



GRAND RIVER TRANSIT

**Stage 2 ION:
Light Rail Transit (LRT)
from Kitchener to Cambridge**

Public Consultation Centre (PCC) 4b

Preston Memorial Auditorium March 20, 2019 4 to 8 p.m.

Public information package





Table of contents

Contents	Page
1.0 Introduction	1
2.0 Why are we here?	1
3.0 How will my input be used?	1
4.0 What did we hear at the last Public Consultation Centre (PCC 4)?	2
5.0 How were the route refinements developed?	2
5.1 Preferred route	2
5.2 Refinements to the Preferred Route in North Cambridge	4
5.3 Evaluation process	6
5.4 Evaluation criteria	6
5.5 Evaluation Results - Refinements to the Preferred Route in North Cambridge	7
6.0 Project Team Preferred Refinement	8
7.0 Property impacts	10
8.0 What are the next steps?	10
8.1 Public consultation	11
9.0 How do I stay involved?	11
10.0 Contact information	11

Appendices:

Appendix A: Evaluation results

Appendix B: Property impacts





Stage 2 ION: LRT from Kitchener to Cambridge

Public Consultation Centre 4b

Public information package

1.0 Introduction

In June 2018, Region of Waterloo Council endorsed a Preferred Route for the Stage 2 ION project, subject to further evaluation of the portion of the route between Shantz Hill Road and Eagle Street North at William Street. The project team has further considered local route and station location refinements between the Speed River and the Eagle Street Canadian Pacific Rail crossing, as outlined on Map 1.

The purpose of the event is to present information about the portion of the Stage 2 ION route: from Shantz Hill Road to Eagle Street North where it crosses the Canadian Pacific Rail tracks. Additional analysis and route refinements are presented within a defined area, beyond which the Preferred Route has not changed since Regional Council endorsement in June 2018.

Public Consultation Centre (PCC) 4b is a companion event to PCC 4, which was held in May 2018. Much of the information presented at PCC 4 still applies. The PCC 4 Information Package, dated May 2018, is available to attendees of the current PCC and online at www.stage2ion.ca.

2.0 Why are we here?

The Region of Waterloo is continuing the planning and consultation process for Stage 2 ION: LRT from Kitchener to Cambridge. Public input is an essential and ongoing component of this process.

The purpose of Public Consultation Centre 4b is to:

- Hear your feedback
- Provide an overview of comments received at PCC 4 related to the North Cambridge (Preston) area
- Explain how the route refinements were evaluated in North Cambridge (Preston) area
- Present the Project Team Preferred Refinement to the Preferred Route

3.0 How will my input be used?

Your comments will be used to:

- Identify issues that need further consideration during the preliminary design stage
- Verify study area conditions and constraints, as input to reduce impacts



4.0 What did we hear at the last Public Consultation Centre (PCC 4)?

Below is a summary of comments from PCC 4 related to the North Cambridge area. Please refer to the Public Consultation Centre 4 Summary Report for details on the event and comments received for other segments.

- A mixture of concern and support surrounding the need for the Stage 2 LRT. Many of these comments, both for and against, focused on the need for LRT to travel through and stop in the North Cambridge area
- Traffic impact – both during and after construction was frequently raised as a concern
- Impacts to the natural environment and existing walking trail systems noted
- Property impacts and impacts to existing communities continue to be significant concerns



5.0 How were the route refinements developed?

5.1 Preferred Route

A number of routes were considered and evaluated leading up to PCC 4, including routes that didn't follow Shantz Hill Road.

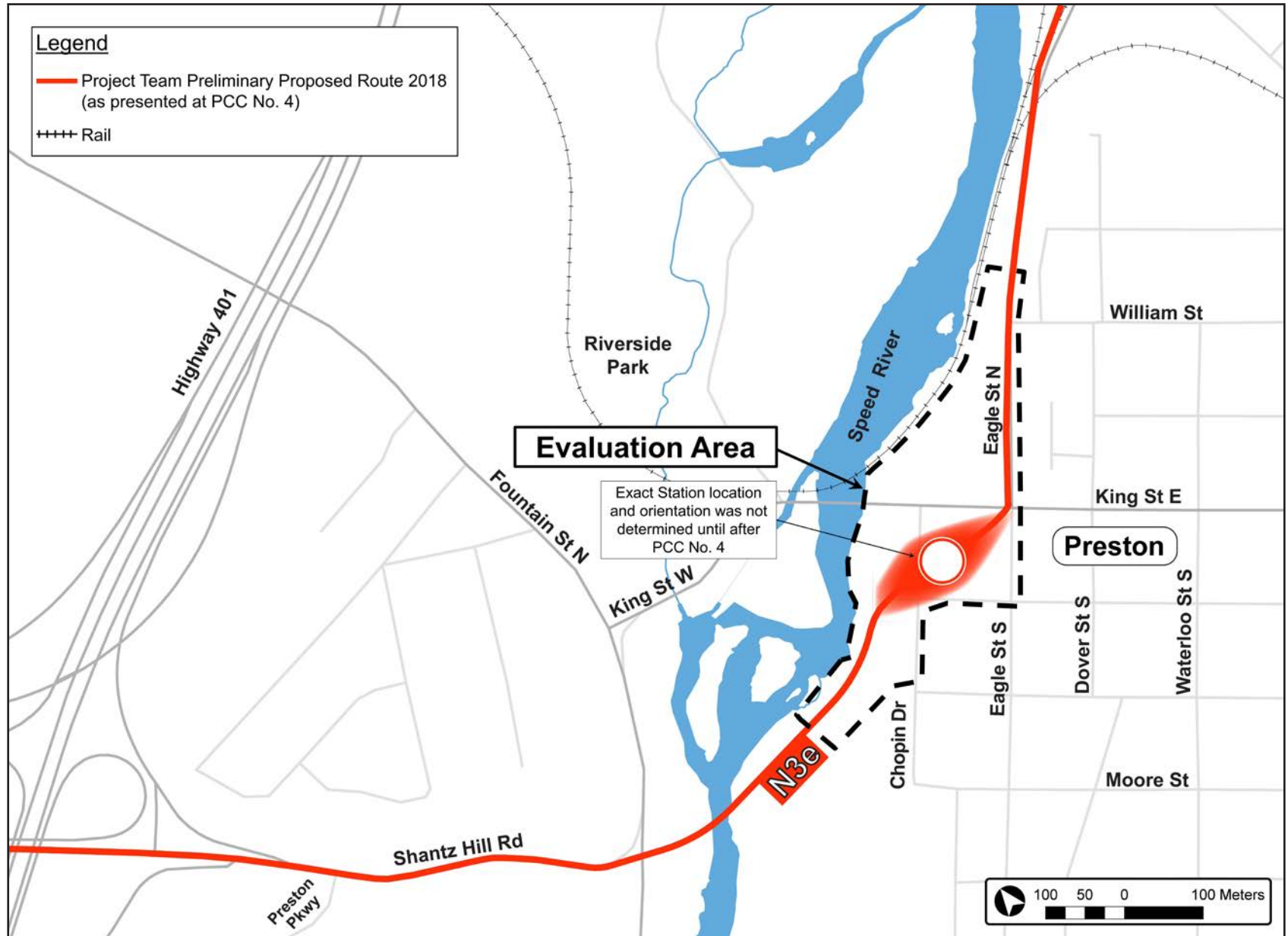
The previous evaluation processes established that:

- the Preferred Route travels down Shantz Hill Road
- the preferred crossing of Speed River starts at the bottom of Shantz Hill and crosses toward Chopin Drive
- a station located in the "Queenston Block" (north-west corner of King Street and Eagle Street, bounded by King Street, Eagle Street, Queenston Road, and Chopin Drive) is preferred over a station located on Eagle Street, east of King Street
- the Preferred Route travels along the abandoned Canadian Pacific Rail spur north of Eagle Street, which requires the LRT route to rise up and over the existing Canadian Pacific Rail tracks

Only alternatives between the above-noted Speed River crossing and Canadian Pacific Rail spur were considered. For example, routes along Maple Grove Road were not re-evaluated.

See Map 1 for the Preferred Route, presented as the Project Team Preliminary Proposed Route at PCC 4

Map 1 – Preferred Route and evaluation area





5.2 Refinements to the Preferred Route in North Cambridge

With the Preferred Route confirmed following Regional Council endorsement in June 2018, the route refinements consist of track alignment and station locations within the evaluation area (between the Speed River and Eagle Street at the Canadian Pacific Rail tracks).

The route refinements must include a station. While the station platform is 65 m long, it requires a minimum 93 m length of straight track.

Previously evaluated routes were not reconsidered for refinement of the Preferred Route.

Some potential refinements were initially considered, but screened out. For example, an elevated track and station over King Street was screened out because of the significant additional cost, poor pedestrian access, poor transit integration, the marginal reduction in impacts, and only a minor reduction in traffic impacts.

The evaluated route refinements include:

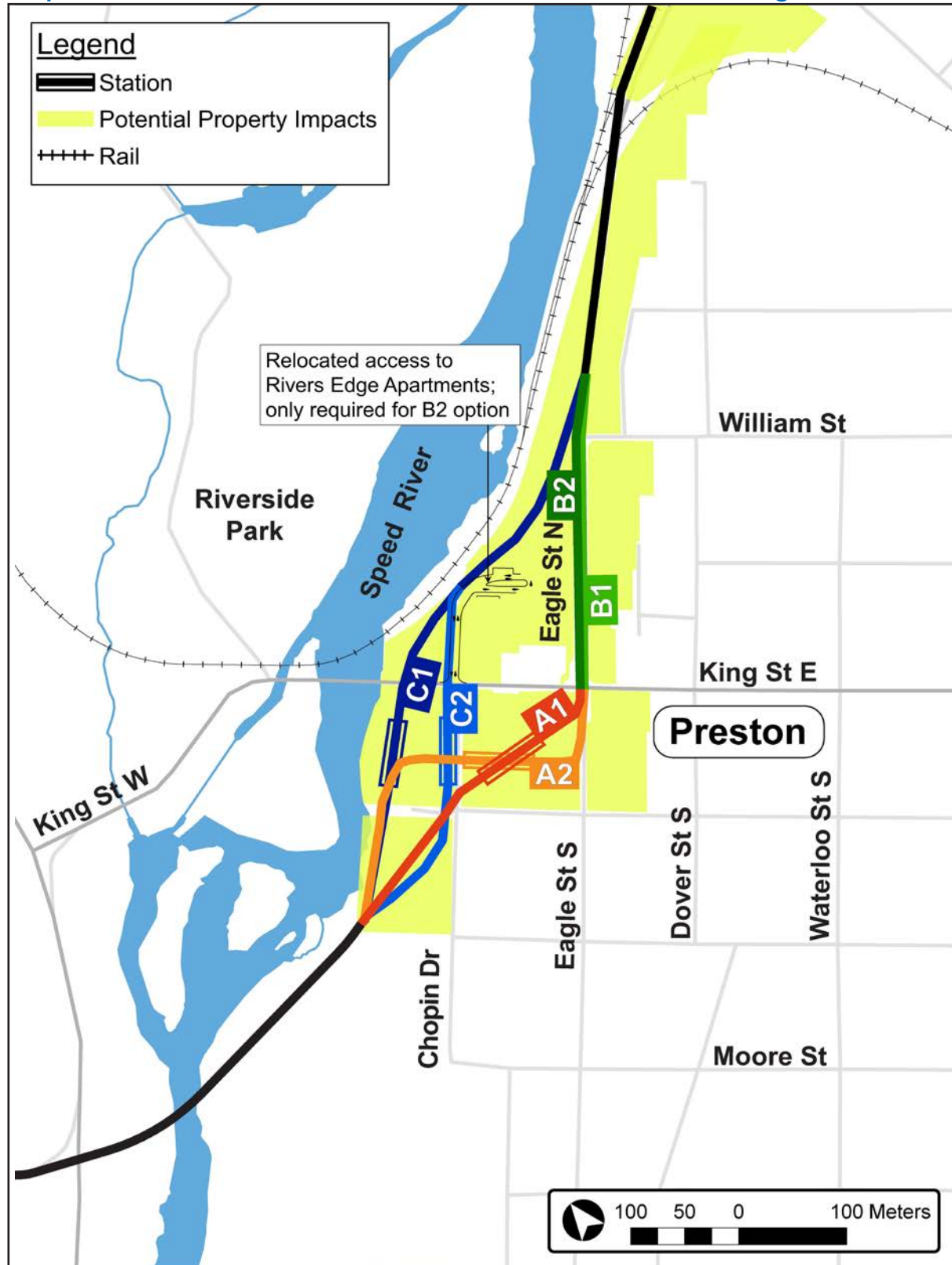
- a route along Eagle Street with a station either diagonally across the “Queenston block” (A1), or rotated to be parallel to King Street (A2)
- a route on Eagle Street that is either centre-running (down the middle) with a lane of traffic on both sides (B1), or side-running with both vehicular lanes together on the other side (B2)
- a route between the River’s Edge apartment towers and the existing Canadian Pacific Rail tracks, with the station either along the Speed River (C1), or along Chopin Drive (C2).

See Map 2 for the route refinements to the Preferred Route that were carried forward for evaluation.





Map 2 – Refinements to the Preferred Route in North Cambridge





5.3 Evaluation process

The method used to evaluate the refinements was comparable to the evaluation of the previous route alternatives. Some of the evaluation criteria did not apply to this process because the evaluation area was relatively small and the differences between the alternatives were not significant enough to distinguish them from each other.

However, for the criteria that were applied even with a conceptual level of design detail some clear differences did emerge.

The project team, which includes specialized technical experts from a variety of fields, used the evaluation criteria as a framework to assess each refinement's ability to meet project objectives while minimizing its impact, and then compared the route refinements to each other.

The criteria were used together with technical analysis and what we heard from the public, businesses and stakeholders to identify the Project Team Preferred Route Refinement to the Preferred Route.

5.4 Evaluation criteria

Throughout this study, the Stage 2 project team has used a consistent set of evaluation criteria to evaluate and compare route alternatives, as presented at PCC 2, 3, and 4. These criteria provide a structure of focused questions and measures to allow direct comparison of alternatives.

For the evaluation of the route refinements, some of the criteria were not applicable to the analysis. For example, "impact to significant natural features" was not applicable because all refinements have the alignment along the Speed River, and "ability to serve multi-modal nodes" yields the same result across all refinements.

The following table shows the criteria used for the evaluation:





Category	Criteria	Description
Transportation	Impact on traffic operations	How many new signalized intersections are required? How many existing intersections have capacity issues and would be further impacted by LRT?
	Properties impacted	How many residential, commercial, industrial or institutional properties are impacted and how many of those could potentially require full buyout?
Social/cultural	Cultural heritage impacts	How many heritage properties and buildings are impacted and to what extent? Can the impact be mitigated?
	Impact on the floodplain	What area of floodplain does the route cross?
Economic	Opportunities for revitalization/intensification	Is there potential for transit-oriented land use intensification close to the station?
	Cost	What is the estimated cost to design and build?

5.5 Evaluation Results - Refinements to the Preferred Route in North Cambridge

The project team assessed each route refinement according to how well it met the objectives of each criterion. The project team evaluated and compared the route refinements, summarizing those results in a list of benefits and drawbacks. Appendix A summarizes the evaluation results.

Key evaluation results are summarized below.

Is a parallel station or a diagonal station preferred in the "Queenston block"?

For routes along Eagle Street, the project team developed two station concepts: one on a diagonal through the block (A1) and one parallel to King Street (A2).

A parallel station (A2) directly impacts fewer residential properties and fewer cultural heritage resources overall, but costs about 50 per cent more because of commercial property acquisitions and additional length of elevated track. It also has a more curved alignment, which is less desirable for LRT vehicle operation and could have higher noise impacts for adjacent residences.

The project team identified a diagonal station (A1) as preferred because it is more direct, has better pedestrian and cyclist connections, is less noisy, and is much less expensive.

Is centre-running or side-running preferred on Eagle Street?

A route that runs along Eagle Street could be either centre-running (B1) or side-running (B2).



“Centre-running” means two tracks in the middle of the road with a traffic lane on both sides, while “side-running” means that the LRT tracks are on one side of the roadway with traffic lanes together on the other side. Sidewalks are provided in both options.

While centre-running has less impact to traffic and better accommodates property access, it requires reconstruction of a significantly longer section of Eagle Street, which also therefore impacts more properties. The B1 alternative therefore costs about 20 per cent more than side-running.

The project team identified side-running (B2) as preferred because side-running reduces property impacts and costs. It also simplifies the crossing of the active Canadian Pacific Rail to an LRT-only bridge (not cars or trucks) to access the abandoned Canadian Pacific rail spur.

Is Eagle Street or around the River’s Edge apartment towers preferred?

The project team considered whether the LRT tracks could fit between the River’s Edge apartment towers and the Canadian Pacific Rail tracks instead of running along Eagle Street. Such a route could include a station beside the Speed River (C1) or a station along Chopin Drive (C2).

A route on the river side of the apartment towers (C1/C2) allows the existing access

on Eagle Street to remain as is, while side-running (B2) would require the existing access from Eagle Street to be relocated to King Street. C1 and C2 impact the fewest cultural heritage resources, and avoid impacts to traffic operations at the intersection of King Street and Eagle Street.

The major drawback for C1 and C2 is the distance between the station and the intersection of King Street and Eagle Street. That distance reduces the land use benefits (redevelopment) along King Street, reduces the number of residents and jobs within a walkable radius, and does not achieve the direct transfers required from bus stops at the intersection.

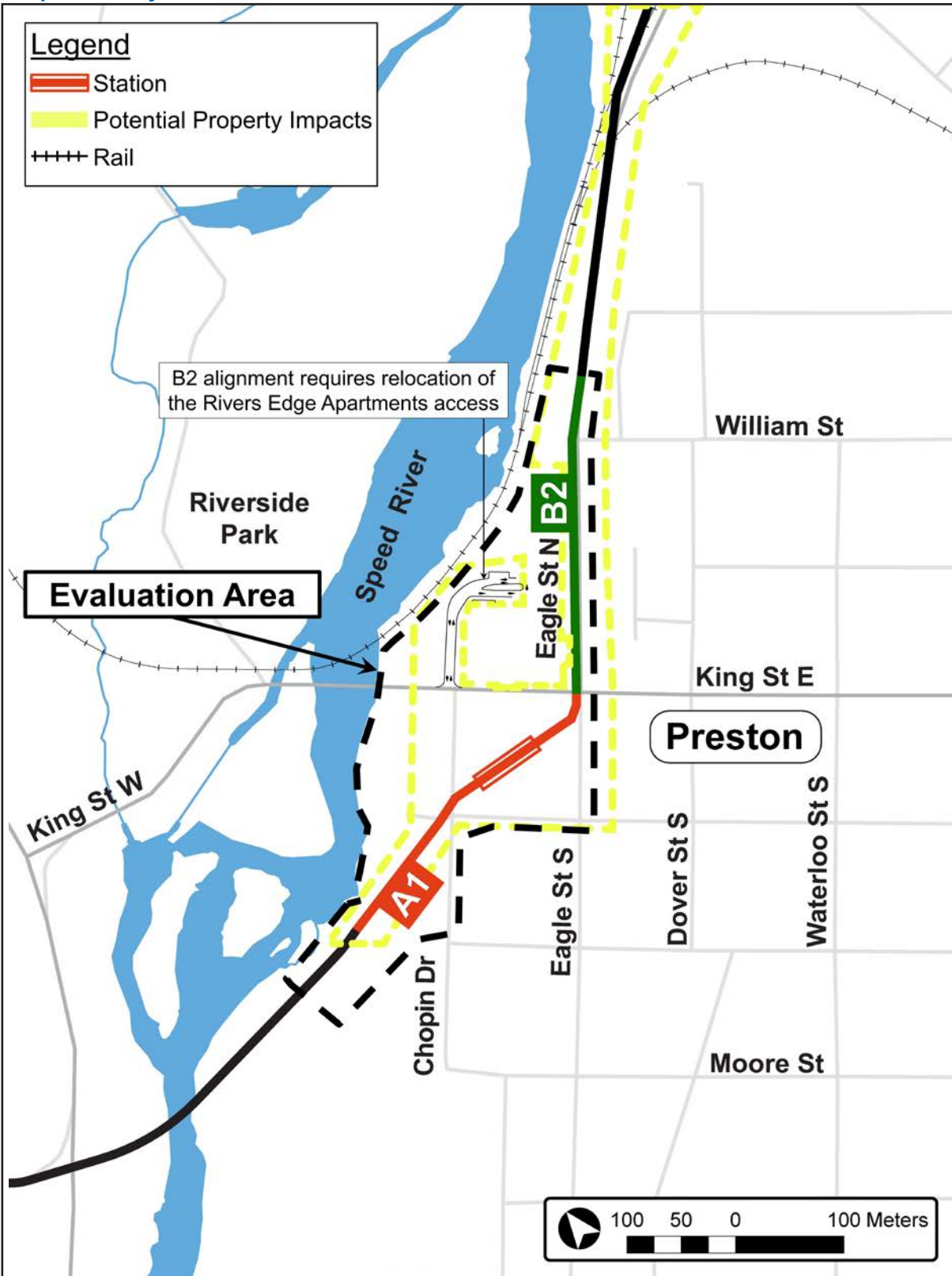
After closer scrutiny, not even a single LRT track could fit between the Canadian Pacific Rail property and the existing River’s Edge parking garage, which would likely have to be substantially or completely re-built.

6.0 Project Team Preferred Refinement

Based on the evaluation results and the various input received, the project team identified a preferred refinement to the Preferred Route through the evaluation area: A1+B2, shown on Map 3.



Map 3 – Project Team Preferred Refinement to the Preferred Route





7.0 Property impacts

For general information about the Region's property impact identification and property acquisition processes, please refer to Appendix B.

Impacts to individual properties, along with the preliminary design, have not yet been finalized and will be presented to the public at a future PCC.

The maps presented here are larger in scale (are "zoomed in") compared to the maps from previous PCCs and are not sufficient to define specific property requirements. While they appear to show more detail, the level of design is still very conceptual.

In addition, because a portion of the route does not follow existing road corridors, it is still subject to adjustment during the preliminary design. Those adjustments will be based on updated topographic survey information and various technical analyses during the preliminary design, such as road profile, local bus facilities, sidewalk and trail connections, avoidance of sensitive features, hydraulic analysis within the floodplain, etc.

Given the above information, whether a property is impacted, and the relative extent of impact, cannot be confirmed at this time.

8.0 What are the next steps?

What happens next?

Consulting with the public is an integral part of each of these processes. The project team will review all public feedback and incorporate any new information. Comment sheets and the online survey can be submitted until April 3, 2019.

After reviewing the feedback received at this PCC, the Project Team Preferred Refinement to the Preferred Route will be presented to the Region of Waterloo Planning and Works Committee for consideration.

Pending Council endorsement, future steps are to:

- Pending Council endorsement of the preferred refinement, complete preliminary design and the identification of the associated property requirements
- Finalize station locations/names
- Determine location of maintenance and storage facility
- Hold PCC 5 to present the preliminary design and property requirements (anticipated in Fall 2019)
- Prepare the business case for the project
- Present preliminary design (including the business case) to Regional Council for final authority to initiate the formal Transit Project Assessment Process (late 2019)
- File the Environmental Project Report (EPR) for public review
- Address any comments submitted during the public review and Minister of Environment, Conservation and Parks' review periods
- Submit Provincial and Federal funding applications



8.1 Public consultation

Feedback from the public is an important part of this project. The public consultation process will also provide an opportunity for the public to provide input regarding the study, and ask the project team questions about Stage 2 ION and about the environmental assessment process.

A fifth PCC is planned for 2019. Following completion of PCC 5 and receipt of comments, the project team will compile and summarize all of the methods of public consultation from the start of the Study. Once complete, the Environmental Project Report will be filed and made available for public review and comment for a 30-day period, following which any comments received will be addressed.



9.0 How do I stay involved?

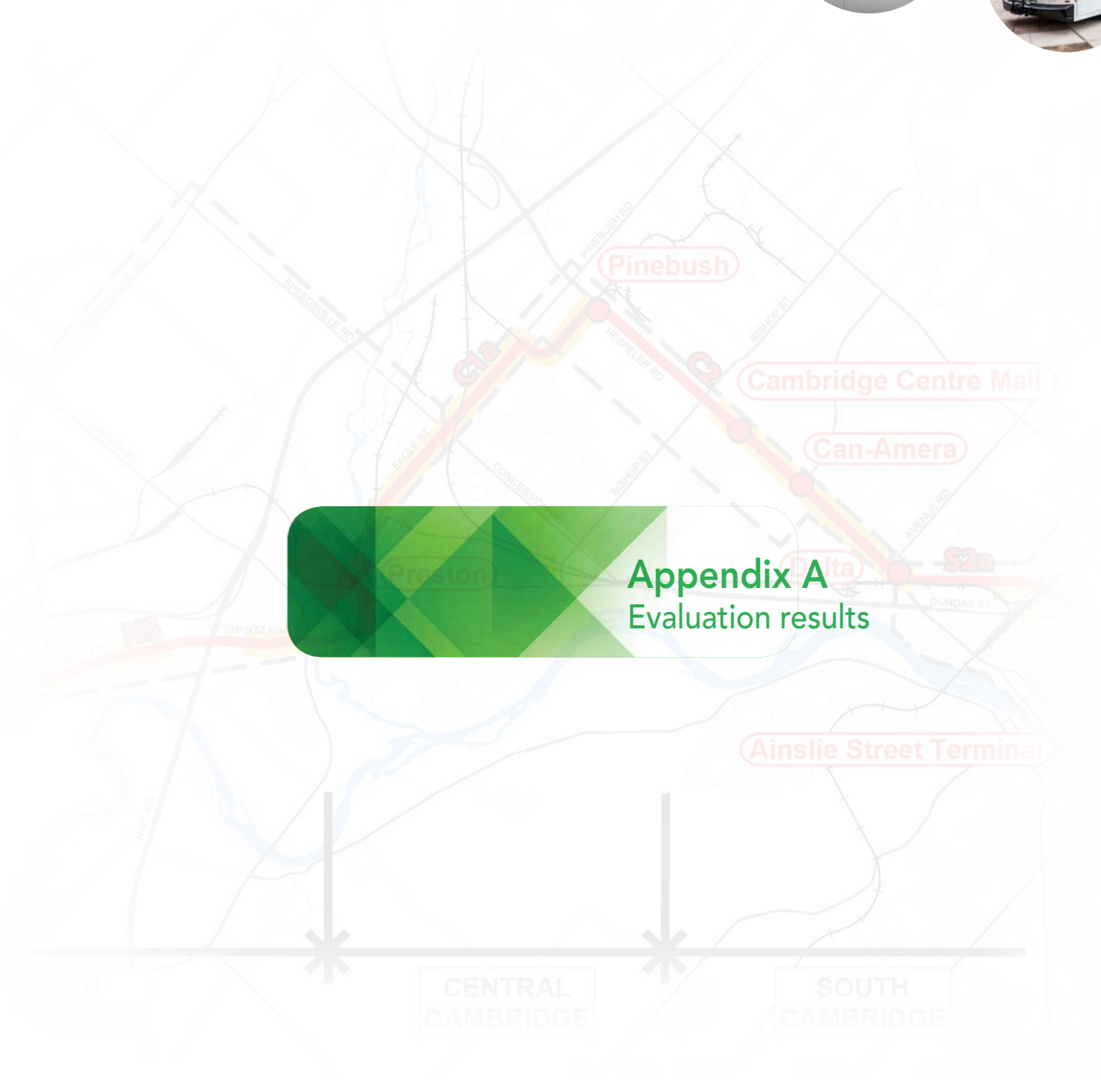
Sign in tonight or sign up on the website (www.stage2ION.ca) to be notified of future meetings. There will be additional PCCs held throughout the study. Feedback can also be provided by speaking with a project team member or submitting your thoughts via comment sheet or online.

Public consultation is a critical and ongoing part of the Environmental Assessment process. The previous consultation material, endorsed maps, and other study information is available on the project website at www.stage2ION.ca. If you would like to have your name added to the project mailing list, please sign-up online at www.stage2ION.ca, or provide your name, postal address, email address and any group affiliation to:

10.0 Contact information

Rapid Transit

Region of Waterloo
50 Queen Street North, Suite 830
Kitchener, Ontario, N2H 6P4
Phone: 519-575-4400
Fax: 519-745-4040 TTY: 519-575-4608
Email: ION@regionofwaterloo.ca





Is a diagonal station (A1) or a parallel station (A2) preferred in the "Queenston block"?

A1: Diagonal station in Queenston block – PREFERRED

- Better pedestrian and cyclist connection to King Street/Eagle Street
- Better track geometry – less track noise on tight corners
- Less expensive to build
- Higher number of properties impacted and more full buyouts
- Higher number of cultural heritage resources impacted

A2: Parallel station in Queenston block – NOT PREFERRED

- Fewer residential properties directly impacted
- Fewer cultural heritage resources impacted overall
- More expensive to build
- Tighter curves resulting in more track noise

Is centre-running (B1) or side-running (B2) preferred on Eagle Street?

B1: Centre running on Eagle Street – NOT PREFERRED

- Less traffic impacts
- Better property access
- More properties impacted
- More expensive to build
- More complicated bridge over CP/ Eagle St

B2: Side running on Eagle Street – PREFERRED

- Fewer properties impacted
- Less expensive to build
- Simpler bridge over just CP
- More traffic impacts
- Greater impact to property accesses





Which is preferred: a station along the Speed River (C1) or along Chopin Drive (C2)?

**C1: Station beside the Speed River
– NOT PREFERRED**

- Less property impacts
- Less accessible to pedestrians and cyclists
- Further into the floodplain
- More impacts to natural habitat
- Crossing of King Street impacts bridge

**C2: Station beside Chopin Drive
– PREFERRED**

- More accessible to pedestrians and cyclists
- Avoids King Street bridge
- More property impacts
- Greater impact to property accesses



Is Eagle Street (A1+B2) or around the apartment towers (C2) preferred?

**A1+B2: Diagonal station in Queenston block,
side running on Eagle Street
– PREFERRED**

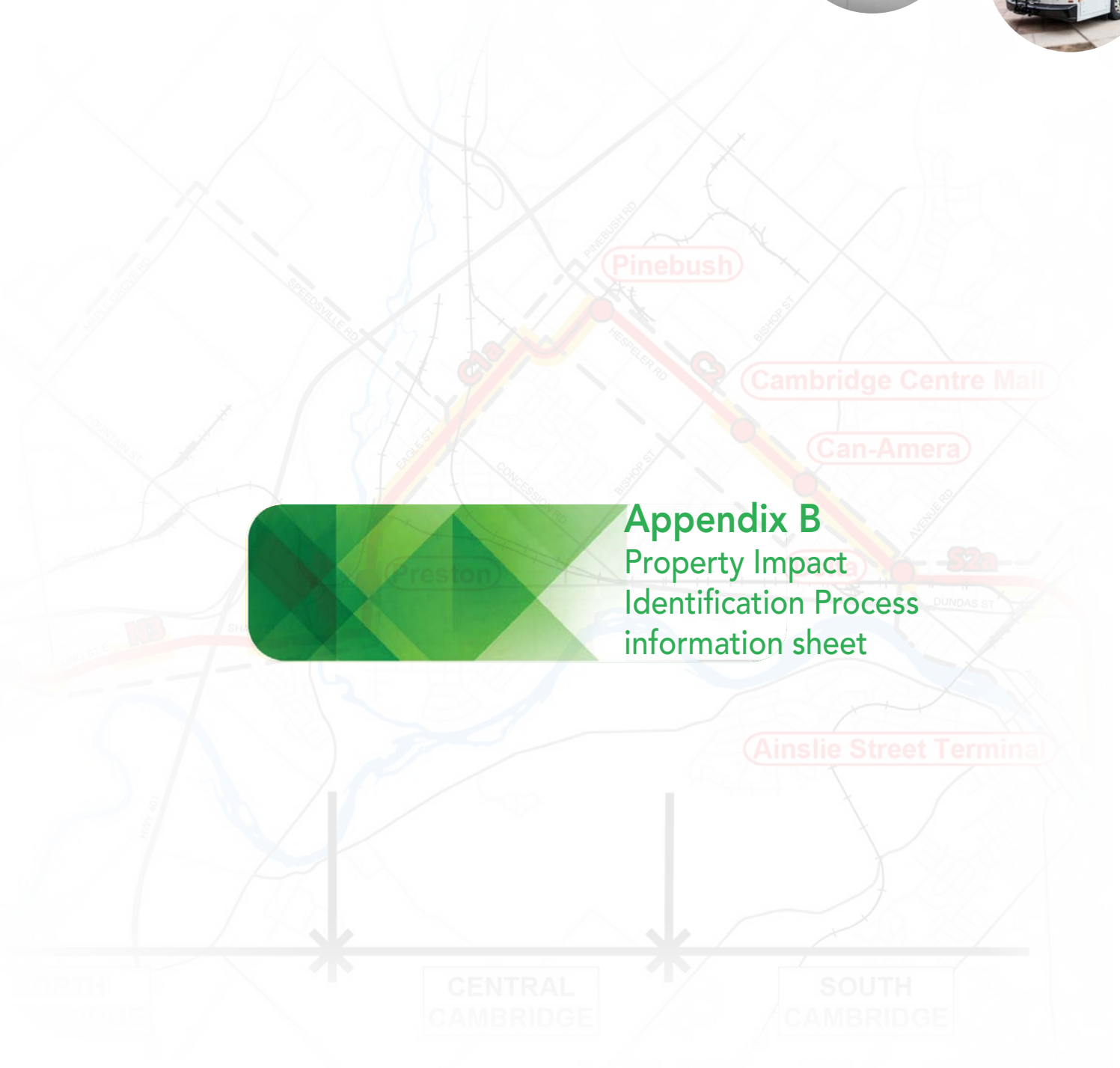
- More land use benefits (redevelopment)
- Fewer engineering and construction challenges
- Less overall impacts to buildings
- More properties impacted
- More cultural heritage resources impacted
- More impact to traffic operations and property accesses

**C2: Station beside Speed River, track
between apartment towers and Speed
River – NOT PREFERRED**

- Fewer residential properties impacted and fewer full buy-outs
- Fewer cultural heritage resources impacted
- Less impact to traffic and accesses
- Less opportunity for revitalization and intensification
- More overall impacts to buildings
- More difficult to construct, (won't fit between the Canadian Pacific Rail property and parking garage, would need to be substantially or completely re-built)



Appendix B Property Impact Identification Process information sheet





Property Impact Identification Process information sheet

The following information is provided as a general overview of the process to identify property impacts during the Stage 2 ION study. The steps, timing and processes can vary depending on the level of design refinement and on the type of impact. Anticipated property impacts are based on the information available to date and on the project team's assessment and may change as the design progresses.

Types of property impacts

Property impacts can take many forms and include partial acquisition, full acquisition ("buyout"), or easement. Partial acquisitions occur when a modest widening is required, but the building and the function/use of the property is retained. Full acquisitions are identified when a building is impacted, or the function of the property is substantially altered. Permanent easements are identified when the current owner can retain ownership and use of the property, but the Region, City, or utility company requires periodic access to the property in the future. For example, aerial easements are required when overhead power lines cross private property. Temporary easements are typically related to construction activities such as grading and restoration.

Route refinement

During the route refinement process a conceptual design is used to identify roadway corridors which, in general, do not have sufficient road allowance width to accommodate the proposed works (LRT tracks, poles, roadway, sidewalks, utilities etc.). The conceptual design is intended to provide a rough, conservative (high side) estimate of property impacts for the purpose of comparing routes to each other. Potential property impacts have been shown as yellow shading or a dashed outline on the maps. Because the design has not been refined at this stage the project team cannot confirm whether specific, individual properties will be impacted, or to what extent if any.

Preliminary design

During preliminary design the specific project requirements, treatments, and dimensions are refined throughout the study area. Additional project elements are considered, such as utilities, traction power substations, pedestrian facilities, bus stops, as well as shelters and landscaping. Property impacts are refined to confirm the individual properties that will be impacted, the type of impact (i.e. partial, full, easement etc.), and the approximate extent of impact. Property impacts will be shown on roll plans at a moderate scale and will show individual parcel outlines.



Property Acquisition Process information sheet

The following information is provided as a general overview of the property acquisition process and is not legal advice. Further, the steps, timing and processes can vary depending on the individual circumstances of each case.

After the preliminary design has been endorsed by Regional Council, the property acquisition process and the efforts of Regional real estate staff will focus on acquiring the required lands to implement the approved design. Regional staff cannot make fundamental amendments or changes to the approved preliminary design.

Property impact plans

Once the project has been approved and as it approaches final design, the project planners will generate drawings and sketches indicating what lands and interests need to be acquired from each affected property to undertake the project. These drawings are referred to as Property Impact Plans (PIP).

Initial owner contact by Regional real estate staff

Once the PIPs are available, Regional real estate staff will contact the affected property owners by telephone and mail to introduce themselves and set-up initial meetings to discuss the project and proposed acquisitions.

Initial meetings

The initial meeting is attended by the project engineer and the assigned real estate staff person to brief the owner on the project, what part of their lands are to be acquired or will be affected, what work will be undertaken, when, with what equipment, etc. and to answer any questions. The primary purpose of the meeting is to listen to the owner and identify issues, concerns, effects of the proposed acquisition on remaining lands and businesses that can be feasibly mitigated and/or compensated, and how the remaining property may be restored. These discussions may require additional meetings. The goal of staff is to work with the owner to reach mutually agreeable solutions.

Goal – fair and equitable settlement for all parties

The goal is always to reach a fair and equitable agreement for both the property owner and the Region. Such an agreement will provide compensation for the fair market value of the lands and address the project impacts (such as repairing or replacing landscaping, fencing, paving) so that the property owner will receive the value of the lands acquired and the restoration of their remaining property to the condition it was in prior to the project.

The initial meetings will form the basis of an initial offer of settlement or agreement of purchase and sale for the required lands or interests.



Region of Waterloo



-
- ION project website: grt.ca/ION
 - Phone: **519-575-4400**
 - TTY: **519-575-4608**
 - Email: ION@regionofwaterloo.ca

- www.stage2ION.ca
-  [/rideION](https://www.facebook.com/rideION)
-  [@rideIONrt](https://twitter.com/rideIONrt)
-  [/rideION](https://www.instagram.com/rideION)

