



City of Waterloo

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# Improving LRT Connectivity

## Phase 2 Report

April 2025

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# Introduction

## The Project

### History and Purpose

This project is intended to support multimodal first/last-mile transportation, that is accessing the ION LRT stations by walking or rolling. The ION system, planned and implemented by the Region of Waterloo, began operation in 2019, while the City of Waterloo was in the process of completing an update to their Transportation Master Plan. The Transportation Master Plan identified key directions and strategies for the development of the City's transportation infrastructure as well as programs, and policies. It provided an overarching framework for the development of walking and cycling facilities in the City as well. This project builds on that work, explicitly focusing on existing and planned walking and rolling infrastructure that will support people getting to/from ION stations in the City. It will identify opportunities to further improve walking and rolling access to these stations.

### Project Phases

The project is organized into three phases of work:

- **Phase 1** – Involves reviewing previous plans, collecting data for the study, defining the user types, and developing the mobility zones around stations that will be the focus of this study.
- **Phase 2** – Builds on Phase 1 work, identifying opportunities for walking and rolling within the zones around each station. The opportunities will be presented to internal and external stakeholders for feedback including online engagement for the public.
- **Phase 3** – Continues from Phase 2, developing a final strategy for walking and rolling around the zones for each station and identifying short-, medium-, and long-term projects/opportunities for implementation. Projects/opportunities that can be 'quick wins' for rapid implementation will also be identified.

This report focuses only on Phase 2.

## Phase 2 Process

### Methods to Develop Opportunities

The project team carried out a site visit in August 2023 with City staff to identify opportunities to improve connectivity to/from ION stations. During the site visit the project team rode the ION, walked, and cycled the neighbourhoods around stations. Opportunities have been further developed through a desktop review and an internal to the consultant team connectivity charrette. The internal connectivity charrette was held online in September with the project team and involved reviewing and discussing additional opportunities. The opportunities will be further refined based on feedback from the stakeholder workshops, held in January and April 2024, and the online public engagement in December 2024 through early January 2025.

## **Stakeholder Engagement**

### **Internal Stakeholder Engagement**

In January 2024, an Internal Stakeholder Meeting was held.

The following general discussion topics were raised in the meeting:

- How this project ties into other plans. For example, the relationship of the final deliverable for this project to the Official Plan
- The value of this work to inform City review of development applications including the identification of opportunities and related justification
- How to handle recommendations for new approaches where existing policies may conflict (for example, P-gates as part of engineering manual)
- Winter maintenance (i.e., design elements to facilitate snow clearing/storage)
- How design elements such as the City's pedestrian island standard can be discussed with Engineering through the CELM update process

The discussion also focused on the intended use of the document. Key emphasis on the identification of opportunities and not specific design interventions or exact facility types. This is a reflection of the stated purpose/objective of the project, the type/scale of analysis and the changing nature of design approaches over time (by the City and the industry as a whole). The final report should clearly highlight design intervention opportunities based on the mobility zone analyses for future consideration with the goal of informing future capital planning and implementation.

### **External Stakeholder Engagement**

In April 2024, an External Stakeholder Meeting was held with representatives from Conestoga College, Conestoga Mall, the Region of Waterloo, the University of Waterloo and Wilfrid Laurier University.

The purpose of the meeting was for the Project Team to:

- (a) provide context on the project to select external stakeholders before public engagement;
- and,
- (b) engage the stakeholder to consider opportunities to align with the City on.

## **Online Public Engagement**

Before providing a summary of public engagement activities, it is important to note that the overall project was on hold between August 2024 through November 2024 as the consultant team changed from Alta Planning + Design, Canada Inc (Alta) to Take Consulting Ltd. The Alta team lead the Internal and External Stakeholder Engagement sessions and prepared the material for public online engagement. The public online engagement was posted to Engage Waterloo page and included an explanatory video for the overall initiative.

The 'Mobility zones around ION stations' project highlight section on the Engage Waterloo website was updated in December 2024 and was live from December 6, 2024 to January 10, 2025. The purpose of the online engagement was to present and seek feedback on the project material prepared to date.

The website received: 109 visitors; 88 page views and 32 readers of a portion of the material. No comments or submissions were received in response to the information provided.

As of February 2025, general information has been included on the Engage Waterloo website specific to this project. Contact information for project representatives is available should members of the public or stakeholders wish to provide feedback directly to the team.

# Framework for Opportunities

## Opportunity Types

The following tables summarize the framework being used to consider possible opportunities, separated into points and lines. Point opportunities are targeted locations such as an intersection or a location for amenity placement. Line opportunities are linear in nature, such as recommended improvements along a corridor or a new connection. The opportunities have been organized into categories that best represent the type of opportunity, such as whether an improvement would require upgrading an existing piece of infrastructure, or if it is new. Example photos illustrating the various point and line opportunities are included in this report. Additional tables related to the implementation of opportunities will be developed for the Phase 3 report. The next phase of this project will take into consideration whether or not the opportunity is on City-owned property.

### Point Opportunities

Opportunity	Description
Amenity	<p>Amenity opportunities include the following to improve access and the pedestrian and rolling experience to and from the LRT stations:</p> <ul style="list-style-type: none"> <li>• <b>Bike parking:</b> Install bike parking to encourage multi-modal transportation in the city and region. Bike parking considerations may include accommodating sufficient number and variety of bicycles, location, security, access, and cover to protect from the elements</li> <li>• <b>Weather protection:</b> Provide refuge from sun, snow, and rain</li> <li>• <b>Fix-it stand:</b> Install bike fix-it stand at identified locations to allow individuals to carry out basic bicycle repairs such as inflating tires</li> <li>• <b>Shared micromobility station:</b> Add stations at identified locations for shared micromobility devices, such as shared e-scooters, shared bikes/e-bikes</li> <li>• <b>Bike footrest:</b> Install footrest and handrail for cyclists while waiting for lights to change. It allows cyclists to remain seated while waiting at an intersection</li> </ul>
Crossing improvement	<p>Crossing improvements include the following:</p> <ul style="list-style-type: none"> <li>• <b>Right-turn channel:</b> Remove or alter right-turn channel. Right-turn channels are usually implemented to improve vehicle flow and increase capacity. This intersection style poses a risk for pedestrians and cyclists by allowing motor vehicles to turn at high speeds</li> </ul>

	<ul style="list-style-type: none"> <li>• <b>Grade:</b> Improve grade on sidewalks to meet provincial accessibility standards. Pedestrian facilities can have a slope at a maximum grade of 5%. To prevent flooding and excessive water pooling on paved surfaces, cross-slopes may be recommended to direct runoff to a ditch or drainage system</li> <li>• <b>New crossing:</b> Provide a safer opportunity for pedestrians and cyclists to cross roadways to access the LRT stations. New crossing types may be either controlled or uncontrolled</li> <li>• <b>Median:</b> Adding a pedestrian refuge where wide street does not permit pedestrians to easily cross the street during a gap in traffic</li> <li>• <b>Curb ramp:</b> Implement a short ramp that allows an accessible route for people between the street and the boulevard. Improve existing curb ramps to provide a smoother crossing for people on foot and with rolling devices</li> <li>• <b>Signal modification:</b> Modify signals to improve pedestrian and cyclist connectivity at signalized intersections, modifications can include retiming, leading pedestrian intervals, or implementing protected phases</li> <li>• <b>Raised or continuous crosswalk/crossride:</b> Bring level of roadway to that of the crosswalk/crossride to provide level crossing for pedestrians and cyclists, and to reduce vehicle speeds when turning in to or out of street</li> <li>• <b>Tactile Walking Surface Indicators (TWSIs):</b> Install tactile attention indicators in the ground to assist people with visual impairments signaling a need for caution ahead of a vehicular route, elevation, or train tracks</li> <li>• <b>Other measures to make crossing more pedestrian focused</b></li> </ul>
Lighting	Provide suitable lighting for visibility, safety, and security throughout the walkshed and micromobility zone of LRT stations where lighting is inadequate or lacking
Spot improvement	<p>Spot improvements include the following:</p> <ul style="list-style-type: none"> <li>• <b>Sightline:</b> Improve sight triangles where trail crossings meet public roads by removing shrubbery and other obstructions blocking active transportation and motorist views</li> <li>• <b>Gate access:</b> Standardize trail access types</li> </ul>

## Line Opportunities

Opportunity	Description
Upgrade facility	<p>Opportunities to improve pathways leading to and from the LRT stations. Upgrade opportunities include aspects that improve:</p> <ul style="list-style-type: none"> <li>• <b>Width:</b> Recommend wider sidewalks and multi-use paths to allow individuals to safely pass someone, enable social interactions, and contribute to a comfortable walking environment near the LRT stations</li> <li>• <b>Surface:</b> Improve pavement and surface quality or upgrade to paved surface to provide a smooth travel for pedestrians and cyclists</li> <li>• <b>Bikeway:</b> Upgrade existing bikeway to physically separated cycling facility to reduce conflict between cyclists and motorists and provide a safer riding experience</li> </ul>
New facility	<p>Identify opportunities for ease of movement and gaps in the pedestrian and cycling network to improve access to LRT stations. Opportunities include new sidewalks, cycling facilities, and multi-use paths</p>

## Examples Illustrating Point Opportunities

This section provides photo examples of the point opportunities identified in this report.

### Amenity Opportunity Examples

Example of covered bike parking



Example of bike parking



Example of a fix-it stand



Example of a bike footrest



## Crossing Improvement Opportunity Examples

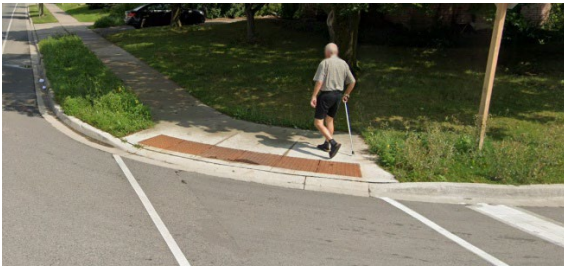
Example of an improved right-turn channel treatment



Example of making a crossing more pedestrian focused



Example of a grade (Google Streetview)



Example of an uncontrolled crossing (Google Streetview)



Example of a controlled crossing



Example of a median



Example of a curb ramp



Example of a raised crosswalk



Example of a tactile attention indicator



Example of traffic calming



Example of chicanes (Google Streetview)



# Lighting Opportunity Example

Example of lighting



# Spot Improvement Opportunity Examples

Example of clearway and sightline



Example of gate access (Google Streetview)



## Examples Illustrating Line Opportunities

This section provides photo examples of the line opportunities identified in this report.

### Facility Upgrade Opportunity Examples

Example of a width upgrade



Example of a surface upgrade



Example of a bikeway upgrade



# New Facility Opportunity Examples

Example of a sidewalk



Example of a cycling facility



Example of a multi-use path

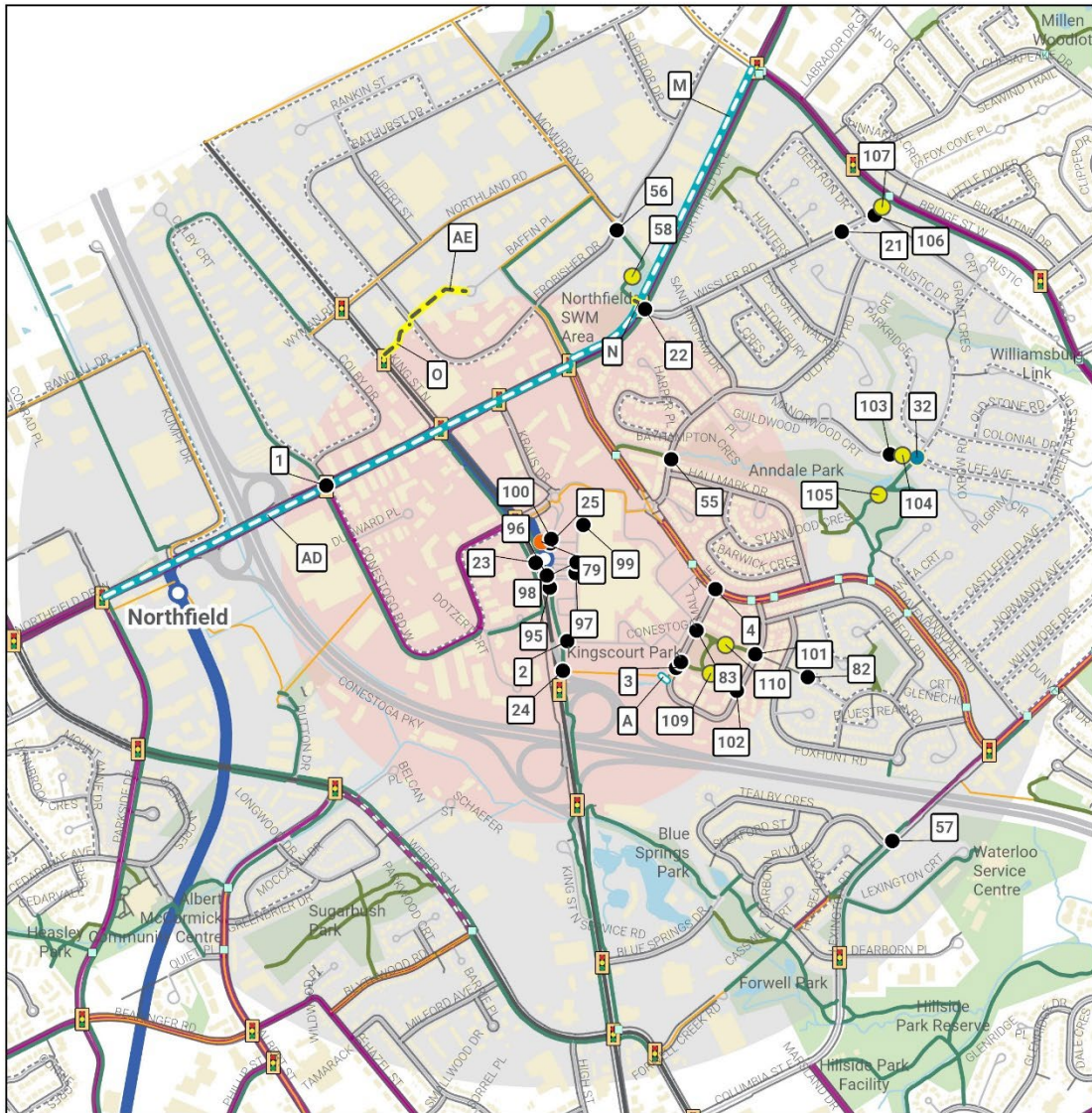


# Opportunities

This section includes a map and table that shows the opportunities identified for each station. For stations where point opportunities were clustered, a separate map of the walk zone was included for better readability. The tables include point and line opportunity information with regards to station, location, opportunity type, and description.

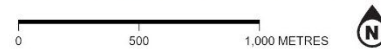
The most prominent type of opportunities identified are crossing improvements. Considering that crossings are where there is the highest likelihood for conflict between people walking and rolling and motor vehicle traffic, this is where the most attention to improving connectivity and safety has been made.

# Conestoga



Data provided by the City of Waterloo. Document: N:\Shared\PROJECTS\Canada\2023\100\_2023\_010\_Waterloo\_ION\_LRT\_Mobility\_Zones\_GIS\Process\23\_010\_Waterloo\_LRT\_Phase2.aprx. Date saved: 1/18/2024.

## Conestoga Station Connectivity Opportunities



City of Waterloo  
Improving LRT Connectivity

- Opportunities**
- Amenity
  - Crossing improvement
  - Lighting
  - Spot Improvement
  - New Facility
  - Upgrade Facility

- Existing | Planned**
- Bikeways
  - Multi-use Path
  - Recreational Trail
  - Sidewalk

- Background**
- Walk Zone - 800m
  - Micromobility Zone - 1600m
  - TMP Proposed Projects
  - Pedestrian Refuge
  - Traffic Signals
  - ION Station
  - ION Route
  - Buildings
  - Parks





Table 1. Point opportunities for Conestoga station

Label	Station	Location	Opportunity	Description
1	Conestoga	Northfield Dr at Conestogo Rd	Crossing improvement	Make bike crossing more visible through the intersection.
2	Conestoga	MUP along King St at crossing to Mall	Crossing improvement	Make crossing more visible.
3	Conestoga	Kingscourt Dr at sidewalk	Crossing improvement	Curb ramp to connect to sidewalk and path to mall.
4	Conestoga	Davenport Rd at Kingscourt Dr	Crossing improvement	Consider adding controlled crossing.
21	Conestoga	Wissler Rd at Rustic Dr	Crossing improvement	Crosswalk on Wissler Rd where sidewalk ends.
22	Conestoga	Northfield Dr at Wissler Rd	Crossing improvement	Raised crossride for MUP across intersection.
23	Conestoga	King St at Conestoga Station	Crossing improvement	Consider adding controlled crossing.
24	Conestoga	Conestoga Parkway off-ramp at King St	Crossing improvement	Make crossing more visible to motorists.
25	Conestoga	Crossing at mall parking lot to ION station	Crossing improvement	Make crossing more pedestrian focused.
32	Conestoga	Lee Ave at recreational trail entrance	Spot improvement	Improve sightline. Make path entrance more visible.
55	Conestoga	Old Abbey Rd at neighbourhood path south of Bayhampton Cres	Crossing improvement	Curb ramp to sidewalk. May have to be a bit off angle due to electrical box.
56	Conestoga	Frobisher Dr at trail	Crossing improvement	Smoother curb ramp.

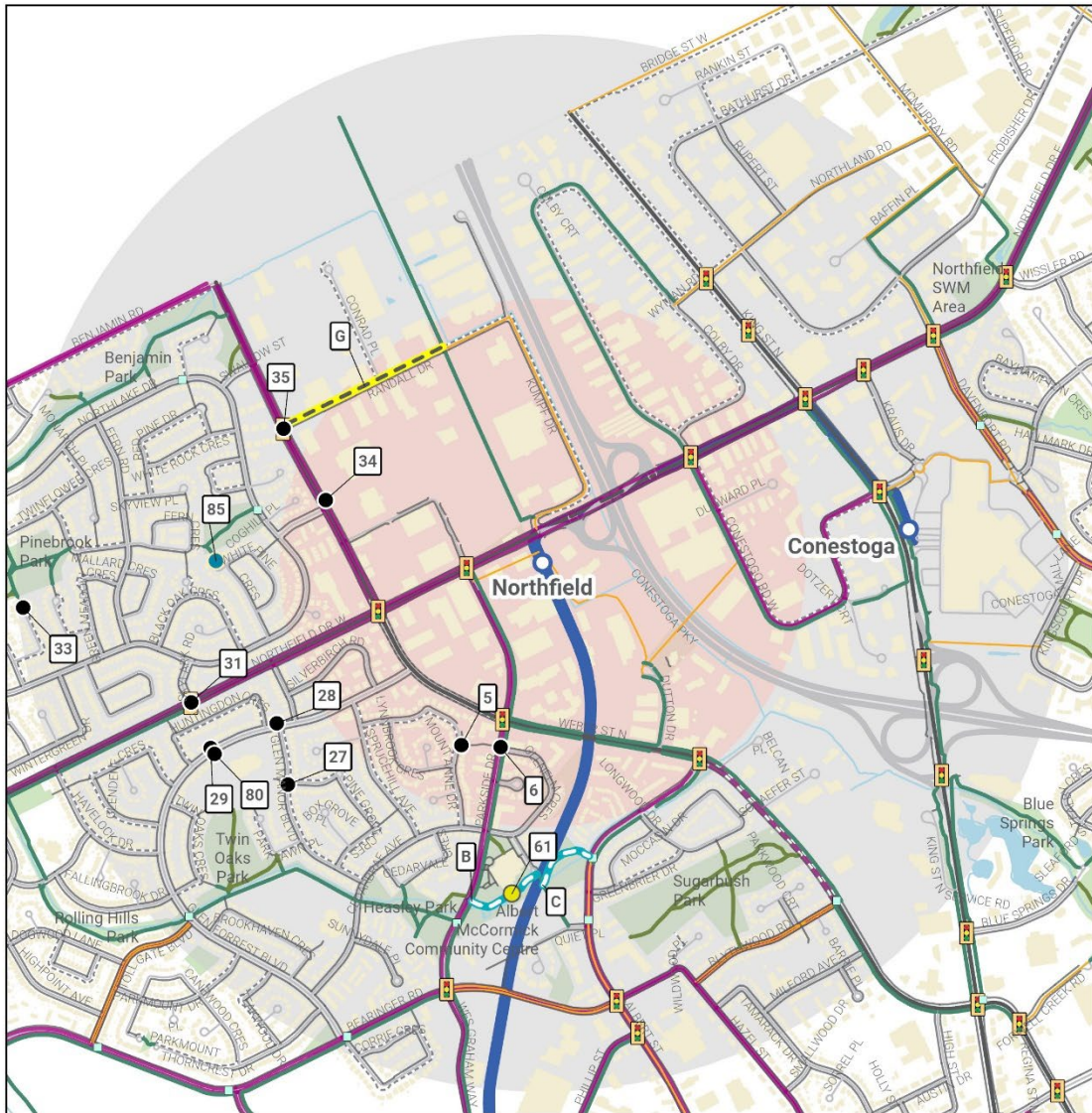
Label	Station	Location	Opportunity	Description
57	Conestoga	Lexington Rd just north of Dearborn Blvd	Crossing improvement	Consider adding controlled crossing.
58	Conestoga	Path between Northfield Dr and Frobisher Dr	Lighting	Add lighting along path
79	Conestoga	Conestoga station bike racks	Amenity	Fix-it stand. Install roof over bike racks to protect bicycles from inclement weather.
82	Conestoga	Scotchmere Ct at path	Crossing improvement	Smoother curb ramp.
83	Conestoga	Kingscourt Dr at path	Crossing improvement	Smoother and wider curb ramp.
84	Conestoga	Kingscourt Dr at path	Crossing improvement	Smoother and wider curb ramp.
95	Conestoga	Conestoga Mall lane entering	Crossing improvement	Reduce vehicle turn radius. Make pedestrian crossing more visible at the right turn channel.
96	Conestoga	Conestoga Mall lane exiting	Crossing improvement	Reduce vehicle turn radius. Make pedestrian crossing more visible at the right turn channel.
97	Conestoga	Conestoga Mall entrance	Crossing improvement	Make crossing more pedestrian focused.
98	Conestoga	Conestoga Mall entrance	Crossing improvement	Make crossing more pedestrian focused.
99	Conestoga	Conestoga Mall entrance	Crossing improvement	Make crossing more pedestrian focused.
100	Conestoga	Conestoga Mall parking lot	Crossing improvement	Make crossing more pedestrian focused.

Label	Station	Location	Opportunity	Description
I01	Conestoga	Kingscourt Dr at path	Crossing improvement	Smoother and wider curb ramp.
I02	Conestoga	Kingscourt Dr at path	Crossing improvement	Smoother and wider curb ramp.
I03	Conestoga	Manorwood Ct at trail entrance	Crossing improvement	Smoother curb ramp.
I04	Conestoga	Trail	Lighting	Add lighting along trail.
I05	Conestoga	Trail	Lighting	Add lighting along trail.
I06	Conestoga	Wissler Rd at pathway	Crossing improvement	Smoother curb ramp and remove P-gate.
I07	Conestoga	Pathway between Wissler Rd and Bridge St	Lighting	Add lighting along pathway.
I09	Conestoga	Kingscourt Park trail	Lighting	Add lighting along pathway.
I10	Conestoga	Kingscourt Park trail	Lighting	Add lighting along pathway.

Table 2. Line opportunities for Conestoga station

Label	Station	Location	Opportunity	Description
A	Conestoga	Kingscourt Dr toward Mall parking lot	Upgrade surface	Pave path and make desire line official.
M	Conestoga	Northfield Dr between Davenport Rd and Bridge St	Upgrade bikeway	Upgrade to physically separated bikeway.
N	Conestoga	Northfield Dr at Wissler Rd	New multi-use path	Extend existing footpath.
O	Conestoga	Between King St and Frobisher Dr	New multi-use path	New multi-use path to cut through parking lot.
AE	Conestoga	Between Frobisher Dr and Baffin Pl	New multi-use path	New multi-use path to provide more direct connection.
AD	Conestoga	Northfield Dr between Parkside Dr and Davenport Rd	Upgrade bikeway	Upgrade to physically separated bikeway.

# Northfield



## Northfield Station Connectivity Opportunities

City of Waterloo  
Improving LRT Connectivity

### Opportunities

- Crossing improvement
- Lighting
- Spot Improvement
- New Facility
- Upgrade Facility

### Existing | Planned

- Bikeways
- Multi-use Path
- Recreational Trail
- Sidewalk

### Background

- Walk Zone - 800m
- Micromobility Zone - 1600m
- TMP Proposed Projects
- Pedestrian Refuge
- Traffic Signals
- ION Station
- ION Route
- Buildings
- Parks



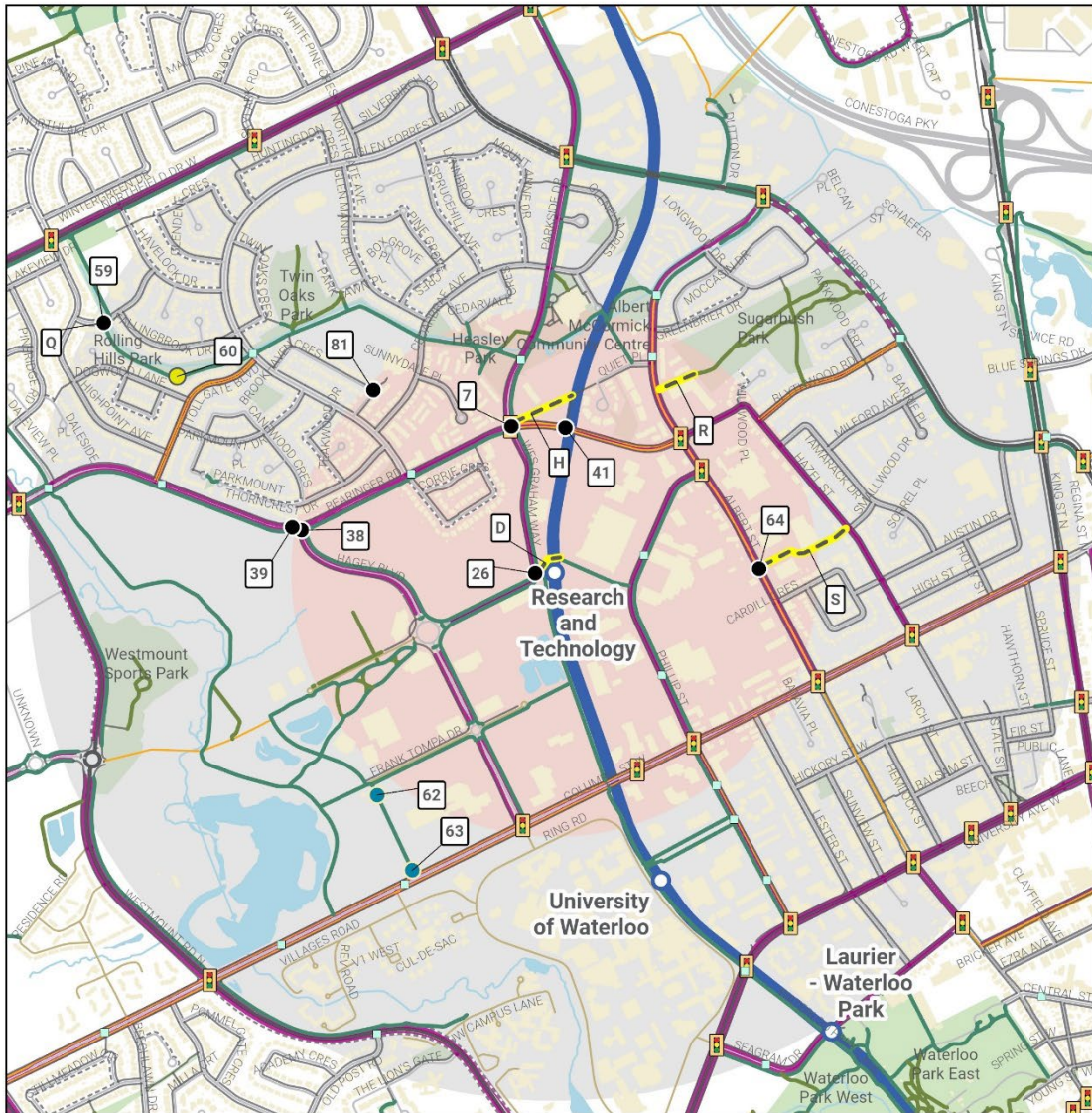
Table 3. Point opportunities for Northfield station

Label	Station	Location	Opportunity	Description
5	Northfield	Mt Anne Dr at neighbourhood cut through	Crossing improvement	Smoother curb ramp.
6	Northfield	Parkside Dr at Glenelm Cres	Crossing improvement	Pedestrian refuge island. Smoother curb cut.
27	Northfield	Glen Manor Blvd at Pinegrove Cres	Crossing improvement	Crosswalk on Glen Manor Blvd.
28	Northfield	Glen Forrest Blvd south of Northgate Ave	Crossing improvement	Pave patch from sidewalk and do curb ramp.
29	Northfield	Glen Forrest Blvd north of Huntington Cres	Crossing improvement	Pave patch from sidewalk and do curb ramp.
31	Northfield	Northfield Dr at Skylark Rd	Crossing improvement	Add medians on Northfield.
33	Northfield	Pinebrook Pl at neighbourhood cut through	Crossing improvement	Curb ramp.
34	Northfield	Weber St north of Golden Eagle Rd	Crossing improvement	Smoother curb ramp.
35	Northfield	Weber St at Randall Dr	Crossing improvement	Smoother and wider curb ramp on SW corner.
61	Northfield	Waterloop Trail from Parkside Dr to Old Albert St	Lighting	Add lighting along Waterloop Trail.
80	Northfield	Glen Forrest Blvd north of Huntington Cres	Crossing improvement	Extend sidewalk coming from the parking lot to meet curb ramp.
85	Northfield	White Pine Cres at path	Spot improvement	Remove P-gates and install bollard in the middle to prevent vehicle entry.

Table 4. Line opportunities for Northfield station

Label	Station	Location	Opportunity	Description
B	Northfield	Waterloop Trail from Parkside Dr to Old Albert St	Upgrade surface	Pave trail.
C	Northfield	Waterloop Trail from Old Albert St to Albert St	Upgrade surface	Pave trail.
G	Northfield	Randall Dr between Weber St North and Market Trail	New multi-use path	Upgrade proposed sidewalk to a multi-use path to connect to Market Trail.

# Research and Technology



**Research and Technology Station  
Connectivity Opportunities**

City of Waterloo  
Improving LRT Connectivity

- Opportunities**
- Crossing improvement
  - Lighting
  - Spot Improvement
  - New Facility
  - Upgrade Facility

- Existing | Planned**
- Bikeways
  - Multi-use Path
  - Recreational Trail
  - Sidewalk

- Background**
- Walk Zone - 800m
  - Micromobility Zone - 1600m
  - TMP Proposed Projects
  - Pedestrian Refuge
  - Traffic Signals
  - ION Station
  - ION Route
  - Buildings
  - Parks



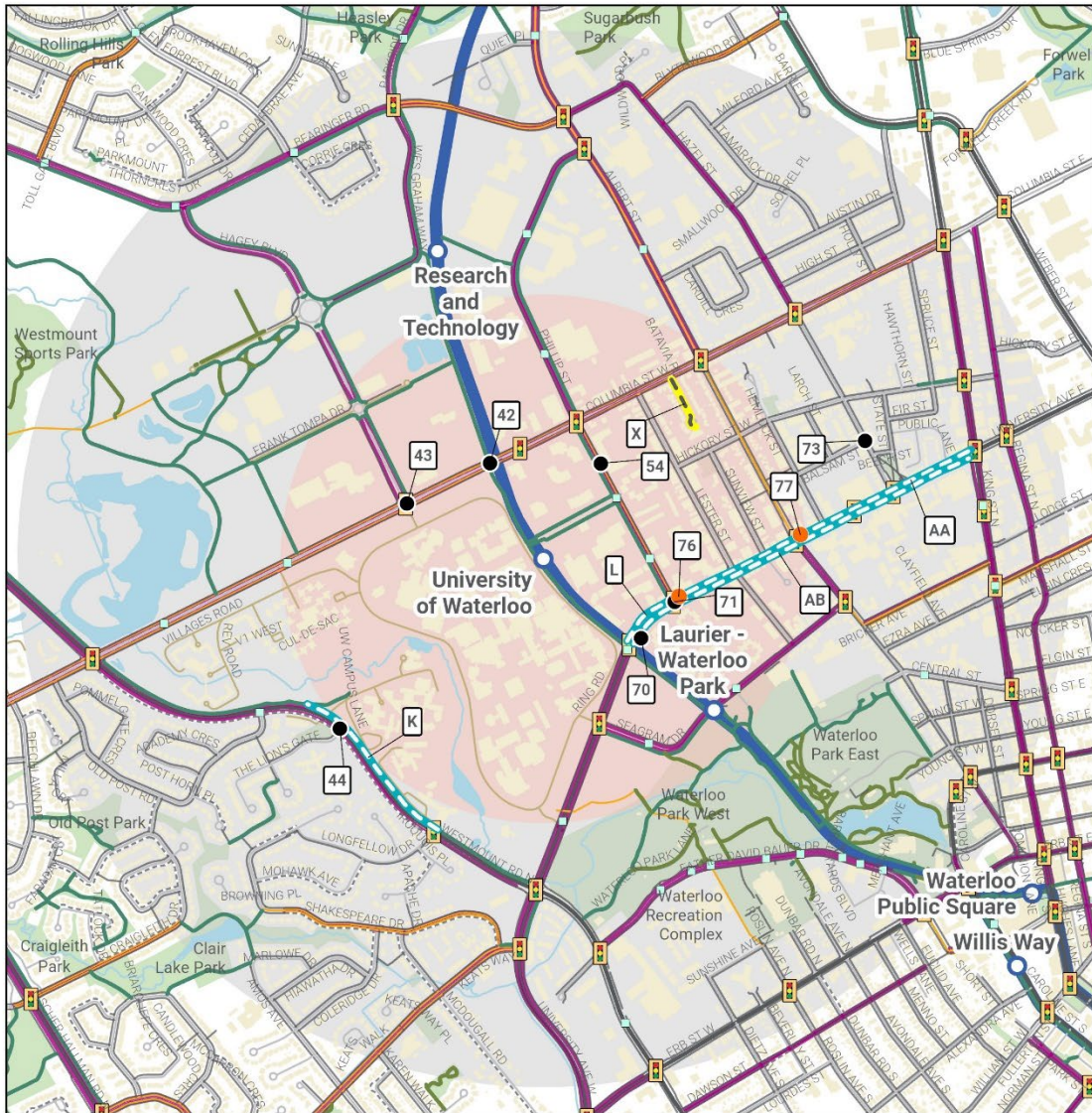
Table 5. Point opportunities for Research and Technology station

Label	Station	Location	Opportunity	Description
7	Research & Technology	Wes Graham Way at Bearinger Rd	Crossing improvement	Add TWSI on missing corner.
26	Research & Technology	Laurel Trail at Wes Graham Way	Crossing improvement	Consider measures to make trail crossing more visible to motorists. For example, raised crosswalk.
38	Research & Technology	Bearinger Rd at Hagey Blvd	Crossing improvement	Consider implementing measures to lessen crossing distance.
39	Research & Technology	Bearinger Rd at Hagey Blvd	Crossing improvement	Update pedestrian refuge and make curb ramps smoother.
41	Research & Technology	Bearinger Rd at ION tracks	Crossing improvement	Raised crosswalk.
59	Research & Technology	Rolling Hills Dr at path	Crossing improvement	Smoother curb ramp.
60	Research & Technology	Path going through Rolling Hills Park	Lighting	Add lighting along path.
62	Research & Technology	On path just south of Frank Tompa Dr	Spot improvement	Remove P-gates and install bollard in the middle to prevent vehicle entry.
63	Research & Technology	On path just north of Columbia St	Spot improvement	Remove P-gates and install bollard in the middle to prevent vehicle entry.
64	Research & Technology	Albert St at Waterloo Technology Park entrance	Crossing improvement	Consider adding controlled crossing.
81	Research & Technology	Brookhaven Cres at path	Crossing improvement	Install smooth curb ramp to access path.

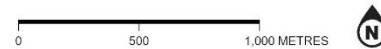
Table 6. Line opportunities for Research and Technology station

Label	Station	Location	Opportunity	Description
D	Research & Technology	Trail access from Wes Graham Way to ION station	Station access	Build path access to ION station platform.
H	Research & Technology	Bearinger Rd at Parkside Dr	New sidewalk	Upgrade desire line on the NW corner of Bearinger and Parkside and connect it to sidewalk ending.
Q	Research & Technology	Rolling Hills Dr at path	Upgrade surface	Pave stub to lead up to sidewalk.
R	Research & Technology	Albert St to Sugarbush Park path	New multi-use path	Extend Sugarbush Park path to Albert St.
S	Research & Technology	Between Albert St and Smallwood Dr	New multi-use path	New multi-use path to provide more direct connection and cut through parking lot.

# University of Waterloo



## University of Waterloo Station Connectivity Opportunities



City of Waterloo  
Improving LRT Connectivity

- Opportunities**
- Amenity
  - Crossing improvement
  - New Facility
  - Upgrade Facility

- Existing | Planned**
- Bikeways
  - Multi-use Path
  - Recreational Trail
  - Sidewalk

- Background**
- Walk Zone - 800m
  - Micromobility Zone - 1600m
  - TMP Proposed Projects
  - Pedestrian Refuge
  - Traffic Signals
  - ION Station
  - ION Route
  - Buildings
  - Parks



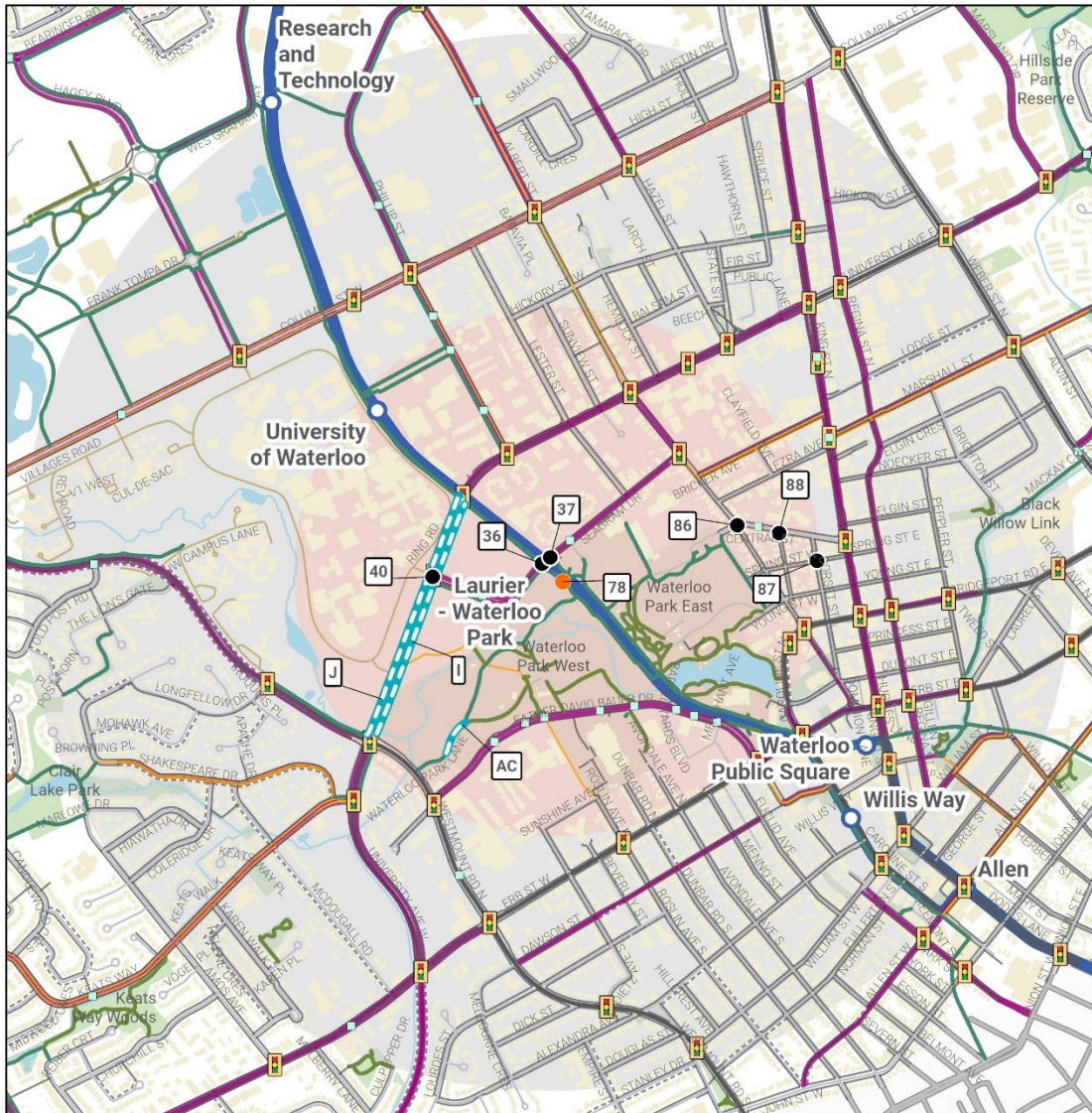
Table 7. Point opportunities for University of Waterloo station

Label	Station	Location	Opportunity	Description
42	University of Waterloo	Columbia St at Laurel Trail	Crossing improvement	Widen existing median or consider controlled crossing.
43	University of Waterloo	Columbia St at Hagey Blvd	Crossing improvement	Add centreline hardening, move vehicle stop line further back for both directions of traffic, reduce crossing distance for pedestrians on all 4 legs.
44	University of Waterloo	Westmount Rd at The Lions Gate	Crossing improvement	Pedestrian refuge island.
54	University of Waterloo	Philip St south of Columbia St	Crossing improvement	Pave patch from sidewalk and do curb ramp.
70	University of Waterloo	Crossing at parking lot UWP	Crossing improvement	Make crossing more visible.
71	University of Waterloo	University Ave at Philips St	Crossing improvement	Add TWSI on all 4 corners.
73	University of Waterloo	Hazel St at Balsam St	Crossing improvement	Add TWSI on both corners.
76	University of Waterloo	University Ave at Philip St	Amenity	Add bike footrest.
77	University of Waterloo	University Ave at Albert St	Amenity	Add bike footrest.

Table 8. Line opportunities for University of Waterloo station

Label	Station	Location	Opportunity	Description
K	University of Waterloo	Westmount Rd from Longfellow Dr to just north of UW Campus Lane	Upgrade bikeway	Upgrade to physically separated bikeway as current bike lane is along a 60 km/h road. Make sure gutter is not included in the bikeable width of the bike lane. Alternatively, consider upgrading proposed sidewalk and existing bike lane to a MUP.
L	University of Waterloo	University Ave between ION tracks and Philip St	Upgrade bikeway	Upgrade to physically separated bikeway.
X	University of Waterloo	Batavia Pl	New sidewalk	Add sidewalk on Batavia Pl.
AA	University of Waterloo	University Ave between Laurel Trail and King St	Upgrade bikeway	Upgrading physically separated bikeway as part of complete corridor redesign.
AB	University of Waterloo	University Ave between Laurel Trail and King St	Upgrade bikeway	Upgrading physically separated bikeway as part of complete corridor redesign.

# Laurier - Waterloo Park



**Laurier - Waterloo Park Station  
Connectivity Opportunities**

City of Waterloo  
Improving LRT Connectivity



**Opportunities**

- Amenity
- Crossing improvement
- ▬▬▬ Upgrade Facility

**Existing | Planned**

- ▬▬▬ Bikeways
- ▬▬▬ Multi-use Path
- ▬▬▬ Recreational Trail
- ▬▬▬ Sidewalk

**Background**

- Walk Zone - 800m
- Micromobility Zone - 1600m
- ▬▬▬ TMP Proposed Projects
- Pedestrian Refuge
- ⏸ Traffic Signals
- ION Station
- ▬ ION Route
- Buildings
- Parks

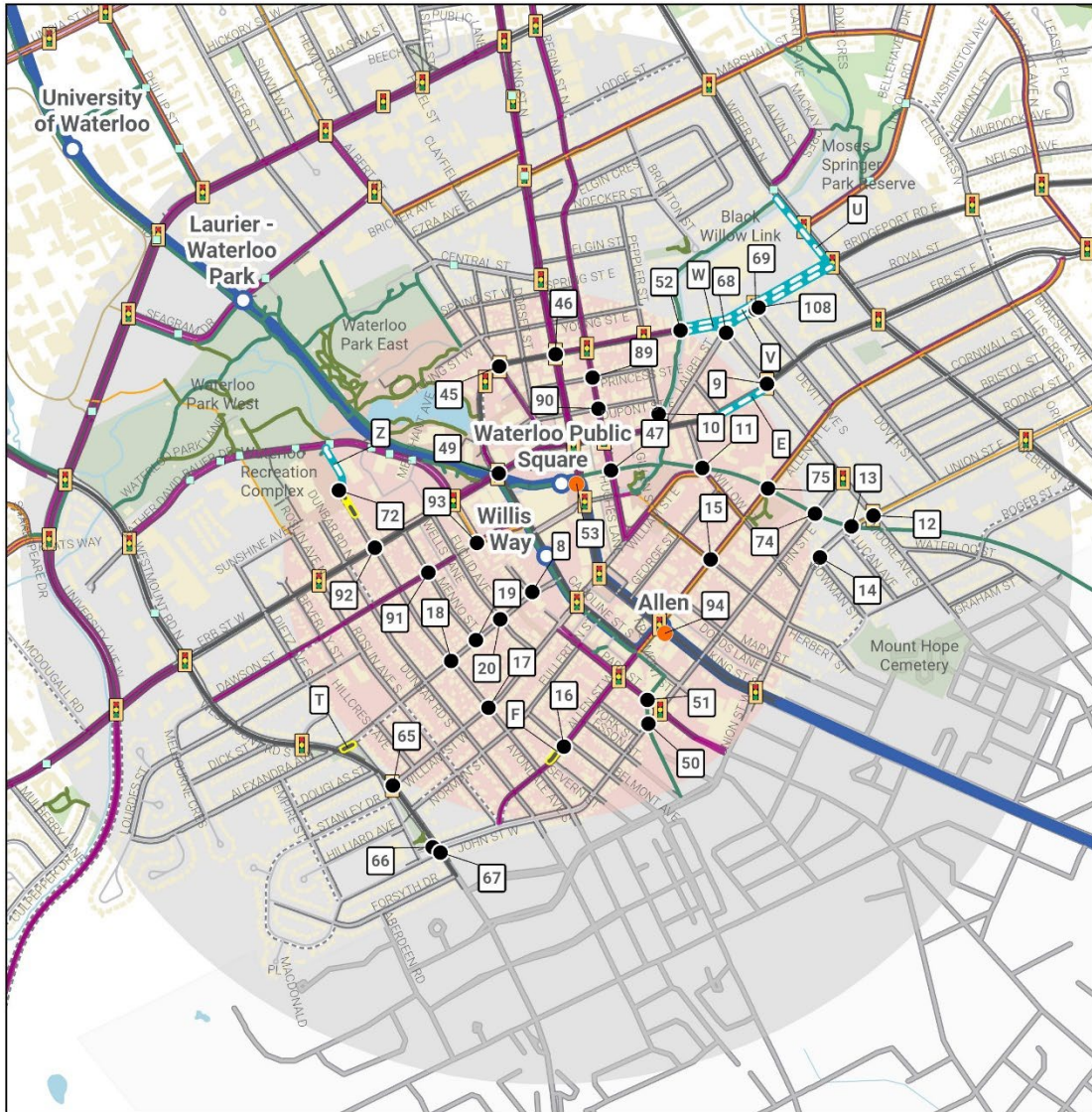
Table 9. Point opportunities for Laurier - Waterloo Park station

Label	Station	Location	Opportunity	Description
36	Laurier-Waterloo Park	Seagram Dr at Laurel Trail	Crossing improvement	Consider measures to slow down vehicles and make trail crossing smoother for trail users and more visible to motorists. Consider adding priority to trail users. For example, raised crossing, speed humps along Seagram Dr. Consider removing the 'pedestrians yield to traffic' sign on the west side.
37	Laurier-Waterloo Park	Seagram Dr at Laurel Trail	Crossing improvement	Make crossing more visible to motorists. Consider removing the 'pedestrians yield to traffic' sign on the east side.
40	Laurier-Waterloo Park	University Ave at Seagram Dr	Crossing improvement	Add bull nose for the crossings on University Ave. Reduce pedestrian wait time at intersection. No right on red for vehicles. Add protected left-turn phase for vehicles. Make crossing more visible.
78	Laurier-Waterloo Park	Laurier Waterloo Park station	Amenity	Fix-it stand.
86	Laurier-Waterloo Park	Albert St at Central St	Crossing improvement	Consider adding controlled crossing or median.
87	Laurier-Waterloo Park	Dorset St at Spring St	Crossing improvement	Smoother and wider curb ramps. Add TWSI on 3 corners.
88	Laurier-Waterloo Park	Fountain St at Central St	Crossing improvement	Add TWSI on both corners.

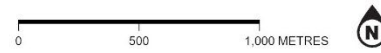
Table 10. Line opportunities for Laurier - Waterloo Park station

Label	Station	Location	Opportunity	Description
I	Laurier-Waterloo Park	University Ave between Westmount Rd and Laurel Trail	Upgrade bikeway	Upgrade to physically separated bikeway and make sure gutter is not included in the bikeable width of the bike lane.
J	Laurier-Waterloo Park	University Ave between Westmount Rd and Laurel Trail	Upgrade bikeway	Upgrade to physically separated bikeway and make sure gutter is not included in the bikeable width of the bike lane.
AC	Laurier-Waterloo Park	Path along Waterloo Park Lane	Upgrade path	Widen and level footpath.

# Waterloo Public Square, Willis Way, and Allen



**Waterloo Public Square, Willis Way, Allen  
Connectivity Opportunities**



City of Waterloo  
Improving LRT Connectivity



**Opportunities**

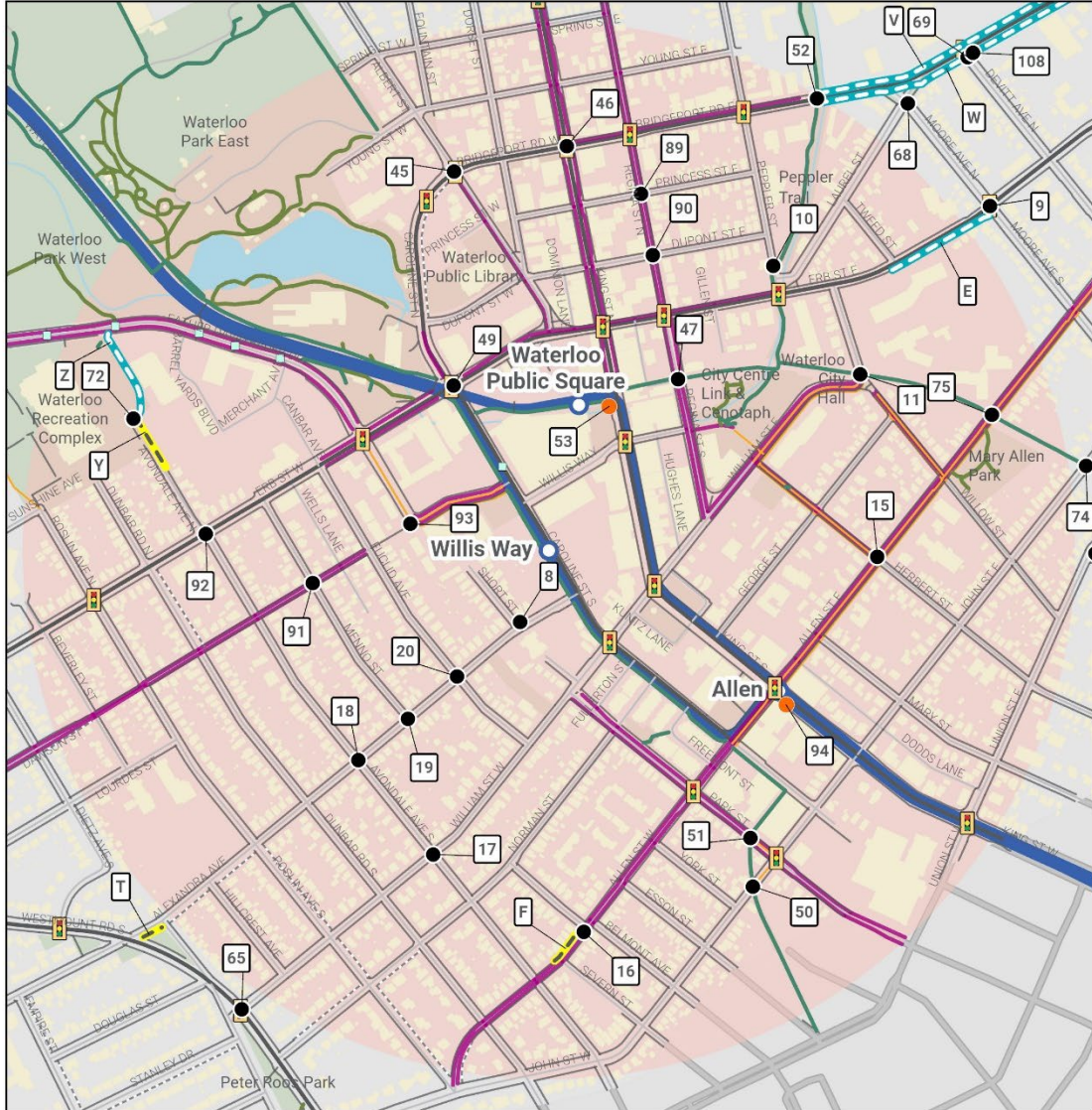
- Amenity
- Crossing improvement
- New Facility
- Upgrade Facility

**Existing | Planned**

- Bikeways
- Multi-use Path
- Recreational Trail
- Sidewalk

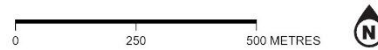
**Background**

- Walk Zone - 800m
- Micromobility Zone - 1600m
- TMP Proposed Projects
- Pedestrian Refuge
- H Traffic Signals
- ION Station
- ION Route
- Buildings
- Parks



Data provided by the City of Waterloo. Document: H:\Share\VP\Projects\Canada\2023\09-2023-010-Waterloo\_OH\_LRT\_Mobility\_Zones\GIS\Present\23\_010\_Waterloo\_OH\_LRT\_Mobility\_Zones\GIS\Present\23\_010\_Waterloo\_OH\_LRT\_Phase2.aprx. Date saved: 1/18/2024.

## Waterloo Public Square, Willis Way, Allen Connectivity Opportunities



City of Waterloo  
Improving LRT Connectivity



### Opportunities

- Amenity
- Crossing improvement
- New Facility
- Upgrade Facility

### Existing | Planned

- Bikeways
- Multi-use Path
- Recreational Trail
- Sidewalk

### Background

- Walk Zone - 800m
- Micromobility Zone - 1600m
- TMP Proposed Projects
- Pedestrian Refuge
- Traffic Signals
- ION Station
- ION Route
- Buildings
- Parks

Table 11. Point opportunities for Waterloo Public Square, Willis Way, and Allen stations

Label	Station	Location	Opportunity	Description
12	Allen	Union St at Moore Ave	Crossing improvement	Add TWSI on 3 corners.
13	Allen	Spur Line Trail at Union St	Crossing improvement	Median is of poor quality.
14	Allen	Bowman St at Union St	Crossing improvement	NE corner of Bowman St is too steep. Improve grade to make it more accessible.
15	Allen	Herbert St at Allen St	Crossing improvement	Crosswalk on Herbert St on east and west side.
16	Allen	Allen St at Belmont Ave	Crossing improvement	Crosswalk on Allen St where sidewalk is missing.
50	Allen	John St at Iron Horse Trail	Crossing improvement	Consider measures to make trail crossing more visible and safer. Trail crossing is angled and is long to cross. Consider measures to slow down vehicles, such as pinch points along John St.
51	Allen	Park St at Iron Horse Trail	Crossing improvement	Consider measures to make trail crossing more visible and safer.
66	Allen	Westmount Rd at John St	Crossing improvement	Reduce crossing distance.
67	Allen	Westmount Rd at John St	Crossing improvement	Consider adding controlled crossing.

Label	Station	Location	Opportunity	Description
74	Allen	Spur Line Trail at John St	Crossing improvement	Consider measures to slow down vehicles and make trail crossing more visible to motorists. Consider adding priority to trail users. For example, raised crossing, speed humps along John St., lane narrowing. Move stop line for vehicles further back from trail crossing.
75	Allen	Spur Line Trail at Allen St	Crossing improvement	Consider measures to slow down vehicles and make trail crossing more visible to motorists. Consider adding priority to trail users. For example, raised crossing, speed humps along Allen St., lane narrowing. Move stop line for vehicles further back from trail crossing. On the west side, sign that marks track crossing is in the trail path way. Consider moving it to allow for straight path of travel.
94	Allen	King St sidewalk by the ION station	Amenity	Install bike parking.
9	Waterloo Public Square	Erb St at Moore Ave	Crossing improvement	Add TWSI on 3 corners. Add zebra.
10	Waterloo Public Square	Peppler St at Peppler Trail	Crossing improvement	Make trail crossing more visible to motorists.
11	Waterloo Public Square	Spur Line Trail at Willow St	Crossing improvement	Consider measures to slow down vehicles and make trail crossing more visible to motorists. Consider adding priority to trail users. For example, raised crossing, speed humps along Willow St., lane narrowing.
45	Waterloo Public Square	Albert St at Caroline St and Bridgeport Rd	Crossing improvement	Implement measures to improve right turn channel. Upgrade pedestrian refuge width. Make pedestrian crossing more visible.

Label	Station	Location	Opportunity	Description
46	Waterloo Public Square	King St at Bridgeport Rd	Crossing improvement	Protected left turn phase for vehicles.
47	Waterloo Public Square	Laurel Trail at Regina St	Crossing improvement	Move 'Stop for pedestrians' sign and stop line further back for vehicles. Make crossing more visible to motorists.
49	Waterloo Public Square	Erb St at Caroline St	Crossing improvement	Protected intersection.
52	Waterloo Public Square	Bridgeport Rd at Laurel Trail	Crossing improvement	Consider raised crossing for trail users to make the journey smoother.
53	Waterloo Public Square	Waterloo Public Square	Amenity	Fix-it stand.
68	Waterloo Public Square	Moore St at Laurel St	Crossing improvement	Curb extension to shorten pedestrian crossing.
69	Waterloo Public Square	Bridgeport Rd at Devitt Ave	Crossing improvement	Smoother curb ramps on both sides of Devitt Ave. Make crossing more visible to motorists.
72	Waterloo Public Square	Avondale Ave at Waterloo Recreation Complex	Crossing improvement	Add crosswalk.
89	Waterloo Public Square	Princess St at Regina St	Crossing improvement	Add TWSI on all 4 corners.
90	Waterloo Public Square	Dupont St at Regina St	Crossing improvement	Add TWSI on all 4 corners.
92	Waterloo Public Square	Avondale Ave at Erb St	Crossing improvement	Smoother and wider curb ramps on all 4 corners.
108	Waterloo Public Square	Bridgeport Rd at Devitt Ave	Crossing improvement	Smoother curb ramp.

Label	Station	Location	Opportunity	Description
8	Willis Way	Short St at Alexandra Ave	Crossing improvement	Add TWSI on north corner.
17	Willis Way	William St at Avondale Ave	Crossing improvement	Crosswalk on north and south side of Avondale Ave.
18	Willis Way	Alexandra Ave at Avondale Ave	Crossing improvement	Add TWSI on 3 corners.
19	Willis Way	Alexandra Ave at Menno St	Crossing improvement	Crosswalk on Alexandra Ave.
20	Willis Way	Alexandra Ave at Euclid Ave	Crossing improvement	Add TWSI on all 4 corners.
65	Willis Way	Westmount Rd at William St	Crossing improvement	Add TWSI on all 4 corners.
91	Willis Way	Dawson St at Menno St	Crossing improvement	Add TWSI on all 4 corners.
93	Willis Way	Father David Bauer Dr at cut through to Dawson St	Crossing improvement	Smoother curb ramp.

Table 12. Line opportunities for Waterloo Public Square, Willis Way, and Allen stations

Label	Station	Location	Opportunity	Description
E	Waterloo Public Square	Erb St between Moore Ave and Tweed St	Widen sidewalk	Existing sidewalk is very narrow, and the hydro line poles are on the sidewalk, making it not accessible. Consider measures to make sidewalk width at least 1.8 m.

Label	Station	Location	Opportunity	Description
F	Allen	Allen St between Severn St and Belmont Ave	New sidewalk	Continue the sidewalk on the west side to close the gap.
T	Willis Way	Alexandra Ave	New sidewalk	Add sidewalk on island.
U	Waterloo Public Square	Weber St between Laurel trail and Bridgeport Rd	Widen sidewalk	Upgrade sidewalk to multi-use path to connect to existing path.
V	Waterloo Public Square	Bridgeport Rd between Laurel Trail and Weber St	Widen sidewalk	Upgrade sidewalk to multi-use path to connect to existing path.
W	Waterloo Public Square	Bridgeport Rd between Laurel Trail and Weber St	Widen sidewalk	Upgrade sidewalk to multi-use path to connect to existing path.
Y	Waterloo Public Square	Avondale Ave between Father David Bauer Dr and Erb St	New sidewalk	Add sidewalk to fill missing gap.
Z	Waterloo Public Square	Avondale Ave	Upgrade surface	Pave path and connect it to the sidewalk.