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Date **May 25, 2023** **Report No. 2023-348**

To Chair and Members
Vision Zero Road Safety Committee

From Mark Jacklyn
Director of Operational Services, Public Works Commission

1.0 Type of Report

Consent Item	<input type="checkbox"/>
Item For Consideration	<input checked="" type="checkbox"/>

2.0 Topic Banbury Road – Traffic Calming [Financial Impact – None]

3.0 Recommendation

- A. THAT report no. 2023-348 regarding Banbury Road – Traffic Calming BE RECEIVED; and
- B. THAT the recommended by-law changes as presented in Appendix “C” and further described in report no. 2023-348, Banbury Road – Traffic Calming BE APPROVED; and
- C. THAT a capital project to implement the Banbury Road traffic calming recommendations BE CONSIDERED in the 2024 capital budget; and
- D. THAT the necessary by-law BE PRESENTED to City Council for ADOPTION.

4.0 Background

Over the past several years, Staff and Ward 4 Councillors have received the following road safety concerns along Banbury Road:

- Vehicles speeding

- Motorists failing to come to a complete stop at stop controls
- Need for improved visibility for pedestrians at crosswalks

Staff analyzed the full length of the corridor to address the concerns noted above.

5.0 Analysis

Banbury Road is classified as a local roadway with a posted speed limit of 40 km/h. Speed studies revealed an 85th percentile speed of 51 km/h; which is considered high for street having a posted speed limit of 40 km/h. The 85th percentile speed is the speed in which 85% of motorists are travelling at or below and is the industry standard for assessing vehicle speed operations.

A review of the collision history along Banbury Road in the past five (5) years revealed 21 collisions. Four (4) turning movement collisions, four (4) rear-end collisions, two (2) angle collisions, and one (1) sideswipe collision, were reported. Ten (10) of the collisions involved a single vehicle colliding with a parked car or fixed object which indicates speeding.

A traffic calming neighbourhood opinion survey, dated January 11, 2023, attached as Appendix "A" to this report, was delivered to 140 residents along Banbury Road. Staff wanted to solicit feedback from residents to determine if there is support for traffic calming in the neighbourhood. 26 responses were received, with the majority, 18 (72%), supporting the implementation of traffic calming on Banbury Road. The main traffic concerns identified were:

- Speeding, especially near Banbury Heights Public School; and
- Disapproval of existing narrowing / curb extensions on the north end of Banbury Road

Based on the analysis of traffic studies and comments noted above, staff recommended the following traffic safety measures:

5.1 Banbury Heights Public School Recommendations

1. Reduce speed limit in front of school to 30 km/h between Coulbeck Road and Jasper Street.
2. Identify the school zone as a Community Safety Zone between Coulbeck Road and Jasper Street.
3. Convert existing school crossing to a Pedestrian Crossover (PXO) with a raised crosswalk to provide pedestrian connectivity and reduce speeding.

5.2 Coulbeck Road Intersection Recommendation

1. Install a Pedestrian Crossover (PXO) with a raised crosswalk to provide pedestrian connectivity and reduce speeding.
2. Crosswalk pavement markings to enhance pedestrian crossing on Coulbeck Road.

5.3 Gillin Road (south) Intersection Recommendation

1. Install a Pedestrian Crossover (PXO) with a raised crosswalk to provide pedestrian connectivity and reduce speeding.
2. Crosswalk pavement markings to enhance pedestrian crossing on Gillin Road.

5.4 Gillin Road (north) Intersection Recommendation

1. Install speed cushions to encourage slower travel speed in school zone
2. Crosswalk pavement markings to enhance pedestrian crossing on Gillin Road.

5.5 Banbury Road Recommendations

Paint crosswalks on the side streets at the following intersections:

- Arbor Drive/ Enfield Crescent
- Enfield Crescent
- Gaitwin Street
- Jasper Street
- Normandy Place
- Orkney Place

The proposed plan was delivered to residents in a second traffic calming recommendations letter, dated March 29, 2023, attached as Appendix “B” to this report.

Staff didn’t receive any feedback from the second traffic calming letter.

The Brantford Fire Department suggests that traffic calming options be limited to the following by road classifications:

- Arterial – No traffic calming measures
- Collector – Horizontal deflection or horizontal narrowing
- Local – Vertical or horizontal traffic calming measures

If vertical deflection measures are to be installed, the design and installation of such should be in a manner that causes the least impact to responding emergency vehicles.

Brantford Transit staff note vertical deflection measures will have an impact on Brantford Transit services. Although it is recognized that the recommendations provide benefits in terms of traffic safety, the measures can have negative impacts on transit services. Reduced speeds and increased frequency or duration of stops impacts their ability to maintain adequate schedule adherence or on time performance, this in turn affects the quality of service provided to transit users.

6.0 Financial Implications

The work to be completed in 2023 will be funded from the Operational Services operating budget, at an estimated cost of \$1,300. A summary of the costs are outlined below:

- \$800 Maximum Speed and Community Safety Zone signs
- \$1,000 Crosswalk pavement markings

Staff will submit a capital project for consideration as part of the 2024 capital budget deliberations, at an estimated cost of \$65,000. A summary of the costs are outlined below:

- \$20,000 Banbury Road at Coulbeck Road PXO with raised crosswalk
- \$20,000 Banbury Road in front of Banbury Height School PXO with raised crosswalk
- \$20,000 Banbury Road at Gillin Road (south intersection) PXO with raised crosswalk
- \$5,000 Banbury Road at Gillin Road (north intersection) speed cushion

It is important to note that enhancements, such as those noted in this report, will have a future impact on maintenance costs associated with asphalt repair, signs and pavement markings.

7.0 Climate and Environmental Implications

The construction activities of traffic control and calming measures will temporarily increase greenhouse gas (GHG) emissions but since the construction variables are unknown at this time, GHG emissions cannot be quantified. However, traffic calming measures will overall reduce vehicle emissions since decreased speed leads to fewer GHG emissions. Additionally, traffic control and calming measures creates a safer environment for walking and cycling which encourages active transportation as well as improves the local air quality.

8.0 Conclusion

The recommended traffic safety measures, address many of the resident concerns, and create a safer neighbourhood environment, that promotes active and healthy living for all road users.


Mark Jacklyn

Director of Operational Services, Public Works Commission

Prepared By:
Krystian Biernat, Transportation Technologist

Attachments

Appendix "A" – Banbury Road Traffic Calming Neighbourhood Opinion Survey dated January 11, 2023

Appendix B" – Banbury Road Traffic Calming Recommendations letter dated March 29, 2023

Appendix "C" - Banbury Road traffic control by-law amendments

In adopting this report, is a by-law or agreement required? If so, it should be referenced in the recommendation section.

By-law required ☒ yes ☐ no

Agreement(s) or other documents to be signed by Mayor and/or City Clerk ☐ yes ☒ no

Is the necessary by-law or agreement being sent concurrently to Council? ☒ yes ☐ no

Appendix "A"



January 11, 2023

Banbury Road Traffic Calming Neighbourhood Opinion Survey
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Dear Residents:

As a result of a request to Public Works, staff is reviewing the traffic operations on Banbury Road. In conformance with the City of Brantford's Traffic Calming Policy, the street warrants traffic calming measures based on the current operating speed of the roadway (50 km/h). For traffic calming to be successful, the process requires the participation of the affected residents. The results of this survey will determine whether the evaluation process will continue.

Traffic calming is the installation of physical measures to improve safety for all road users: motorists, pedestrians and cyclists. Traffic calming measures are commonly requested to address speeding and other unsafe behaviours of drivers in residential neighbourhoods. Some common traffic calming examples are:

- Raised Pedestrian Crossover – elevates the level of a pedestrian crossing so pedestrians are more visible to approaching drivers and encourage slower travel speed;
- Speed Hump – raised pavement areas placed across the street to encourage slower vehicular travel speed;
- Curb Extensions - extends the sidewalk and curb which reduces the pedestrian crossing distance. They narrow the street, improving the ability of pedestrians and drivers to see each other, as well as reduce the time that pedestrians are in the street;
- Centre Island - a raised island located along the centerline of a street that narrows the travel lanes at that location. Typically placed at the entrance to a neighbourhood, they create an attractive gateway.

Please note, in accordance with Provincial guidelines and warrants, all-way stop controls are utilized to control the right-of-way at intersections with similar opposing volumes. The use of unwarranted stop signs results in non-stopping compliance issues and increase safety concerns particularly for pedestrians. As outlined in the City of Brantford's Traffic Calming Policy, stop signs must not be used as a speed control device or a traffic calming tool.

Staff is seeking input regarding the traffic concerns you may have on Banbury Road, and welcome your feedback regarding consideration of traffic calming.

The following two (2) alternatives are available for your consideration:

- ☐ Support consideration of traffic calming
- ☐ DO NOT Support traffic calming (Status quo)

Please identify your preference for one of these alternatives, and provide feedback by Friday, January 27, 2023 to Krystian Biernat, Transportation Technologist, directly at 519-759-4150 Ext. 5189 or E-mail at kbiernat@brantford.ca. All feedback received will be reported to your Ward 5 Councillors for a decision on this request. Personal information will be kept confidential.

Yours truly,



Rob Smith, C.E.T.,
Supervisor of Transportation Services

CC: Councillor R. Carpenter
Councillor L. Hunt
B. Hutchings, CAO
I. Hans, P. Eng., General Manager, Public Works Commission
M. Jacklyn, Director of Operational Services
D. Ferguson, C.E.T., Manager of Traffic Services

Appendix “B”



March 29, 2023

Banbury Road Traffic Calming Recommendations

Dear Residents:

In response to the traffic calming neighbourhood opinion survey dated January 11, 2023, Transportation Services staff received informative feedback regarding the need to improve road safety on Banbury Road. The common safety concerns identified are as follows:

- Vehicles speeding;
- Motorists failing to come to a complete stop at stop controls;
- Need for improved visibility of pedestrian crosswalks

Given the number of concerns identified along Banbury Road, staff took a holistic approach and analyzed the full length of the road to address each concern noted above and provide motorists with consistent traffic control.

Based on the road safety review, which identified operating speeds in excess of the posted speed limit and a high volume of pedestrian activity, staff will be recommending to the Vision Zero Road Safety Committee the following traffic safety measures to address concerns along Banbury Road:

- Reduce speed limit to 30 km/h within the Banbury Heights Public School zone and identify the zone as a Community Safety Zone
- Pedestrian Crossover (PXO) with raised crosswalk (speed hump) to provide pedestrian connectivity and reduce speeding at:
 - Coulbeck Road
 - In front of Banbury Heights Public School to also enhance existing school crossing
 - Gillin Road (south intersection)
- Speed cushions to encourage slower travel speed in school zone:
 - Gillin Road (north intersection)
- Crosswalk pavement markings to enhance pedestrian crosswalks at:
 - Arbor Drive / Enfield Crescent
 - Coulbeck Road
 - Enfield Crescent
 - Gaitwin Street
 - Gillin Road (north intersection)

- Jasper Street
- Normandy Place
- Orkney Place
- Gillin Road (south intersection)

Please contact Krystian Biemat, Transportation Technologist at 519-759-4150 Ext. 5189 or e-mail at kbiemat@brantford.ca by Friday, April 7, 2023 if you have any questions or comments regarding the proposed traffic calming measures.

Yours truly,



Rob Smith, C.E.T.
Supervisor of Transportation Services

CC: Councillor C. Carpenter
Councillor L. Hunt
I. Hans, P. Eng., General Manager, Public Works Commission
M. Jacklyn, Director of Operational Services
D. Ferguson, C.E.T., Manager of Traffic Services

Appendix “C”

- a) RECOMMEND that Schedule “8” of Traffic By-law 37-83 which pertains to “Speed Regulations” BE REPEALED to provide the following:

<u>COLUMN 1</u>	<u>COLUMN 2</u>	<u>COLUMN 3</u>
Banbury Road By-law 135-2019	From Brantwood Park Road (south intersection) to Brantwood Park Road (north intersection)	40 km/hour

- b) RECOMMEND that Schedule “8” of Traffic By-law 37-83 which pertains to “Speed Regulations” BE AMENDED to provide the following:

<u>COLUMN 1</u>	<u>COLUMN 2</u>	<u>COLUMN 3</u>
Banbury Road	From Brantwood Park Road (south intersection) to Jasper Street	40 km/hour
Banbury Road	From Brantwood Park Road (north intersection) to Coulbeck Road	40 km/hour
Banbury Road	From Coulbeck Road to Jasper Street	30 km/hour

- c) RECOMMEND that Schedule “16” of Traffic By-law 37-83 which pertains to “Pedestrian Crossovers” BE AMENDED to provide the following:

<u>STREET</u>	<u>LOCATION</u>
Banbury Road	At the north side of the intersection with Coulbeck Road
Banbury Road	25 metres south of Gaitwin Street
Banbury Road	At the west side of the intersection with Gillin Road

- d) RECOMMEND that Schedule “17” of Traffic By-law 37-83 which pertains to “Community Safety Zones” BE AMENDED to provide the following:

<u>STREET</u>	<u>LOCATION</u>
Banbury Road	Coulbeck Road to Jasper Street