

**Region of Waterloo**

**Transportation Services**

**Transportation**

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**To:** Planning and Works Committee

**Meeting Date:** August 13, 2024

**Report Title:** Benton-Frederick Corridor Study (BFCS) Phase 1 (short-term cycling improvements)

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**1. Recommendation**

That the Regional Municipality of Waterloo approve the proposed changes on Benton Street (Regional Road #6) from Courtland Avenue (Regional Road # 53) to Charles Street (Regional Road # 64) and on Frederick Street (Regional Road #6) from Weber Street (Regional Road #8) to Lancaster Street (Regional Road #29) as outlined in Report TSD-TRP-24-009 dated August 13, 2024:

- a) Repurpose the road space by reducing the travel lanes from four lanes to two lanes and add painted reserved single directional bicycle lanes.
- b) Upon construction, amend the Traffic and Parking by-law 16-023;
  - Add to Schedule 22 - Reserved Lanes, Benton Street (Regional Road 6), from Courtland Avenue (Regional Road 53) to Charles Street (Regional Road 64), Both Sides, Anytime, Bicycles;
  - Add to Schedule 22 - Reserved Lanes, Frederick Street (Regional Road 6) from Weber Street (Regional Road 8) to Lancaster Street (Regional Road 29), Both Sides, Anytime, Bicycles;
  - Remove from Schedule 1 – No Parking, Benton Street (Regional Road 6), from Courtland Avenue (Regional Road 53) to King Street, South Side, Anytime;
  - Remove from Schedule 1 – No Parking, Frederick Street (Regional Road 6), from King Street to Bruce Street (Regional Road 61), South Side, Anytime;
  - Remove from Schedule 1 – No Parking, Frederick Street (Regional Road 6), from King Street to Duke Street (Regional Road 63), North Side, Anytime;
  - Remove from Schedule 1 – No Parking, Frederick Street (Regional Road 6), from Duke Street (Regional Road 63) to Weber Street (Regional Road 8), North Side, Anytime Except Sunday 7:00 a.m. to 1:00 p.m.;
  - Remove from Schedule 1 – No Parking, Frederick Street (Regional Road 6), from Weber Street (Regional Road 8) to Bruce Street (Regional Road 61), North Side, Anytime;

- Add to Schedule 1 – No Parking, Benton Street (Regional Road 6), from Courtland Avenue (Regional Road 53) to King Street, Both Sides, Anytime;
- Add to Schedule 1 – No Parking, Frederick Street (Regional Road 6), from King Street to Bruce Street (Regional Road 61), Both Sides, Anytime;
- Remove from Schedule 7 – No Stopping, Benton Street (Regional Road 6), from Courtland Avenue (Regional Road 53) to King Street, North Side, Anytime;
- Remove from Schedule 7 – No Stopping, Frederick Street (Regional Road 6), from King Street to 38.5m east of King Street, South Side, Anytime;
- Remove from Schedule 7 – No Stopping, Frederick Street (Regional Road 6), from King Street to Duke Street (Regional Road 63), North Side, 4:30 p.m. to 5:30 p.m., Monday to Friday;
- Remove from Schedule 7 – No Stopping, Frederick Street (Regional Road 6), from 38.5m east of King Street to Duke Street (Regional Road 63), South Side, 4:30 p.m. to 5:30 p.m., Monday to Friday;
- Remove from Schedule 7 – No Stopping, Frederick Street (Regional Road 6), from Duke Street (Regional Road 63) to Weber Street (Regional Road 8), Both Sides, 11:30 a.m. to 12:30 p.m., 3:30 p.m. to 5:30 p.m., Monday to Friday;
- Remove from Schedule 7 – No Stopping, Frederick Street (Regional Road 6), from Weber Street (Regional Road 8) to Otto Street, Both Sides, 11:30 a.m. to 12:30 p.m., 4:30 p.m. to 5:30 p.m., Monday to Friday; and
- Remove from Schedule 7 – No Stopping, Frederick Street (Regional Road 6), from Otto Street to Lancaster Street (Regional Road 29), Both Sides, Anytime.

That staff be directed to:

- c) Develop a long-term plan for separated cycling facilities along the Benton-Frederick corridor and for improved pedestrian and cycling access to the Frederick ION station, to be implemented as part of the future reconstruction of Benton Street and Frederick Street.

## **2. Purpose / Issue:**

The Benton-Frederick corridor has been identified for cycling improvements in the 2018 Regional Transportation Master Plan. Sections of Benton Street and Frederick Street needs to be resurfaced. As part of the resurfacing project, to improve the safety and comfort of cyclists and pedestrians, adding a painted, single directional bicycle lanes is recommended. This change will require the reduction of vehicular travel lanes from four to two.

## **3. Strategic Plan:**

The re-allocation of vehicular travel lanes to add cycling lanes supports the Region of Waterloo Strategic Plan of Climate Aligned Growth. Climate change and sustainability are key considerations used in reimagining the use of existing infrastructure to foster growth. Adding cycling lanes will increase the safety and comfort of both cyclists and pedestrians and will contribute to a more equitable transportation system.

#### **4. Report Highlights:**

- The 2018 Transportation Master Plan identified the need for cycling facilities in the Benton/Frederick corridor by 2031. This was followed by more recent Council directions to consider both short and long-term cycling improvements in the corridor.
- The short-term plan (Phase 1), presented in this report, includes adding painted bicycle lanes along the Benton Frederick corridor from Courtland Avenue to Lancaster Avenue, excluding the middle section from Charles Street to Weber Street which will be captured in the long-term (Phase 2) plan.
- Increasing the number of cyclists requires a network of safer cycling facilities, which takes time to develop. The implementation of Phase 1, as early as possible, is important, because it will complement the City of Kitchener's Downtown Cycling Network (Appendix A) and will connect to a number of key cycling facilities in the immediate area.
- Phase 1 is planned to be implemented in 2025, after the deteriorated asphalt surface is repaved in the corridor.
- The Phase 2 plan will consider physically separated cycling facilities (All Ages and Abilities) along the entire corridor from Courtland Avenue to Lancaster Street. It will be implemented in conjunction with the renewal of underground utilities through the Transportation Capital Program, currently scheduled for 2032.
- Both Phase 1 and Phase 2 require the reallocation of roadway space from motor vehicles. Based on the analysis, this reallocation will help manage vehicle travel speeds and will not have negative impact on vehicle capacity.
- Based on an on-line survey, there is strong public support for the project, and some disappointment that the separated facilities would be implemented only through Phase 2. Some members of the public were concerned about losing the free on-street parking and the potentially longer travel time through the corridor due to the lane reduction.

#### **5. Background:**

Council directions

- Regional Council directed staff at its November 17, 2021 meeting, to evaluate a submission for active transportation along Benton Street and Frederick Street, developed by a member of the public.
- Staff recommended the inclusion of separated cycling facilities as a long-term plan in the corridor. Implementation of these facilities will be part of Transportation's 10 year Capital Program. Regional Council directed staff to also develop both a short-term (Phase 1) implementation plan, in addition to the long-term plan (Phase 2) (Report TES-TRP-22-02 dated April 12, 2022).

### Phase 1 and Phase 2 plans

The objective of Phase 1 is to provide improvements to cycling and walking as soon as practically possible. It includes mostly road markings by paint to create a dedicated space for people on bicycles along Benton Street from Courtland to Charles and along Frederick Street from Weber to Lancaster. It will connect to the Iron Horse Trail, City of Kitchener's Downtown cycling grid through the neighbourhood bikeway along Church Street and to the Multi Use Trail along Margaret Street.

This project requires the reallocation of the curb lanes to bicycle travel. This type of separation will have significant positive impact on the safety of both cyclists and pedestrians. It will also improve the quality of the pedestrian and cycling environment by reducing the speed of vehicles and by increasing the lateral distance between vehicles and active transportation users. A typical cross-section on Benton Street with single lane of traffic in each direction and painted cycling lanes is shown in Appendix B.

The Phase 2 plan will consider physically separated cycling facilities along the entire corridor from Courtland Avenue to Lancaster Avenue and will expand the City of Kitchener's All Ages and Abilities downtown cycling network. This project will include protected intersections, new pedestrian crossings, landscaping, and access improvements to the Frederick ION station. Phase 2 requires more design work (includes civil works like moving curbs, catch basins and utility poles) and consultation, and implementation of Phase 2 will be also included in the Transportation Capital Program in 2032. An example for a typical cross-section of Benton Street for Phase 2 with separated cycling lanes could look like the sketch included in Appendix B.

### Impact on vehicle capacity

Traffic modelling exercises for Benton-Frederick Corridor were conducted as part of the 2018 Transportation Master Plan update (Moving Forward 2031) and revisited with existing traffic volumes. The results of the model indicate that a two-lane cross-section is adequate for accommodating the anticipated traffic volumes and no diversion is expected due to this project. Annual Average Daily Traffic (AADT) volumes on Benton-Frederick corridor ranges from 6,300-10,900 vehicles per day, which can be accommodated by a two-lane cross-section.

## Parking implications

Currently, the curb lane on the south side of Benton Street between Courtland Avenue and St George Street is utilized for parking, despite it being a No Parking zone as per the Traffic and Parking By-law.

A temporary exception to the No Parking By-law was implemented on April 25, 2017 due to public complaints and the need for parking during major construction projects along Benton Street. The construction activities have subsided and the need for construction related on-street parking has diminished. A parking study conducted in August 2023 concluded that the enforcement of the No Parking By-law would remove 21 free on-street parking places.

Alternate parking options are available to accommodate the displaced vehicles, including the parking garage at the corner of Benton Street and Charles Street with 500 parking spaces. The utilization of the parking structure is 30-45% during weekdays and weekends. Visitors to the apartment building are also able to use the visitor parking spaces provided on-site. The study concluded that the parking removal will have relatively minor impact on motorists while it will have a significant positive impact on the safety and comfort for people cycling and walking.

## Impact on transit operation

Phase 1 will have no significant impact on transit operation. Buses will continue to serve existing transit stops by pulling up next to the curb. These areas will be marked by paint per existing Provincial Guidelines.

## **6. Communication and Engagement with Area Municipalities and the Public**

### **Area Municipalities:**

Staff from the City of Kitchener are supportive of implementing cycling lanes on Benton Street and Frederick Street. City staff pointed out the need to provide cycling facilities along the middle section as well, between Charles Street and Weber Street, and the need for pedestrian crossing at Church Street. All the comments received from the city of Kitchner are listed below.

- Requesting a more formal crossing at Church Street to support our neighbourhood bikeway crossing.
- Cross rides to connect to our MUP on Otto Street.
- Cycling Wayfinding at each connection to cycling network (Lancaster, Otto, Church, to the trail network at the City's end of Benton).
- Integrate with the nearby transit stops on Charles St if possible.

- Ideally facilities would extend to Duke Street to provide a connection to the cycling facilities being constructed and gets much closer to the ION station.
- Parking bay on Frederick, consider a different treatment (floating parking bay, or at least paint/markings to indicate the conflict). Concerned about “dooring” here.

Regional staff will consider the above comments from the City of Kitchener.

### **Public:**

The public engagement of this project included a project information page and online survey through the Engage Waterloo platform. 287 people visited the project page and 127 participated in the survey. Majority of the participants live, walk, cycle, use transit, own a business in Kitchener downtown area or drive on Benton Street/Frederick Street.

Most responses (approximately 80%) were positive of the project. There were concerns that the project includes only painted bicycle lanes instead of a physical barrier.

There were concerns that the cycling lanes are not continuous through the entire corridor and not connected to all other cycling facilities in Downtown Kitchener.

In terms of overall advantages, public responses pointed out the better and safer cycling environment, slower travel speeds and that Frederick Street will be more attractive for local residents.

There were also public comments (approximately 20%) that were not supportive of the project. The reasons for opposing the project indicated slower travel speeds and delays to motorists. 15% indicated that they would not be able to park for free.

A summary of the public input including staff response is provided in Appendix C.

### **7. Financial Implications:**

The cost of resurfacing including pavement markings for cycling lanes and necessary signs is estimated to be approximately \$1.6M.

The Region’s Approved 2024-2033 Transportation Capital Program includes a budget of \$111,000 in 2024 and \$2,055,000 in 2025-2026 for Benton Street from Courtland Avenue to Charles Street East and Frederick Street from Duke Street to Lancaster Avenue (Project #05381) to be funded from the Transportation Capital Reserve. There is sufficient funding in the current budget to carry out this work.

### **8. Conclusion / Next Steps:**

Subject to Council approval, staff will implement the painted cycling lanes on Benton Street from Courtland Avenue East to Charles Street and on Frederick Street from

Weber Street to Lancaster Street through the implementation of the proposed 2025 Frederick Street resurfacing project.

The next steps are:

- Install pavement markings for cycling lanes followed by resurfacing in 2025
- Prepare Request for Proposal for seeking a consultant team to undertake the feasibility study and preliminary design for adding separated cycling facilities on Benton Street-Frederick Street from Courtland Avenue East to Edna Street (Phase 2)

## 9. Attachments:

Appendix A: Downtown Cycling Grid Overall Network

Appendix B: Cross-sections

Appendix C: Benton-Frederick Cycling Study Phase 1 - Public Engagement Summary

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