



UNION STREET RECONSTRUCTION

Project Background

Union Street East from King Street South to Moore Avenue South is being fully reconstructed to rehabilitate both underground (i.e., watermain and sewers) and surface (i.e., road and sidewalks) infrastructure that is approaching the end of its useable life. As is typical with large reconstruction projects, the city will be considering improvements to infrastructure based on the recommendations of various studies and known issues. The most notable issues that the city intends to address include:

- Replacing undersized storm sewers with larger sewers based on current design standards.
- Improving accessibility for pedestrians by moving overhead utility poles out of the sidewalks and into new boulevard space.
- Implementing new active transportation infrastructure (bike lanes).
- Providing an additional crossing option at the Spurline Trail crossing to improve safety for users.

Active Transportation Infrastructure

The city's Transportation Master Plan (TMP), completed in 2011, identified Union Street as a future cycling route and recommended on-street, painted bike lanes. Since the TMP was completed, standards and practices related to active transportation have evolved and on-street, painted bike lanes are no longer desirable in many cases. Based on the recommendations of the Ontario Traffic Manual (OTM) Book 18 and traffic counts obtained on Union Street from 2005 and 2017, separated bike lanes or cycle tracks are now recommended.

The section of Union Street from King Street to Bowman Street currently has a right-of-way (road allowance owned by the city from property line to property line) that is too narrow to allow for the construction of separated bike lanes or cycle tracks. The existing left-turn lanes at Mary Street, Herbert Street, and Bowman Street further limit the possibilities of implementing new bike lanes along the corridor.

Due to these constraints, the city has decided to review various options to achieve the goal of promoting cycling within and through the neighbourhood and adhere to the recommendations of OTM Book 18 while working within the confines of the roadway.

To address the limitations associated with the existing left-turn lanes, the city completed a transportation study to analyze current and future conditions and determine the feasibility of

removing the turn lanes in order to create space for new cycling infrastructure. Additional information regarding the transportation study and its findings is provided below.

During the process of developing design alternatives, it became evident that constructing new bike lanes in accordance with the recommendations of OTM Book 18 would require the City to acquire property from the frontages of several properties along Union Street. Additional information on property acquisition is provided in the “Information for Residents and Businesses” document in the Project Library.

In order to minimize the requirements for property acquisition, other options were reviewed including the presented pedestrian-focused alternative which would make use of other area streets to provide a new cycling route. The city does wish to note that the scope of this project does not extend beyond this section of Union Street and that any improvements required on other streets to fully implement this option would not be completed at the same time as the reconstruction of Union Street.

Improving Spurline Trail Crossing Safety

As a result of concerns brought forth by the community over the past several years, the Project Team reviewed options for improving the safety of the Spurline Trail crossing on Union Street. In 2017, the city commissioned a road safety review for the crossing which suggested that signalization of the Spurline Trail crossing would offer the clearest indication of right-of-way for road and trail users. The Region of Waterloo, who has jurisdiction over the Spurline Trail, railway tracks, and traffic signals at Moore Avenue, did not support the recommendations of the review. It was noted that introducing new signals at the Spurline Trail crossing would not meet the minimum spacing requirements provided in the Ontario Traffic Manual (signalized pedestrian crossings are to be no less than 200 metres from the closest traffic control device), and queuing of vehicles on the eastbound approach of Union Street at Moore Avenue already extends through the Spurline Trail crossing. As an interim measure, a pedestrian refuge island was constructed in 2019.

To address user concerns, promote improved safety, and adhere to current design standards, the city intends to construct a new secondary route for the Spurline Trail as part of the Union Street improvements. This will provide trail users the option to cross at the traffic signals at Moore or to continue using the existing crossing with the pedestrian refuge island. This option provides flexibility for users based on current traffic conditions as well as their level of comfort.

Removal of existing left-turn lanes

As described in each of the options, some existing left-turn lanes will be removed in order to provide more space for pedestrian and cycling facilities. At the beginning of this project, traffic counts were taken and a transportation study was completed in order to review the functionality of the existing left-turn lanes and potential impacts on traffic flows on Union Street and intersecting streets. Based on the low number of left-turning vehicles observed at Bowman, Herbert, and Mary, the report found that the existing left-turn lanes can be removed without creating undue delays on Union Street.