

# Welcome

## Stage 2 ION: Light Rail Transit (LRT) from Kitchener to Cambridge Public Consultation Centre (PCC) No. 4

### Please Sign-in

Holiday Inn	May 8, 2018 – 4:00 to 8:00 pm
Preston Memorial Auditorium	May 9, 2018 – 4:00 to 8:00 pm
Hamilton Family Theatre	May 10, 2018 – 4:00 to 8:00 pm



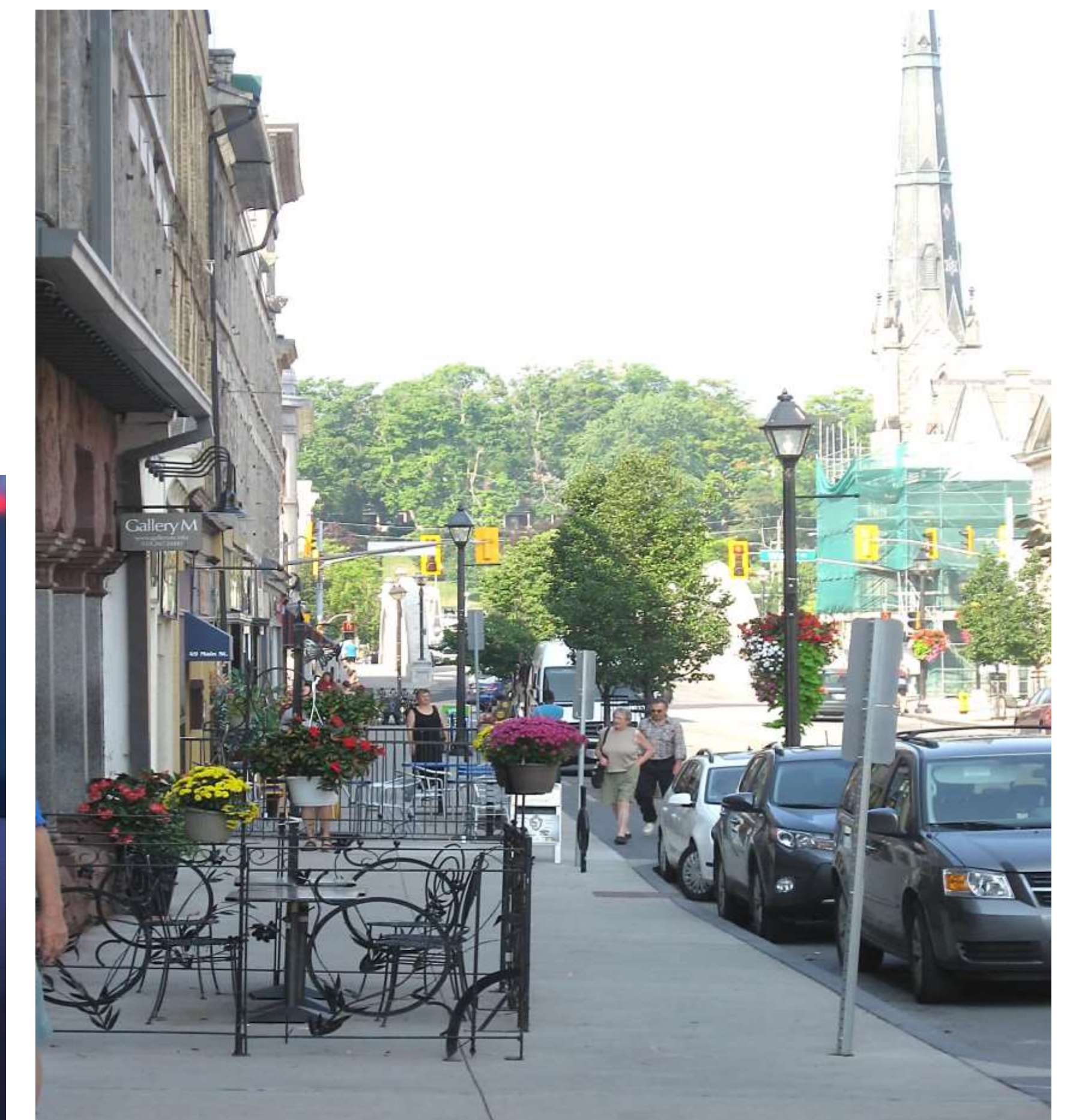
# Why LRT?

ION is the foundation for the Regional Official Plan objectives:



## LRT will:

- Help contain urban sprawl
- Protect environmentally-sensitive areas
- Preserve farmland and the rural lifestyle
- Move people; create transportation choice



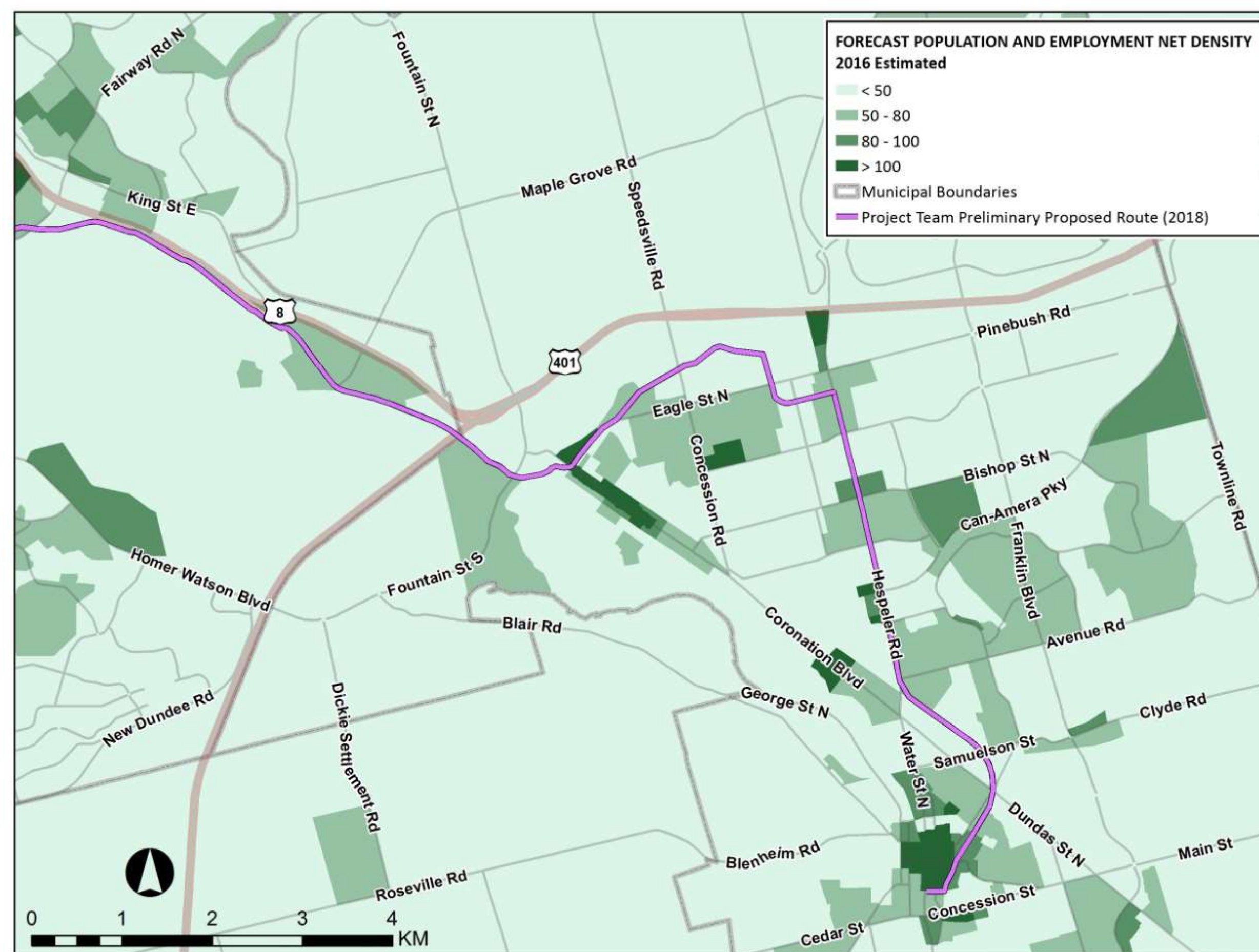
# How will LRT shape our community?

As the Region of Waterloo grows there will be greater demand for more housing options, and supporting facilities, amenities and services.

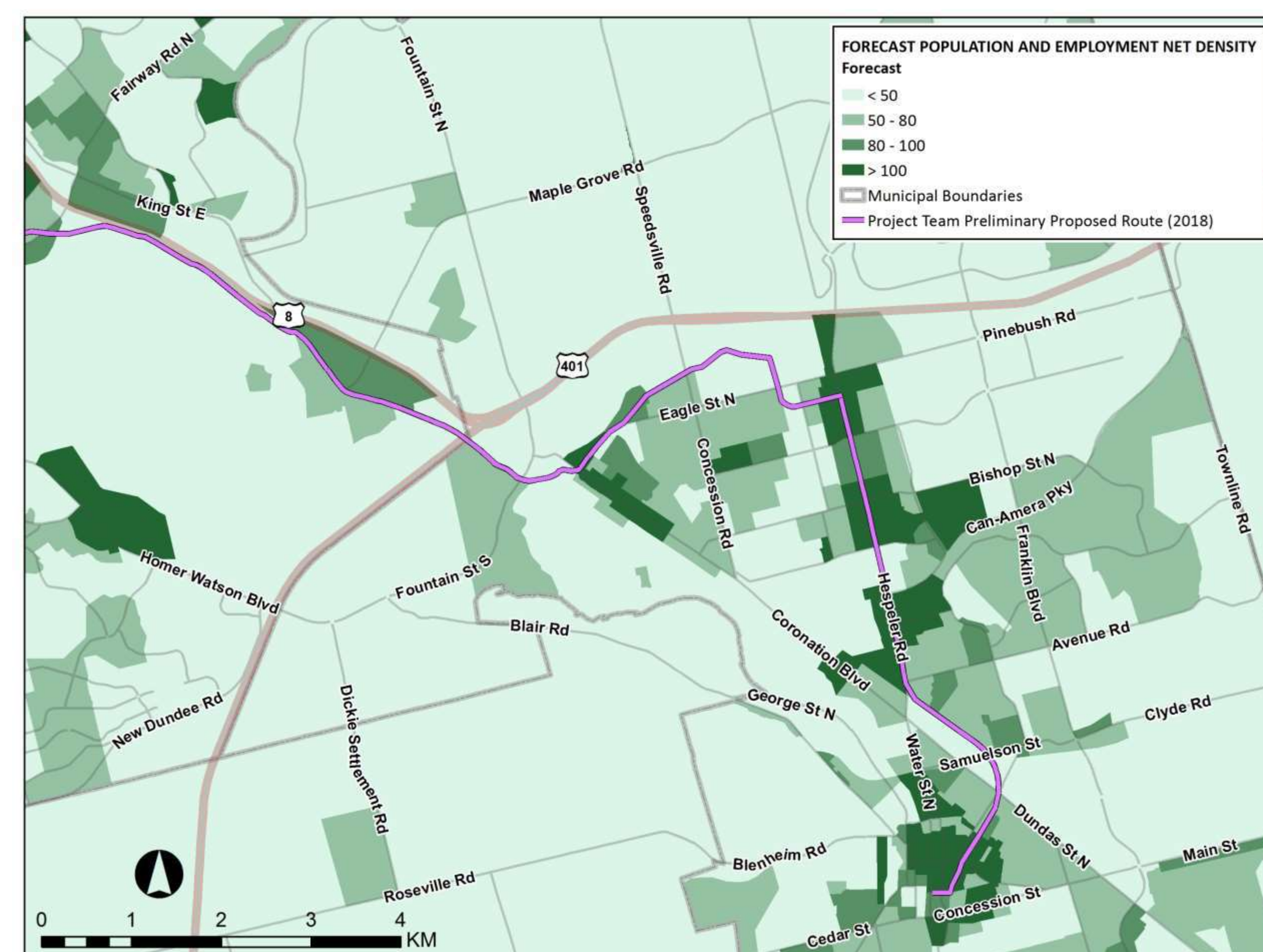
Building more compact, higher density communities is key to accommodating growth while making efficient use of existing infrastructure, preserving natural areas, and protecting farm land and drinking water.

LRT requires a mix of land uses with medium to high density. Stage 2 ION will support the concentration of existing and planned residents and jobs. Below are maps showing the density of people and jobs per hectare:

2016



2041



## What is the purpose of today?

- Hear your feedback
- Provide an overview of comments received at PCC No. 3 and how these have provided input to the route evaluation process
- Explain how the alternative routes were compared in the various segments
- Present the Project Team Preliminary Proposed Route (2018)

**The study has not yet advanced to the stage where individual property impacts are known.**

**Further details will be available at a future public meeting in 2019.**

# How will my input be used?

Your comments are important and will be used to:

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

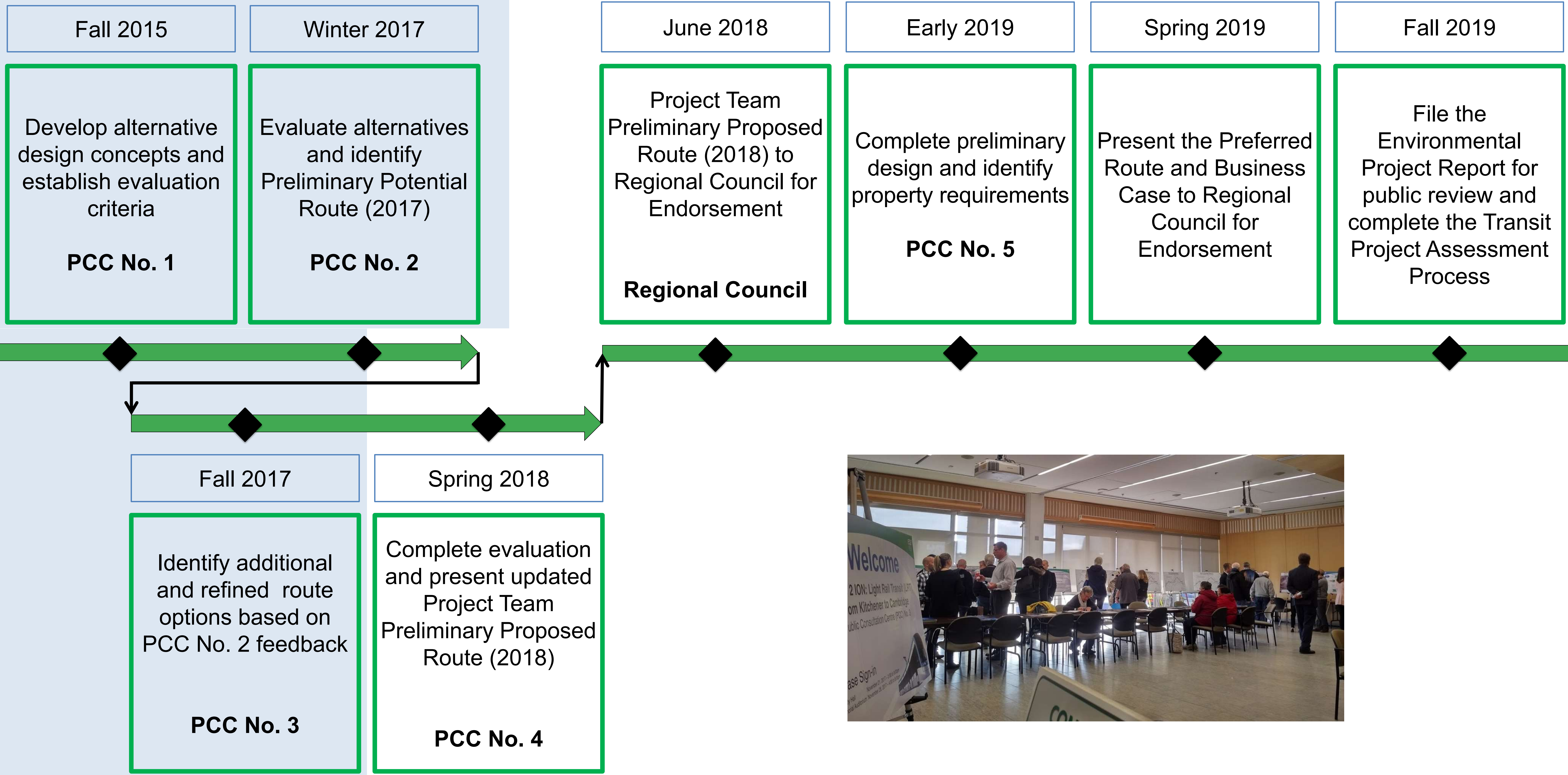
Please provide feedback by:

- Speaking with a project team member
- Submitting your comments at this PCC
- Sending an email
- Completing our online survey

Feedback must be received by **May 24, 2018**

# Study Timeline

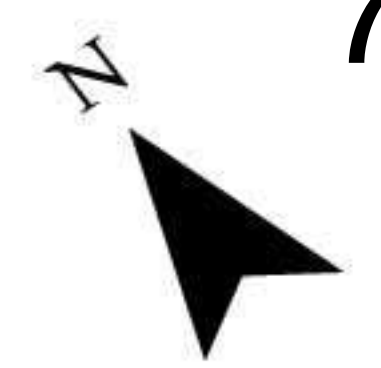
## Activities Completed



**We are here**



# PCC No. 3 – Feedback on New Alternatives



## KITCHENER

### Opportunities

- New alternative K3b provides a more direct route, no traffic impact between River Road and King Street, and shorter travel time
- New alternative K3b has a shorter crossing of Grand River, and proximity to Highway 8 could reduce environmental impact
- New alternative K3b has less property impact

### Concerns

- New alternative K3b does not provide for potential future station near Grand River Hospital
- Potential impacts on Hidden Valley Road and adjacent environmental features, additional traffic on River Road extension
- Traffic impacts on King Street, particularly in Sportsworld/Deer Ridge area – prefer alignment following CP Rail corridor

**ATTENDANCE: 383**

members of the public over the three sessions

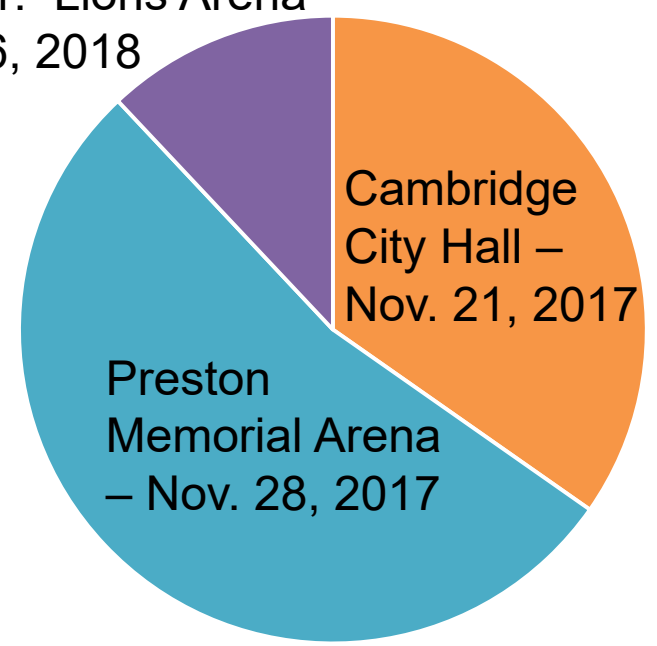
**COMMENTS: 269**

87 in person comment sheets

39 maps with suggested routes

143 online submissions & emails

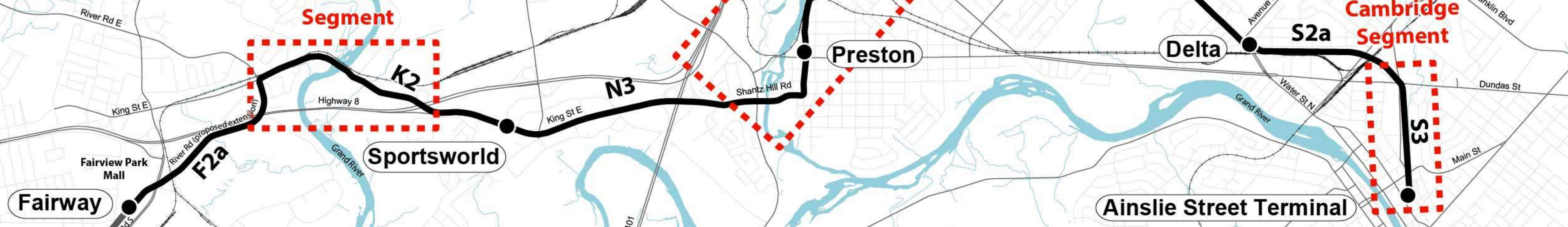
Kitchener: Lions Arena – Jan. 16, 2018



## Kitchener Segment

## North Cambridge Segment

## South Cambridge Segment



## NORTH CAMBRIDGE

### Opportunities

- Most new alternative routes lessen property impacts along Eagle Street and/or in the core of Preston
- Station in Preston allows for growth, redevelopment and renewal
- Maintains access to LRT for residents, encourages urban renewal and supports businesses in Preston
- New alternative routes using the abandoned CP Rail spur rather than Eagle St. North reduce property and traffic impacts

### Concerns

- Existing congestion on Preston roadways, impacts to businesses during construction
- Property, heritage and community impacts in Preston, visual impact of elevated LRT on Shantz Hill Road
- Potential impacts on floodplain areas, wildlife and existing trail network
- Some alternatives cross Riverside Park and/or affect the King Street entrance to the Park

## SOUTH CAMBRIDGE

### Opportunities

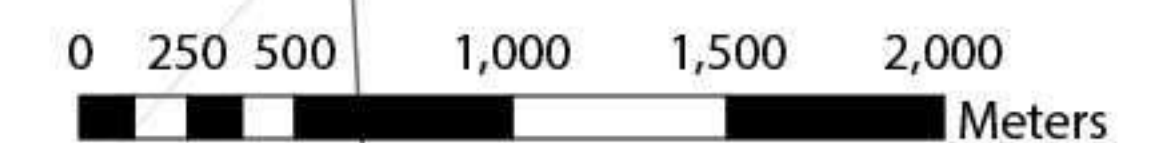
- S3c-S3d route alternatives significantly reduce property impacts on Beverly Street
- Opportunity to preserve and/or relocate multi-use pathway along Mill Creek
- Opportunity to effectively integrate all modes in downtown Cambridge (vehicle, bus, LRT)
- Opportunity to provide better coverage to south and west (across the Grand River) with T2 or T3

### Concerns

- Property impacts and loss of affordable housing along Beverly
- Impacts to heritage buildings along Beverly
- Traffic congestion, lack of parking and potential barrier to river at T2 (Bruce Street)
- Need for a new facility at T2 or T3, versus maintaining existing Ainslie Street terminal (T1)

## Legend

- Preliminary Potential Station (2017)
- Preliminary Potential Route (2017)
- Rail Corridor
- ▤ Areas Under Review at PCC No. 3



# What was used to compare routes?

The evaluation criteria are based on the Regional Official Plan objectives and input received from public consultation. They are consistent with the original evaluation presented at PCC No. 2 in Spring 2017.

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

The additional route alternatives were compared against the Preliminary Potential Route (2017) from PCC No. 2

# Cultural heritage resources

A cultural heritage inventory has been completed for the study area, including the new alternatives presented at this PCC. The inventory identified all cultural heritage resources located in proximity to the route alternatives, including:

- Nationally significant properties
- Properties designated under Part IV or Part V of the Ontario Heritage Act
- Properties listed on a Municipal Heritage Register (City of Cambridge and City of Kitchener)
- Candidate properties identified by the heritage specialist during the field survey as having potential cultural heritage value or interest

Potential impacts to cultural heritage resources could include removal, alteration, isolation, shadows, or temporary impacts due to construction. Design refinements will be explored to reduce these impacts throughout the study area during the Preliminary Design phase. Examples of cultural heritage resources along the alternative routes:



154-156 Eagle St. S (ARA Architects)



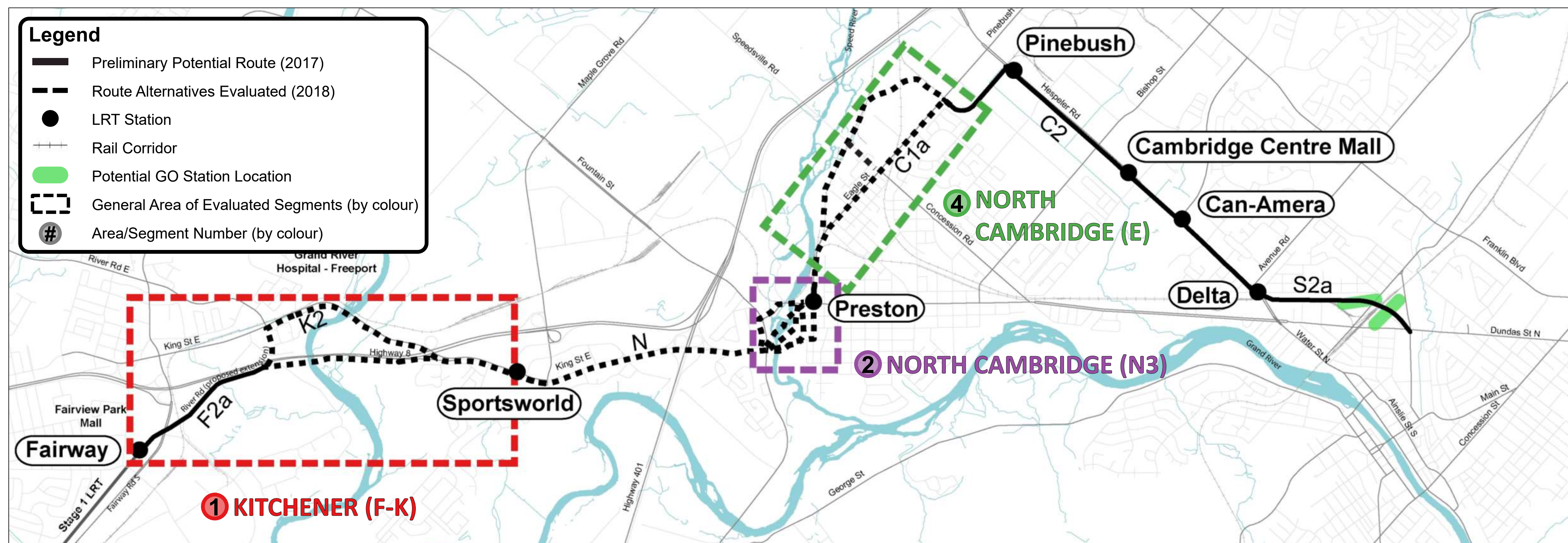
Water St., Galt (ARA Architects)



125 Beverly St. (ARA Architects)

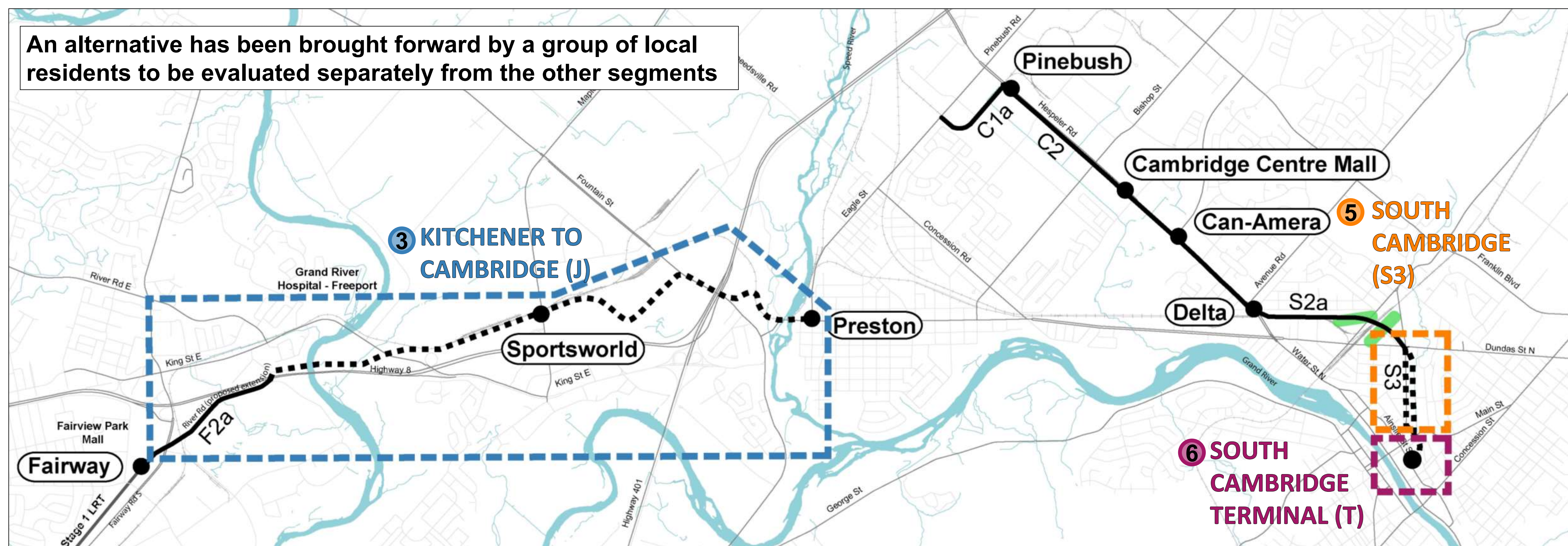
# How did we approach the evaluation process?

Alternatives were evaluated in six areas:

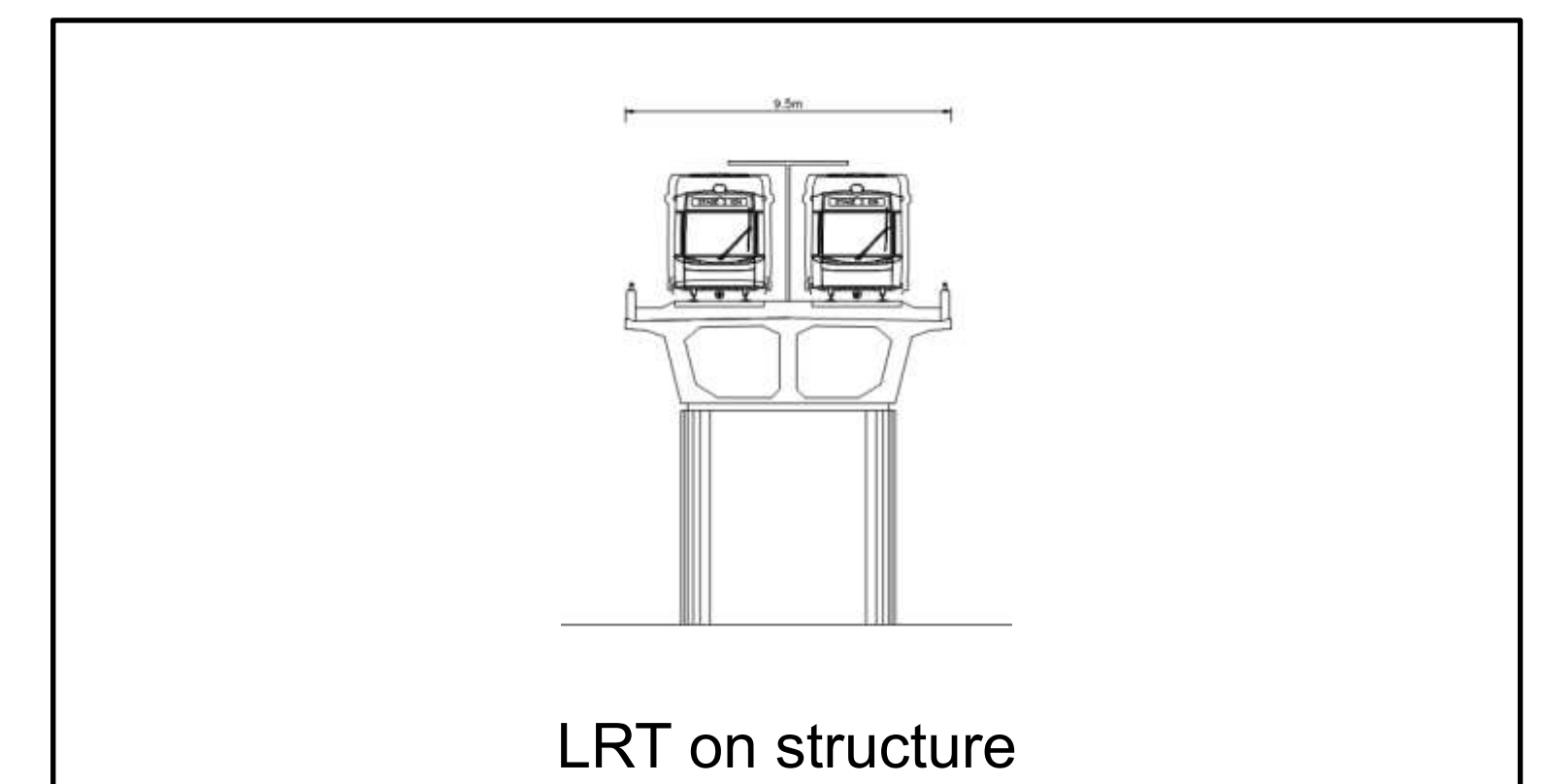
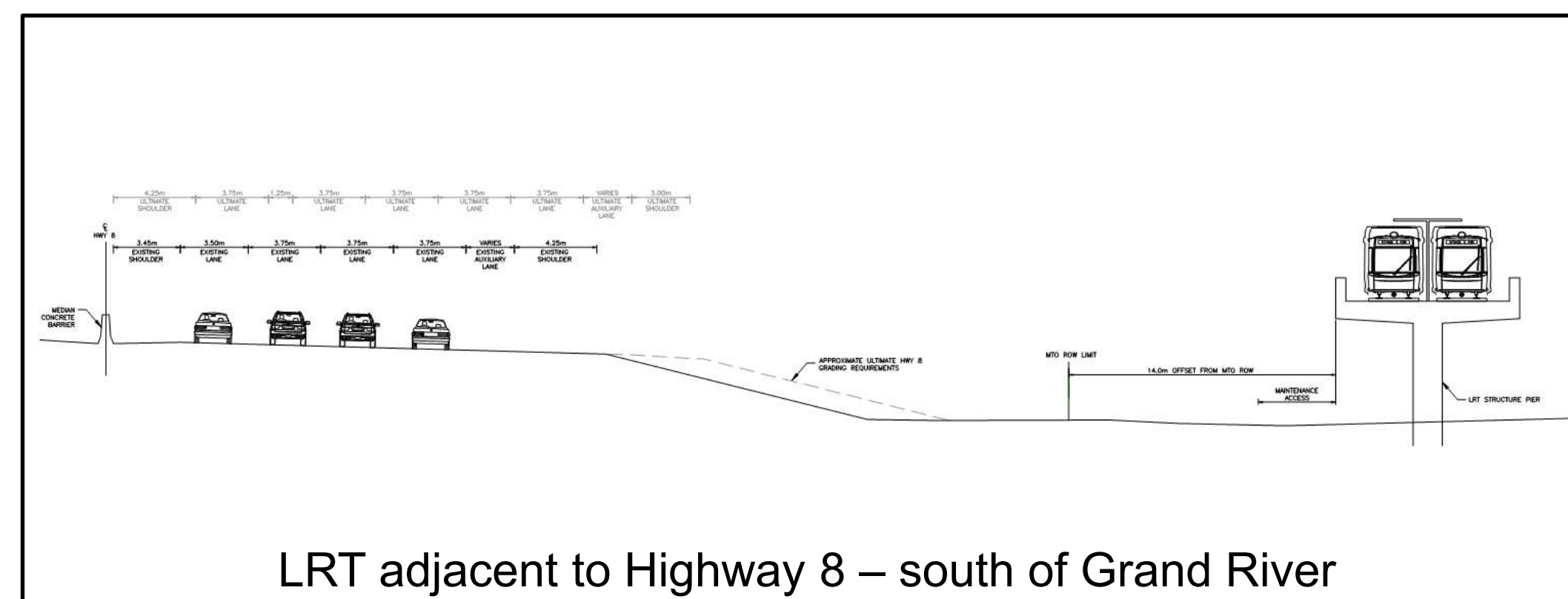
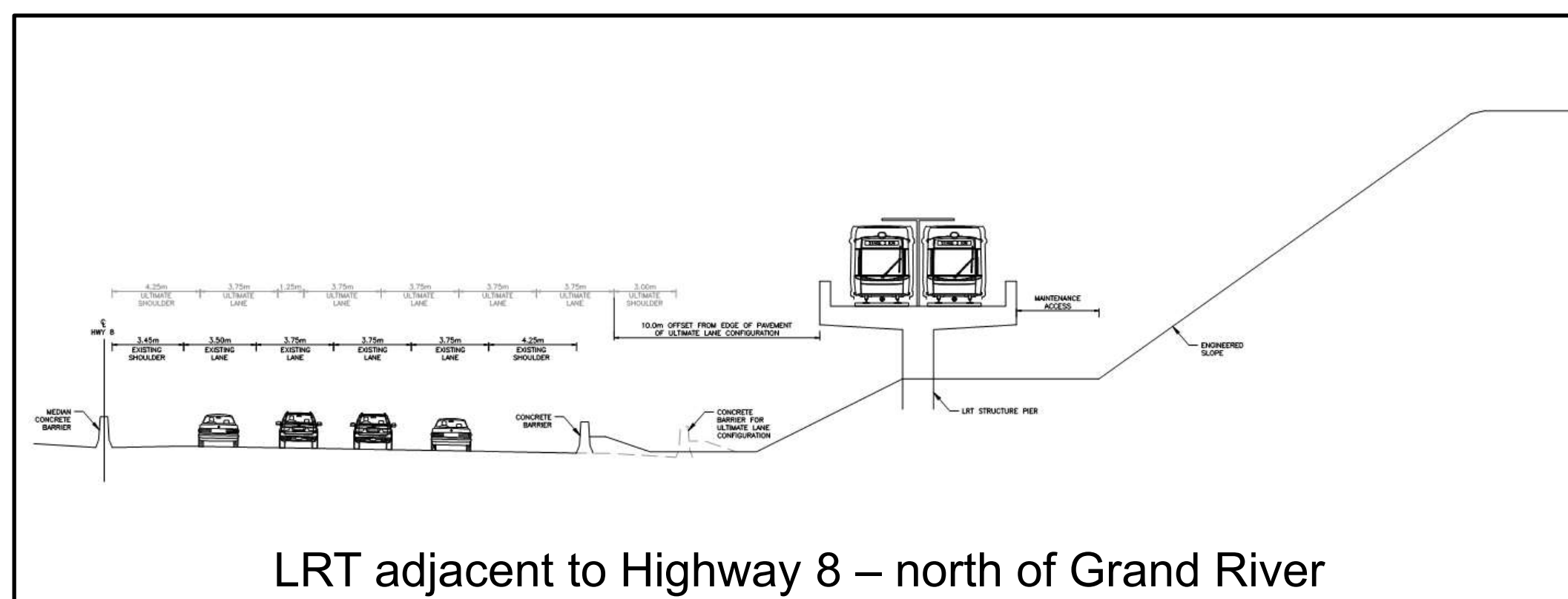
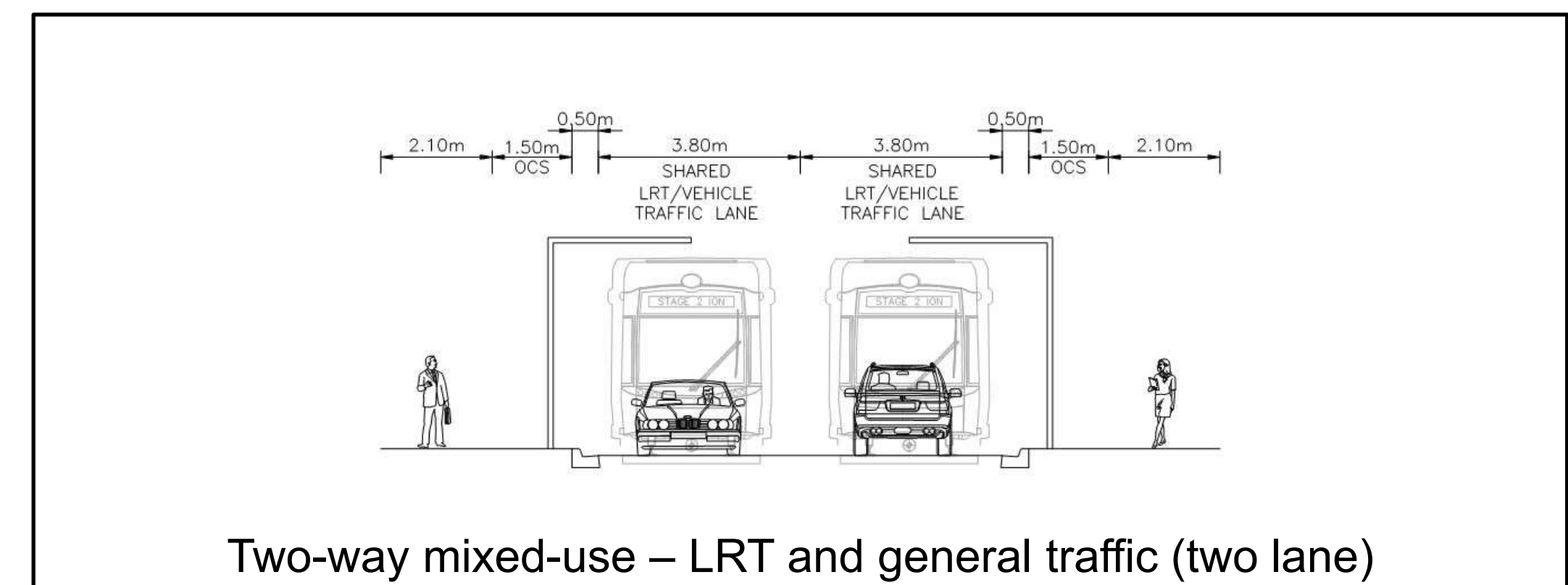
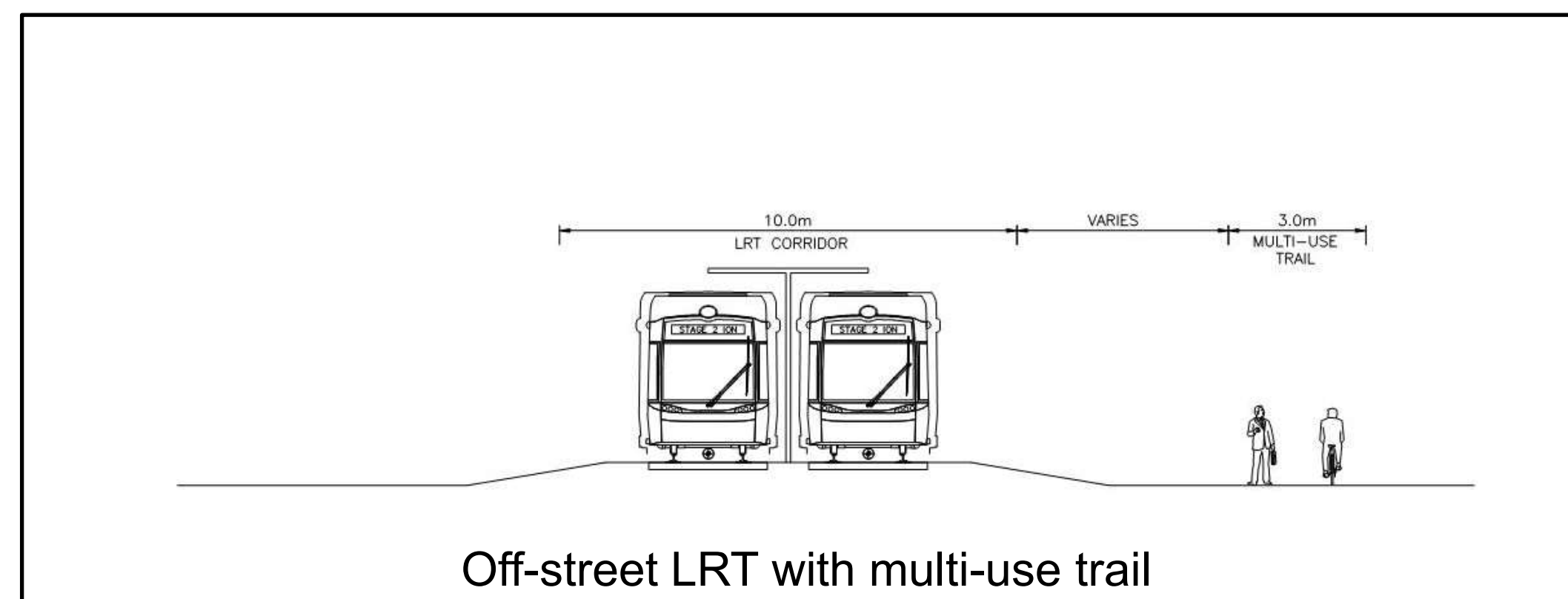
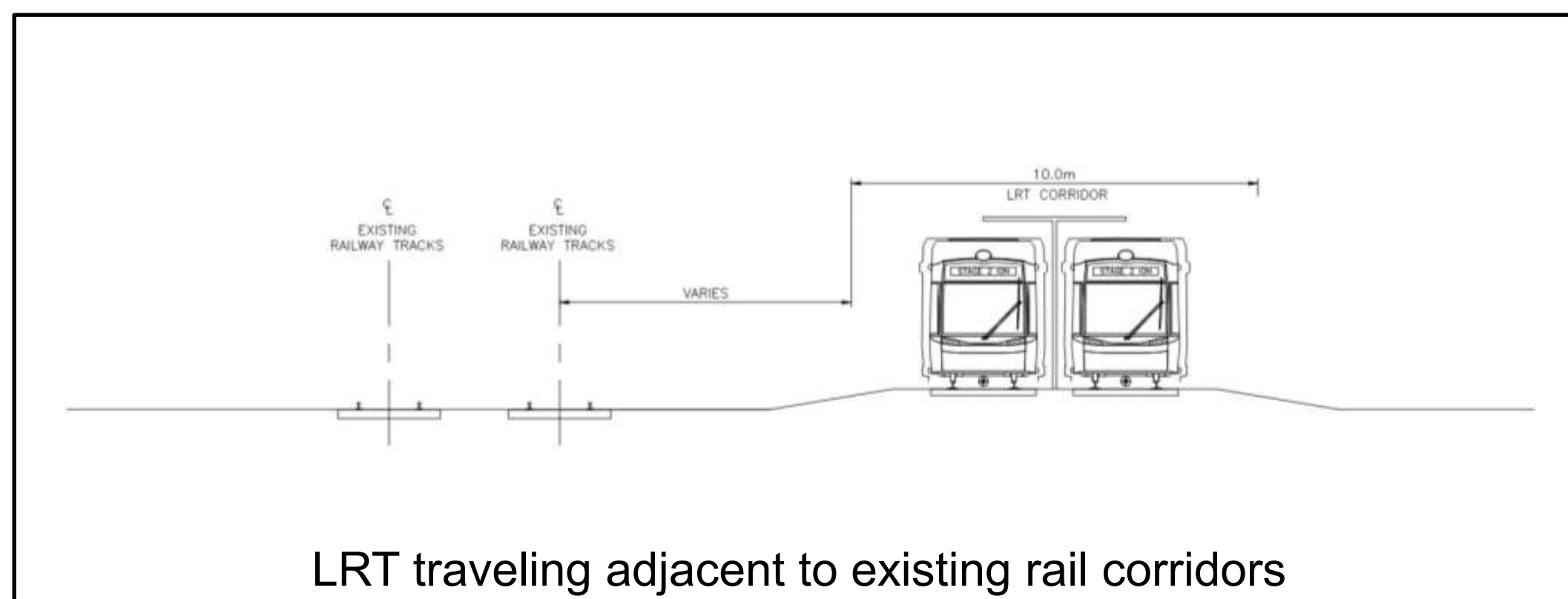
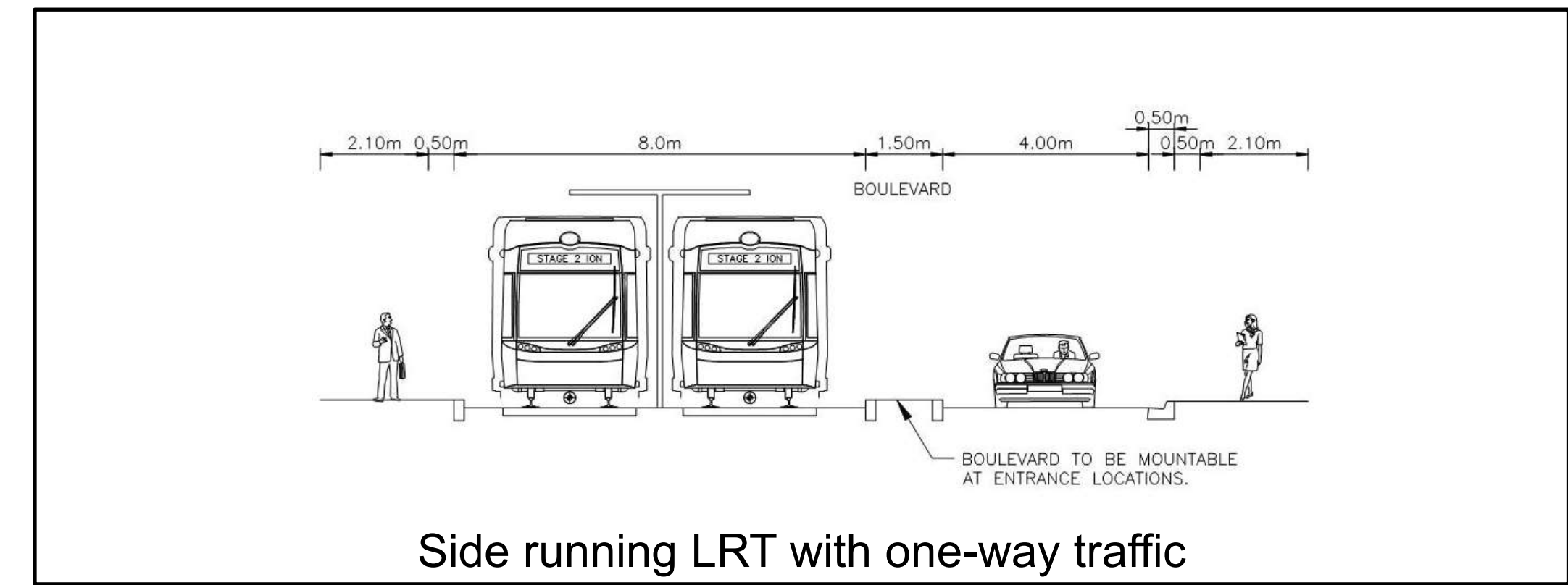
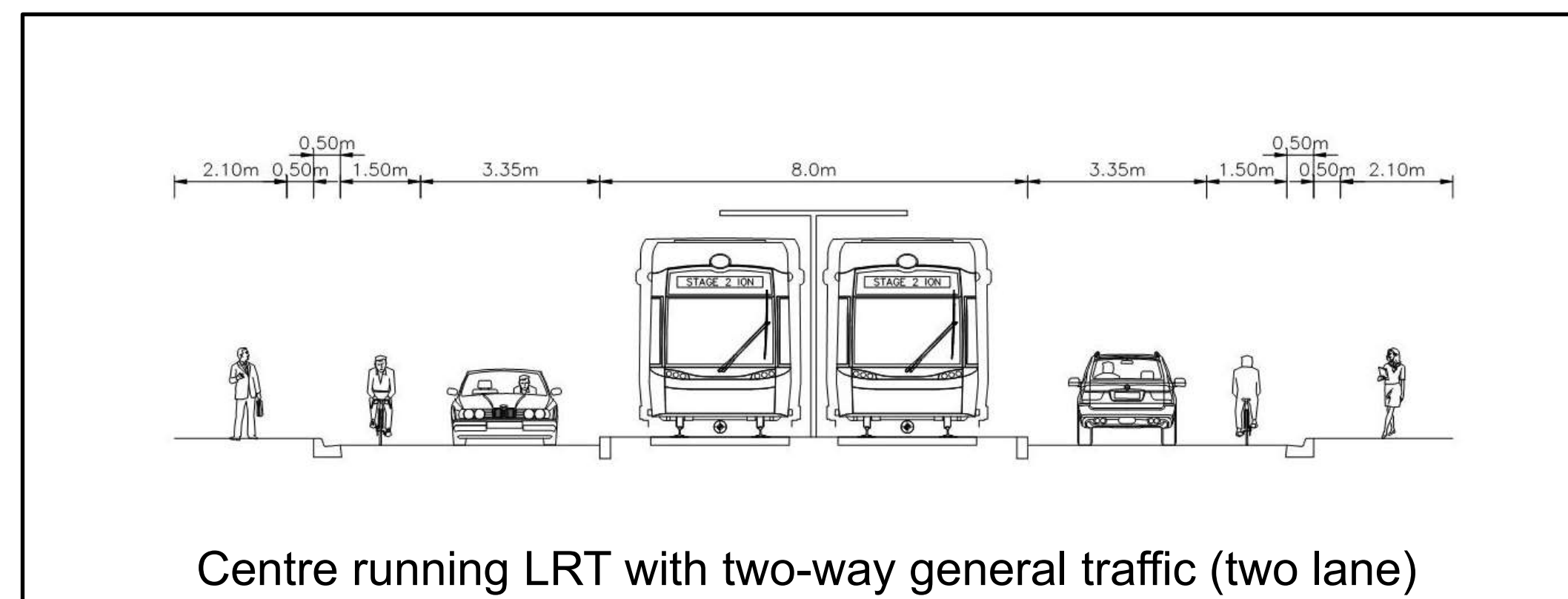
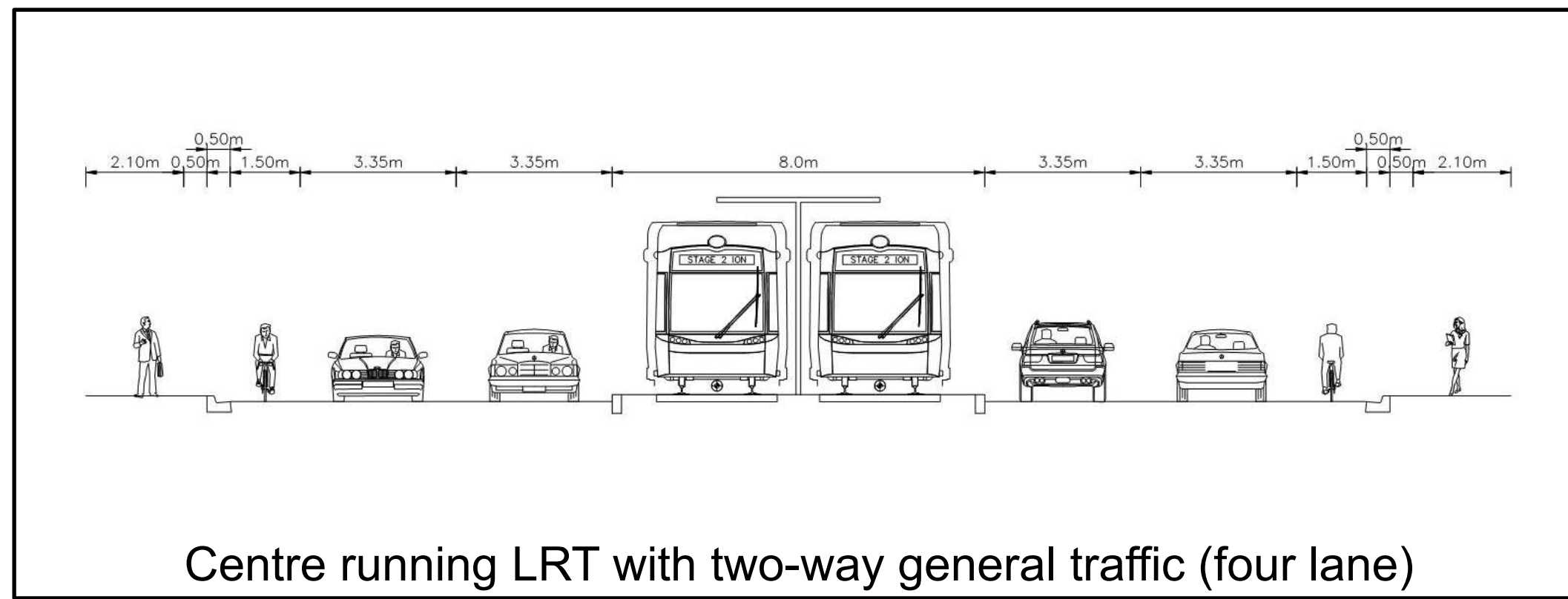


- ① KITCHENER (F-K)
- ② NORTH CAMBRIDGE (N3)
- ③ KITCHENER TO CAMBRIDGE (J)
- ④ NORTH CAMBRIDGE (E)
- ⑤ SOUTH CAMBRIDGE (S3)
- ⑥ SOUTH CAMBRIDGE TERMINAL (T)

An alternative has been brought forward by a group of local residents to be evaluated separately from the other segments



# What would it look like at street level?



Final cross-sections and dimensions will be confirmed during the design process.  
 Not all roadway elements are shown here (e.g. utilities, landscaping, bus shelters).

# 1 Alternatives – Kitchener (F-K)

### Potential Property Impacts

	Properties Impacted*	Potential Full Buyout
F2a-K2	15-20	1-3
F2b-K3b	8-13	1-3

\*Total, including partial and full buyout

Grand River Hospital – Freeport Campus is and will continue to be serviced by GRT bus from the Fairway Station

Grand River Hospital - Freeport

K3b crosses over the Highway 8 exit ramp on a structure, and then rejoins King Street in the centre median

An alternative to King Street has been proposed by a group of local residents see 3

K2 has more property and traffic impacts on King Street than K3b

The alignment is contained within the approved River Road extension corridor to avoid environmentally sensitive areas

LRT will be adjacent to Highway 8; potential property impacts are for grading at the property line

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

Sportsworld

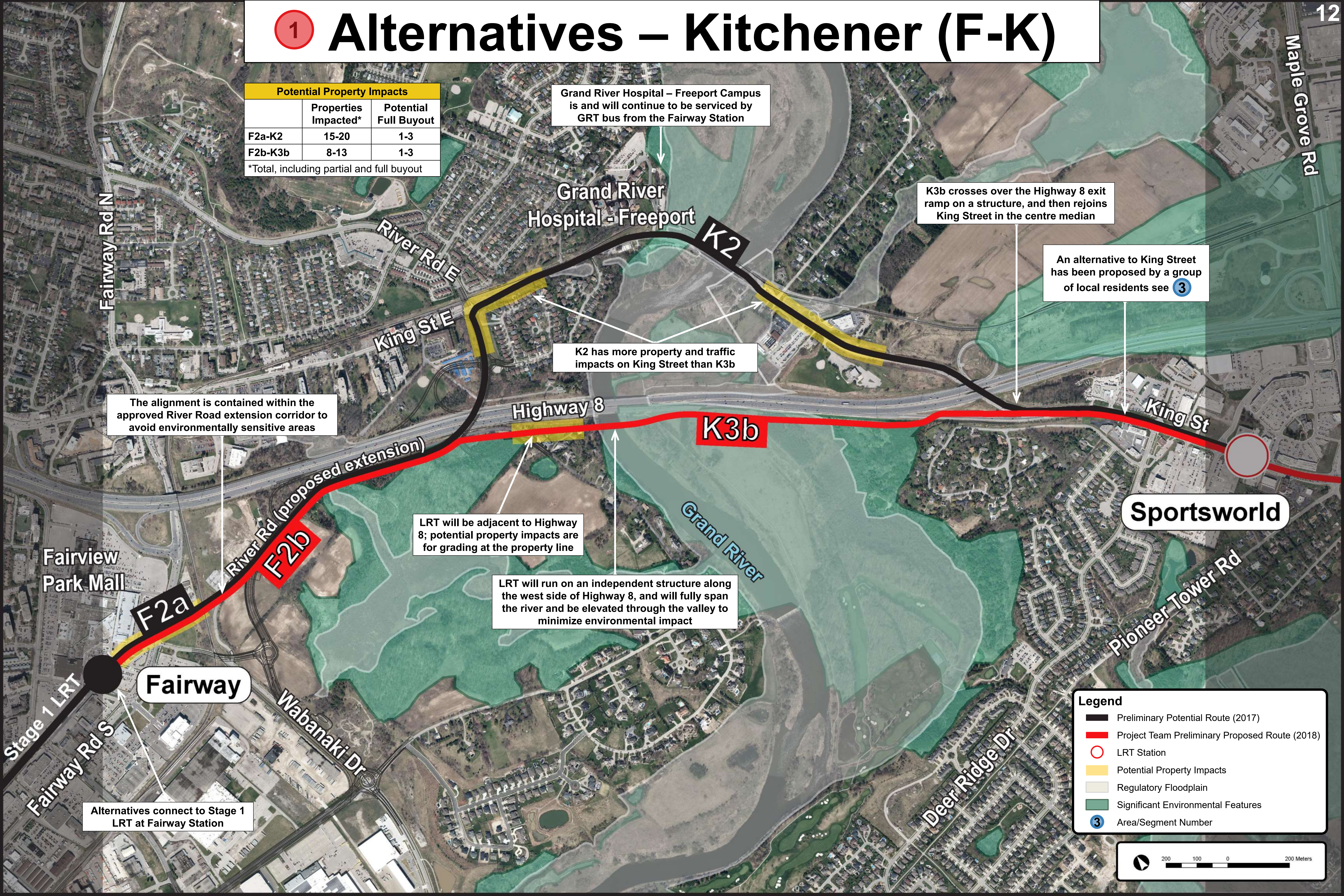
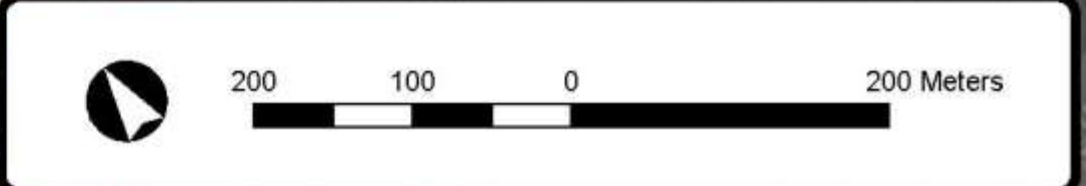
Fairview Park Mall

Fairway

Alternatives connect to Stage 1 LRT at Fairway Station

**Legend**

- Preliminary Potential Route (2017)
- Project Team Preliminary Proposed Route (2018)
- LRT Station
- Potential Property Impacts
- Regulatory Floodplain
- Significant Environmental Features
- ③ Area/Segment Number



# Evaluation Results – Kitchener (F-K)

## Fairway Station to King Street at Sportsworld Crossing Drive

### F2a-K2: River Road Extension, King Street

#### NOT PREFERRED

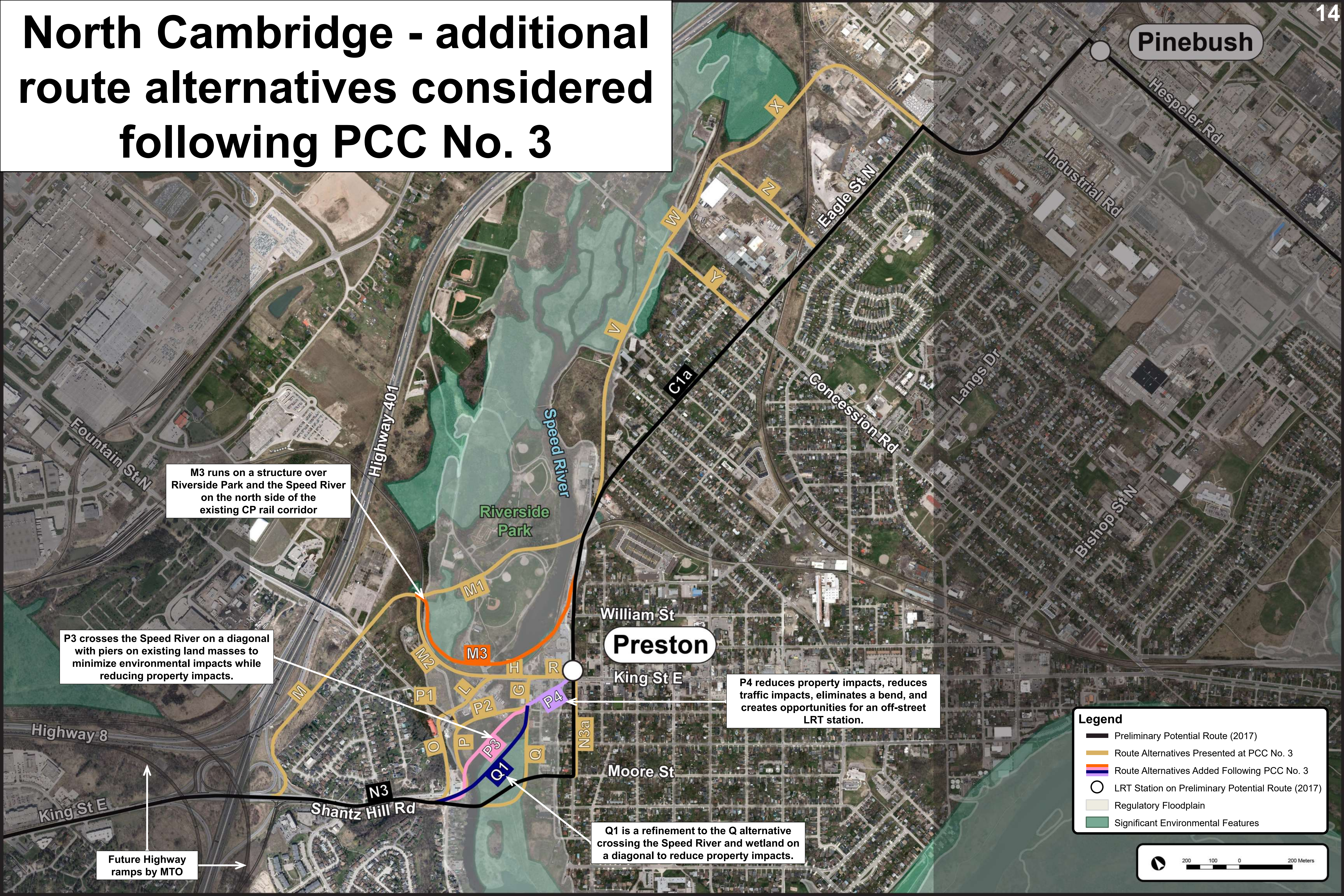
- ✓ Less impact to natural features
- ✗ More properties impacted
- ✗ More traffic impacts on King Street
- ✗ Longer travel time
- ✗ More expensive to build, operate, and maintain

### F2b-K3b: River Road Extension, Parallel to Highway 8, King Street

#### PREFERRED

- ✓ Shorter travel time
- ✓ Lower traffic impacts on King Street
- ✓ Fewer properties impacted
- ✓ Fewer cultural heritage resources impacted
- ✓ Less expensive to build, operate, and maintain
- ✗ More impacts to natural features

# North Cambridge - additional route alternatives considered following PCC No. 3



Pinebush

Hespeler Rd

Industrial Rd

Eagle St N

Concession Rd

Langs Dr

Bishop St N

C1a

William St

Preston

King St E

Moore St

Q1 is a refinement to the Q alternative crossing the Speed River and wetland on a diagonal to reduce property impacts.

P4 reduces property impacts, reduces traffic impacts, eliminates a bend, and creates opportunities for an off-street LRT station.

P3 crosses the Speed River on a diagonal with piers on existing land masses to minimize environmental impacts while reducing property impacts.

M3 runs on a structure over Riverside Park and the Speed River on the north side of the existing CP rail corridor

**Legend**

- Preliminary Potential Route (2017)
- Route Alternatives Presented at PCC No. 3
- Route Alternatives Added Following PCC No. 3
- LRT Station on Preliminary Potential Route (2017)
- Regulatory Floodplain
- Significant Environmental Features



Future Highway ramps by MTO

Shantz Hill Rd

N3

N3a

O

P

Q

R

P1

L

G

H

M2

M1

M3

V

W

Y

Z

X

Highway 8

King St E

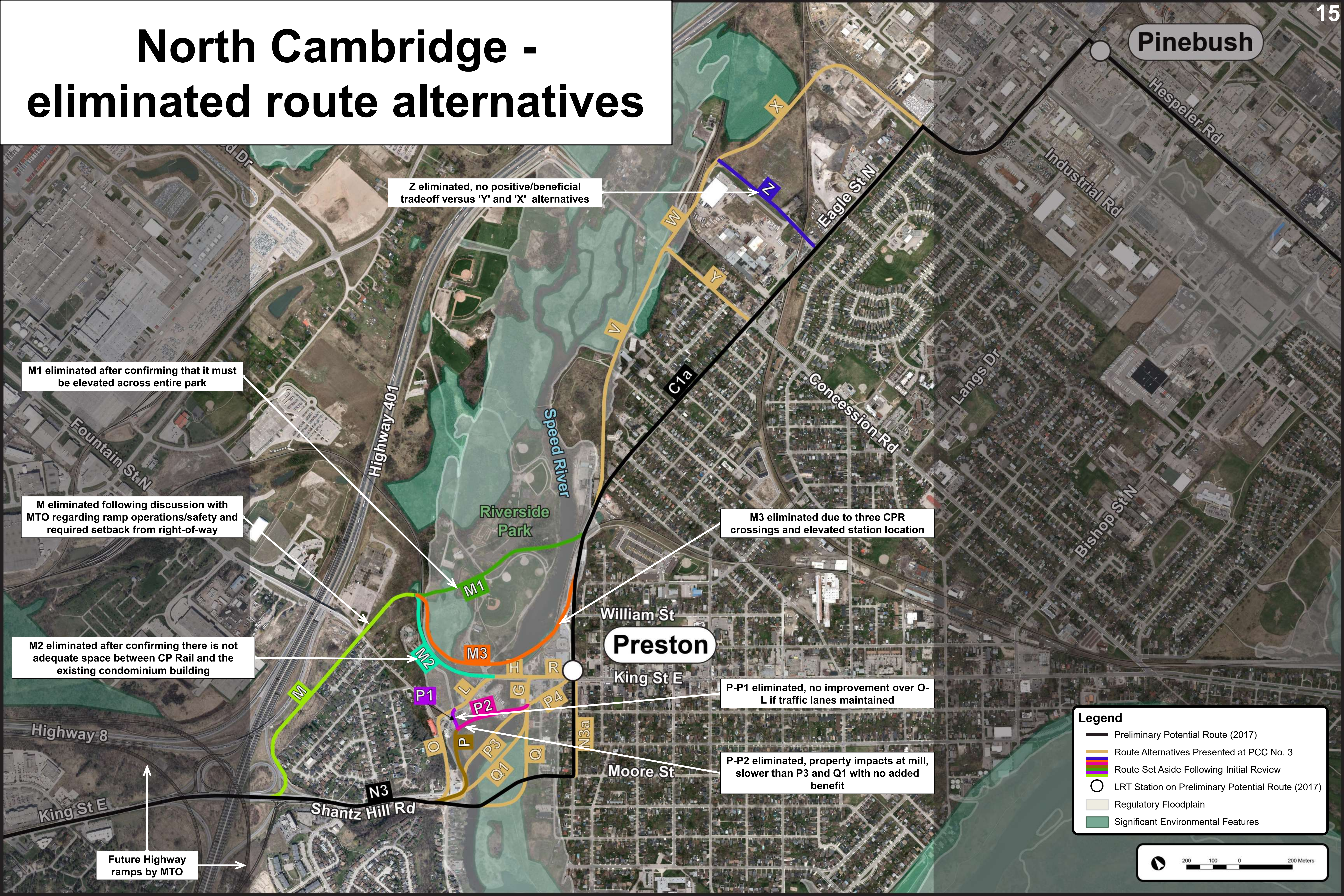
Highway 401

Fountain St N

Riverside Park

Speed River

# North Cambridge - eliminated route alternatives



Pinebush

Z eliminated, no positive/beneficial tradeoff versus 'Y' and 'X' alternatives

M1 eliminated after confirming that it must be elevated across entire park

M eliminated following discussion with MTO regarding ramp operations/safety and required setback from right-of-way

M2 eliminated after confirming there is not adequate space between CP Rail and the existing condominium building

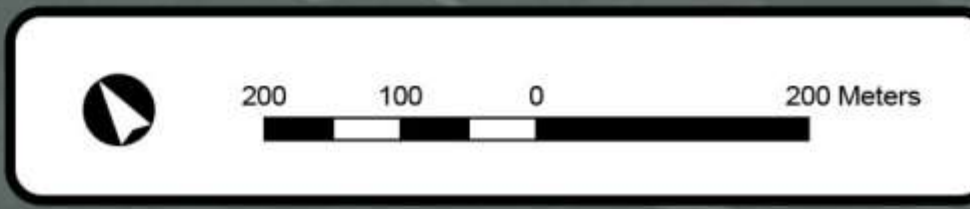
M3 eliminated due to three CPR crossings and elevated station location

P-P1 eliminated, no improvement over O-L if traffic lanes maintained

P-P2 eliminated, property impacts at mill, slower than P3 and Q1 with no added benefit

**Legend**

- Preliminary Potential Route (2017)
- Route Alternatives Presented at PCC No. 3
- Route Set Aside Following Initial Review
- LRT Station on Preliminary Potential Route (2017)
- Regulatory Floodplain
- Significant Environmental Features



Future Highway ramps by MTO

Preston

William St

King St E

Moore St

Shantz Hill Rd

Highway 401

Highway 8

King St E

Speed River

Riverside Park

C1a

N3a

N3

Eagle St N

Concession Rd

Langs Dr

Industrial Rd

Bishop St N

Hespeler Rd

Fountain St N

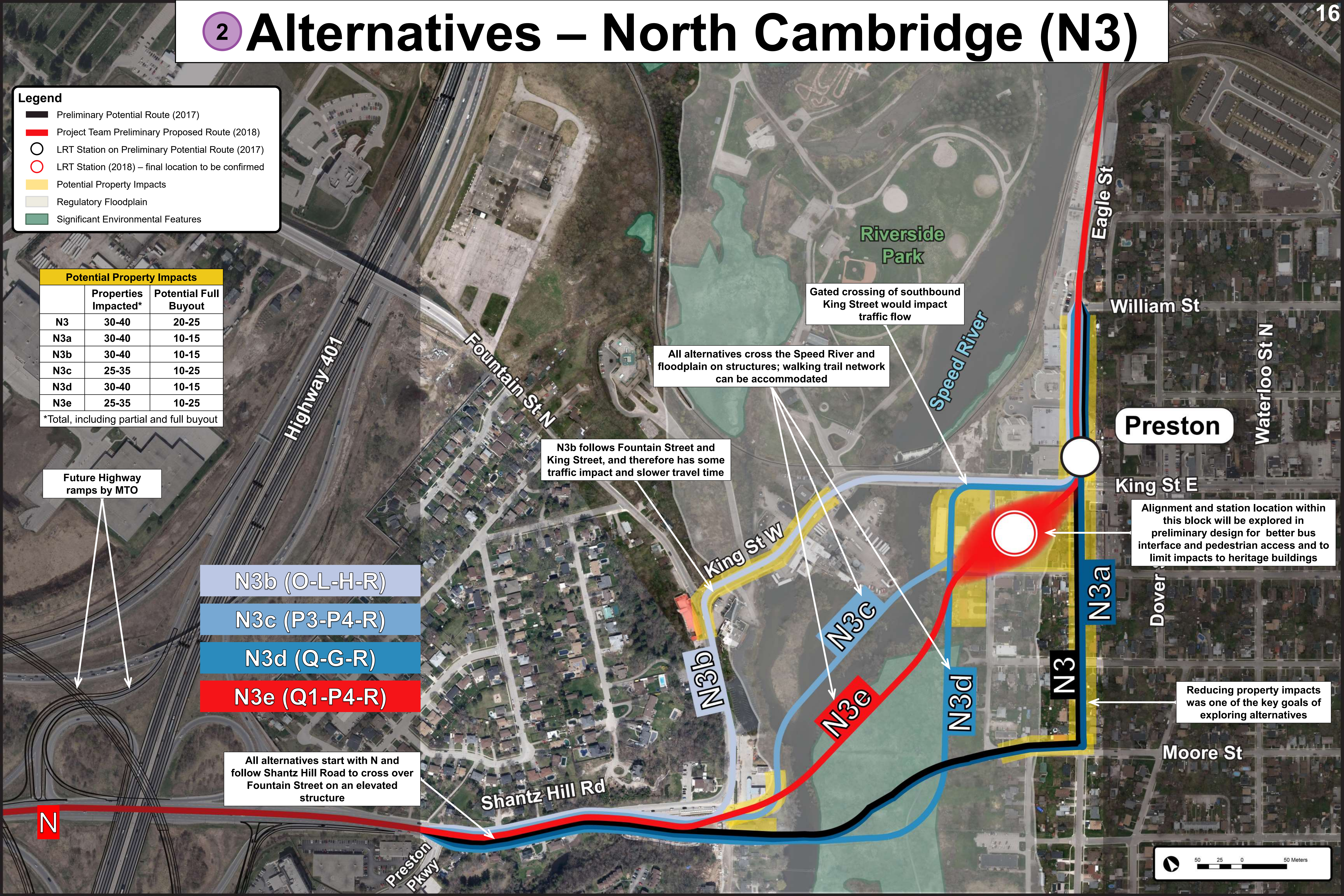
# 2 Alternatives – North Cambridge (N3)

**Legend**

- Preliminary Potential Route (2017)
- Project Team Preliminary Proposed Route (2018)
- LRT Station on Preliminary Potential Route (2017)
- LRT Station (2018) – final location to be confirmed
- Potential Property Impacts
- Regulatory Floodplain
- Significant Environmental Features

Potential Property Impacts		
	Properties Impacted*	Potential Full Buyout
N3	30-40	20-25
N3a	30-40	10-15
N3b	30-40	10-15
N3c	25-35	10-25
N3d	30-40	10-15
N3e	25-35	10-25

\*Total, including partial and full buyout



Future Highway ramps by MTO

- N3b (O-L-H-R)
- N3c (P3-P4-R)
- N3d (Q-G-R)
- N3e (Q1-P4-R)

All alternatives start with N and follow Shantz Hill Road to cross over Fountain Street on an elevated structure

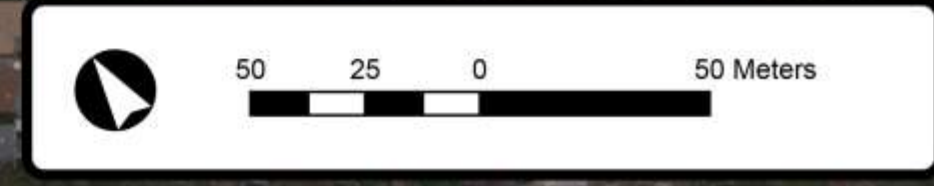
N3b follows Fountain Street and King Street, and therefore has some traffic impact and slower travel time

All alternatives cross the Speed River and floodplain on structures; walking trail network can be accommodated

Gated crossing of southbound King Street would impact traffic flow

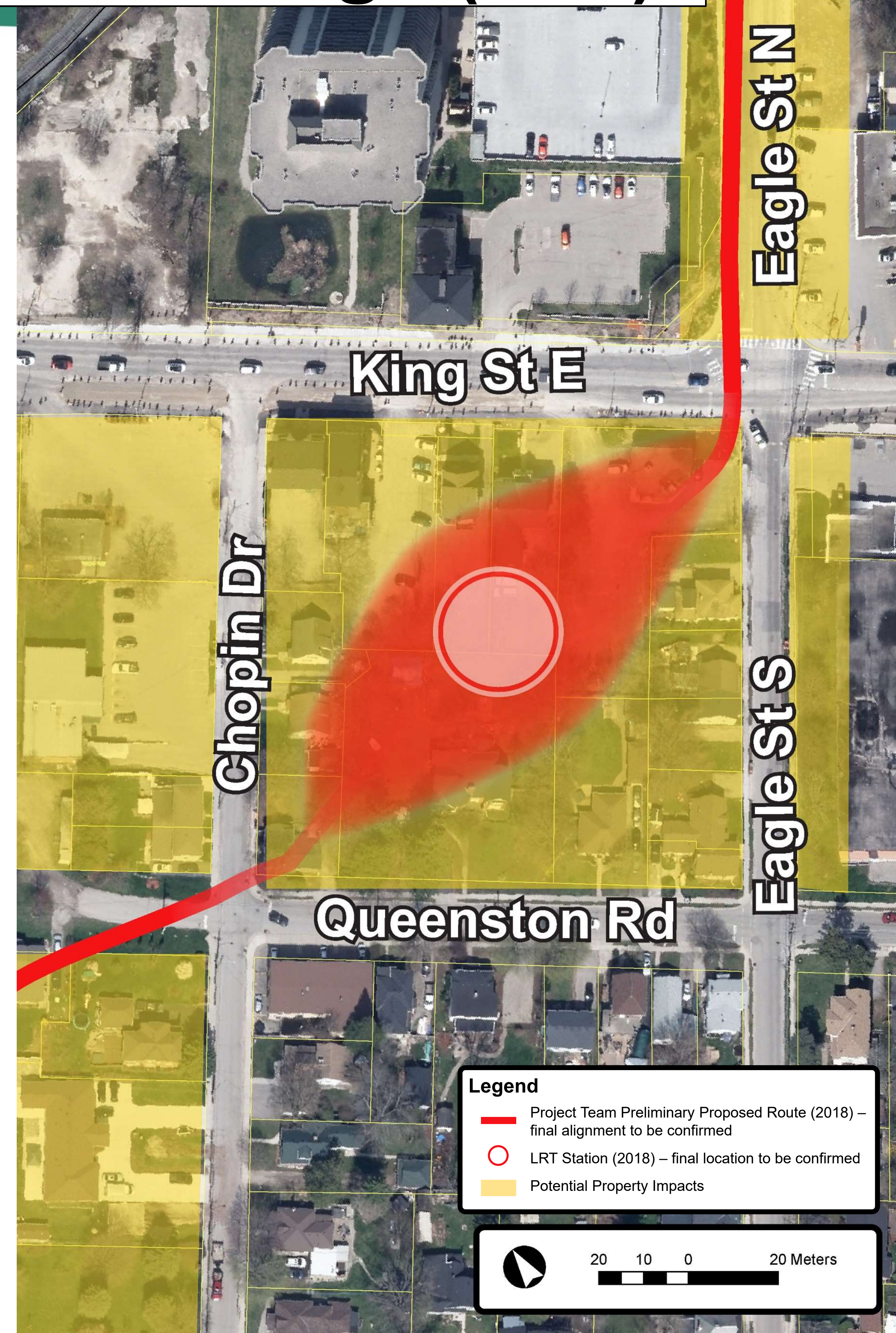
Alignment and station location within this block will be explored in preliminary design for better bus interface and pedestrian access and to limit impacts to heritage buildings

Reducing property impacts was one of the key goals of exploring alternatives



## 2 Alternatives – North Cambridge (N3e)

- The route is shown wider here because more analysis and design is needed to confirm the final alignment
- Cultural heritage and property impacts will be considered further
- Yellow shading shown for potential property impacts, direct or indirect, of works required to implement the project
- Alignment and station location will be confirmed during preliminary design then presented in 2019
- Where possible buildings will be preserved



# Evaluation Results – North Cambridge (N)

## **N3: Shantz Hill, across Speed River, Moore Street, Eagle Street (Preliminary Potential Route 2017)**

### **NOT PREFERRED**

- ✓ Fewer commercial properties impacted
- ✓ Lower traffic impacts on King/Eagle than N3b and N3d
- ✓ Least impact to natural features due to shortest crossing of the Speed River and floodplain
- ✓ Less expensive to build
- ✗ Highest number of residential properties impacted and the most full buyouts
- ✗ Longer travel time

## **N3a: Same as N3, except running in mixed traffic on Eagle Street**

### **NOT PREFERRED**

- ✓ Fewer full buyouts than N3
- ✓ Least expensive to build
- ✓ Least impact to natural features due to shortest crossing of the Speed River and floodplain
- ✗ Highest number of residential properties impacted
- ✗ Longest travel time due to length and share lanes (LRT/vehicles) on Eagle Street

## **N3b: Shantz Hill, Fountain Street, King Street**

### **NOT PREFERRED**

- ✓ Fewest full buyouts, fewest residential properties impacted
- ✓ Less expensive to build than N3c, N3d and N3e
- ✓ Least impact to natural features due to use of existing roadways
- ✗ Highest number of total properties impacted
- ✗ Highest traffic impacts on Fountain Street and King Street
- ✗ Longer travel time due to length and slower average speed

## **N3c: Shantz Hill, across Speed River “islands”, through King/Eagle/Queenston/Chopin block to Eagle Street**

### **NOT PREFERRED**

- ✓ Fewest properties impacted and fewer full buyouts than N3
- ✓ Least impact on traffic, particularly King/Eagle intersection
- ✓ Shorter travel time (similar to N3e)
- ✗ Most expensive to build
- ✗ Highest impacts to the Speed River

## **N3d: Shantz Hill, across Speed River, behind properties, King Street**

### **NOT PREFERRED**

- ✓ Fewer full buyouts than N3; similar to N3a and N3b
- ✓ Shorter travel time
- ✗ Highest number of properties impacted
- ✗ Highest impact to natural features
- ✗ More expensive to build than N3

## **N3e: Shantz Hill, across Speed River, along river valley, through King/Eagle/Queenston/Chopin block to Eagle Street**

### **PREFERRED**

- ✓ Fewest properties impacted, fewer full buyouts than N3
- ✓ Least traffic impacts
- ✓ Shortest travel time
- ✗ More impacts to natural features than N3
- ✗ More expensive to build than N3

# Shantz Hill LRT Bridge Concept

Conceptual rendering of the Shantz Hill LRT structure shown here to demonstrate how it could work. Final alignment and appearance to be confirmed during preliminary and detailed design.

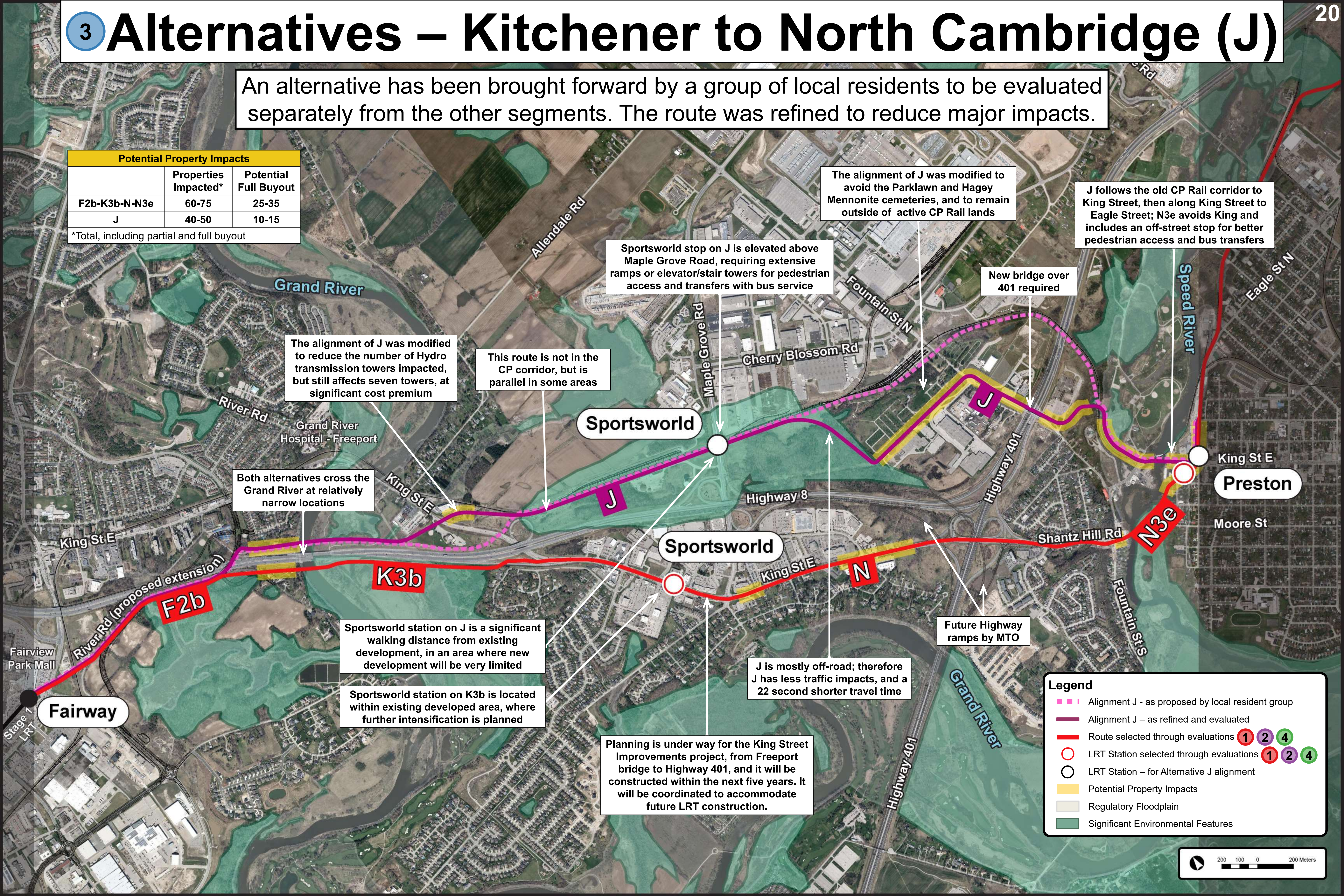


# 3 Alternatives – Kitchener to North Cambridge (J)

An alternative has been brought forward by a group of local residents to be evaluated separately from the other segments. The route was refined to reduce major impacts.

Potential Property Impacts		
	Properties Impacted*	Potential Full Buyout
F2b-K3b-N-N3e	60-75	25-35
J	40-50	10-15

\*Total, including partial and full buyout



The alignment of J was modified to avoid the Parklawn and Hagey Mennonite cemeteries, and to remain outside of active CP Rail lands

J follows the old CP Rail corridor to King Street, then along King Street to Eagle Street; N3e avoids King and includes an off-street stop for better pedestrian access and bus transfers

Sportsworld stop on J is elevated above Maple Grove Road, requiring extensive ramps or elevator/stair towers for pedestrian access and transfers with bus service

New bridge over 401 required

The alignment of J was modified to reduce the number of Hydro transmission towers impacted, but still affects seven towers, at significant cost premium

This route is not in the CP corridor, but is parallel in some areas

Both alternatives cross the Grand River at relatively narrow locations

Sportsworld station on J is a significant walking distance from existing development, in an area where new development will be very limited

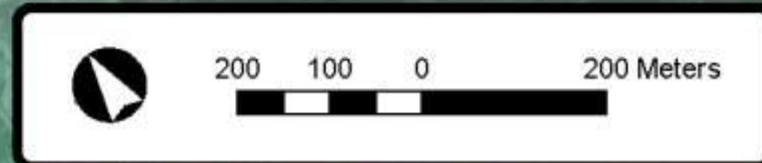
Sportsworld station on K3b is located within existing developed area, where further intensification is planned

J is mostly off-road; therefore J has less traffic impacts, and a 22 second shorter travel time

Planning is under way for the King Street Improvements project, from Freeport bridge to Highway 401, and it will be constructed within the next five years. It will be coordinated to accommodate future LRT construction.

**Legend**

- Alignment J - as proposed by local resident group
- Alignment J - as refined and evaluated
- Route selected through evaluations 1 2 4
- LRT Station selected through evaluations 1 2 4
- LRT Station - for Alternative J alignment
- Potential Property Impacts
- Regulatory Floodplain
- Significant Environmental Features



# Evaluation Results – Alternative J

## F2b-K3b-N-N3e: River Road extension, parallel to Highway 8 and King Street

### **PREFERRED**

- ✓ Higher ridership potential
- ✓ Sportsworld station is centrally located within commercial and employment zone
- ✓ Less expensive to build, operate and maintain
- ✓ Best supports transit and pedestrian goals and policies
- ✗ More properties impacted and more full buyouts

## Alternative J: River Road extension, parallel to Highway 8 on east side and CP corridor

### **NOT PREFERRED**

- ✓ Lower traffic impacts
- ✗ Lower ridership potential
- ✗ Sportsworld station is further from residential and commercial developments
- ✗ Sportsworld station is less accessible to vehicles and pedestrians
- ✗ Least compatible with Region and city transit and pedestrian goals and policies
- ✗ More expensive to build, operate and maintain

# 4 Alternatives – North Cambridge (E)

**E1 (V-Y)**  
**E2 (V-W-X)**

E2 is fastest because it has a higher operating speed

E1 and E2 result in some impact to significant environmental features

E1 and E2 use CP Rail line (no longer in use)

E2 requires grade separation with the CN Rail corridor, then follows a railway spur to Eagle Street

C1a and E1 likely require grade separation of LRT and Eagle Street over CN Rail

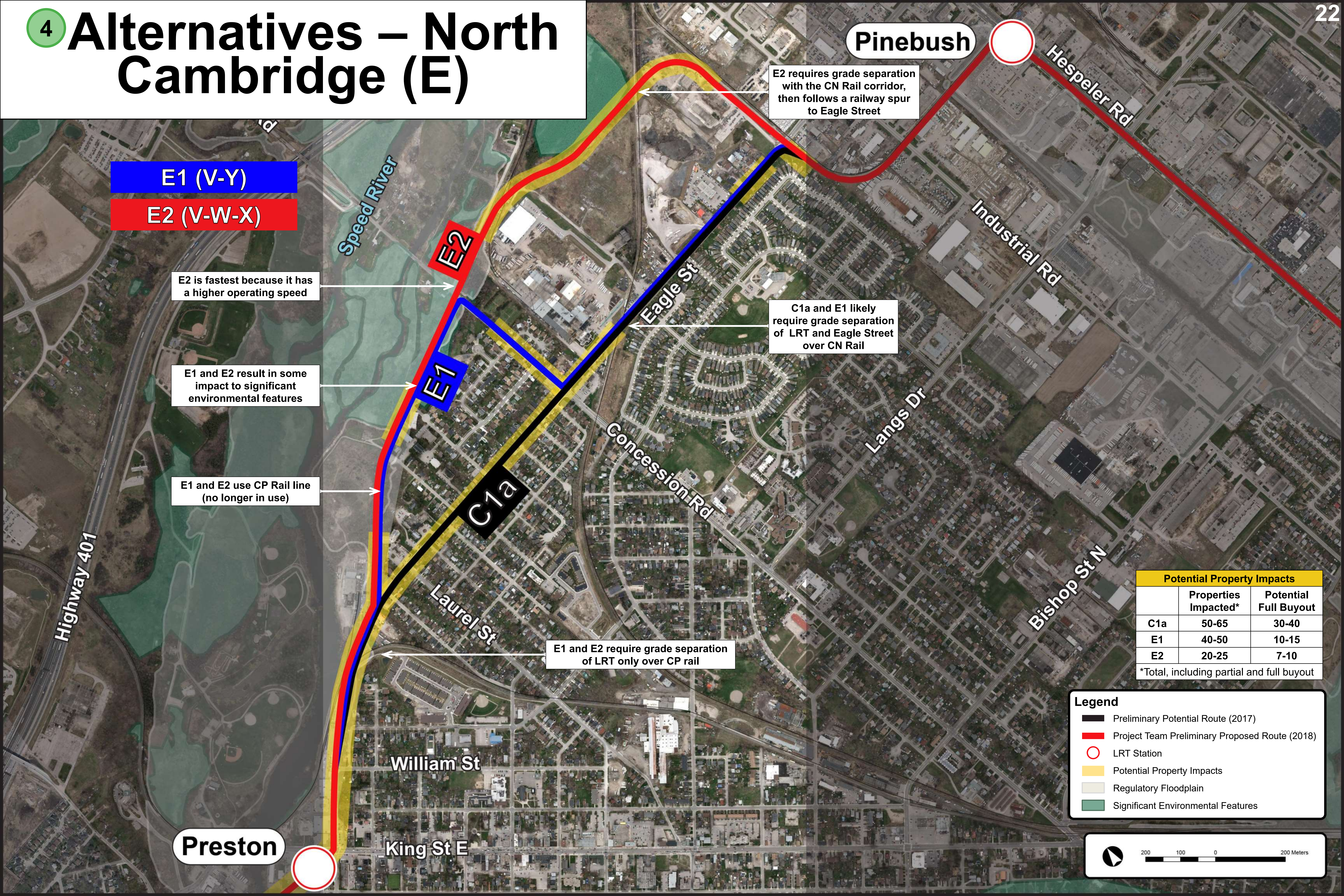
E1 and E2 require grade separation of LRT only over CP rail

Potential Property Impacts		
	Properties Impacted*	Potential Full Buyout
C1a	50-65	30-40
E1	40-50	10-15
E2	20-25	7-10

\*Total, including partial and full buyout

**Legend**

- █ Preliminary Potential Route (2017)
- █ Project Team Preliminary Proposed Route (2018)
- LRT Station
- █ Potential Property Impacts
- █ Regulatory Floodplain
- █ Significant Environmental Features



# Evaluation Results – North Cambridge (E)

## C1a: Eagle Street

### NOT PREFERRED

- ✓ Least impact to natural features
- ✓ Least expensive to operate and maintain due to shorter route
- ✗ Highest traffic impacts
- ✗ Highest number of properties impacted and most full buyouts

## E1: Rail spur, Speedsville Road, Eagle Street

### NOT PREFERRED

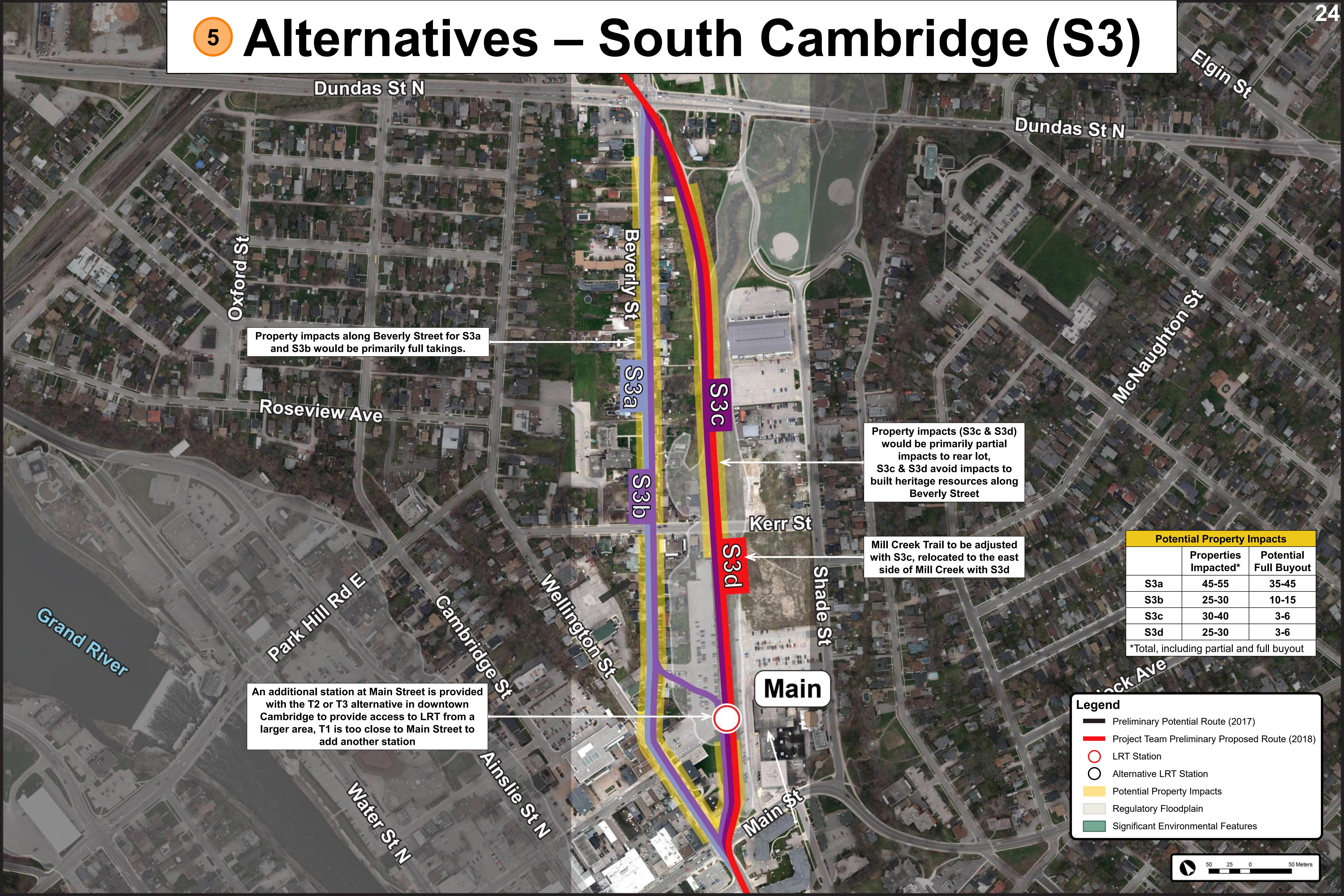
- ✓ Fewer properties impacted and full buyouts than C1a
- ✓ Less traffic impact than C1a
- ✗ More traffic impact than E2
- ✗ More properties impacted and full buyouts than E2
- ✗ Most expensive to build

## E2: Rail spur

### PREFERRED

- ✓ Fewest properties impacted and full buyouts
- ✓ Shortest travel time
- ✓ Best location for LRT-over-CN Rail grade separation
- ✓ Least expensive to build
- ✗ Highest impacts to natural features east of Speedsville Road
- ✗ More expensive to operate and build due to route length

# 5 Alternatives – South Cambridge (S3)



Property impacts along Beverly Street for S3a and S3b would be primarily full takings.

Property impacts (S3c & S3d) would be primarily partial impacts to rear lot, S3c & S3d avoid impacts to built heritage resources along Beverly Street

Mill Creek Trail to be adjusted with S3c, relocated to the east side of Mill Creek with S3d

An additional station at Main Street is provided with the T2 or T3 alternative in downtown Cambridge to provide access to LRT from a larger area, T1 is too close to Main Street to add another station

Potential Property Impacts		
	Properties Impacted*	Potential Full Buyout
S3a	45-55	35-45
S3b	25-30	10-15
S3c	30-40	3-6
S3d	25-30	3-6

\*Total, including partial and full buyout

**Legend**

- Preliminary Potential Route (2017)
- Project Team Preliminary Proposed Route (2018)
- LRT Station
- Alternative LRT Station
- Potential Property Impacts
- Regulatory Floodplain
- Significant Environmental Features



# Evaluation Results – South Cambridge (S3)

## S3a: Beverly Street

### NOT PREFERRED

- ✓ No significant impact on traffic operations, no new signalized intersections required
- ✓ No changes to Mill Creek Trail
- ✗ Highest number of properties impacted and full buyouts
- ✗ Highest number of cultural heritage resources impacted
- ✗ Longest travel time
- ✗ Most expensive to build

## S3b: Beverly Street, side running with Beverly as one-way

### NOT PREFERRED

- ✓ Fewest properties impacted
- ✓ Less expensive to build due to reduced property acquisition
- ✓ No changes to Mill Creek Trail
- ✗ More full buyouts than S3c and S3d
- ✗ Longest travel time
- ✗ Highest traffic impacts due to Beverly Street one-way conversion
- ✗ More cultural heritage resources impacted than S3c and S3d

## S3c: Along Mill Creek, walking trail on west side of Mill Creek

### NOT PREFERRED

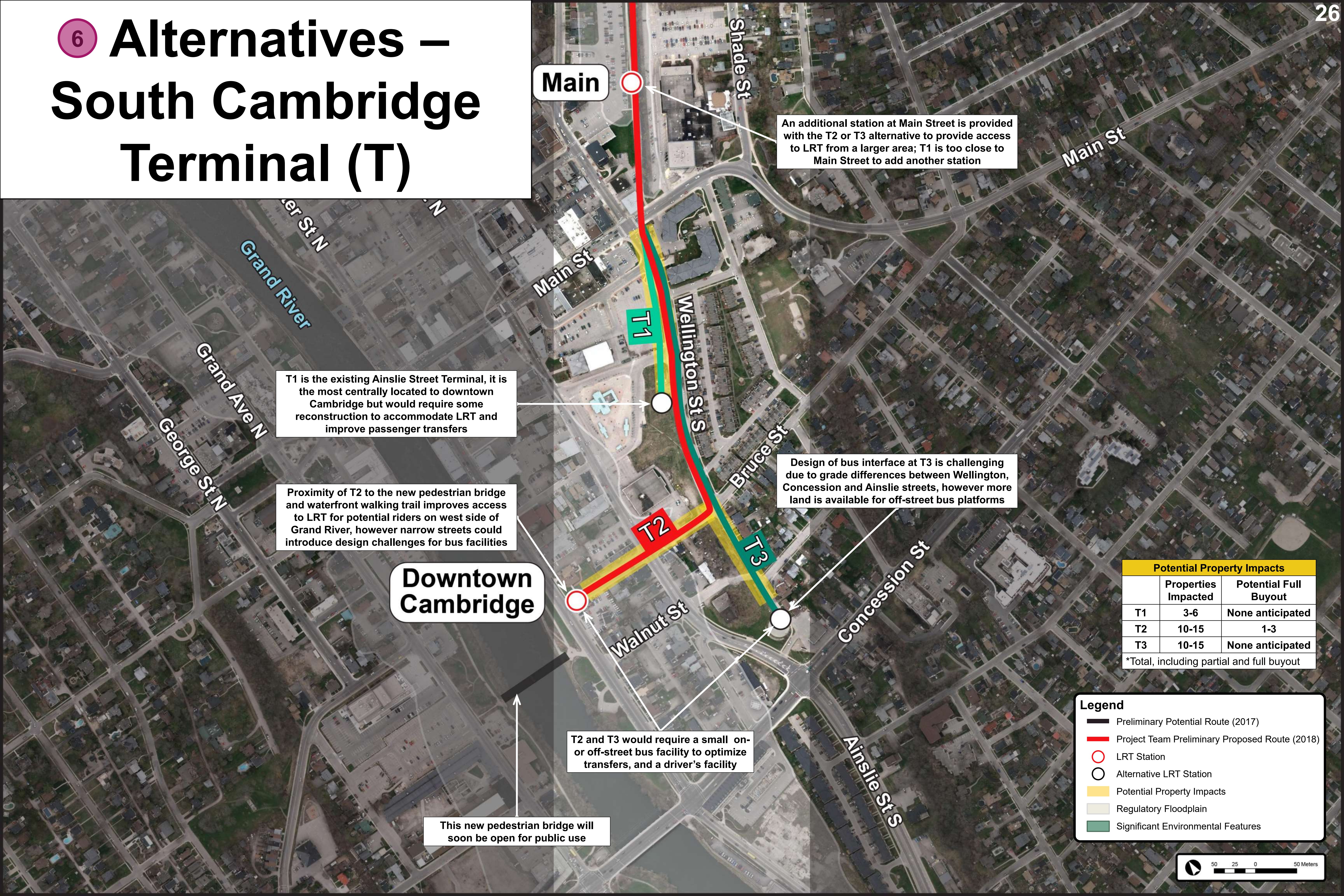
- ✓ Fewer properties impacted and fewer full buy-outs
- ✓ Fewer cultural heritage resources impacted
- ✓ Shortest travel time
- ✓ Least expensive to build
- ✗ Located closer to Mill Creek and beside Mill Creek Trail

## S3d: Along Mill Creek, walking trail on east side of Mill Creek

### PREFERRED

- ✓ Fewest properties impacted and full buy-outs
- ✓ Fewer cultural heritage resources impacted
- ✓ Shortest travel time
- ✓ Less expensive to build
- ✗ Located closest to Mill Creek and relocates Mill Creek Trail

# 6 Alternatives – South Cambridge Terminal (T)



**Main**

An additional station at Main Street is provided with the T2 or T3 alternative to provide access to LRT from a larger area; T1 is too close to Main Street to add another station

T1 is the existing Ainslie Street Terminal, it is the most centrally located to downtown Cambridge but would require some reconstruction to accommodate LRT and improve passenger transfers

Proximity of T2 to the new pedestrian bridge and waterfront walking trail improves access to LRT for potential riders on west side of Grand River, however narrow streets could introduce design challenges for bus facilities

Design of bus interface at T3 is challenging due to grade differences between Wellington, Concession and Ainslie streets, however more land is available for off-street bus platforms

**Downtown Cambridge**

T2 and T3 would require a small on- or off-street bus facility to optimize transfers, and a driver's facility

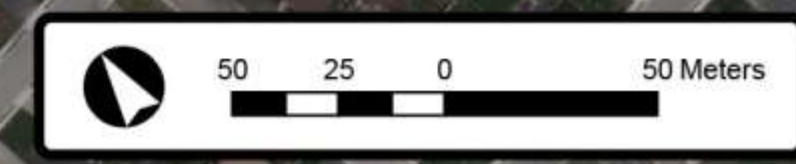
This new pedestrian bridge will soon be open for public use

Potential Property Impacts		
	Properties Impacted	Potential Full Buyout
T1	3-6	None anticipated
T2	10-15	1-3
T3	10-15	None anticipated

\*Total, including partial and full buyout

**Legend**

- Preliminary Potential Route (2017)
- Project Team Preliminary Proposed Route (2018)
- LRT Station
- Alternative LRT Station
- Potential Property Impacts
- Regulatory Floodplain
- Significant Environmental Features



# Evaluation Results – South Cambridge Terminal (T)

## T1: Wellington Street, Ainslie Street Terminal

### NOT PREFERRED

- ✓ Centrally located and provides good access to the core
- ✓ Good connectivity for passengers transferring to/from LRT
- ✓ Least expensive to build and maintain, route is shorter and terminal site already in place
- ✗ Less efficient for bus operations with more travel through the city core
- ✗ Requires redevelopment of existing terminal site to properly integrate LRT

## T3: Wellington Street, new Terminal on Wellington Street at Concession Street; additional station at Main Street

### NOT PREFERRED

- ✓ Better access to the core area due to additional station
- ✓ More pedestrian-friendly on-street LRT-bus connections
- ✓ Opportunity to streamline bus routes, improve efficiency and reduce travel time
- ✗ More properties impacted than T1
- ✗ More expensive than T1 to build, operate, and maintain

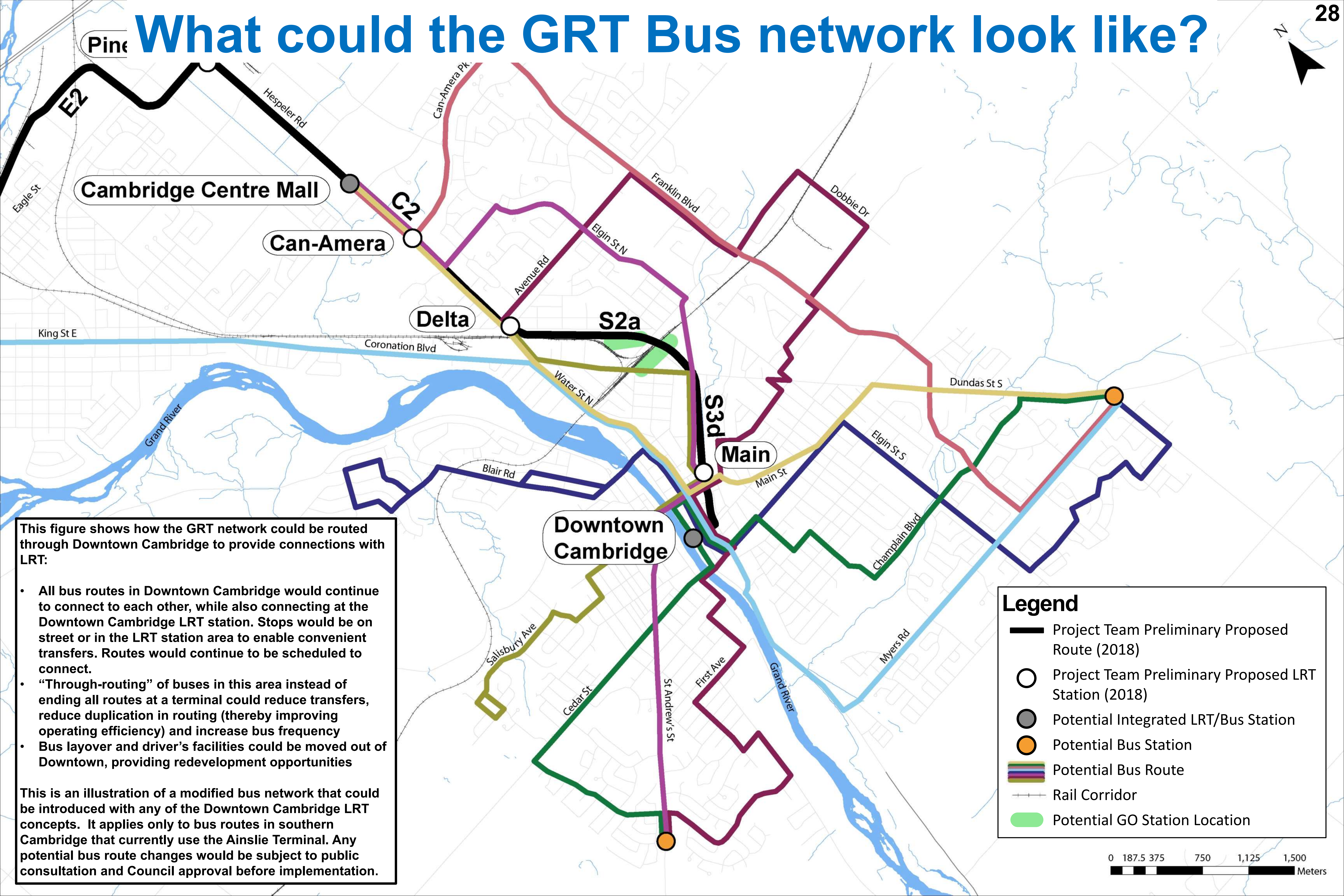
## T2: Wellington Street, Bruce Street, new Terminal on Bruce Street at Water Street; additional station at Main Street

### PREFERRED

- ✓ Best access to the core area due to central location and additional station
- ✓ Better access from west side of the Grand River via pedestrian bridge
- ✓ More pedestrian-friendly on-street LRT bus connections
- ✓ Most supportive of Region and city pedestrian goals and policies
- ✓ Opportunity to streamline bus routes, improve efficiency and reduce travel time
- ✗ Most expensive to build, operate and maintain
- ✗ Highest number of properties impacted



# 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 at the Downtown Cambridge LRT station. Stops would be on street or in the LRT station area 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**

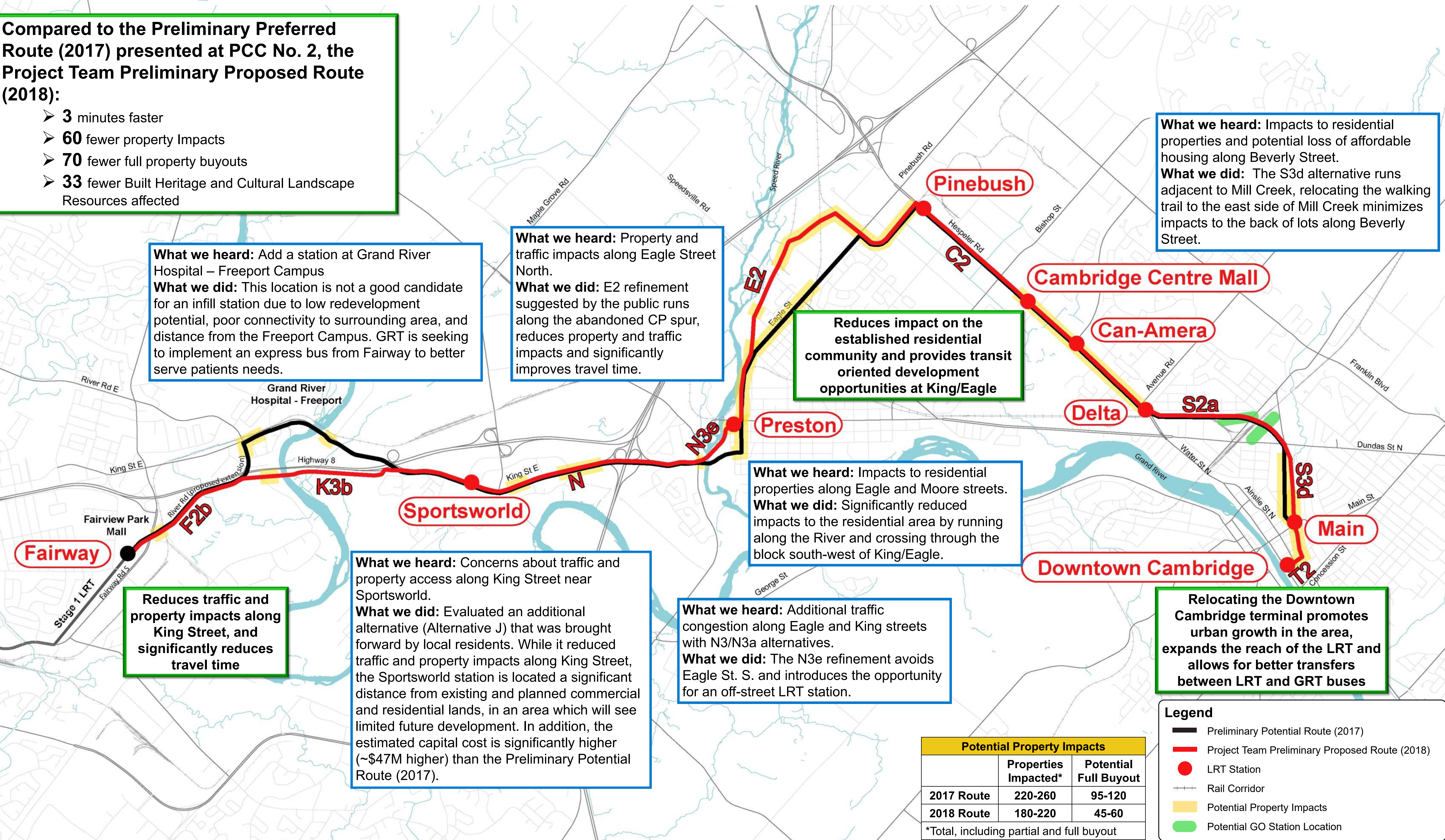
- Project Team Preliminary Proposed Route (2018)
- Project Team Preliminary Proposed LRT Station (2018)
- Potential Integrated LRT/Bus Station
- Potential Bus Station
- ▬ Potential Bus Route
- Rail Corridor
- Potential GO Station Location



# Route refinements based on feedback

**Compared to the Preliminary Preferred Route (2017) presented at PCC No. 2, the Project Team Preliminary Proposed Route (2018):**

- **3** minutes faster
- **60** fewer property Impacts
- **70** fewer full property buyouts
- **33** fewer Built Heritage and Cultural Landscape Resources affected



**What we heard:** Add a station at Grand River Hospital – Freeport Campus  
**What we did:** This location is not a good candidate for an infill station due to low redevelopment potential, poor connectivity to surrounding area, and distance from the Freeport Campus. GRT is seeking to implement an express bus from Fairway to better serve patients needs.

**What we heard:** Property and traffic impacts along Eagle Street North.  
**What we did:** E2 refinement suggested by the public runs along the abandoned CP spur, reduces property and traffic impacts and significantly improves travel time.

**What we heard:** Impacts to residential properties and potential loss of affordable housing along Beverly Street.  
**What we did:** The S3d alternative runs adjacent to Mill Creek, relocating the walking trail to the east side of Mill Creek minimizes impacts to the back of lots along Beverly Street.

**Reduces impact on the established residential community and provides transit oriented development opportunities at King/Eagle**

**What we heard:** Impacts to residential properties along Eagle and Moore streets.  
**What we did:** Significantly reduced impacts to the residential area by running along the River and crossing through the block south-west of King/Eagle.

**Reduces traffic and property impacts along King Street, and significantly reduces travel time**

**What we heard:** Concerns about traffic and property access along King Street near Sportsworld.  
**What we did:** Evaluated an additional alternative (Alternative J) that was brought forward by local residents. While it reduced traffic and property impacts along King Street, the Sportsworld station is located a significant distance from existing and planned commercial and residential lands, in an area which will see limited future development. In addition, the estimated capital cost is significantly higher (~\$47M higher) than the Preliminary Potential Route (2017).

**What we heard:** Additional traffic congestion along Eagle and King streets with N3/N3a alternatives.  
**What we did:** The N3e refinement avoids Eagle St. S. and introduces the opportunity for an off-street LRT station.

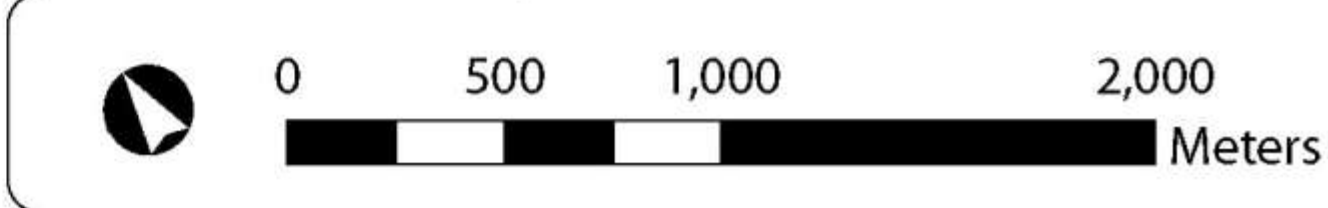
**Relocating the Downtown Cambridge terminal promotes urban growth in the area, expands the reach of the LRT and allows for better transfers between LRT and GRT buses**

Potential Property Impacts		
	Properties Impacted*	Potential Full Buyout
2017 Route	220-260	95-120
2018 Route	180-220	45-60

\*Total, including partial and full buyout

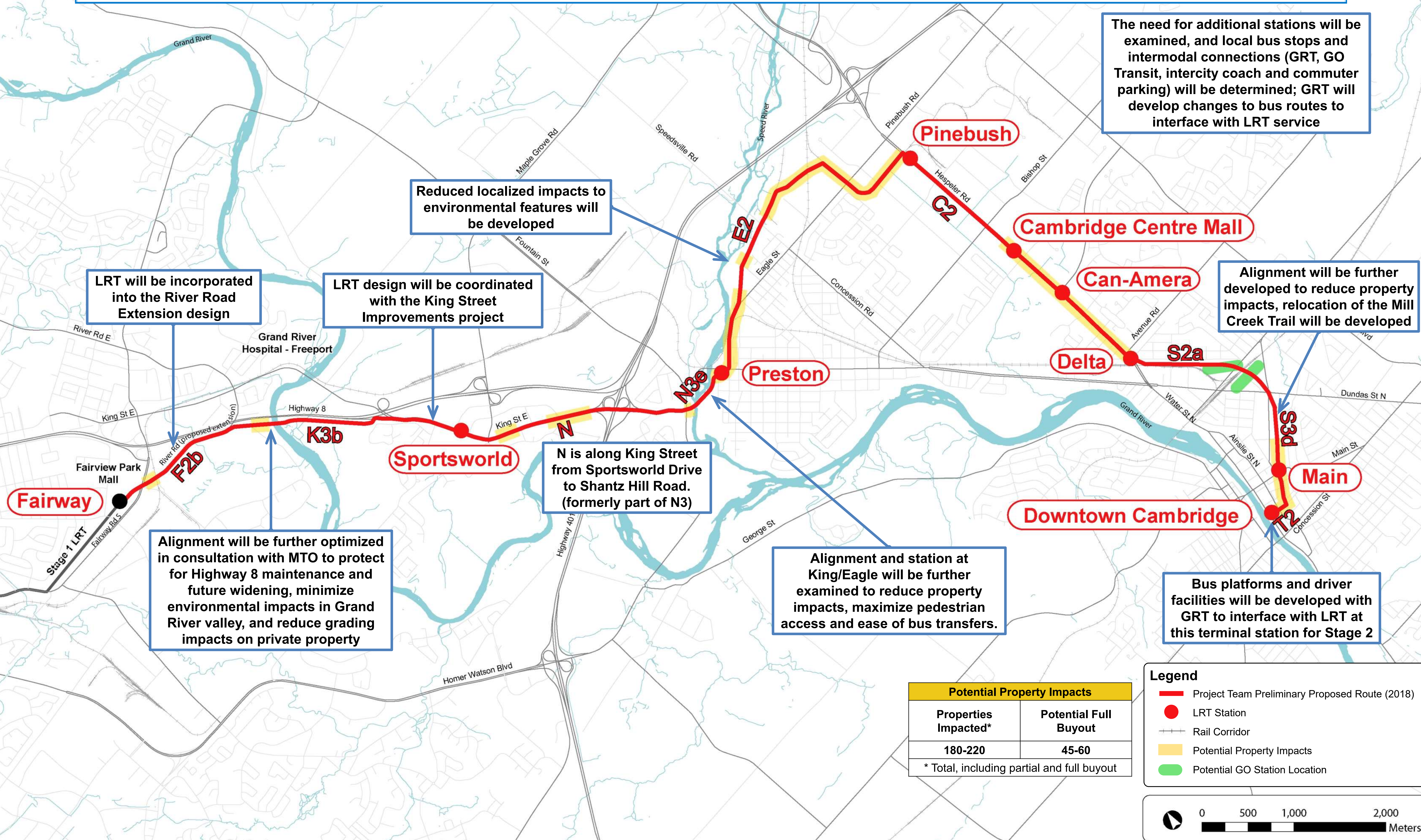
**Legend**

- Preliminary Potential Route (2017)
- Project Team Preliminary Proposed Route (2018)
- LRT Station
- Rail Corridor
- Potential Property Impacts
- Potential GO Station Location



# Project Team Preliminary Proposed Route (2018)

Route identified by the project team based on the evaluation results and feedback from stakeholders and agencies



The need for additional stations will be examined, and local bus stops and intermodal connections (GRT, GO Transit, intercity coach and commuter parking) will be determined; GRT will develop changes to bus routes to interface with LRT service

Reduced localized impacts to environmental features will be developed

LRT will be incorporated into the River Road Extension design

LRT design will be coordinated with the King Street Improvements project

Alignment will be further developed to reduce property impacts, relocation of the Mill Creek Trail will be developed

Alignment will be further optimized in consultation with MTO to protect for Highway 8 maintenance and future widening, minimize environmental impacts in Grand River valley, and reduce grading impacts on private property

N is along King Street from Sportsworld Drive to Shantz Hill Road. (formerly part of N3)

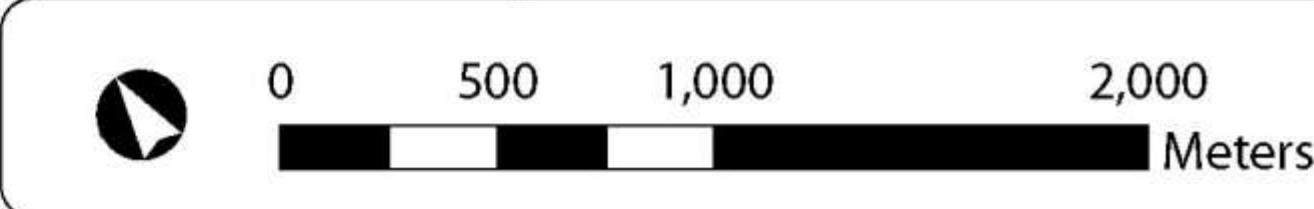
Alignment and station at King/Eagle will be further examined to reduce property impacts, maximize pedestrian access and ease of bus transfers.

Bus platforms and driver facilities will be developed with GRT to interface with LRT at this terminal station for Stage 2

Potential Property Impacts	
Properties Impacted*	Potential Full Buyout
180-220	45-60
* Total, including partial and full buyout	

**Legend**

- Project Team Preliminary Proposed Route (2018)
- LRT Station
- Rail Corridor
- Potential Property Impacts
- Potential GO Station Location



## What happens next?

- Project Team to review all public feedback and incorporate any new information
- Planning and Works Committee (June 19) – Present the Project Team Preliminary Proposed Route (2018) for Committee consideration
- Pending Council Endorsement of a preferred route the preliminary design (including station locations/names) and the identification of the associated property requirements will be completed
- Prepare the business case for the project
- Finalize station locations/names

## Future steps

- Hold PCC No. 5 to present the preliminary design and associated property requirements in 2019
- Determine location of maintenance and storage facility
- Present recommended route (including business case) to Regional Council for final authority to initiate the formal Transit Project Assessment Process (Late 2019)
- Address any comments submitted during the public or Minister of Environment and Climate Change's review periods
- File the Environmental Project Report for public review and complete the Transit Project Assessment process
- Submit Provincial and Federal funding applications

# Property impact identification

- Impacts to individual properties have not been confirmed and will be identified during preliminary design (over the next six to eight months)
- Efforts to acquire property will start only after Council has endorsed the preliminary design of the recommended route
- Property impacts can include partial buyout, full buyout, or an easement (right to use or gain access)

# Property buyout process

- When ready to buy property, Region staff will meet with property owners, the goal is 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 (e.g. repairing or replacing landscaping, fencing, paving)
- Compensation is based on fair market value (not MPAC assessed value) at the time of buyout
- Typically over 90% of all required lands and interests are acquired through the negotiation process and not by expropriation
- Refer to the Information Package for more information about process

# Thank You for Attending

Your opinion matters!

Please provide feedback by **May 24, 2018** using the comment sheet or one of the other methods below

**E-mail:** [ION@regionofwaterloo.ca](mailto:ION@regionofwaterloo.ca)

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