

Welcome

Stage 2 ION: Light Rail Transit (LRT) from Kitchener to Cambridge Public Consultation Centre (PCC) No. 3

Please Sign-in

Cambridge City Hall	November 21, 2017 – 2:00 - 8:00pm
Preston Memorial Auditorium	November 28, 2017 – 4:00 - 8:00pm
Lions Arena – Kitchener	January 16, 2018 – 4:00 - 8:00pm



ION To Date

- Stage 1 LRT testing is underway from Waterloo to Kitchener and service will begin in Spring 2018
- Stage 2 ION will replace Bus Rapid Transit (constructed under Stage 1) with LRT, creating a continuous LRT system connecting Cambridge, Kitchener and Waterloo
- ION is the foundation for the Regional Official Plan objectives:



Read “The ION Story”, available as a handout or on the project website

What is the Purpose of Today?

- Provide an overview of comments received at PCC No. 2 and how these have provided input to the route selection process
- Present refinements and additional route alternatives in the Kitchener, North Cambridge (Preston) and South Cambridge segments
- Explain how the routes will be evaluated
- Hear your feedback

The study has not yet advanced to the stage where individual property impacts are known. These details will be available at a future public meeting in Early 2019.

How Will My Input Be Used?

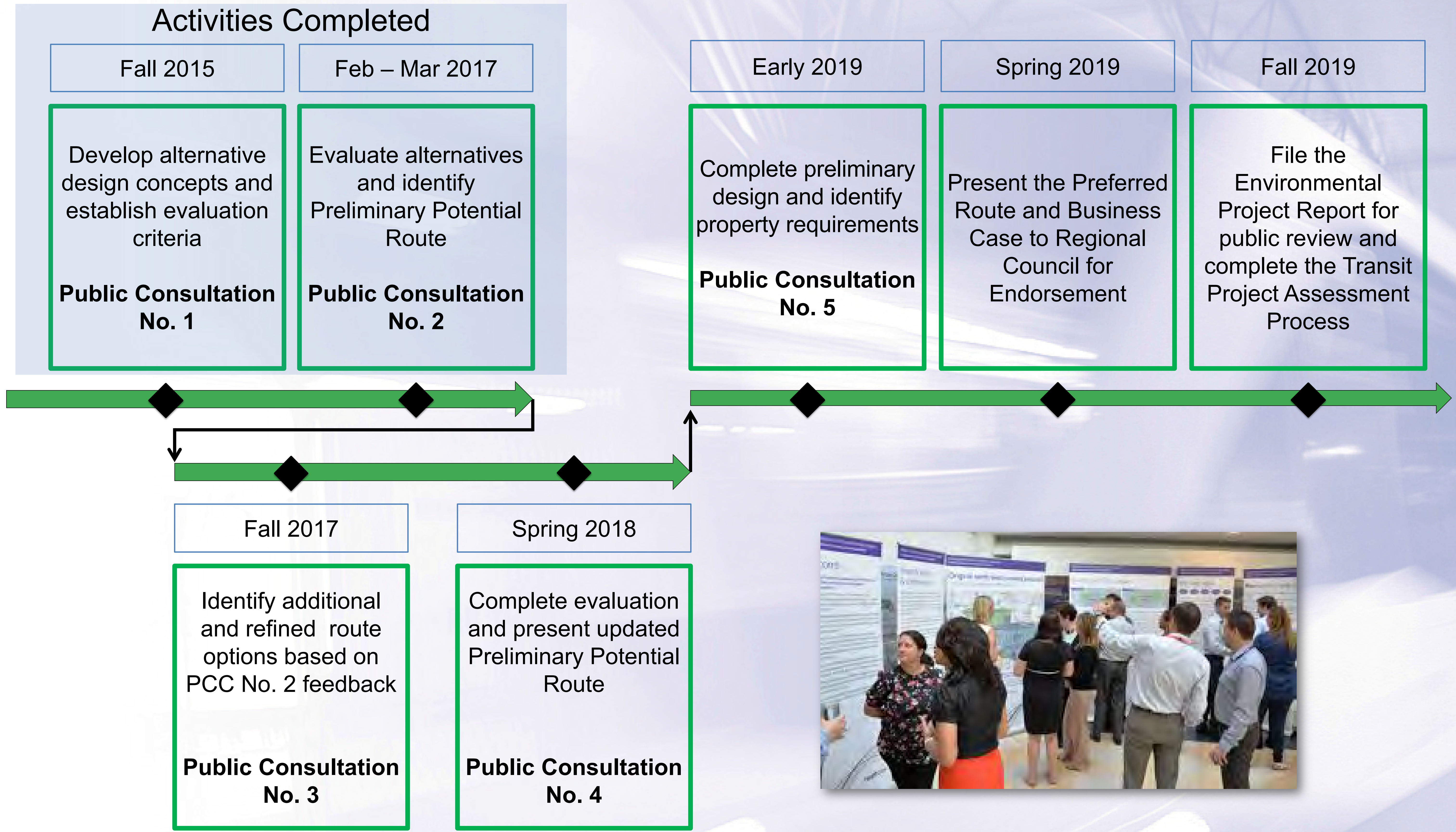
Your comments on the information presented at this public meeting will be used to:

- Finalize the additional alternatives that will be carried forward for evaluation
- Assess the benefits and impacts of each alternative

Please provide feedback by:

- Speaking with a project team member
- Submitting your comments at this PCC, via email or online by February 16, 2018

Study Timeline



We are here

What we heard at PCC No. 2

Approximately **350** attendees over 3 sessions

Over **380** comment submissions received during and after PCCs

Supportive feedback on the Preliminary Potential Route

Coverage

- Connections to transit hubs and major destinations
- Regional connection between Cambridge, Kitchener and Waterloo

Environmental Benefits

- Sustainable transportation options
- Reduced pollution

Redevelopment Potential

- Transit oriented development
- Walking, cycling and transit friendly communities

Transportation

- Avoidance of busy intersections
- Alternative to automobile travel

Concerns regarding the Preliminary Potential Route

Property Impacts

- Residential and commercial property acquisitions
- Broader effects on community character

Traffic Impacts

- Additional auto/freight traffic
- Left turn restrictions
- Construction staging/delays

Heritage, Natural and Noise Impacts

- Impacts to specific natural and built heritage sites, walking trails
- Noise from construction and/or LRT operation

Ridership and Cost

- Potential lack of ridership to support cost
- Potential lack of funding

PCC No. 2 – Site Specific Feedback



KITCHENER

Support

- Use of the proposed River Rd extension
- Avoiding Fairway Rd/King St intersection
- Active transportation on Grand River Bridge
- Direct connection to Sportsworld

Challenges

- Traffic impacts to River Rd extension and King St near Sportsworld
- Environmental impacts to Hidden Valley area
- Environmental impacts of Grand River crossing
- Proximity of Sportsworld stop to existing transit hub

Kitchener Segment

North Cambridge Segment

South Cambridge Segment



NORTH CAMBRIDGE

Support

- Ability for LRT to serve more densely populated area (higher ridership)
- Access to LRT for Preston residents
- Anticipated growth in the community due to LRT implementation
- Opportunity for LRT to connect with King Street buses

Challenges

- Property impacts along Moore and Eagle; decrease in property values and effects on businesses and institutions.
- Traffic conditions along Shantz Hill Rd, Moore St, and Eagle St
- Impacts on natural environment, trail system and heritage properties
- Impacts on community character and public realm

SOUTH CAMBRIDGE

Support

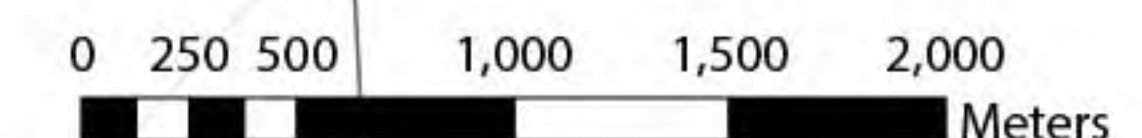
- Avoidance of Delta intersection
- Utilization of the abandoned rail corridor
- Connections with major transit hubs (i.e. Ainslie St. Terminal)
- Avoidance of heritage impacts along Ainslie and Water Streets

Challenges

- Potential impacts to/relocation of Mill Creek Trail
- Property impacts and loss of affordable housing along Beverly
- Impacts to heritage homes
- Ability to create multi-modal hub

Legend

- Preliminary Potential Stop
- Preliminary Potential Route
- Rail Corridor
- ▤ Refinement Under Review (following public and stakeholder feedback)



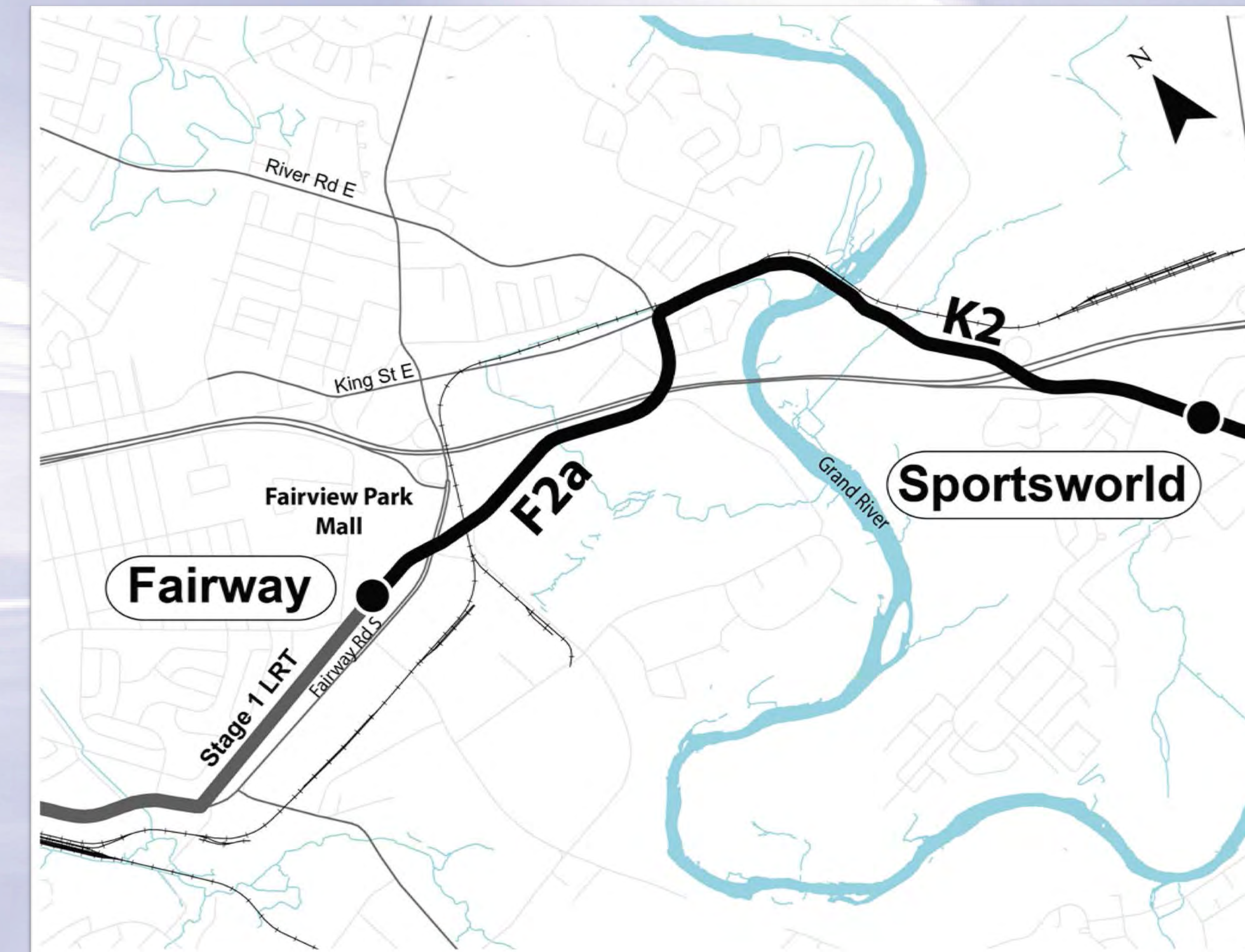
Kitchener Segment

Why are we looking at a new alternative?

F2a-K2 (PCC No. 2 Preliminary Potential Route)

When evaluated against previously considered alternatives:

- ✓ Fewer property impacts
- ✓ Reduced impact to traffic operations
- ✗ Environmental impacts & First Nation interests with new Grand River crossing
- ✗ Relatively higher travel time
- ✗ More complex bridge design for River Road over Highway 8



Following discussion with the Ministry of Transportation (MTO), the opportunity to use a portion of the Highway 8 right-of-way for LRT was examined further. This alignment appears to improve most the shortcomings of the Preliminary Potential Route, in particular a significant reduction in travel time for the overall LRT network.

Kitchener Segment – Additional Route Alternative



Grand River Hospital – Freeport Campus will be serviced via GRT bus service from the Fairway Stop

Grand River Hospital

LRT will run on an independent structure along the west side of Highway 8, and will fully span the river to minimize environmental impact

The F2 alternatives are contained within the approved River Rd corridor to avoid environmentally sensitive areas

Alternatives connect to Stage 1 LRT at Fairway Stop

River Rd (proposed extension)

Sportsworld

K3b

K2

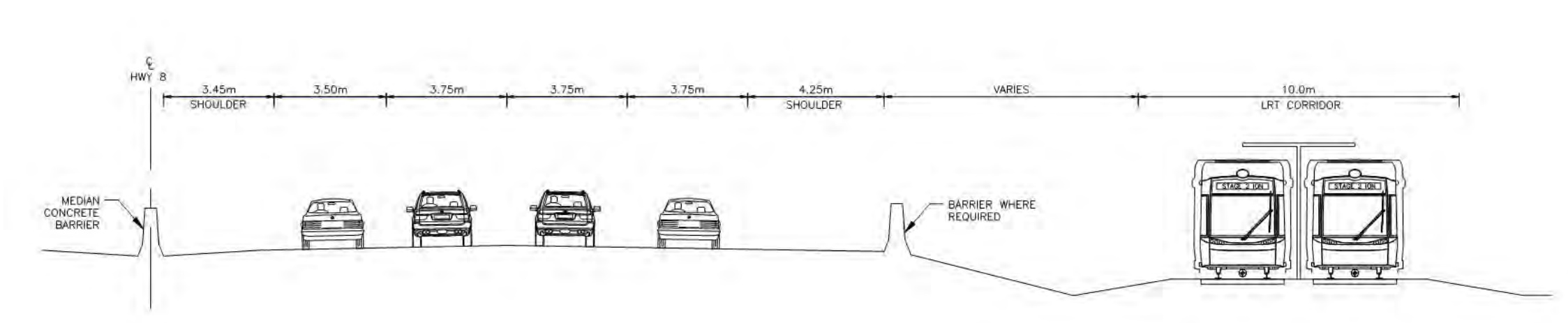
F2a

F2b

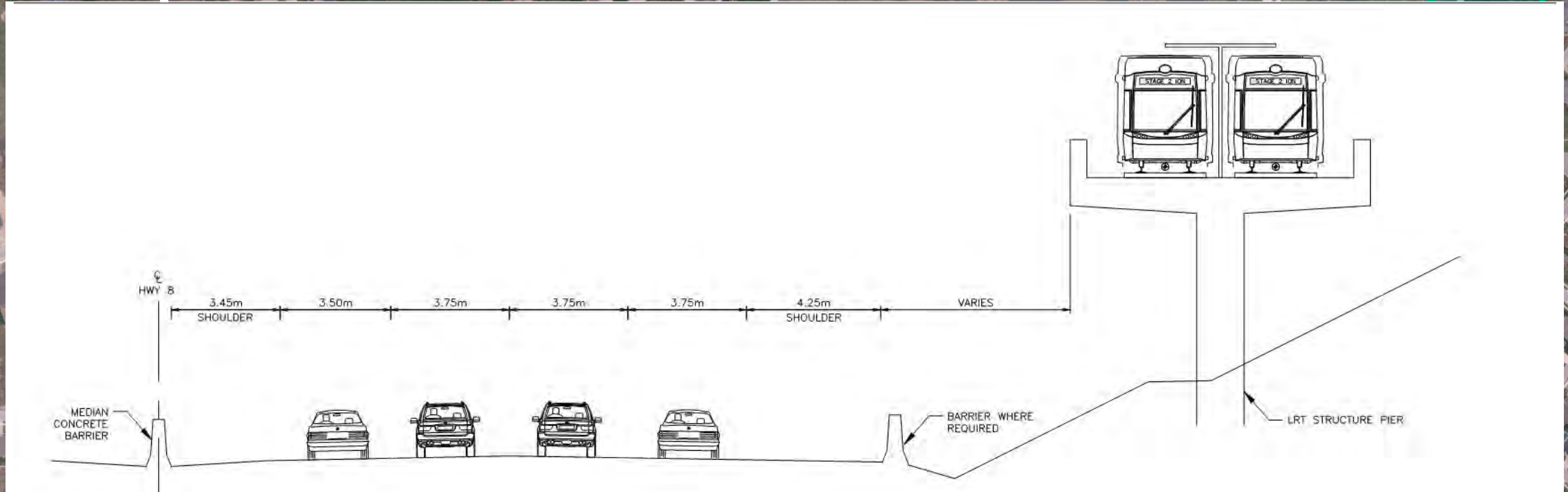
No change to Potential Route and Stop at Sportsworld

Fairview Park Mall

Fairway



Potential cross section for K3b – at-grade LRT corridor along Highway 8



Potential cross section for K3b – Elevated LRT corridor along Highway 8

Legend

- Preliminary Potential Route
- Preliminary Potential Stop
- Rail Corridor
- Significant Environmental Features
- Regulatory Floodplain

500 250 0 500 Meters

North Cambridge Segment

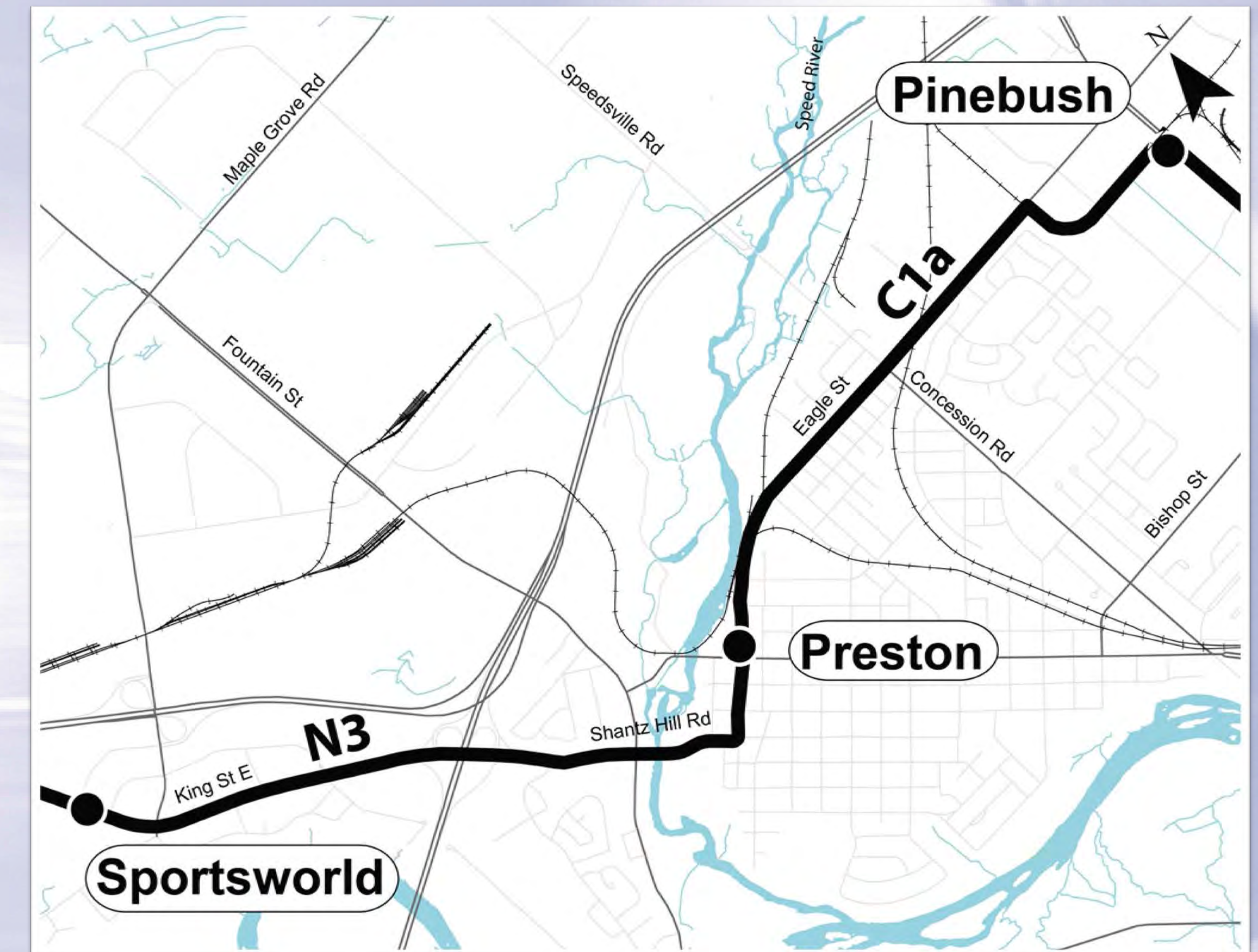
Why are we looking at new route alternatives?

PCC No. 1

- Support for a stop in Preston was one of the most frequently noted comments

PCC No. 2

- Concerns raised regarding the alignment of the route through the Preston area



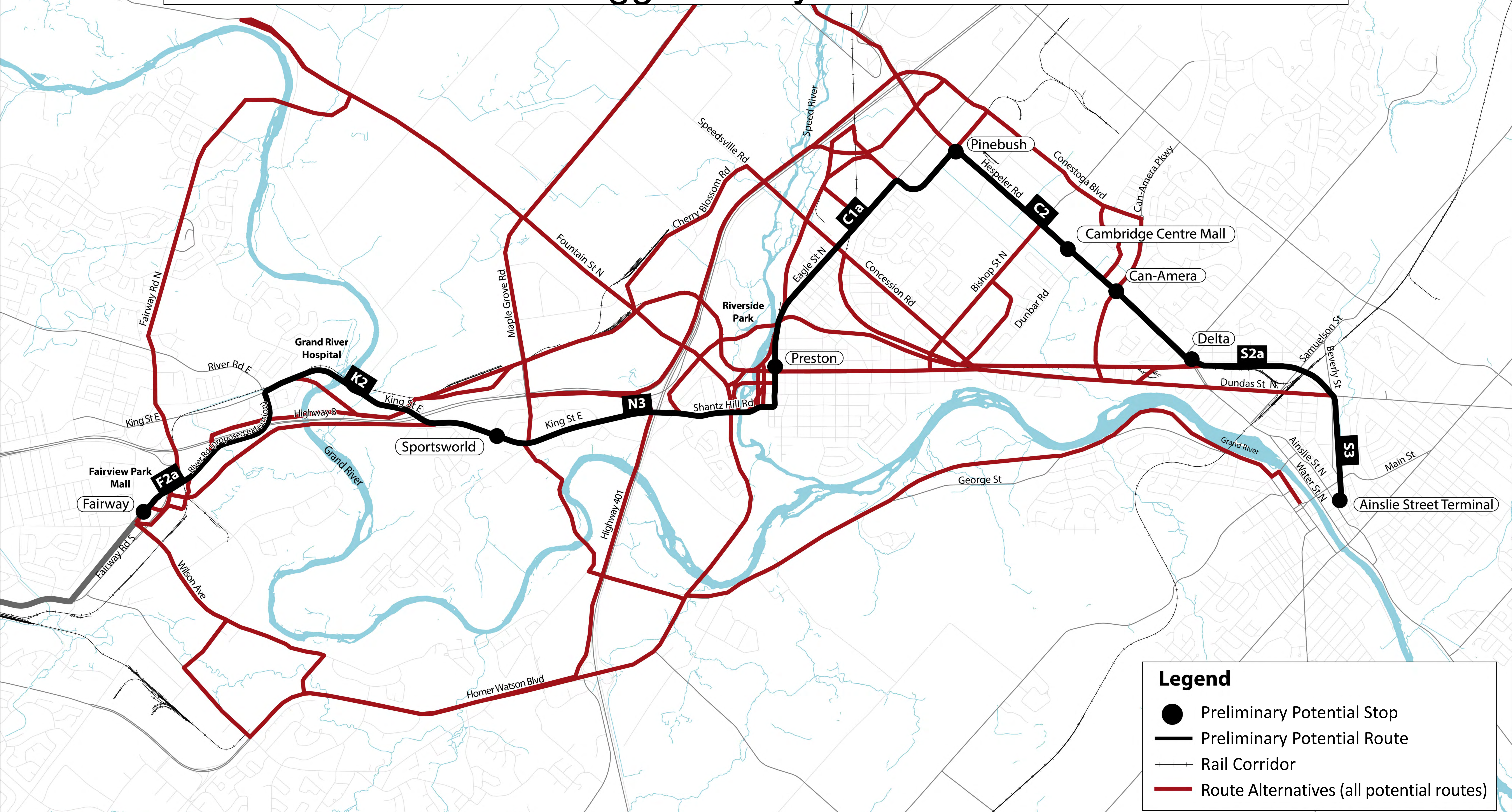
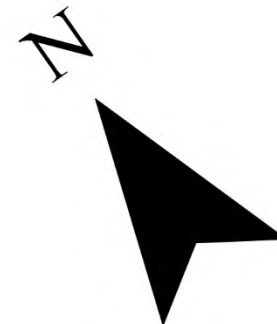
In response to feedback at PCC No. 2, the Project Team is exploring additional alternatives (including those suggested by area residents and the public) which will meet the same overall objective of bringing LRT to the core of Preston, but reduce potential property and community impacts

North Cambridge Segment

Route refinements and additional routes must fall within the scope established for this review:

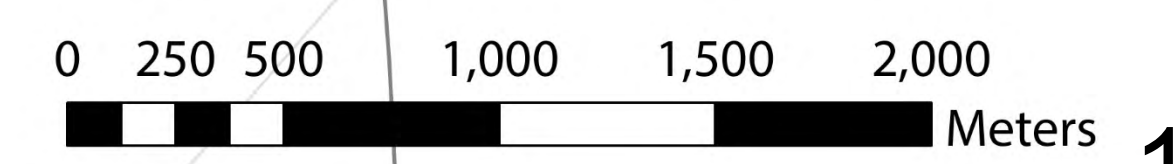
- Minimize travel time by providing direct connection between Sportsworld and Pinebush stops
- Travel through Preston, stop in King/Eagle area
- Improve property/environmental impacts compared to the Preliminary Potential Route as presented at PCC No. 2
- Only variations of Preliminary Potential Route are being examined - previously evaluated alternatives K1, N1, N2 are not being reconsidered

North Cambridge Segment: All Routes Suggested by the Public in 2017

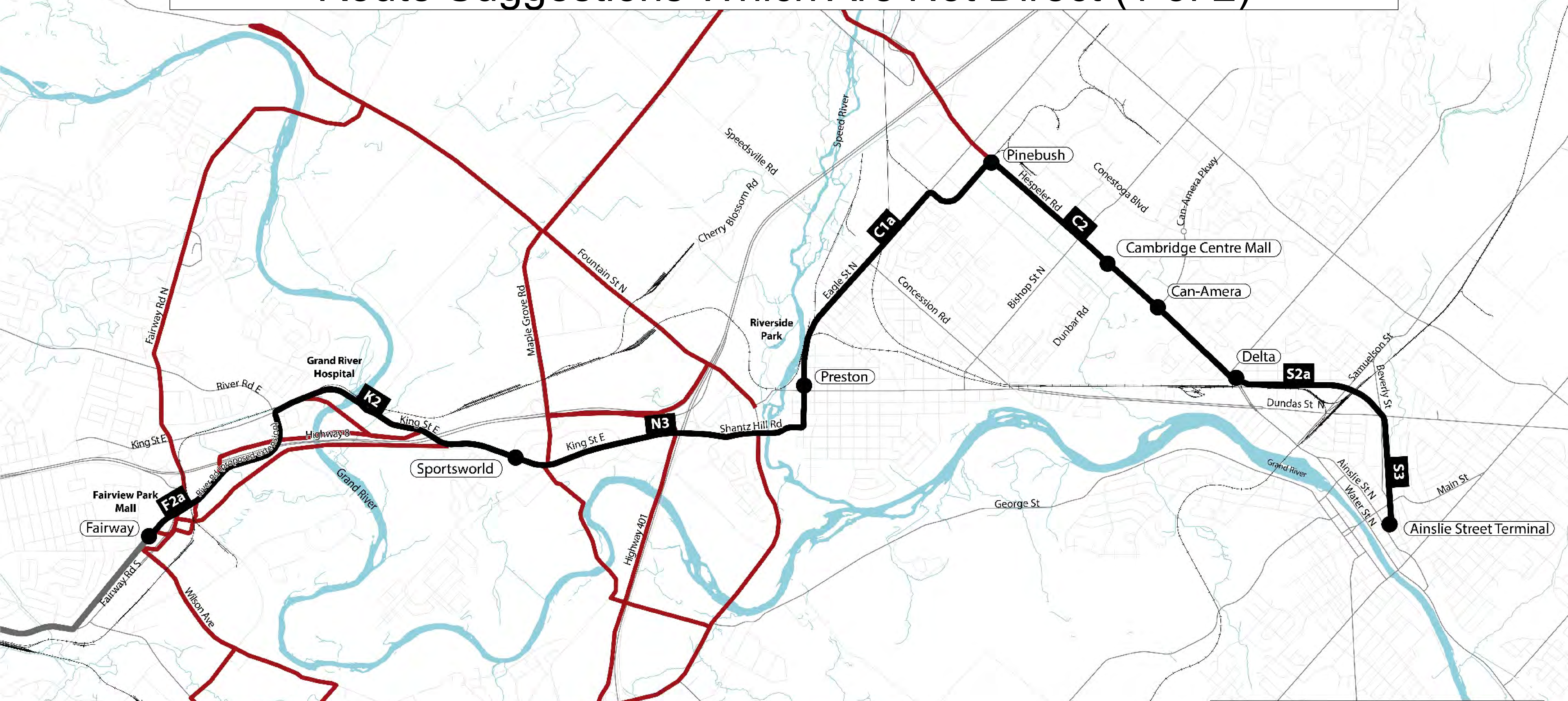


Legend

- Preliminary Potential Stop
- Preliminary Potential Route
- Rail Corridor
- Route Alternatives (all potential routes)



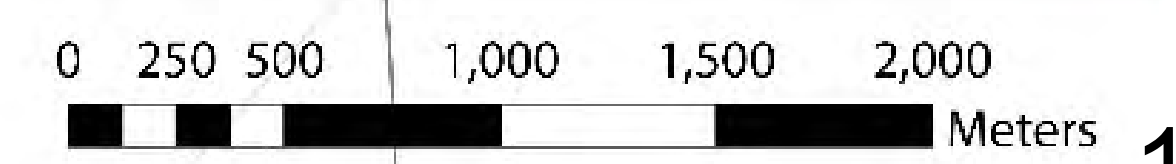
North Cambridge Segment: Route Suggestions Which Are Not Direct (1 of 2)



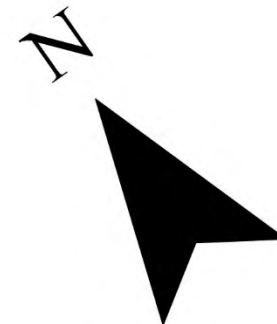
These routes were set aside as they do not provide a direct connection through Preston to Sportsworld

Legend

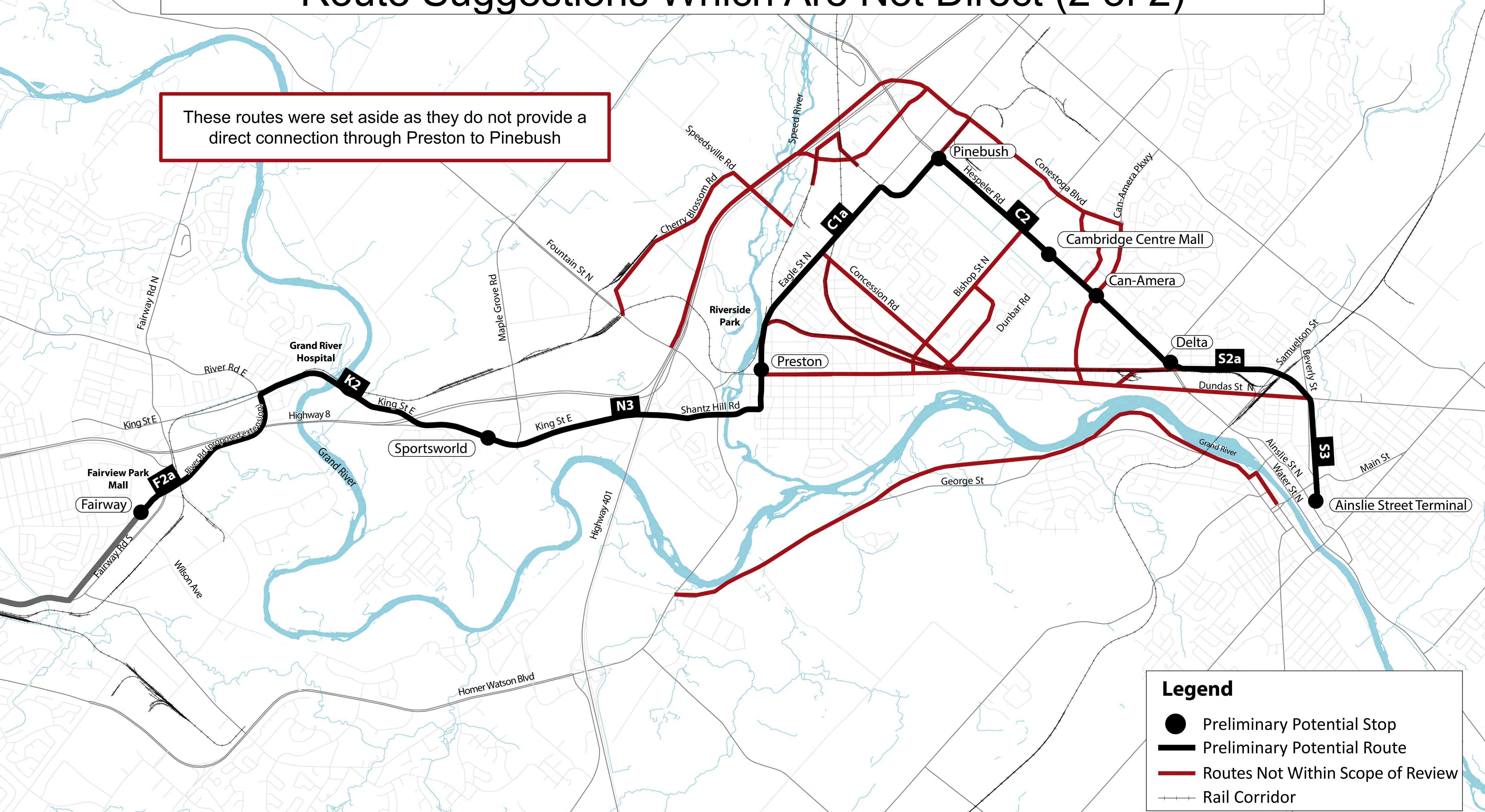
- Preliminary Potential Stop
- Preliminary Potential Route
- Routes Not Within Scope of Review
- Rail Corridor



North Cambridge Segment: Route Suggestions Which Are Not Direct (2 of 2)

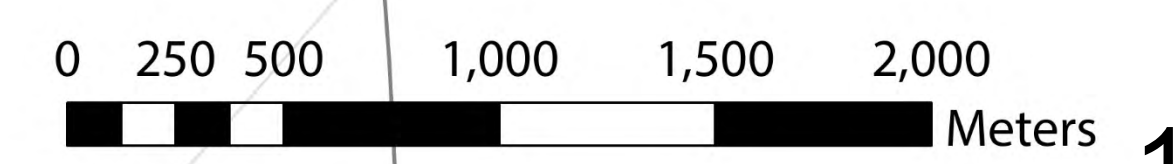


These routes were set aside as they do not provide a direct connection through Preston to Pinebush

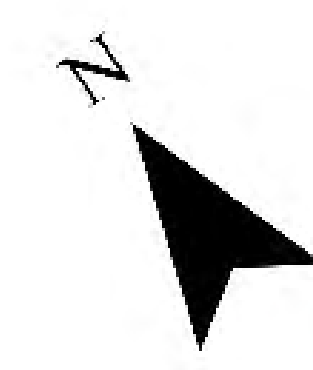


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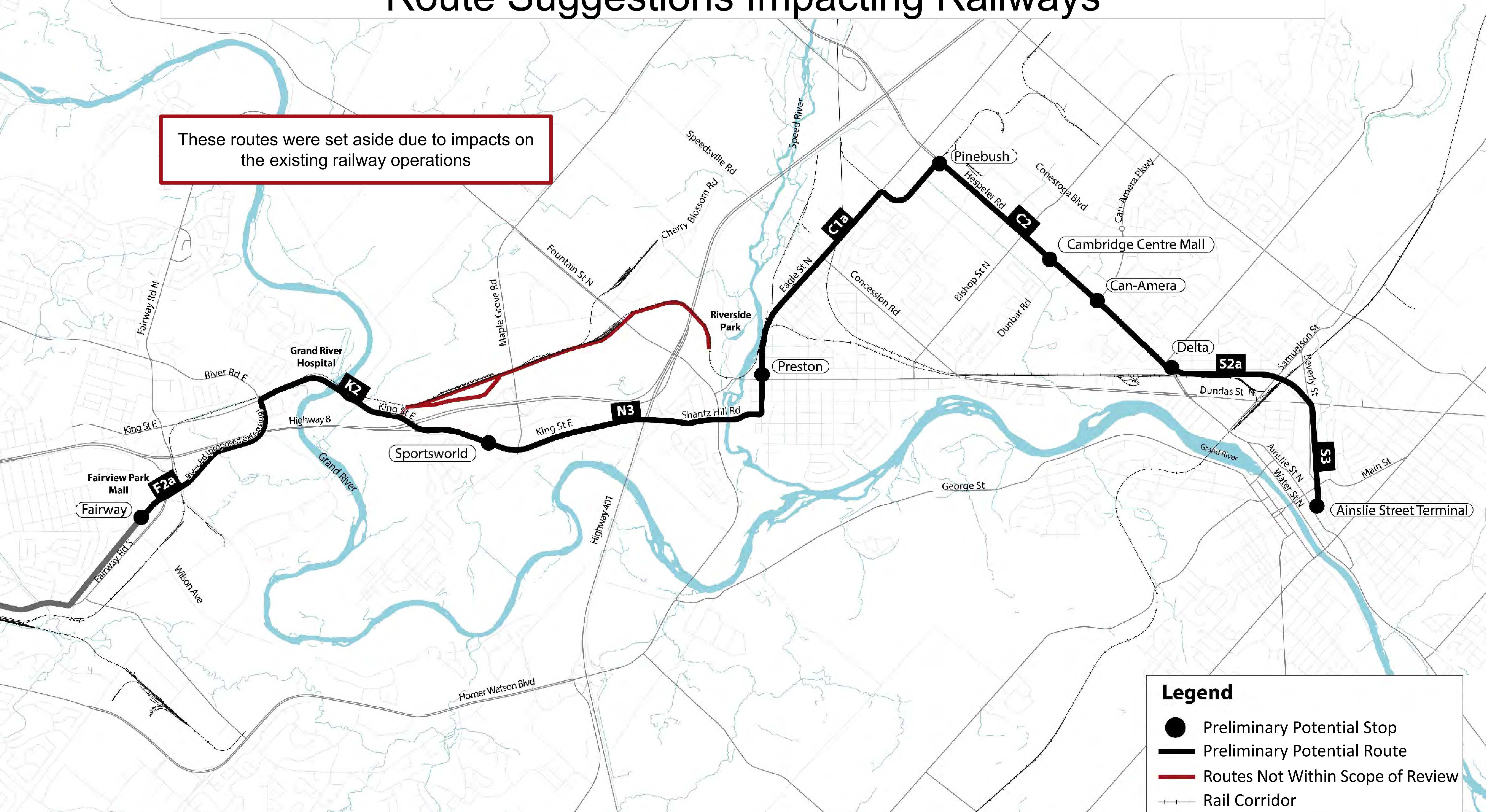
- Preliminary Potential Stop
- Preliminary Potential Route
- Routes Not Within Scope of Review
- Rail Corridor



North Cambridge Segment: Route Suggestions Impacting Railways

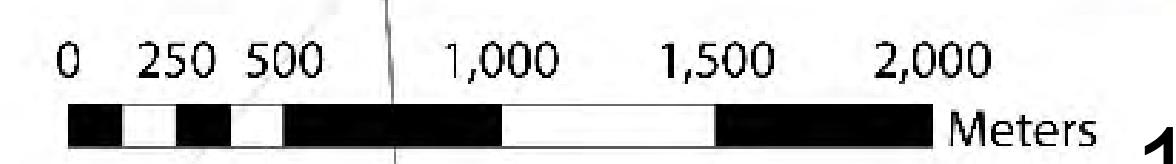


These routes were set aside due to impacts on the existing railway operations

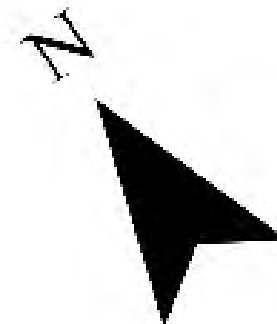


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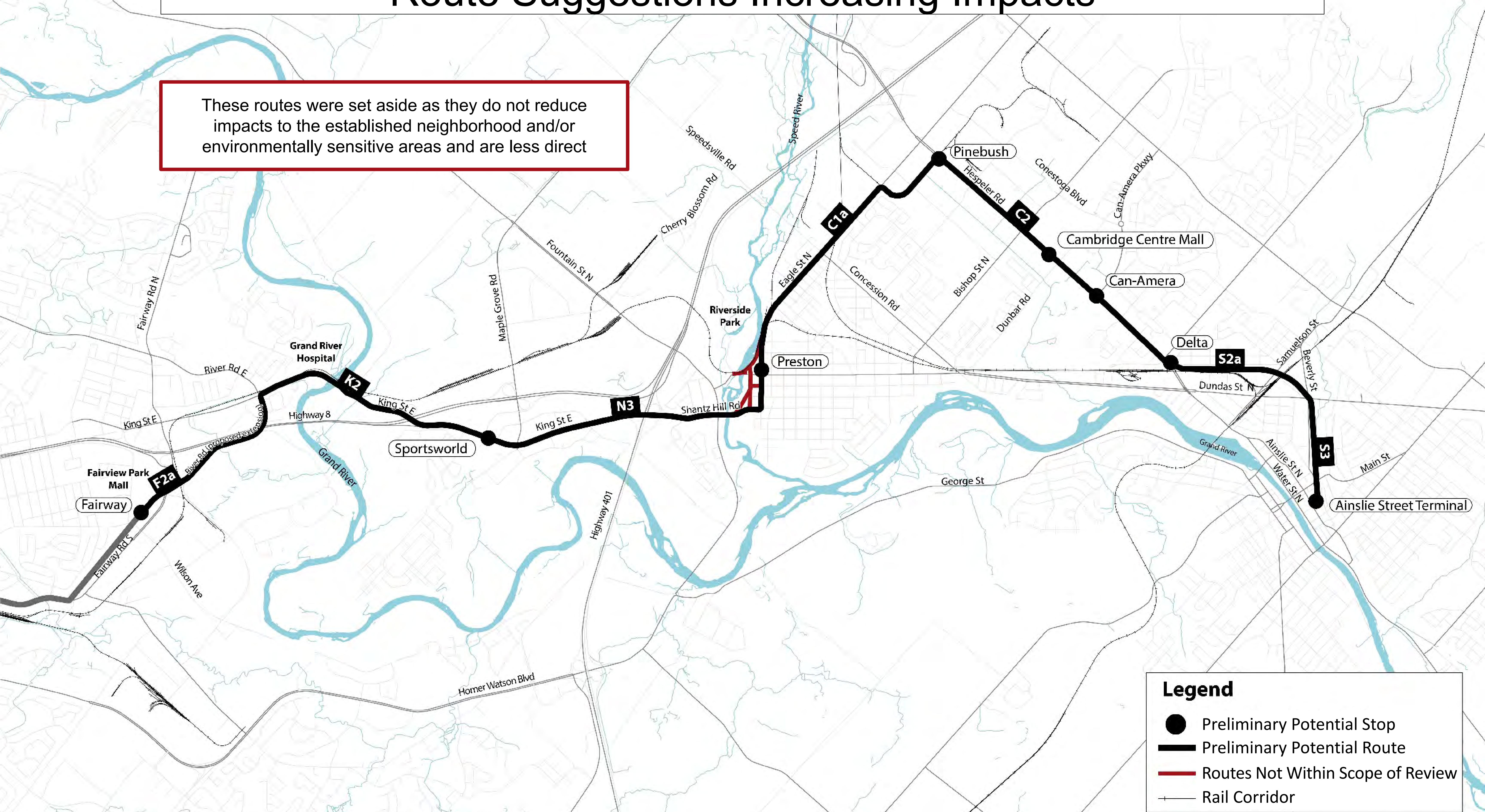
- Preliminary Potential Stop
- Preliminary Potential Route
- Routes Not Within Scope of Review
- Rail Corridor



North Cambridge Segment: Route Suggestions Increasing Impacts

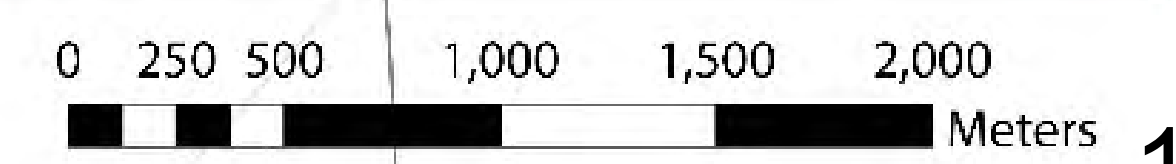


These routes were set aside as they do not reduce impacts to the established neighborhood and/or environmentally sensitive areas and are less direct



Legend

- Preliminary Potential Stop
- Preliminary Potential Route
- Routes Not Within Scope of Review
- Rail Corridor



North Cambridge Segment - Constraints

Routes using the railway corridor will be subject to approval by the railway company.

Routes through Riverside Park may result in the Preston Stop being relatively far from King St.

Routes travelling along the Speed River may have significant impacts to the area's natural environment.

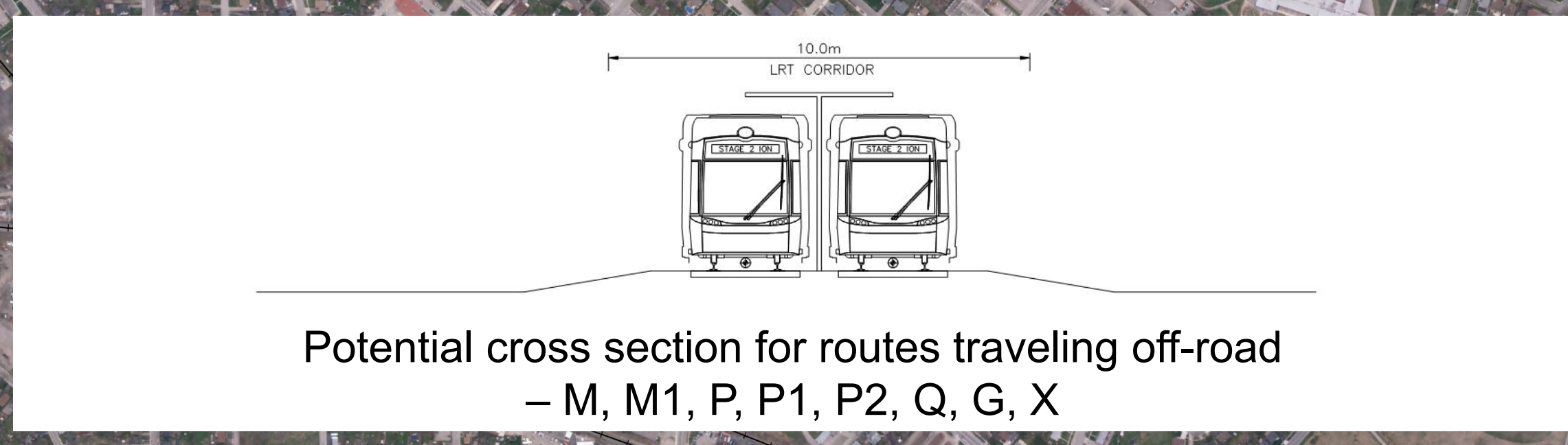
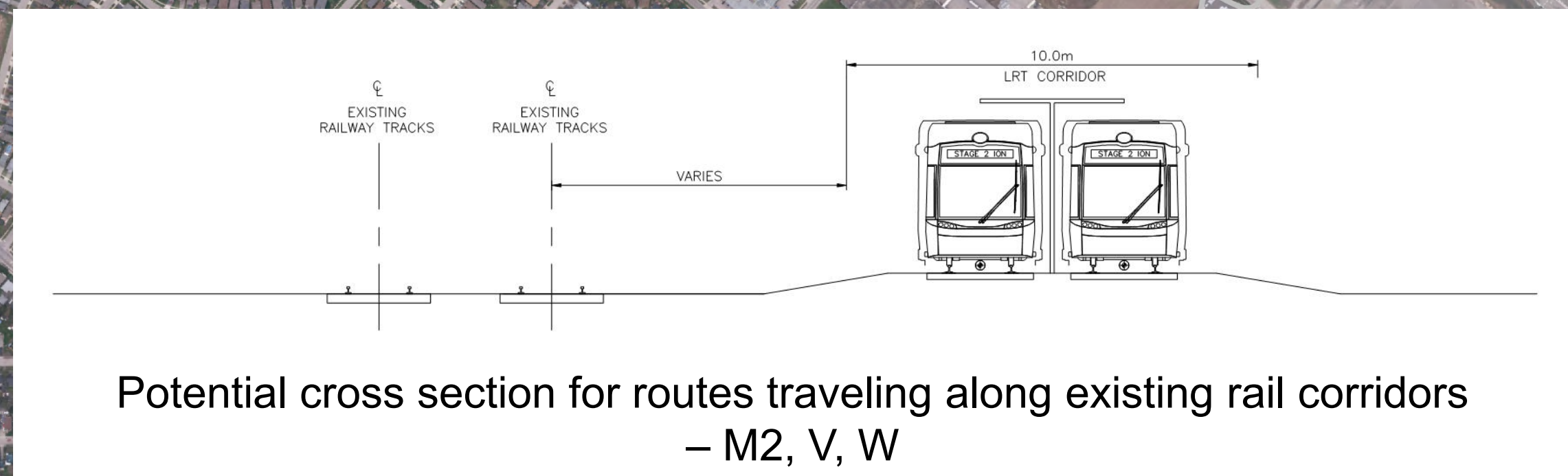
Options where vehicles and LRT share the lanes on Eagle Street will be considered in order to reduce property impacts.

Routes connecting the rail corridor and King St. may require closure of Rogers Dr. entrance to Riverside Park.

Routes on Fountain St and King St have the potential to impact already congested vehicle traffic routes.

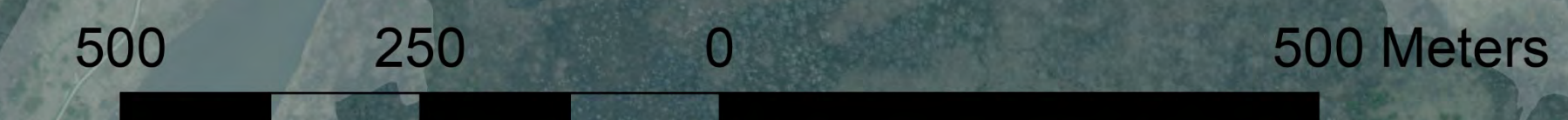
Routes along Highway 401 will only be feasible when MTO reconstructs the interchange.

Routes along the Speed River will need to take into account the existing walking trail network.

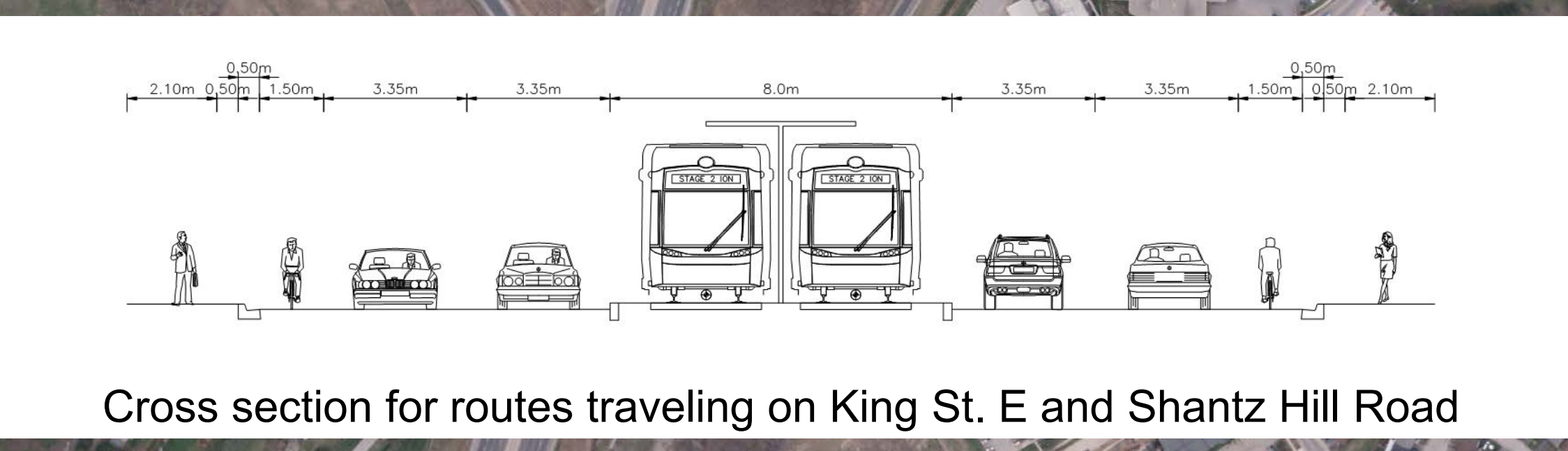
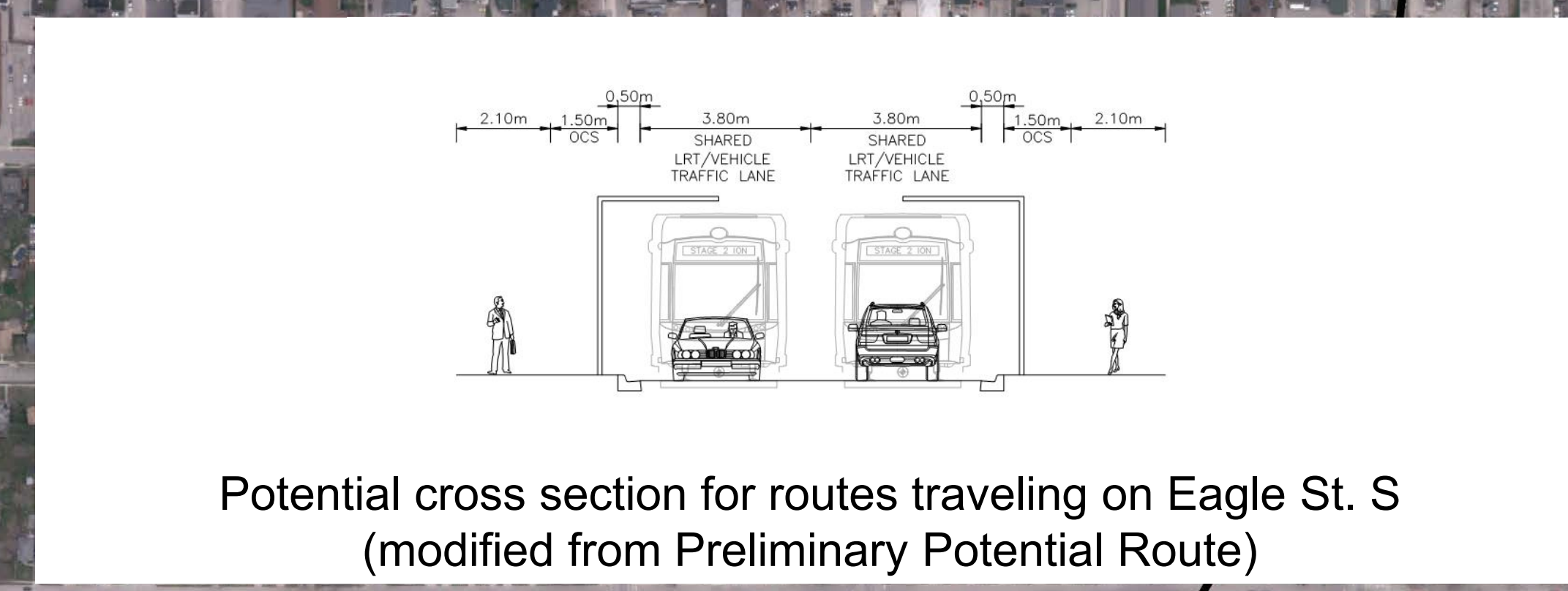
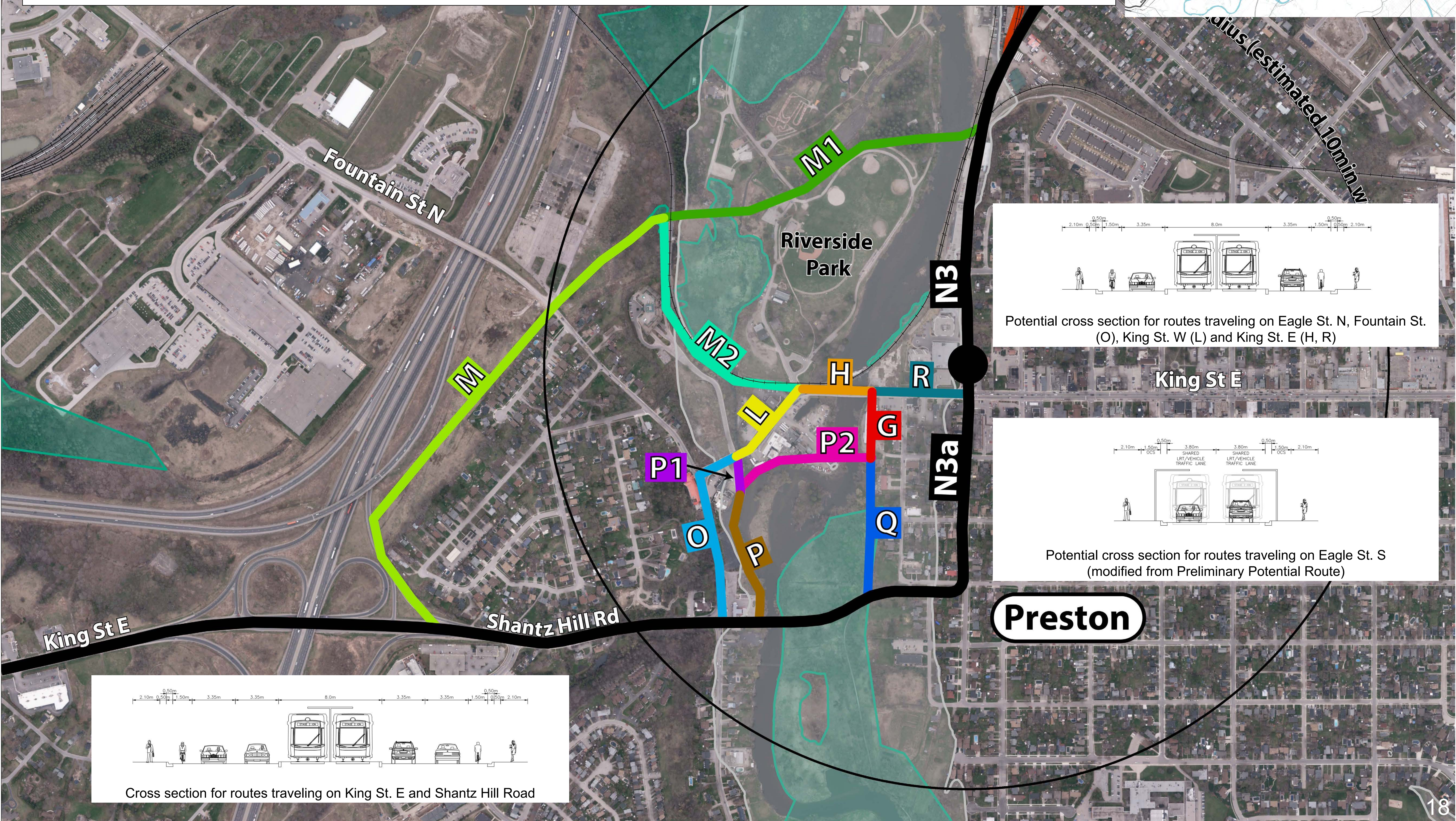
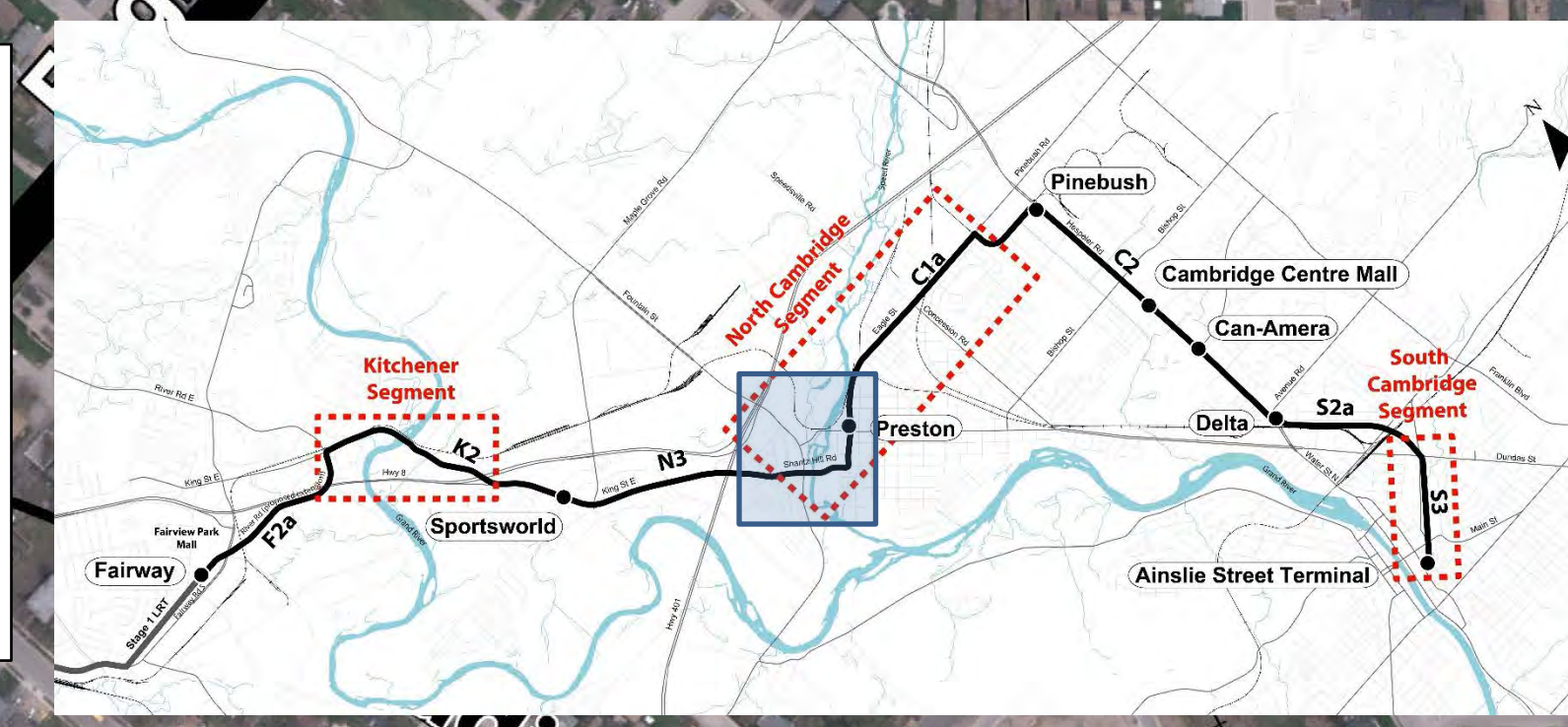


Legend

- Preliminary Potential Route
- Preliminary Potential Stop
- Rail Corridor
- Significant Environmental Features
- Regulatory Floodplain

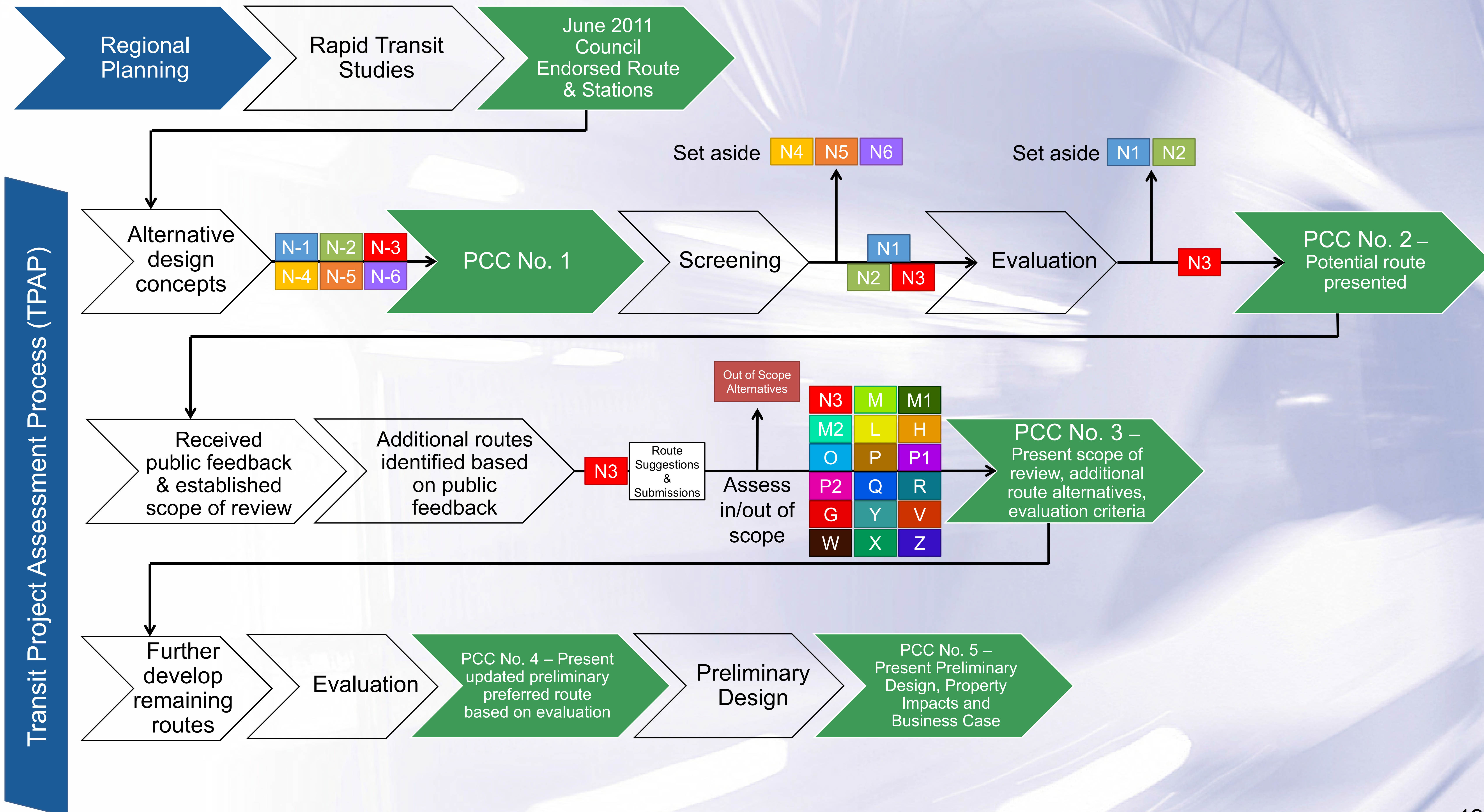


North Cambridge Segment – Additional Route Alternatives



Preston

Updated Study Process



Transit Project Assessment Process (TPAP)

South Cambridge Segment

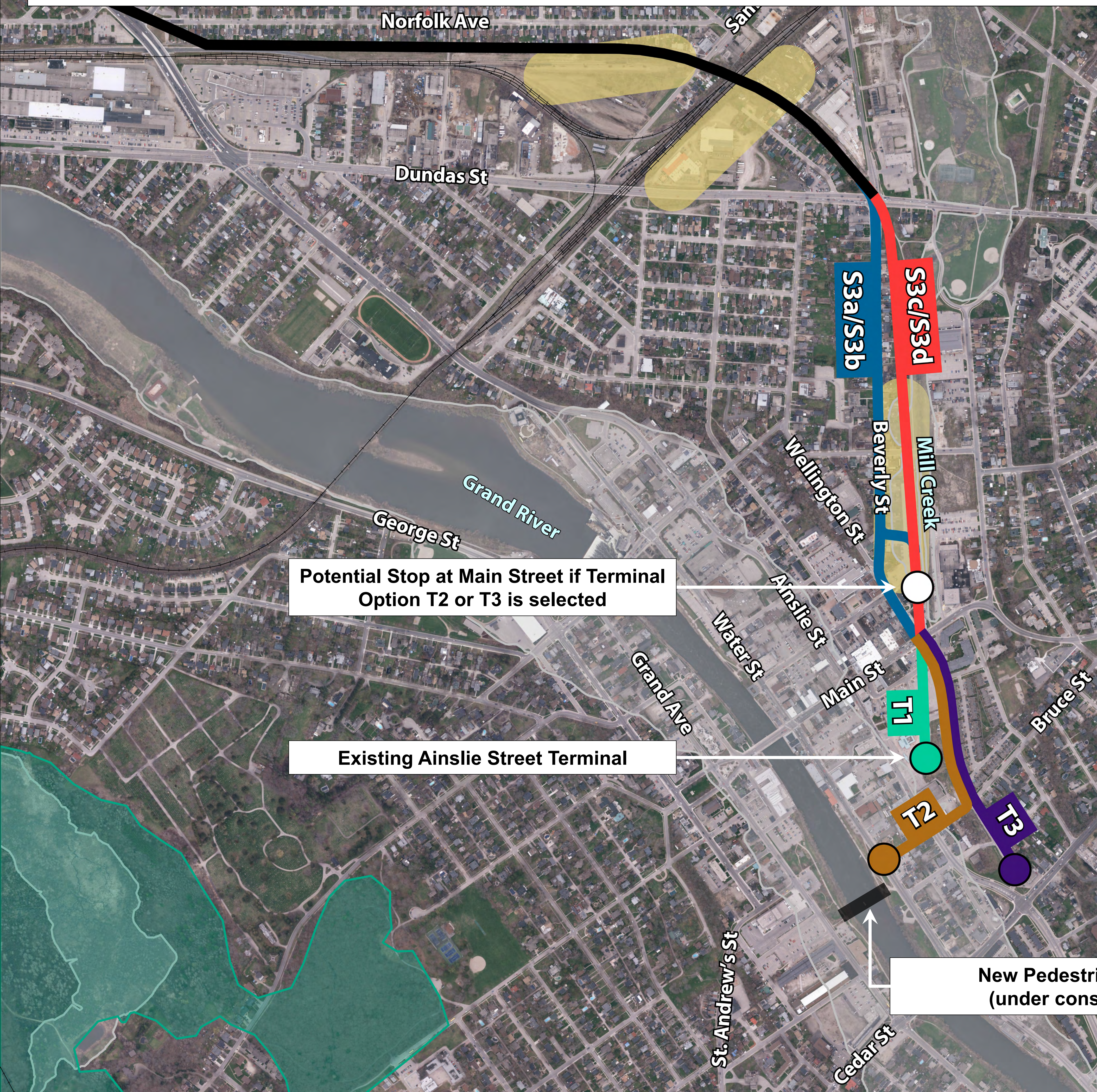
Why are we looking at new route alternatives?

PCC No. 2

- S3 was presented as the Preliminary Potential Route between Dundas St. and Downtown Cambridge
- It was noted that additional alignments within this corridor would be examined, including terminal options
- Alternative S3 alignments are being examined:
 - Along Beverly Street; and
 - Along the former railway corridor adjacent to Mill Creek
- Additional options for the terminal in Downtown Cambridge have also been explored in cooperation with Grand River Transit



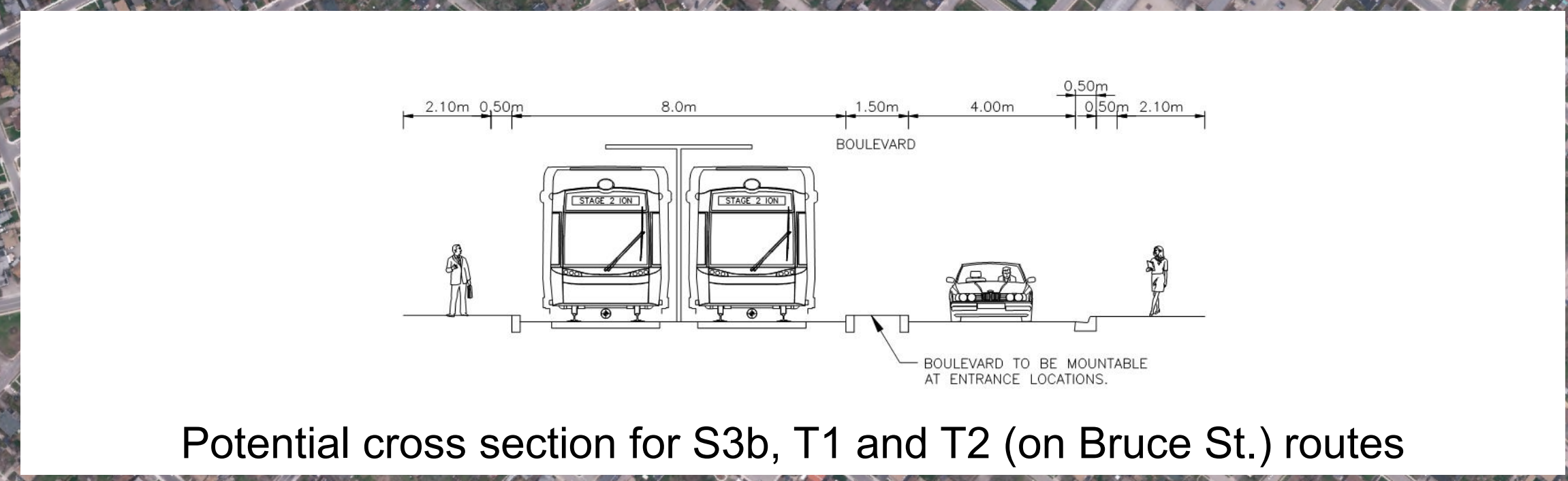
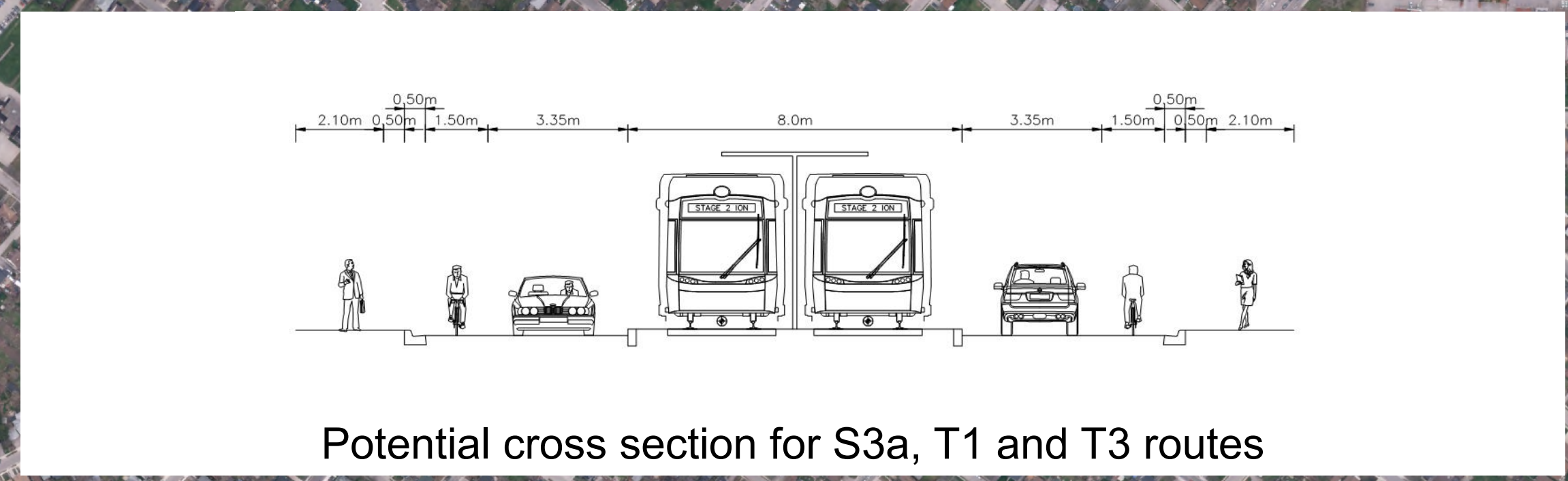
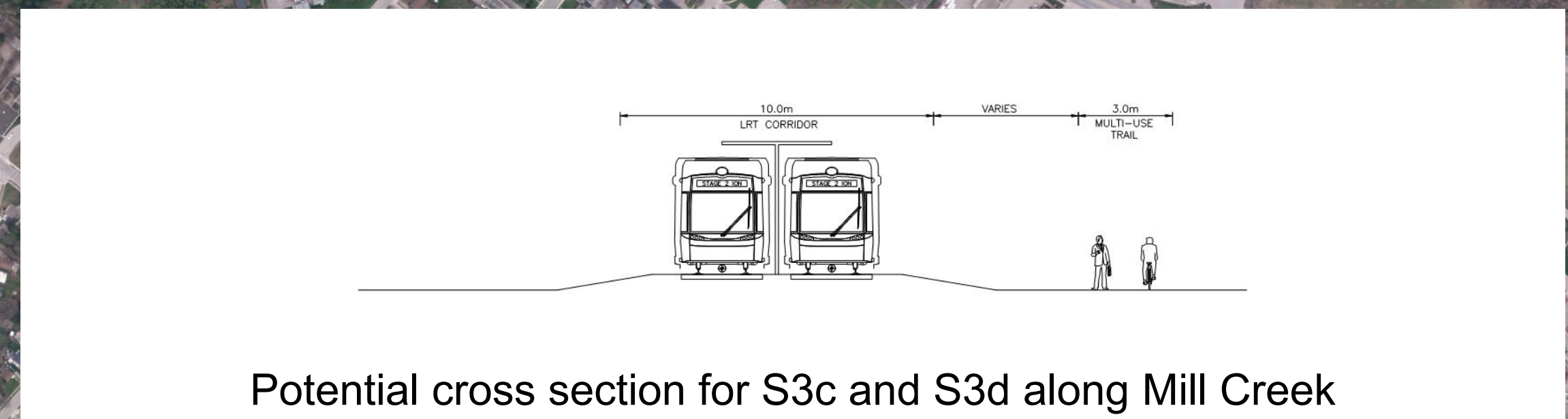
South Cambridge Segment – Additional Route Alternatives



Potential Stop at Main Street if Terminal Option T2 or T3 is selected

Existing Ainslie Street Terminal

New Pedestrian Bridge (under construction)

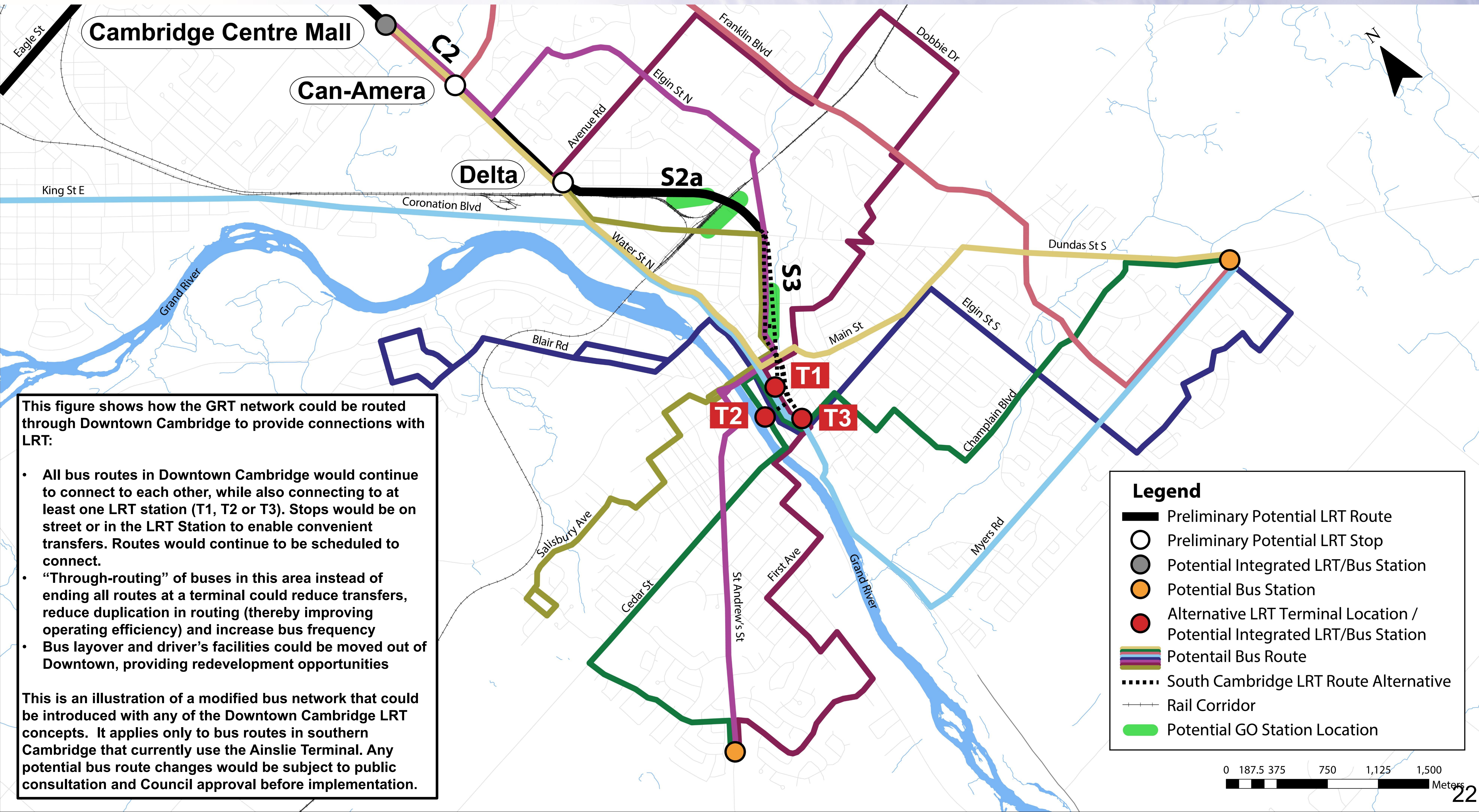


Legend

- Potential Stop Location
- Alternative Terminal Locations (T1, T2, T3)
- Preliminary Potential Route
- Route Alternatives on Beverly St
- Route Alternatives on former railway corridor
- Rail Corridor
- Potential Future GO Station Location
- Significant Environmental Features
- Regulatory Floodplain



What Could the GRT Bus Network Look Like?



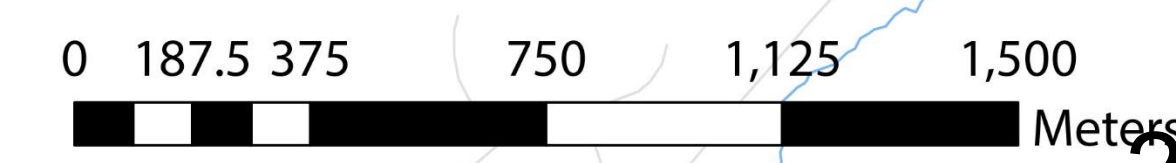
This figure shows how the GRT network could be routed through Downtown Cambridge to provide connections with LRT:

- All bus routes in Downtown Cambridge would continue to connect to each other, while also connecting to at least one LRT station (T1, T2 or T3). Stops would be on street or in the LRT Station to enable convenient transfers. Routes would continue to be scheduled to connect.
- “Through-routing” of buses in this area instead of ending all routes at a terminal could reduce transfers, reduce duplication in routing (thereby improving operating efficiency) and increase bus frequency
- Bus layover and driver’s facilities could be moved out of Downtown, providing redevelopment opportunities

This is an illustration of a modified bus network that could be introduced with any of the Downtown Cambridge LRT concepts. It applies only to bus routes in southern Cambridge that currently use the Ainslie Terminal. Any potential bus route changes would be subject to public consultation and Council approval before implementation.

Legend

- Preliminary Potential LRT Route
- Preliminary Potential LRT Stop
- Potential Integrated LRT/Bus Station
- Potential Bus Station
- Alternative LRT Terminal Location / Potential Integrated LRT/Bus Station
- Potential Bus Route
- South Cambridge LRT Route Alternative
- Rail Corridor
- Potential GO Station Location



Evaluation Criteria

The evaluation criteria are based on the Regional Official Plan objectives, input received from the first public consultation and are consistent with the original evaluation presented at PCC No. 2

CATEGORY	CRITERIA
Transportation	<ul style="list-style-type: none"> • Ability to Serve Multi-Modal Nodes • Impact on Traffic Operations • Engineering Challenges • Potential Ridership
Social/Cultural Environment	<ul style="list-style-type: none"> • Destinations Served • Properties Impacted • Cultural Heritage Impacts • Transit and Pedestrian Supportive Land Use Policy
Natural Environment	<ul style="list-style-type: none"> • Impact on Floodplains • Impact to Significant Natural Features
Economic Environment	<ul style="list-style-type: none"> • Ability to Serve Concentrations of Employment (existing and future) • Opportunity for Intensification and Revitalization • Cost (Capital and Operating)

- The additional route alternatives will be compared against the Preliminary Potential Route from PCC No. 2
- For the Terminal options in South Cambridge, additional evaluation criteria will include:
 - Ease of connectivity to local bus routes
 - Operational benefits to GRT local bus services

What Happens Next?

After PCC No. 3

- Once the additional alternatives or refinements have been confirmed for each of the three study areas, they will be evaluated against the Preliminary Potential Route

Next Public Consultation

- Evaluation results and the Updated Preliminary Preferred Route and Downtown Cambridge Terminal location will be presented at the PCC No. 4 in Spring 2018

Property Impacts

- Property impacts will be identified during the Preliminary Design stage (following PCC No. 4) and will be presented at PCC No. 5 in Early 2019

Thank You for Attending

Your opinion matters!

Please provide feedback by February 16, 2018 using the comment sheet or one of the other methods below

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