centre medians
- Flexible delineator posts

Other measures such as speed humps and speed cushions can be installed as forms of traffic calming but are typically installed on local roadways with lower operating speeds and lower traffic volumes.

From 2017 to 2020 the County implemented a pilot study that included several phases that took place in Cold Springs on County Road 18. The study was used to determine the best method for reducing vehicle speed through various traffic calming measures. In November of 2020 the pilot was completed and reported to County Council in report #2020-113 and for reference is included as an attachment to this report.

The phases of the pilot project are briefly summarized below.

Phase 1 – Pavement Markings and Oversized Signs

The first phase consisted of pavement markings and replacement of all regulatory speed limit signage with oversized speed limit signs. An aerial photo titled, “2018 Cold Springs” is attached to this report showing the configuration of the pavement markings for Phase 1.

Phase 2 – Extended Pavement Markings and Radar Speed Signs

Phase 2 extended the length of the pavement markings with the addition of white bars in the middle of the driving lane to make them more visible and included the implementation of temporary radar speed signs. An aerial photo titled, “2023 Cold Springs” is attached to this report showing the configuration of the pavement markings.

Phase 3 – Flexible Bollards

The final phase included the addition of flexible bollards that were placed along the white edge line and on the centerline of the road to create a pinch-point that would cause cars to slow down. Several complaints were received following the installation of the bollards regarding safety and potential damage to vehicles.

Pilot Study Results

Based on the data collected, feedback from various community groups, feedback from the OPP and feedback from the local residents, the most effective traffic calming measures were the combination of radar speed signs, oversized regulatory signage and pavement markings.

Consultations

The County continues to communicate with the residents of the County, the cycling community and the general public who use County roads.

The Agricultural community raised concerns regarding the use of physical measures that may be considered for traffic calming measures. The concerns were based on the size and width of some farm machinery and not being able to navigate the devices without putting themselves, their equipment or other drivers at risk.

Discussions with member municipalities have made it clear that they are sharing a similar experience and are struggling to achieve and maintain slower operating speeds on their roads.

Staff have and will continue to provide OPP with speed data that is collected throughout the County. This will allow OPP to have a better understanding of resident concerns and identify where there may be opportunities to increase enforcement efforts.

Legislative Authority / Risk Considerations

Enforcement of the posted speed limits on County Roads continues to be the responsibility of the OPP. The County will continue to work with the OPP to help identify areas that have higher speeding rates and request increased enforcement where it may be necessary in a particular area. Information and data collected will continue to be passed along to the OPP for enforcement considerations.

Discussion / Options

The traffic calming measures recommended in the conclusion of report #2020-113 have been implemented at various approaches to the Hamlets of Hastings, Roseneath, Baltimore and

Warkworth over the past few years. The initial results have shown similar impacts to the operating speeds with an average reduction around 4 km/h.

In 2024 speed data was collected using a black cat radar device to monitor the effectiveness of the traffic calming measures implemented during the pilot project. The device was installed at the same location as it was during the pilot and the results collected are detailed below that show even lower speeds than previously recorded and included in report #2020-113.

2020 NB Baseline Speed (km/h) at End of Pilot Project	2020 SB Baseline Speed (km/h) at End of Pilot Project
71.5	75.0
2024 NB Speed (km/h)	2024 SB Speed (km/h)
71.0	73.0
Change in NB Speeds	Change in SB Speeds
-0.5	-2.0

These results confirm that the traffic calming measures implemented are having a lasting effect over a longer period of time.

Given the positive results, County staff have continued with the following strategies for traffic calming initiatives in various Hamlets and communities:

1. Implementing Hamlet treatments including pavement markings, oversized and monitoring speeds periodically with the black cat radar device.
2. Purchasing additional radar speed signs to be utilized on a rotating schedule for hamlets, as well as at any complaint locations that staff deem necessary. Due to the visual feedback of the radar speed signs, when initially installed they typically reduce drivers speed by 4 to 5 km/h.
3. Implementing a Speeding Awareness Campaign, also known as Slow Your Roll, involves seven billboard signs being relocated every 4 weeks to a new location within each municipality. Each location is chosen based on areas of known speeding concerns and high traffic areas.
4. Continuing to review speed limits based on the Canadian Guidelines for Establishing Posted Speed Limits and amending the By-law to prescribe appropriate maximum rates of speed for County Roads. In 2024, the changes were focused on creating more effective speed transitions for traffic and increasing the compliance when vehicles are entering various hamlets and lower speed limit areas.
5. Enhancing Community Safety Zones with increased signage, the installation of flashing beacons and lower rates of speed prescribed during high volume times.

All these measures combined have proven to maintain a positive impact on reducing speeds and improving safety on County roads.

It should be noted that further physical traffic calming measures, such as flexible bollards and speed humps, are not recommended as the risk posed to the travelling public remains high. This is due to the variety of vehicles (emergency vehicles, tractor trailers, farm equipment etc.)

that utilize County roads, and the range of speeds on County roads. Physical measures are more practical and successful when implemented on local lower volume and lower speed roads.

As part of future capital projects, during the design process staff will look to identify and consider any appropriate traffic calming opportunities and any physical measures that can be implemented at the time of reconstruction.

Financial Impact

Financial impacts associated with the outlined traffic calming approach include staff and equipment time involved in the coordination and installation of the traffic calming measures and are covered under the annual operating budget.

Member Municipality Impacts

Speeding is an on-going issue throughout the County on both County and member municipality roads. This information will be communicated with the member municipalities in an effort to create consistent approaches and solutions to traffic calming across the County.

Conclusion / Outcomes

Staff recommend continuing with the traffic calming approach that has been implemented since the completion of the pilot project which includes the combination of pavement markings, oversized signage and radar speed signs. This approach has resulted in a speed reductions and has improved other unsafe behaviors of drivers.

As part of future capital projects, during the design process staff will look to identify and consider any appropriate traffic calming opportunities and any physical measures that can be implemented at the time of reconstruction.

OPP will continue to be communicated with and made aware of changes and concerns in order to allow the opportunity to implement enhanced enforcement should it be determined necessary by the OPP.

Attachments

1. Report 2024-137 ATTACH 1 'Radar Speed Sign Rotation Map'
2. Report 2024-137 ATTACH 2 'Hamlet Treatment Layout'
3. Report 2024-137 ATTACH 3 'Aerial Photo – 2018 Cold Springs'
4. Report 2024-137 ATTACH 4 'Aerial Photo – 2023 Cold Springs'
5. Report 2024-137 ATTACH 5 'Report 2020-113 TWF – Hamlet Treatment Pilot Project Recommendations Cold Springs'