Region of Waterloo

 Transportation Services

 Transportation

 To:
 Sustainability, Infrastructure, and Development Committee

 Meeting Date:
 May 6, 2025

 Report Title:
 Expansion of Transit Priority Lane Designations

1. Recommendation

That the Regional Municipality of Waterloo amend Traffic and Parking By-law 16-023, as amended, to add the following lane designations:

- Add to Schedule 15, Northbound Right-Turn Lane Designation on King Street (Regional Road 15) at University Avenue (Regional Road 57), in the City of Waterloo;
- Add to Schedule 15, Southbound Right-Turn Lane Designation on King Street (Regional Road 15) at Columbia Street, in the City of Waterloo;
- Add to Schedule 15, Northbound Right-Turn Lane Designation on Hespeler Road (Regional Road 24) at Avenue Road, in the City of Cambridge;
- Add to Schedule 15, Eastbound Right-Turn Lane Designation on University Avenue (Regional Road 57) at Lincoln Road, in the City of Waterloo;
- Add to Schedule 15, Eastbound Right-Turn Lane Designation on Highland Road (Regional Road 6) at Westmount Road (Regional Road 50), in the City of Kitchener;
- Add to Schedule 15, Southbound Right-Turn Lane Designation on Benton Street (Regional Road 6) at Charles Street (Regional Road 64), in the City of Kitchener; and
- Add to Schedule 15, Northbound Right-Turn Lane Designation on Frederick Street (Regional Road 6) at Weber Street (Regional Road 8), in the City of Kitchener.

2. Purpose / Issue:

One of the new transit investment priorities of the Grand River Transit (GRT) Business

Plan is to increase the speed of the service; additional transit priority measures are the first step to achieve this.

This report provides a summary of recommended locations for transit priority signals to be implemented starting in 2025. Designating existing right-turn lanes for bus exemption allows for addition of transit priority signals and queue jump lanes. These signals would allow for faster transit movement which helps to minimize delays and improve service reliability.

3. Strategic Plan:

The recommendations in this report align with the Region's 2023-2027 Growing with Care Strategic Plan's Climate-aligned growth priority.

4. Report Highlights:

- This report identifies 10 new locations to introduce new transit priority signals and queue jump lanes starting in 2025 which will provide service reliability benefits to 13 GRT bus routes.
- These routes experience delays impacting on-time performance which will be addressed by the change.
- On average, customers can expect to save three minutes on their trip, when travelling during the afternoon peak period. The full list of priority signals and queue jumps are available in Appendix A.
- Approximately 13,166 daily passengers would benefit from travel time improvements provided by the queue jumps.
- Currently there are 10 transit priority signals in Waterloo Region. Notable locations include southbound Victoria Street at King Street (Central Station), and southbound Hespeler Road at Coronation Boulevard (Delta Station).

5. Background:

Transit priority signals allow buses to proceed through an intersection using an existing right-turn lane, which would function as a queue jump. Buses would proceed during the dedicated transit signal phase when the vertical white bar flashes. General traffic for other directions of the intersection would remain in red light phase during the dedicated transit signal phase.

Transit priority signals combined with queue jump lanes provide significant operational improvements for GRT buses with minimal impact on other intersection users. This reduces delays to buses, provides passengers a more consistent schedule and overall,

a more reliable service.

The proposed locations are along major corridors identified in GRT's Business Plan as the Frequent Transit Network. The goal of the Frequent Transit Network is to improve frequency to 10 minutes on weekdays (7 a.m. - 7 p.m.), and 15 minutes all other times, on 16 routes. Service is expected to be more frequent along these corridors as GRT implements its business plan update over the next five years.

6. Communication and Engagement with Area Municipalities and the Public

Area Municipalities: Staff regularly work with our area municipality partners to share proposed enhancements and changes to the transportation network.

Public: Over 300 hours of engagement with GRT riders was completed over the past 12 months to inform our Business Plan where speed of service was identified as a key area of focus.

7. Financial Implications:

Category	Current Year	Future Year(s)
Budget Impact?	N/A	N/A
Capital Plan Impact?	Align	N/A
Tax Rate Increase	N/A	N/A
Impact to Average Household	N/A	N/A

The Region's approved 2025 Transit Services Capital Program includes a budget of \$249,000 for Transit Priority Measures (project # 66115) to be funded from the Transit capital reserve (100%, \$249,000). The approximate cost of the new signage including priority signal is \$5,000 and can be accommodated within this budget.

8. Conclusion / Next Steps:

Should the recommendations be approved by Council, staff would implement new signage, transit priority signals, and verify with a bus test before going live.

9. Attachments:

Appendix A: List of Proposed Transit Queue Jumps

Appendix B: Map of Proposed Transit Queue Jumps

Prepared By: Shen-Hao Chang, Supervisor, Transit Development

David Wilson, Analyst, Traffic Systems Management

Reviewed By: Mike Henderson, Director, Transportation

Approved By: Doug Spooner, Acting Commissioner, Transportation Services