

Region of Waterloo
Transportation Services
Transportation

To: Planning and Works Committee

Meeting Date: February 7, 2023

Report Title: Review of the Posted Speed Limit on New Dundee Road (Regional Road 12), from 400 metres west of Robert Ferrie Drive to 550 metres west of Homer Watson Boulevard (Regional Road 28), in the City of Kitchener

1. Recommendation:

That the Regional Municipality of Waterloo lower the posted speed limit on New Dundee Road from 80 km/h to 60 km/h from 400 metres west of Robert Ferrie Drive to 550 metres west of Homer Watson Boulevard at the completion of the proposed roundabout at Robert Ferrie Drive currently planned for 2024, in the City of Kitchener, as outlined in Report TSD-TRP-23-001, dated February 7, 2023.

2. Purpose / Issue:

The purpose of this report is to provide recommendations on the current and future speed limit on New Dundee Road from 550 metres west of Homer Watson Boulevard through the Robert Ferrie intersection. In response to some resident concerns about current high operating speeds on New Dundee Road, Regional Council, at the April 12, 2022 Planning and Works Committee meeting, requested staff to consider reducing the existing posted speed limit on New Dundee Road from 80 km/h to 60 km/h in advance of planned construction of a roundabout at Robert Ferrie Drive in 2024.

3. Strategic Plan:

This initiative meets Strategic Objective 2.4 - Improve safety for all users – drivers, cyclists, pedestrians, horse and buggies.

4. Report Highlights:

- A survey of 12,663 vehicles shows that the average travel speed on New Dundee Road is 80 km/h within the posted 80 km/h zone, indicating that motorists are largely adhering to the existing 80 km/h posted speed limit;
- The existing 80 km/h speed limit is aligned with the Region's practice for setting speed limits which is likely to result in optimal safety and fewer

collisions;

- It is anticipated that changing the posted speed limit ahead of the New Dundee Road reconstruction will have minimal impact on reducing average travel speeds; and
- It is anticipated that the planned construction of a roundabout at Robert Ferrie Drive, along with planned improvements to the New Dundee Road alignment through Pinnacle Drive to Executive Place, will have a natural traffic calming effect on travel speeds in both directions along New Dundee Road, supporting a posted speed limit change at the completion of the planned construction.

5. Background:

5.1 Planned 2024 New Dundee Road Construction

In 2024, the Region's 2023 DRAFT 10-year Capital Program includes the construction of a roundabout on New Dundee Road at Robert Ferrie Drive, replacing the existing temporary traffic signals. Upon reviewing staff's Project Approval Report presented at the April 12, 2022 Planning and Works Committee, Regional Council requested that staff consider reducing the posted speed limit along New Dundee Road ahead of the planned road works in 2024.

5.2 Review of Existing Posted Speed Limit

A travel speed survey undertaken in April 2022 along New Dundee Road 300 m east of Robert Ferrie Drive shows that the average travel speed of motorists is 80 km/h within the posted 80 km/h speed zone in both directions.

The current Regional practice is to set the posted speed limit at or about the average speed because this is most likely to produce a uniformly moving traffic stream. Traffic flowing at uniform speed results in safety benefits and fewer expected collisions. With uniform speed, drivers are less impatient, pass less often, and are less likely to follow too closely, which reduces both head-on and rear-end collisions. The posting of an appropriate speed limit also simplifies the work of enforcement officers because most of the traffic is moving at or near the posted speed. With an appropriate speed limit, blatant speeders are easily spotted, safe drivers are not penalized, and police officers are not asked to enforce and defend posted speed limits which generally produce very low driver compliance.

In general, it is very difficult to control speed. Staff experience shows that simply installing lower speed limit signs has minimal effect in slowing down traffic. In the case of New Dundee Road, there are no visual cues or physical roadway features to effectively advise drivers that they need to slow down. There are farms and fields along

both sides of New Dundee Road with infrequent intersections and private accesses. This type of roadway environment does not provide visual cues to drivers that they should reduce their speed and this lack of physical features renders it very difficult to control driver speeds.

Research has shown that most drivers travel at a speed they consider to be comfortable in relation to the surrounding roadway environment, regardless of posted speed limits. Studies, undertaken “before” and “after” revised speed limits have been posted in the Region of Waterloo, have shown that there are no significant changes in average travel speeds following the posting of the signs. Research elsewhere indicates similar results.

5.3 Planned Traffic Calming

It is anticipated that the planned construction of a roundabout at Robert Ferrie Drive would have a natural traffic calming effect on travel speeds in both directions approaching the roundabout. Additional elements of reconstruction of New Dundee Road will be undertaken east of the future Robert Ferrie Drive roundabout, including modifications to the horizontal curve between Pinnacle Drive and Executive Place which will help to influence lower travel speeds through that section. For this reason, it is the recommendation of staff that the posted speed limit on New Dundee Road be reduced to 60 km/h from 400 metres west of Robert Ferrie Drive to 550 metres west of Homer Watson Boulevard at the completion of the construction of the roundabout and New Dundee Road improvements when physical features will be in place to help achieve the lower travel speeds. This would result in a continuous 60 km/h speed limit from 400 metres west of Robert Ferrie Drive to 550 metres west of Homer Watson Boulevard and be in alignment with the Region’s practice for setting speed limits.

Reducing the speed limit along New Dundee Road to 60 km/h also legally permits the Region to install Level 2 Pedestrian Crossovers for pedestrians on all entries and exits of the roundabout. Appendix A includes Report TES-DCS-22-09 outlining the details of the construction. Appendix B shows the existing and proposed speed limit changes.

6. Area Municipality Communication and Public/Stakeholder Engagement:

City of Kitchener staff are in agreement with the information and recommendation provided in this report.

Delegations who have previously expressed interest in the New Dundee Road at Robert Ferrie Drive Roundabout Project, and who were present at the April 12, 2022 Committee meeting have been provided notification of the upcoming staff recommendation around posted speed limits along New Dundee Road.

7. Financial Implications:

NIL

8. Conclusion / Next Steps:

NIL

9. Attachments / Links:

Appendix A: Project Approval Report for a Roundabout at New Dundee Road and Robert Ferrie Drive (DOCS 3869167 & 3983038)

Appendix B: Existing and Proposed Speed Limits

Prepared By: Satinderjit Bahia, Engineering Technologist, Traffic

Darryl Spencer, Manager, Transportation Engineering

Reviewed By: Steve van De Keere, Director, Transportation Engineering

Approved By: Mathieu Goetzke, Commissioner, Transportation Services