

Town of Riverview

COUNCIL REPORT FORM



Presented to: Riverview Town Council

Date: August 11, 2025

Subject: Motion on Increasing Roundabout Adoption in the Town of Riverview

Motion For Council's Consideration

Whereas roundabouts reduce the likelihood and severity of collisions and injury, and

Whereas roundabouts reduce speeds in areas where there are straight stretches of road, and

Whereas traffic flows more smoothly when there are roundabouts as opposed to stop signs or traffic lights, and

Whereas it is more expensive to convert existing intersections into roundabouts than it is to build them when the streets are designed and constructed,

Be it resolved that Town Council request Town Staff to investigate and recommend ways to increase the number of roundabouts in new subdivisions, through by-law or regulation, and

Be it further resolved that Town Staff provide recommendations on any other ways to increase the number of roundabouts in the Town of Riverview.

Background

The Town of Riverview has constructed three roundabouts in recent years: one roundabout at a new intersection at Bridgedale/Runnymede, and two retrofitted intersections at Bridgedale/Gunningsville and Pinewood/Pine Glen. These roundabouts have improved traffic flow while also improving safety for motorists, cyclists, and pedestrians.

However, as council particularly noted during the construction of the Pinewood/Pine Glen roundabout, the costs of converting existing intersections into roundabouts can be high: utilities need to be relocated, and land may need to be purchased. Converting an intersection generally requires that land that was previously paved (centre of intersection) becomes landscaped, while landscaped land (on the corners) becomes paved.

Given the benefits of roundabouts for safety, traffic flow, and traffic calming, it would be good policy for the Town to put the onus on developers of new subdivisions to build roundabouts when new neighbourhoods are being constructed. The costs would be lower, and the town would acquire the asset once the street is completed.

Road Safety

Roundabouts are proven to improve traffic safety, reduce vehicular speeds, and enhance traffic flow. According to the Insurance Institute for Highway Safety (IIHS), converting intersections from traffic signals or stop signs to roundabouts can reduce injury crashes by 75% and fatal crashes by 90%.¹ This improvement in safety is due to the reduction in conflict points and slower vehicle speeds in roundabout configurations.

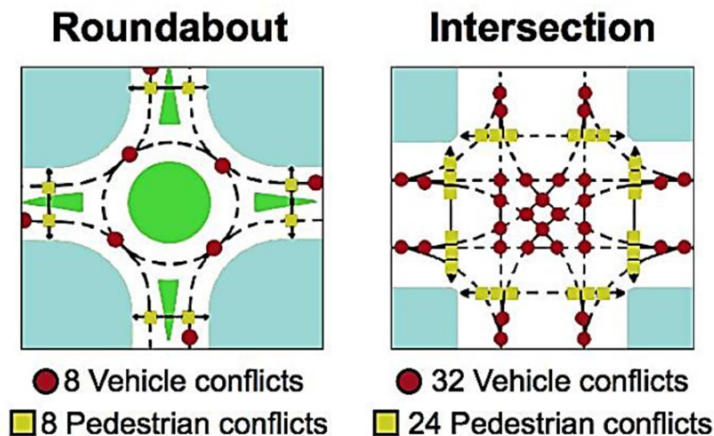


Figure 1: Roundabouts reduce the number of conflict points with both vehicles and pedestrians

Beyond safety, roundabouts serve as effective traffic-calming measures in residential neighborhoods, especially in straight-stretch areas where speeding tends to occur. Municipalities across Canada have begun incorporating roundabouts into new developments to address resident concerns about safety and traffic flow. The Town of Okotoks, Alberta, for example, has included multiple roundabouts in its residential planning strategy with positive community feedback and measurable speed reductions.

While Riverview has constructed several larger roundabouts with landscaping features at their centres, many communities have also constructed mini roundabouts in residential neighbourhoods instead of four-way stops. These kinds of roundabouts have smaller diameters and traversable islands: they improve traffic flow, reduce the severity of collisions, and act as traffic calming measures. They are also much cheaper than landscaped roundabouts.²

In the [Council Report Form outlining the potential options for the Pinewood/Pine Glen intersection](#), Director Ouellet outlined many of the benefits of roundabouts, in case Council is interested in reviewing them.³

¹ Insurance Institute for Highway Safety. 'Roundabouts'. <https://www.iihs.org/topics/roundabouts>

² North American Cities and Transit Agencies (NACTO). https://nacto.org/wp-content/uploads/fhwasa10007_MiniRoundabouts.pdf

³ Council Report Form: Pine Glen – Pinewood Intersection, Comparative Analysis of Signalized Intersection vs. Roundabout vs. All-Way Stop. February 2021. <https://townofriverview-pub.escribemeetings.com/filestream.ashx?DocumentId=13901>



Figure 2: Examples of mini roundabouts. Note that these can be constructed without necessarily needing to acquire land at the four corners of the intersection

Jurisdictions such as Waterloo, Ontario, have become Canadian leaders in roundabout adoption. Waterloo Region now has over 140 roundabouts, and a 2018 study showed a 51% reduction in injury collisions at those locations. They have additionally created a Roundabout Coordination Committee that reviews all proposed roundabout locations and recommends the intersection type that is most appropriate for that location.⁴ Their success story highlights the long-term value and public safety benefits of roundabout-forward planning.

Cost

Cost is an important factor. Estimates from the U.S. Federal Highway Administration (FHWA) suggest that retrofitting an existing intersection can cost between 2-4 times as much as it would to build a roundabout from scratch.⁵ Thus, proactive inclusion of roundabouts in new subdivisions is both fiscally responsible and functionally effective. Certainly, this was the case in Riverview, as the final cost of the Pinewood/Pine Glen roundabout was nearly \$2 million.⁶

Conclusion

Given the safety benefits of roundabouts, it is desirable to have more of them in Riverview. A change in our road design specifications for new subdivisions would allow them to be built more cheaply. Furthermore, adopting mini roundabouts at select locations in residential neighbourhoods would be cheaper than full roundabouts and would additionally help with traffic calming.

⁴ Region of Waterloo. 'Region of Waterloo- TAC –Canadian Roundabouts Design Guide

'https://www.regionofwaterloo.ca/en/doing-business/resources/Documents/TAC_-_Canadian_Roundabout_Guide_-_ROW_Design_Exceptions.pdf

⁵ Federal Highway Administration (FHWA). 'Roundabouts: An Informational Guide'. <https://safety.fhwa.dot.gov>

⁶ Minutes of Special Council Meeting of 28 March 2022. <https://townofriverview-pub.escribemeetings.com/FileStream.ashx?DocumentId=14722>

I recommend that council direct Town Staff to investigate and recommend options to increase the number of roundabouts in the Town of Riverview, both for new subdivisions and for existing intersections. Based on staff recommendations, council can then decide whether to adopt any of the recommended measures.

CONSIDERATIONS

Legal: Amendments to development by-laws or planning standards may be required.

Financial: Minimal for new subdivisions; long-term cost savings compared to retrofitting intersections.

Policy: N/A

Stakeholders: Town Planning and Development, Engineering, Public Works, Developers, Residents

Strategic Plan: Supports safety, sustainability, and livability in neighbourhood design

Interdepartmental Consultation: Planning, Engineering, Public Works, and the Fire departments should collaborate.

Communication Plan: Community engagement may be necessary if policy or by-law changes are proposed.

RECOMMENDATION

That Council endorse the motion to explore and promote increased use of roundabouts in new subdivisions and the Town more broadly.

Prepared by: Councillor Heath Johnson