City of Peterborough

To:	**Members of the General Committee**
From:	**Blair Nelson, Commissioner, Infrastructure, Planning and Growth Management**
Meeting Date:	**February 17, 2026**
Report:	**Armour Road and Parkhill Road Intersection Information Report, Report IPGENG26-002**

Subject

A report to provide Council with an update on the Armour Road and Parkhill Road intersection review, and the planned short-term improvements to reduce the number of turning movement and angle collisions.

Recommendation

That the General Committee approve the recommendations outlined in Report IPGENG26-002, dated February 17, 2026, of the Commissioner of Infrastructure, Planning and Growth Management as follows:

That Council receive Report IPGENG26-002 dated February 17, 2026, for information.

Executive Summary

- In 2024, staff initiated a traffic operations review on Armour Road from Parkhill Road and Nassau Mills Road. The review focused on current traffic control measures, vehicle speed and volume, road geometry and sightlines, pavement condition, historical collision data, pedestrian activity and crossing opportunities, and the effects of future development.

- Report IPGENG25-017 presented to Council on June 23, 2025, recommended staff review short-term solutions to address the pattern of turning movement collisions and angle collisions at the intersection of Parkhill Road and Armour Road.

- In the fall of 2026, staff will implement changes to the existing lane configuration on Parkhill Road to introduce dedicated left-turn and right-turn lanes in the eastbound and westbound directions, and a dedicated right-turn lane for eastbound traffic. Staff will also reconstruct the southwest corner of the intersection to reduce the pedestrian crossing distance and the northeast curbline to extend the westbound left and through-right lane storage.

Background

Traffic and Parking Services initiated a comprehensive traffic operations review of the Armour Road corridor in 2024. The report (IPGENG25-017) presented to Council in June of 2025 highlighted the number of turning movement collisions and angle collisions at the intersection of Parkhill Road and Armour Road. The report recommended further examination by city staff to explore possible short-term solutions to reduce the likelihood of these types of collisions.

The Transportation Master Plan (TMP) identifies several future improvements for this intersection: new left-turn lanes for eastbound, westbound, and southbound traffic, plus a southbound right-turn lane. The full reconstruction of the intersection will require property acquisition on both the north and south legs of the intersection to accommodate the new turn lanes. The reconstruction of this intersection has been identified in the 10-year planning horizon (2023 – 2032).

The existing lane configuration (Figure 1) consists of two through lanes in each of the eastbound and westbound directions, a single lane in the southbound direction, and a left-turn lane and a through lane in the northbound direction.

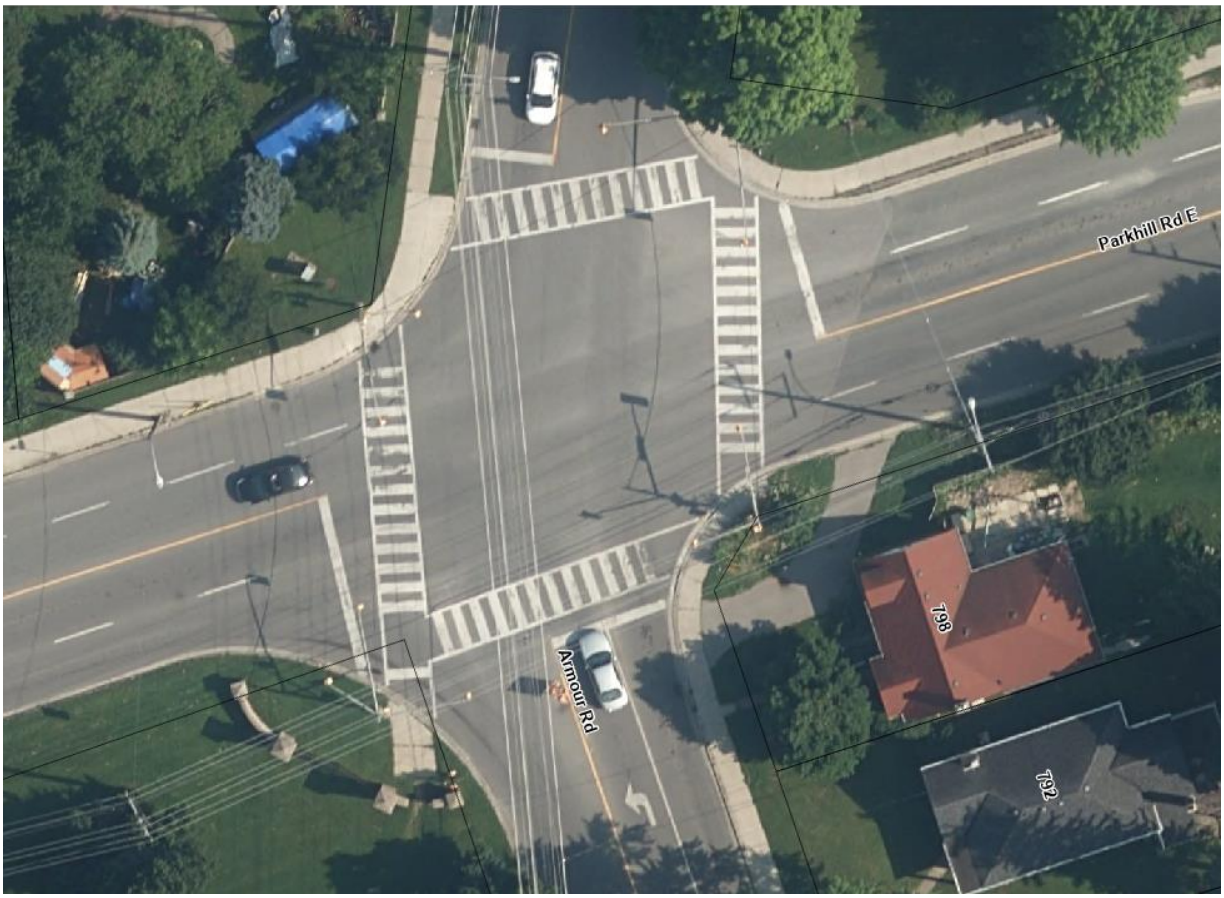

Figure 1: Parkhill Road and Armour Road existing lane configuration

The traffic volume travelling through this intersection is typically between 20,000 and 25,000 vehicles per day, which is typical of a signalized intersection of two arterial roads. The eastbound left-turn volume averages around 2,000 vehicles per day, with an a.m. peak hour volume of 149 left-turning vehicles from 8:15 a.m. to 9:15 a.m. and a p.m. peak hour volume of 168 left-turning vehicles from 2:15 p.m. to 3:15 p.m. Eastbound traffic has a dedicated green phase allowing both through and left-turn movements; however, without dedicated left-turn vehicle storage, there is often a queue of vehicles which routinely back down Parkhill Road.

There have been 23 turning movement and angle collisions reported between 2017 and 2023, accounting for 46% of all collisions at this intersection. Higher numbers of turning movements and angle collisions typically indicate an issue with the intersection configuration and/or signal timing. In the current lane configuration, eastbound or westbound drivers looking to turn left cross two oncoming lanes. This can create sightline restrictions and make it difficult to determine safe gaps in traffic.

There is also a pattern of sideswipe and rear-end collisions reported at this intersection. While rear-end collisions are more common at signalized intersections, sideswipe collisions are the result of eastbound and westbound traffic changing lanes close to the intersection to avoid queues of left or right-turning vehicles.

Short-term Intersection Improvements

Staff conducted a review of the existing lane configuration to reduce the number of collisions at the intersection. The results of the review determined that it is necessary to introduce dedicated left and right-turn lanes on Parkhill Road. The introduction of protected left-turn movements in both the eastbound and westbound directions will reduce the risk of angle and turning movement collisions and provide storage for the heavy eastbound left-turn movement. Dedicated turn lanes also help mitigate last-second lane changes to avoid turning vehicles, leading to fewer sideswipe and rear-end collisions.

The geometric review of the intersection also identified the need to reduce the curb radii at the southwest corner to shorten the pedestrian crossing distance and the need for additional left-turn and through-right storage for westbound traffic. In the past, the southwest corner of the intersection had a channelized right-turn lane and a corner island. The corner island was removed prior to 1990, but the existing 17-metre corner radius was not adjusted at that time. Reducing the corner radius to 7.8 metres will slow right-turn vehicles and improve safety for vulnerable road users without compromising the ability for buses or trucks to turn right. The implementation of the new lane configuration requires the removal of one of the two shared east and west through lanes on Parkhill Road between Curtis Road and Auburn Street. Traffic modelling indicates that the overall level of service at the intersection will remain unchanged.

The lane reconfiguration on Parkhill Road includes updating the existing pavement markings, adjusting the curb radii and traffic signal poles at the southwest corner, and widening the westbound lane just east of the intersection. Changes to the lane configuration will be emphasized using lane designation signs and pavement markings. The lane configuration changes are shown in Appendix A.

Timeline

Planned lane reconfigurations and curb enhancements will be coordinated with the 2026 Road Resurfacing and Pavement Preservation project. This work spans Parkhill Road from Dennistoun Avenue to Curtis Road, including the Armour Road intersection. This timing offers an ideal window to implement the new pavement markings as part of the restoration.

Strategic Plan

Strategic Pillar: Community & Well-being

Strategic Priority: Promote and enforce traffic safety on City roads.

The addition of left-turn lanes on Parkhill Road at Armour Road will help reduce the risk of turning movement and angle collisions, and the proposed curb works will reduce

pedestrian crossing distance and result in slower right-hand turns from Parkhill Road onto Armour Road.

Engagement and Consultation

The Parkhill Road and Armour Road intersection review was conducted in consultation with the Transportation Planning, Engineering and Construction groups.

Budget and Financial Implications

The implementation of the short-term intersection improvements as outlined in this report will cost approximately $100,000, funds for which are available in the 2026 approved Capital Budget for Various Intersection Improvements Program (Project Reference 23-034).

Conclusion

The traffic operations review of Armour Road (IPGENG25-017) identified a high frequency of turning and angle collisions at the Armour Road and Parkhill Road intersection. To reduce the number of collisions at the intersection prior to full reconstruction, the City will implement short-term improvements. These improvements include: the installation of dedicated eastbound and westbound left-turn lanes, an eastbound right-turn lane, and a radius reduction at the southwest corner to enhance overall intersection safety.

Attachments

Appendix A: Parkhill Road and Armour Road Lane Reconfiguration

Submitted by,

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Appendix A: Parkhill Road and Armour Road Lane Reconfiguration

Figure A1: Parkhill Road lane reconfiguration