Welcome to the 11 Street S.E. Corridor Improvements

Open House

Thank you for coming!

Please come in and have a look at the information boards. The project team will be happy to answer your questions.

After you review the information tell us what you think. Feedback forms are available here and at **calgary.ca/bikeprojects** until March 16, 2016.

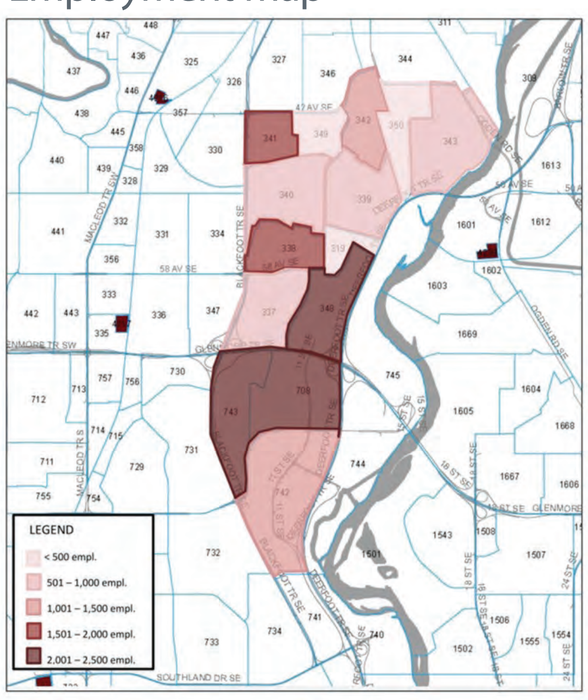
Study area

11 Street S.E. has been identified for review to determine how The City can improve conditions for driving, walking, cycling and using transit.

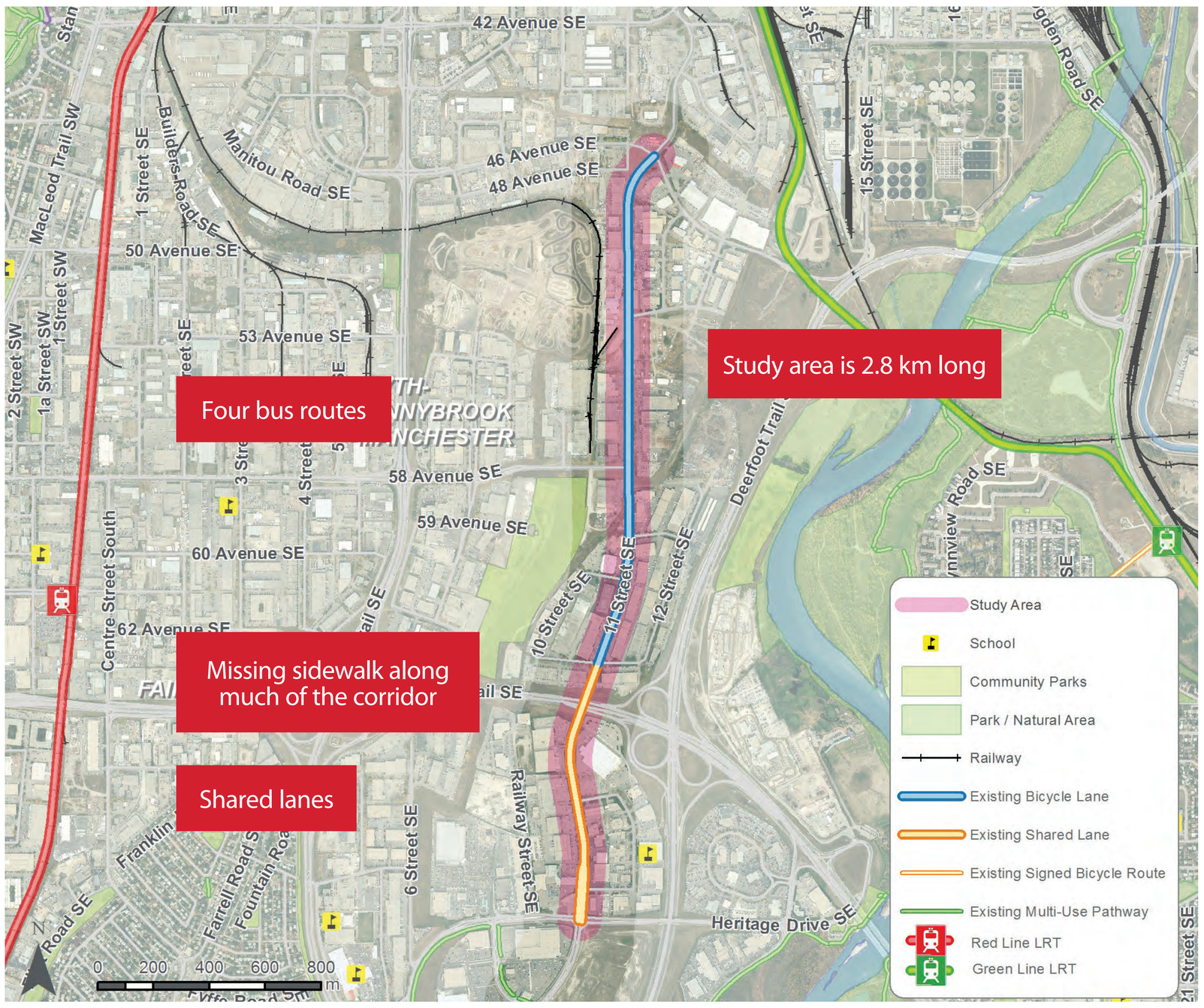
The City aims to improve Calgary overall by:

- Planning for growth
- Providing and connecting transportation choices
- Creating vibrant, healthy communities
- Improving safety for all road users

Employment map



Large employment base with over 16,000 employees traveling to/ from area every day



Land use map

What is the purpose of today's open house?

In spring 2015, The City met with stakeholders to discuss the existing conditions on 11 Street S.E. and identify areas for improvement. Using that input and technical analysis, the project team has identified improvements for:

- Existing pedestrian and bicycle facilities
- Traffic operations and safety for all road users
- Pedestrian and bicycle connections to 11 Street S.E. (short- and long-term)

The purpose of this open house is to collect feedback about improvement options and priorities. Your input will be used to select and refine the best options to improve the corridor over time.

Project Initiation

↓

Background Conditions Review

↓

Concept Planning and Development

↓

Concept Evaluation ← We are here

↓

Design

↓

Implementation / Optimization

Calgary

Complete streets benefit everyone

What are they?

- A street design that considers the needs of all road users, including age, physical ability and income level

How do they benefit all road users?

- Provide need-based transportation options
- Create liveable neighbourhood streets that encourage people to travel by walking, cycling and taking transit

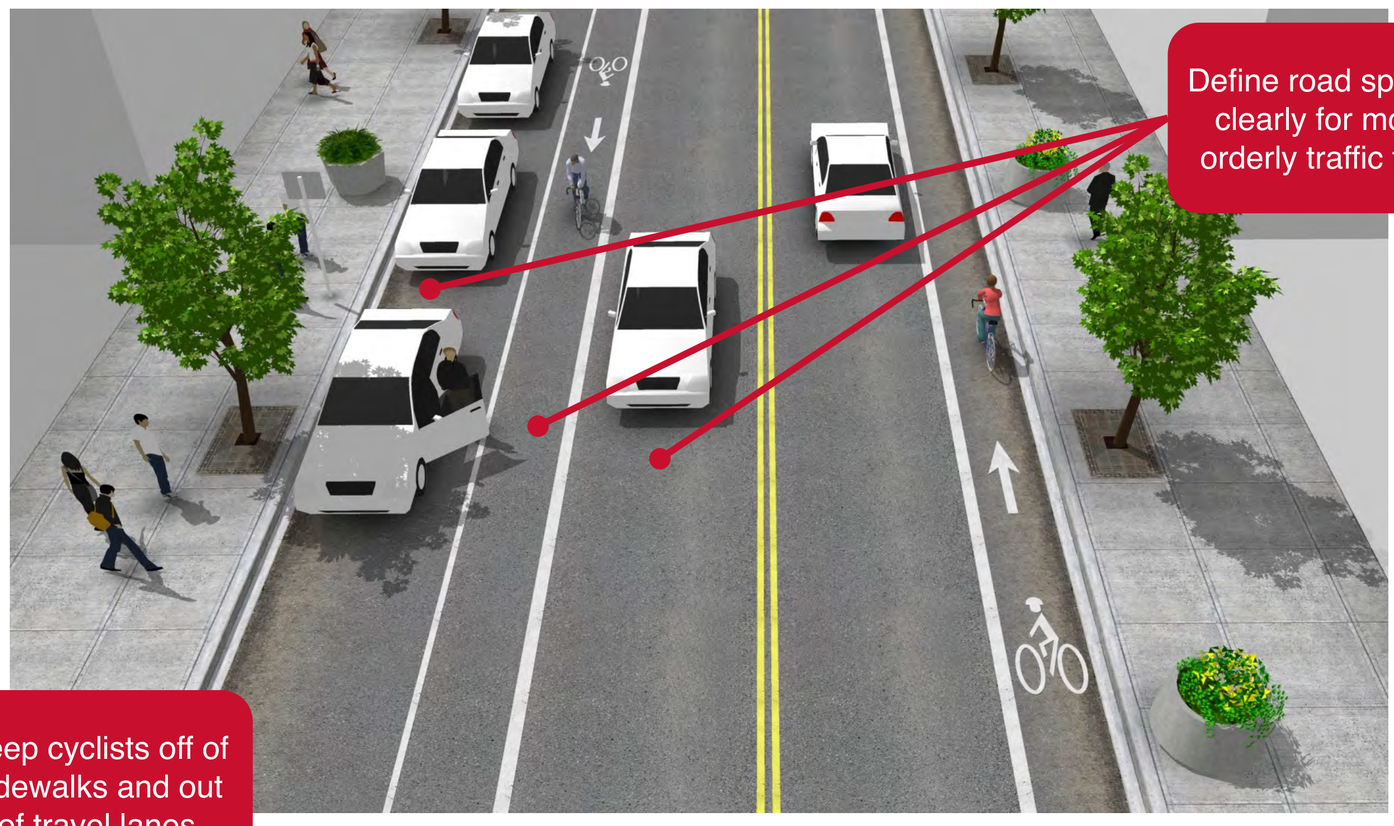


Image credit: NACTO

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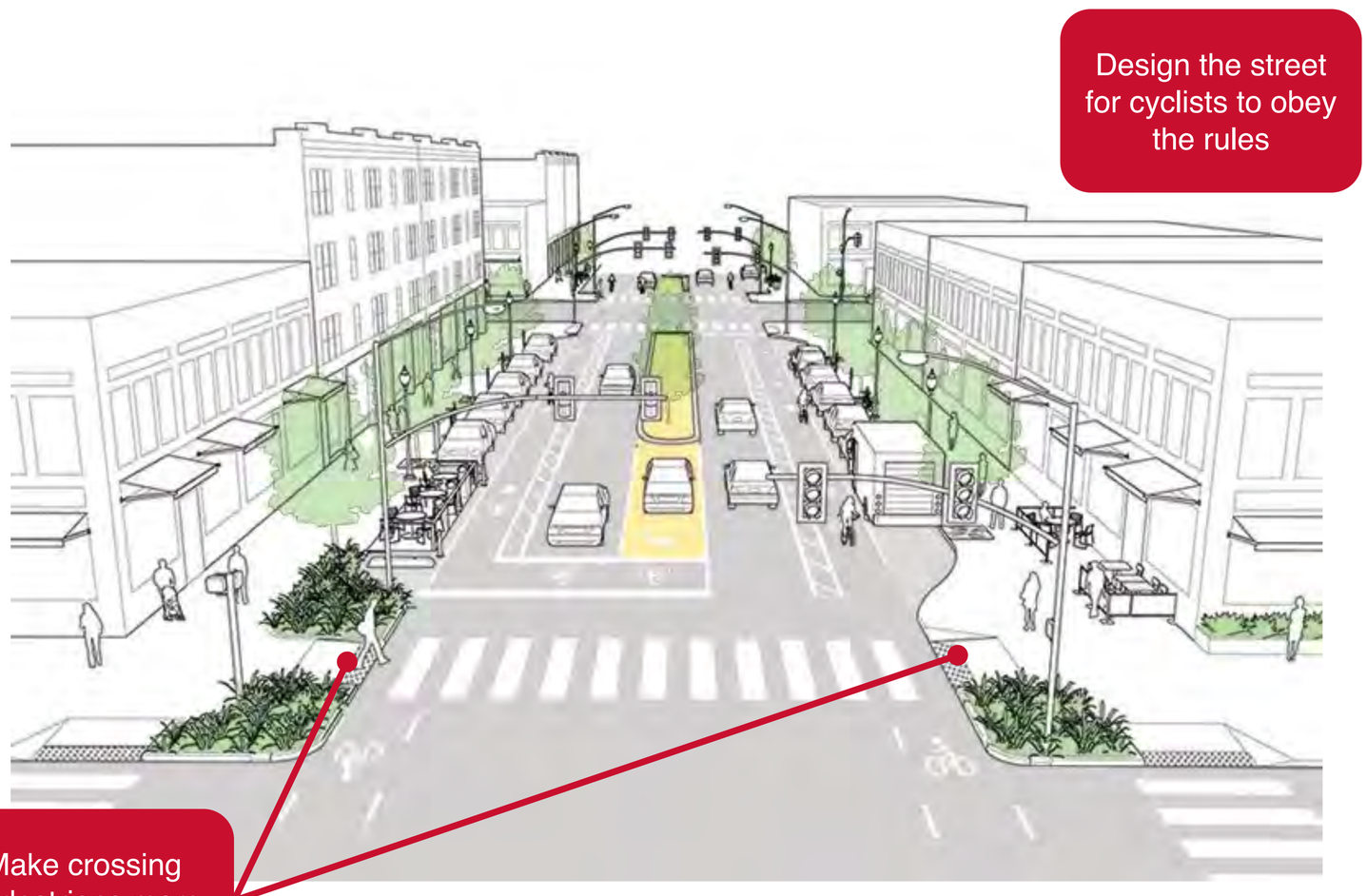


Image credit: NACTO

calgary.ca/bikeprojects | contact 311

Public Engagement

Stakeholder Meeting — March 18, 2015

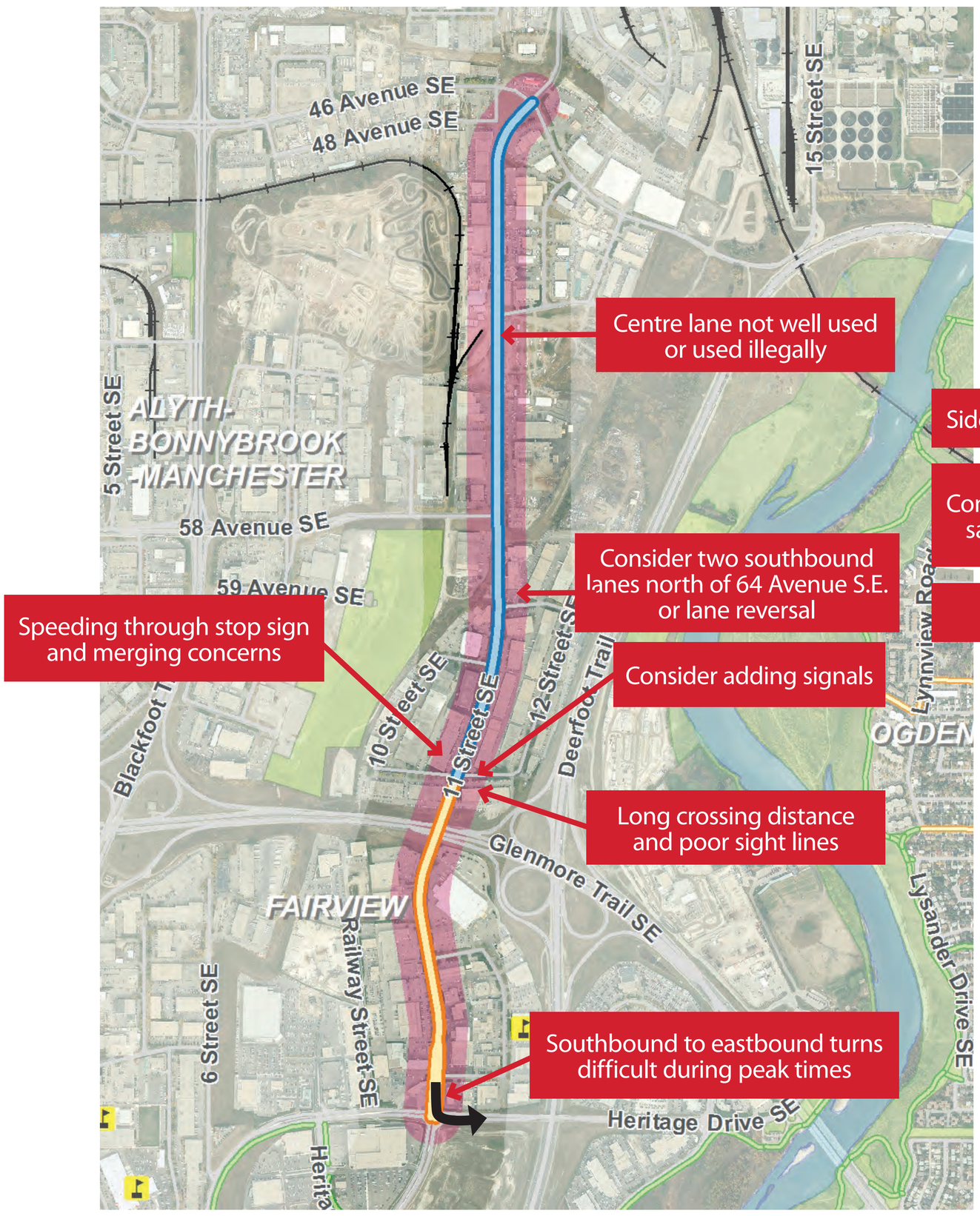
Public Open House — March 8, 2016

Online Feedback — March 9, 2016 – March 16, 2016

Communications and Construction Updates — Beginning in 2017

Stakeholder Meeting

- **Wednesday, March 18, 2015**
- **14 people attended**, representing local businesses, organizations and the Fairview Community Association
- **14 feedback forms were collected** (3 hard copy and 11 online)



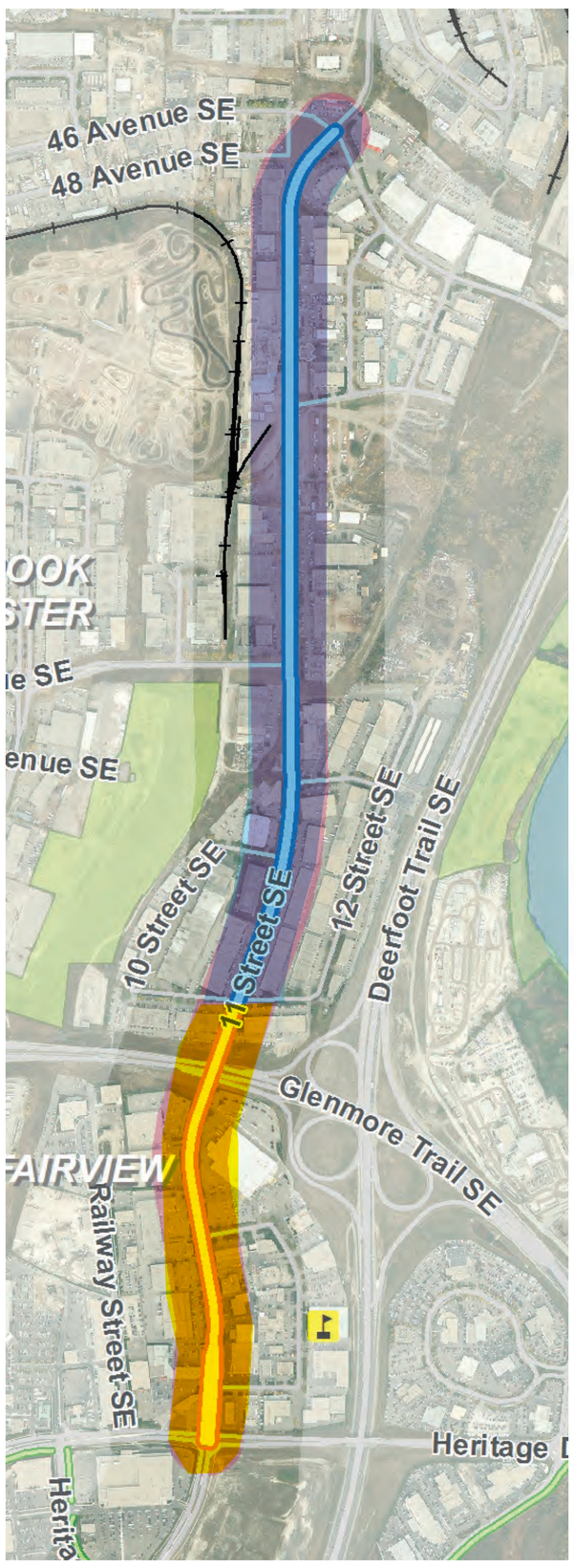
Existing Conditions

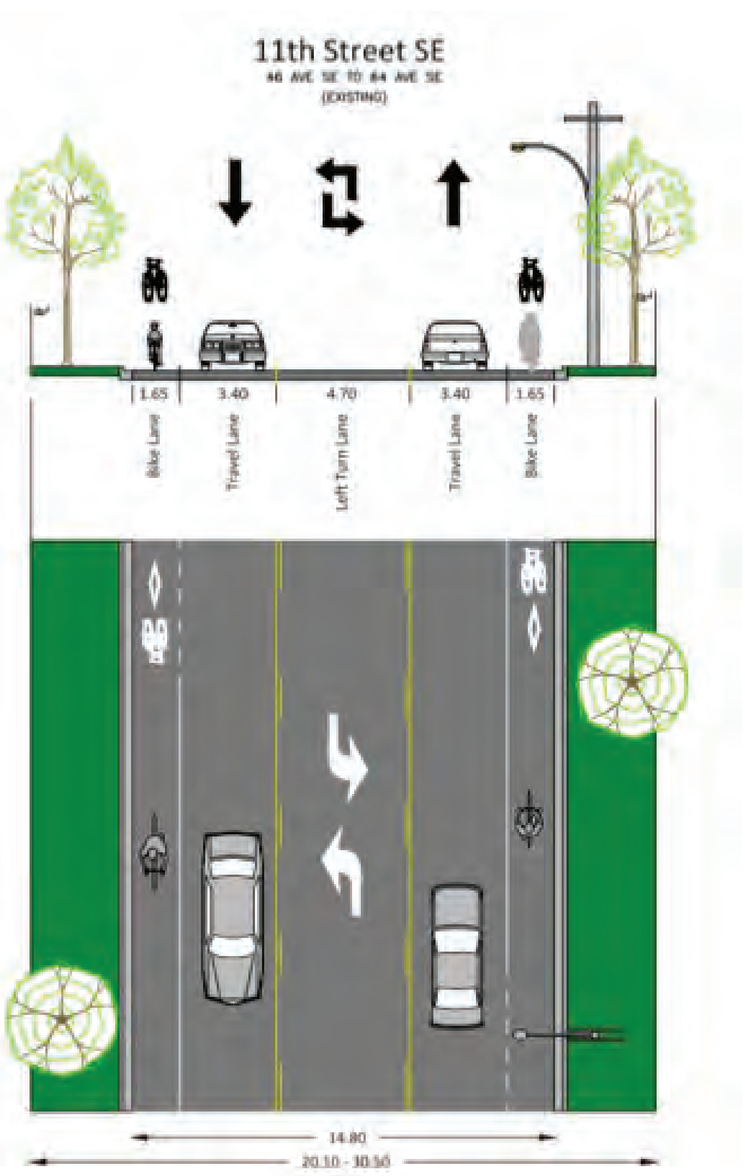
46 Avenue S.E. to 64 Avenue S.E.

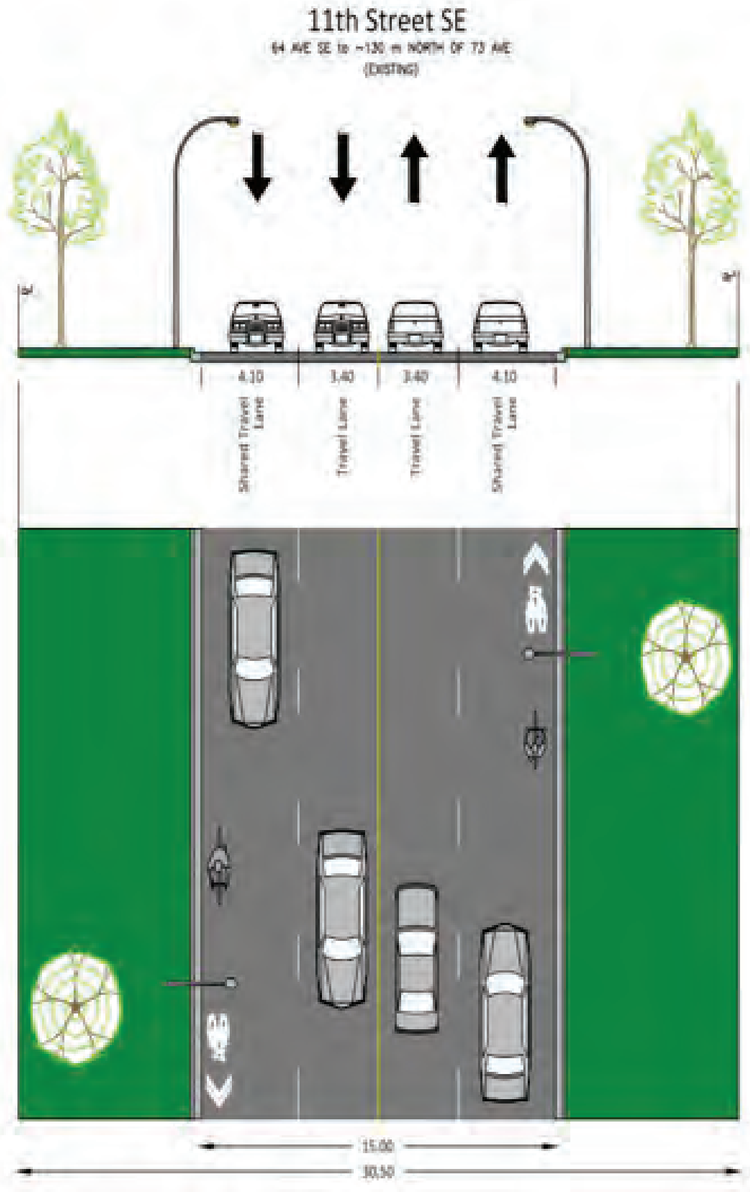
- *Collector road
- Three lanes (two through lanes and one two-way left turn lane)
- Painted bike lanes
- No sidewalks
- 11,000 vehicles per day

64 Avenue S.E. to north of 73 Avenue S.E.

- *Industrial arterial road
- Four lanes
- Curbside shared lanes with bicycles
- Few sidewalks
- 18,000 vehicles per day





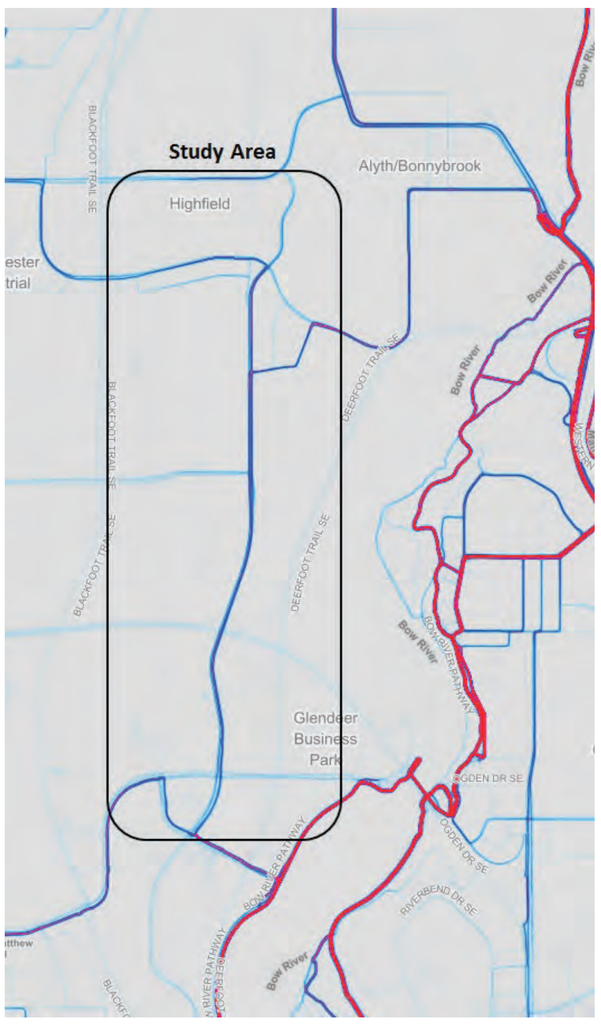


*Collector roads collect traffic from Arterial Streets and Primary Collectors (higher speed roads with large traffic volumes) and distribute it to other local streets. Typical daily traffic volumes range from 2,000 to 8,000 vehicles per day. Transit and direct access to adjacent properties is permitted.

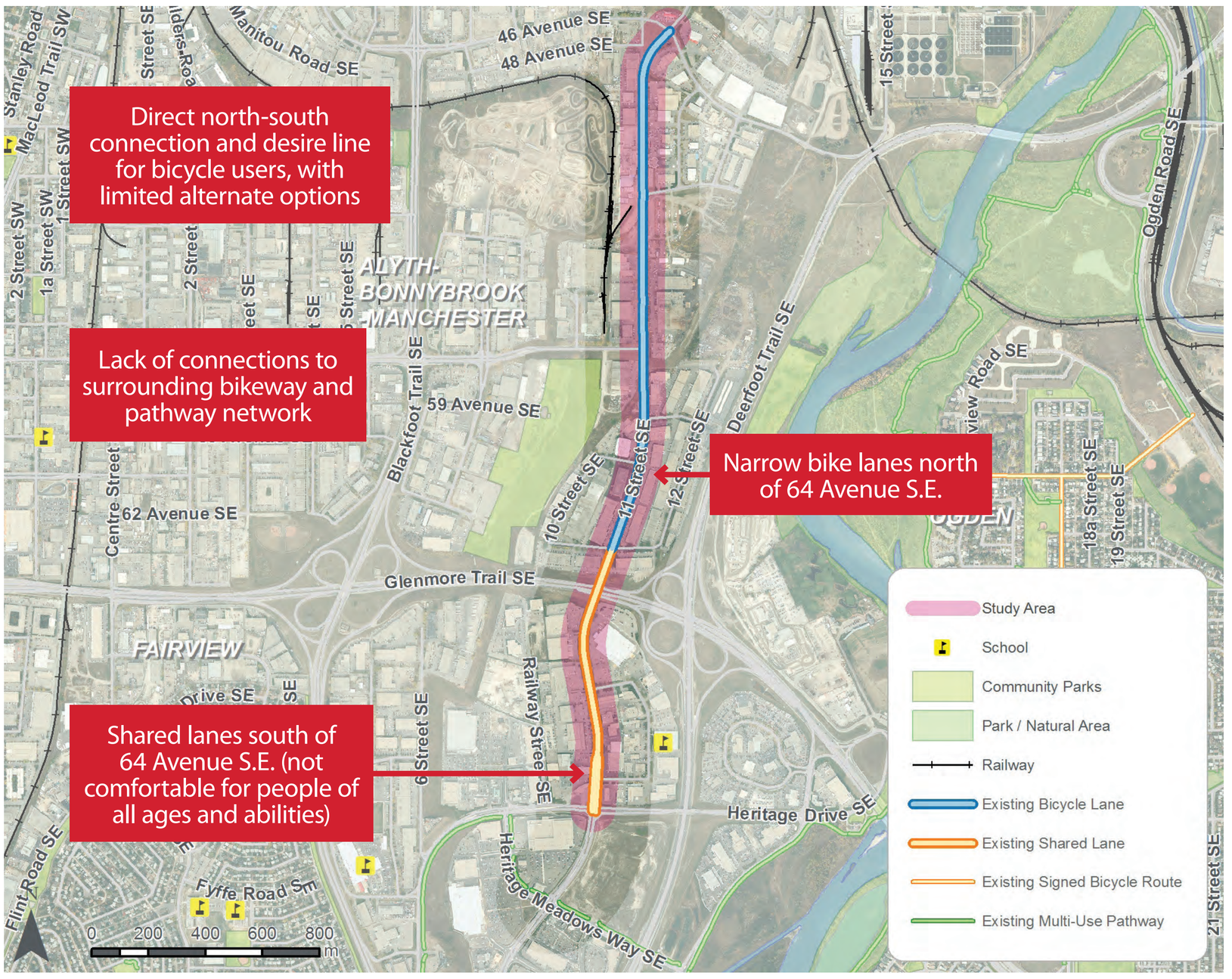
*Industrial arterial roads place highest priority on the efficient movement of heavy trucks, but still accommodate all modes of travel. They are typically lower-speed streets with a high percentage of truck volume. Industrial arterials typically carry between 10,000 and 30,000 vehicles per day.

Existing Conditions

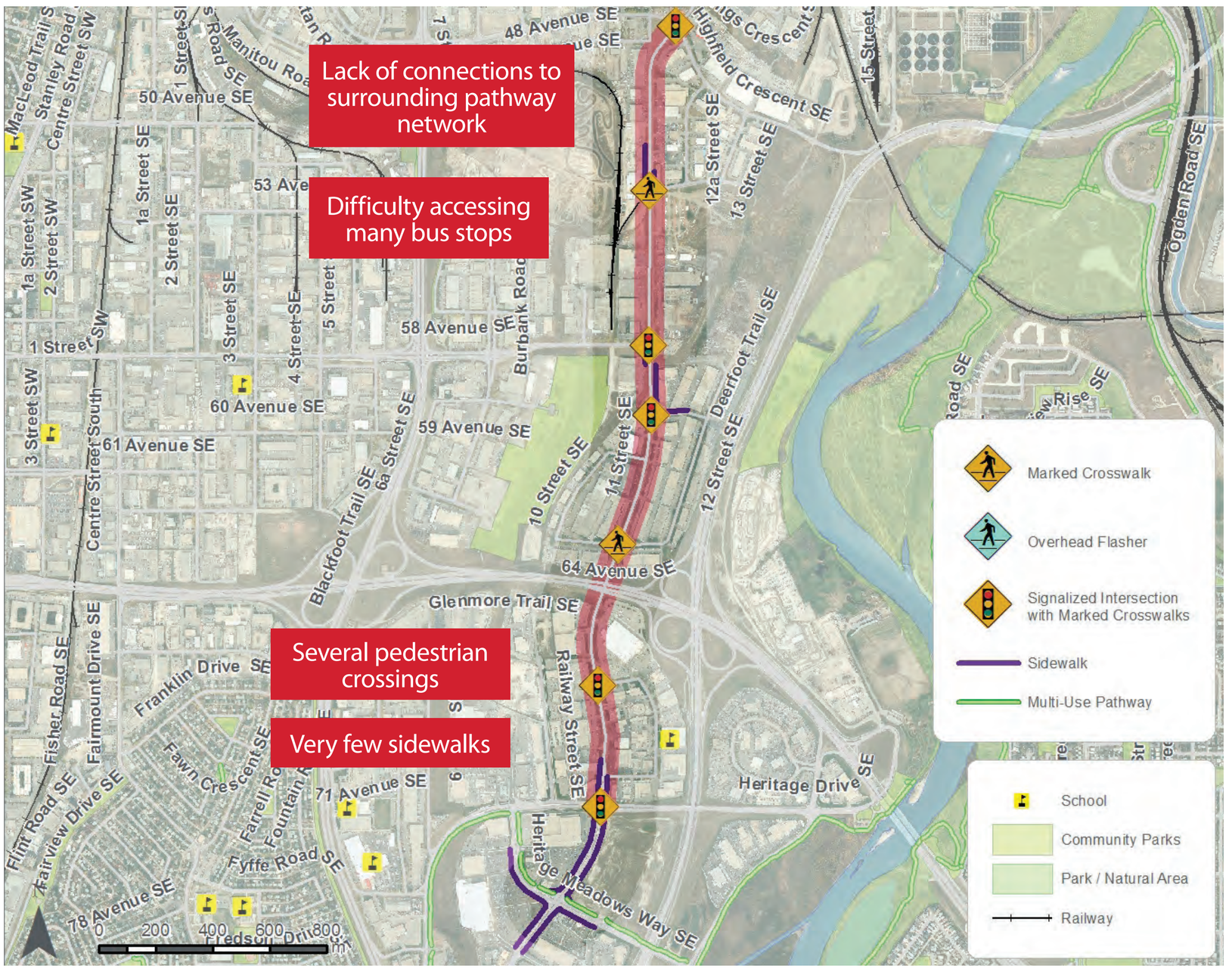
People who bike:



Heat map showing cyclist usage based on Strava data. Darker lines represent a larger number of people who bicycle. This image is from strava.com

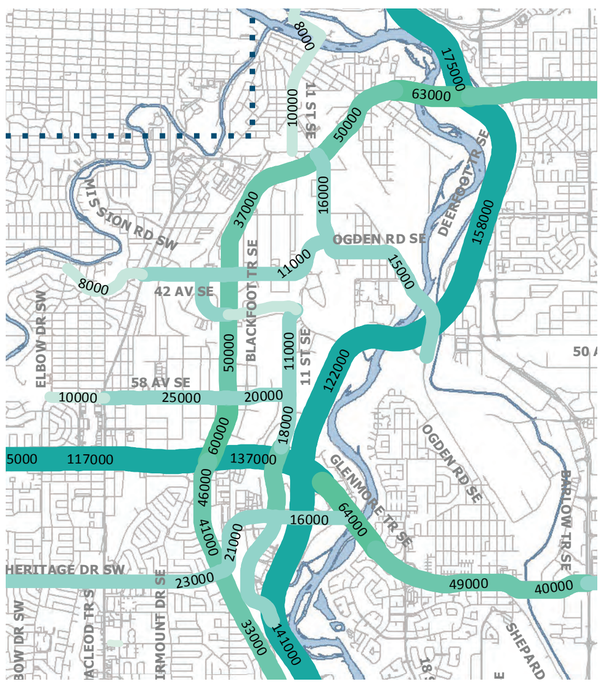


People who walk:



Existing Conditions

People who drive:



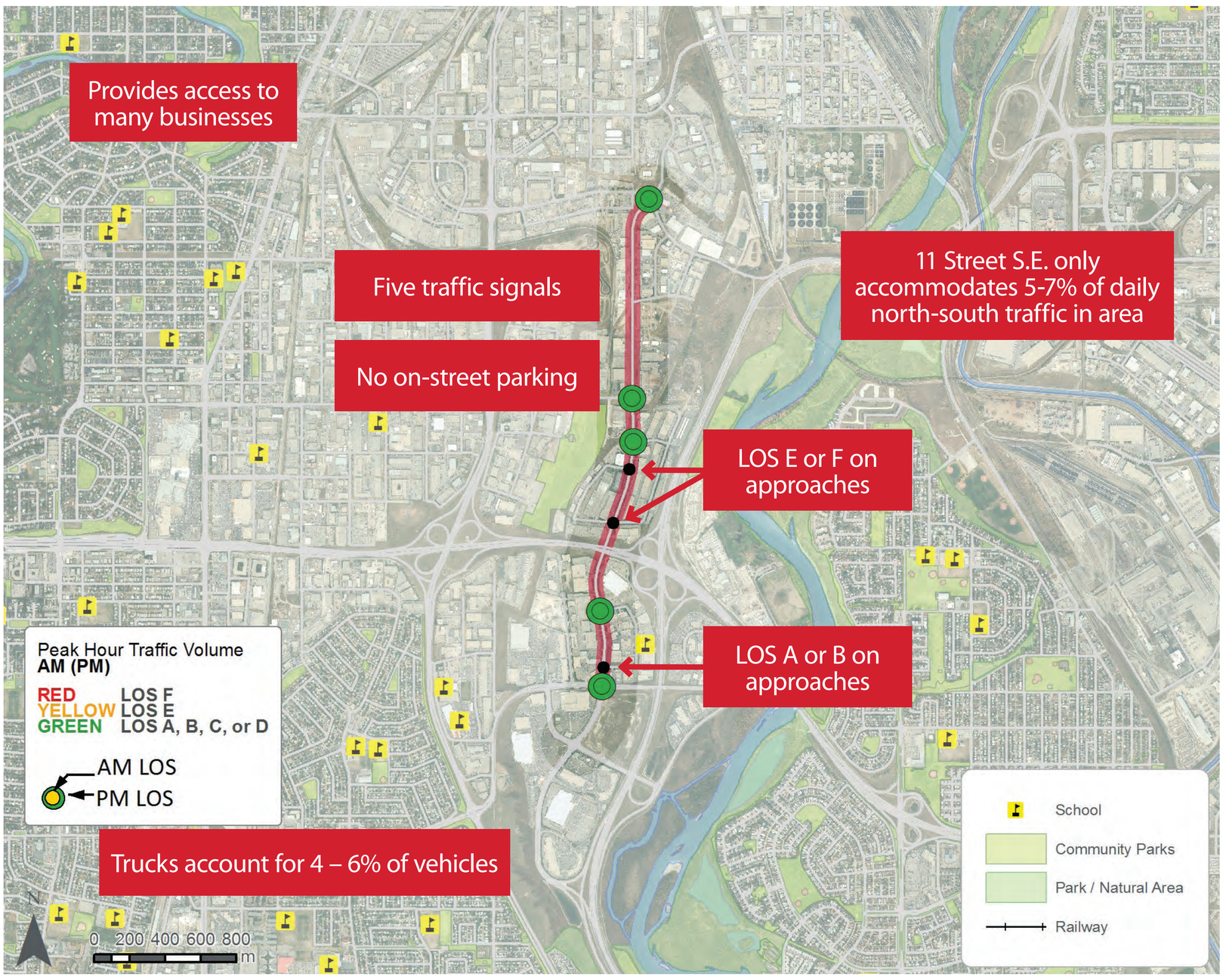
Traffic volumes map

Significant north-south capacity in surrounding area (approximately 250,000 vehicles per day on other major north-south corridors)

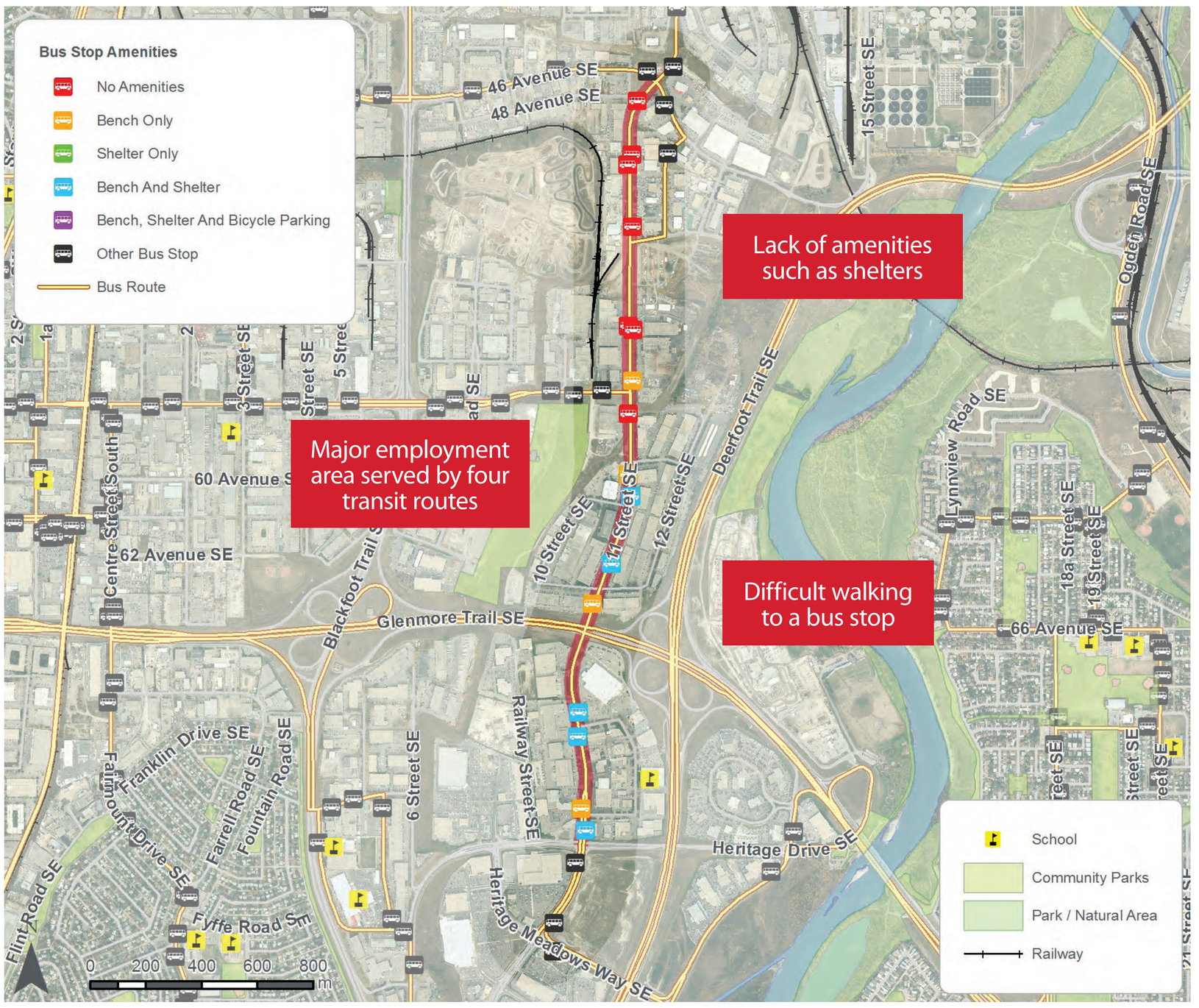
Traffic volumes have not significantly changed over time

Signalized intersections operate with an acceptable overall LOS during peak periods, with the exceptions of some turning movements. Several unsignalized intersections operate with poor LOS during peak periods, particularly for cross-street traffic trying to turn on to 11 Street S.E.

Level of Service (LOS) is an analysis used to measure vehicle congestion and delay at intersections. LOS is measured on a scale from A (no delay) to F (significant delay). In urban areas, a LOS of D or better is usually considered acceptable.



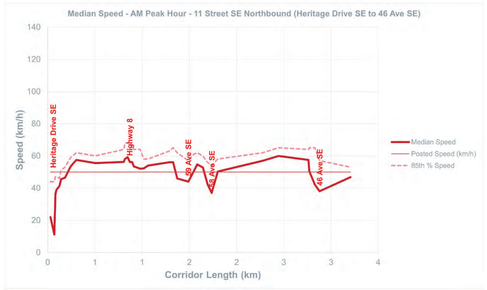
People who take transit:



Existing Conditions

Vehicle Speeds

7 – 8 A.M. traveling **northbound** from Heritage Drive S.E. to 46 Avenue S.E.

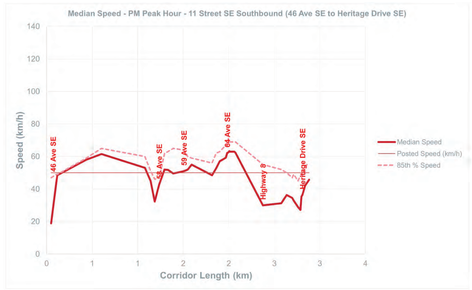


Most vehicles are already travelling above the posted speed limit throughout most of the corridor, except at specific intersections:

- 46 Avenue S.E.
- 58 Avenue S.E.
- 59 Avenue S.E.
- Heritage Drive S.E.

Median speeds and *85th percentile speeds are consistently above the speed limit

5 – 6 P.M. traveling **southbound** from 46 Avenue S.E. to Heritage Drive S.E.



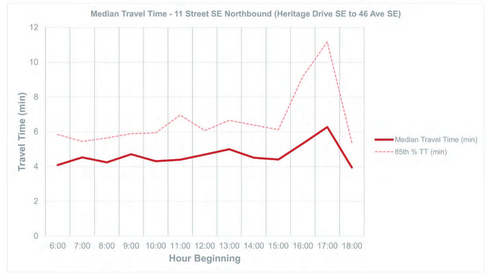
Speeding is not as much of an issue traveling southbound due to congestion at peak times, particularly at key intersections:

- 46 Avenue S.E.
- 58 Avenue S.E.
- Heritage Drive S.E.

*The speed limit is commonly set at or below the 85th percentile operating speed (the speed which no more than 15% of traffic is exceeding)

Travel Times

Traveling **northbound** from Heritage Drive S.E. to 46 Avenue S.E.



Throughout most of the day, it takes just over four minutes on average to travel the 2.8 km study area, with a spike at 5:30 P.M. when median travel times increase to about six minutes.

Traveling **southbound** from 46 Avenue S.E. to Heritage Drive S.E.

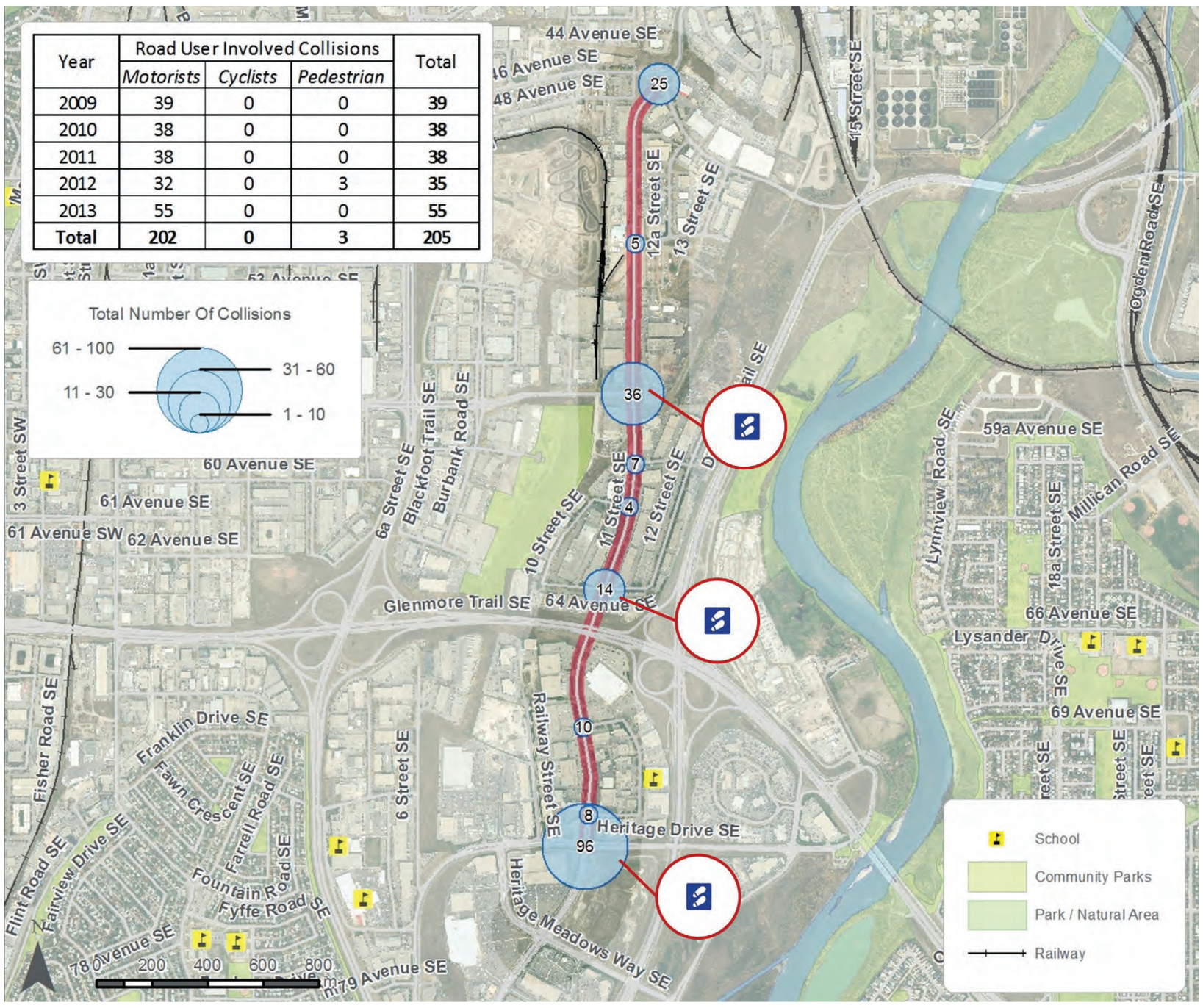
Southbound travel times range from four to six minutes throughout the day, with spikes in the morning rush hour, over the noon hour and in the afternoon rush hour.

TomTom is a company specializing in navigation that collects location data from in-vehicle GPS units. This objective GPS data (typical weekday from spring 2014 – spring 2015) was processed and analyzed to understand existing vehicle speeds and travel times along 11 Street S.E.

Safety

- On average, approximately 41 collisions were reported annually from 2009 – 2013 (this is less than 0.1% of city-wide collisions per year)
- The highest collision locations are at Heritage Drive and 58 Avenue S.E.
- Between 2009 and 2013, there were 3 pedestrian collisions

Year	Road User Involved Collisions			Total
	Motorists	*Cyclists*	*Pedestrian*	
2009	39	0	0	**39**
2010	38	0	0	**38**
2011	38	0	0	**38**
2012	32	0	3	**35**
2013	55	0	0	**55**
Total	**202**	**0**	**3**	**205**



Identified Improvements

Stakeholder input, technical analysis and budget considerations were used to identify several short- and long-term improvements for the area.

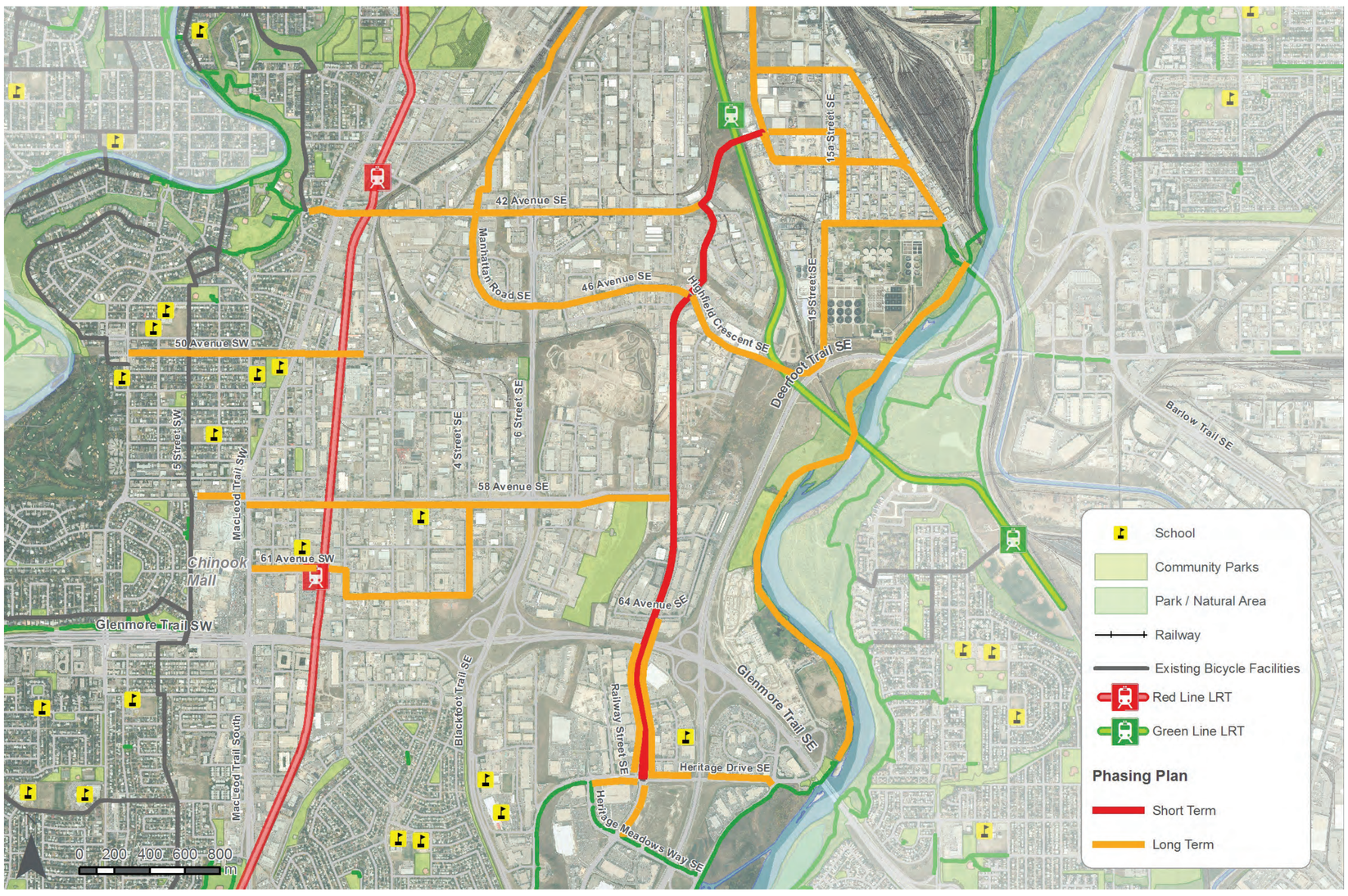
The project team has identified improvements for:

- Pedestrian and bicycle facility connections (short- and long-term)
- Traffic operations and safety for all road users
- Existing pedestrian and bicycle facilities

Funding is limited and the cost of the proposed improvements varies.

Short-term improvements are planned within two to three years.

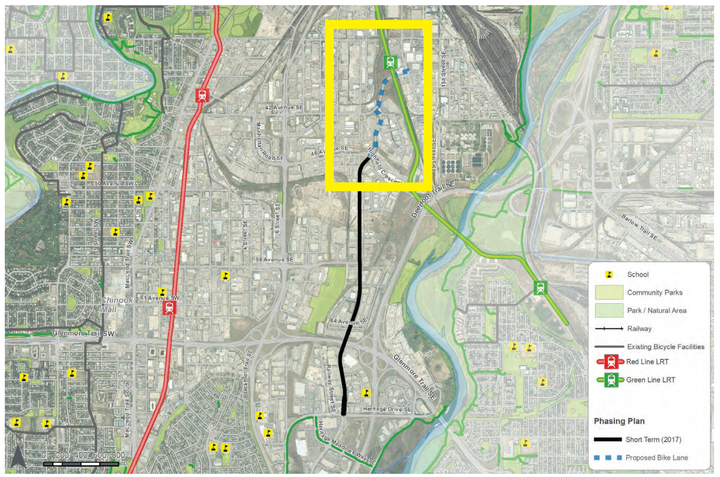
Long-term improvements will be implemented as resources become available.



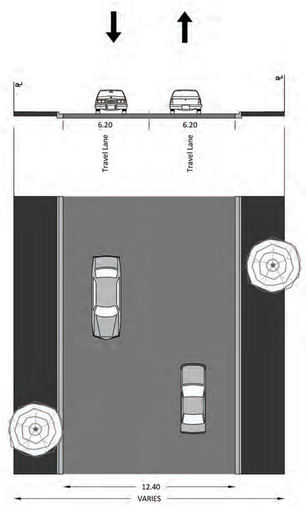
Improved Connections – North (Short-term Implementation)

Do you have ideas about how to improve this connection?

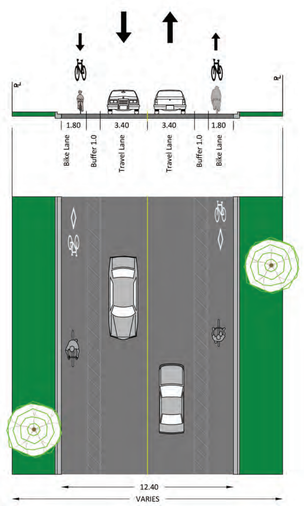
Use a sticky to make suggestions.



Bicycle network connections will be improved by extending bicycle facilities north on 12 Street S.E. and Highfield Boulevard S.E. to connect with Ogden Road and the planned Green Line LRT.



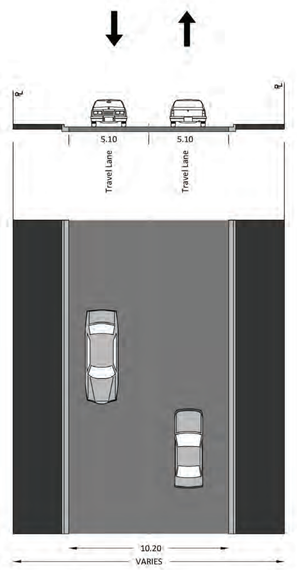
Existing 12 Street S.E. – 42 Avenue to 46 Avenue S.E.



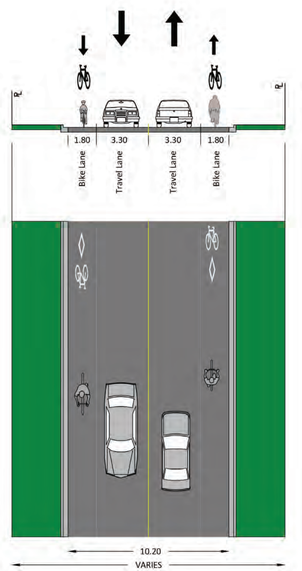
Future 12 Street S.E. – 42 Avenue to 46 Avenue S.E.

12 Street S.E Buffered Bicycle Lanes

- Reallocate existing road space to provide buffered bicycle lanes from 42 Avenue to 46 Avenue S.E.
- No change to existing parking restrictions



Existing Highfield Boulevard S.E. – 42 Avenue S.E. to Ogden Road S.E.



Future Highfield Boulevard S.E. – 42 Avenue S.E. to Ogden Road S.E.

Highfield Boulevard S.E. Bicycle Lanes

- Reallocate existing road space to provide painted bicycle lanes from 46 Avenue S.E. to Ogden Road S.E.
- No change to existing parking restrictions

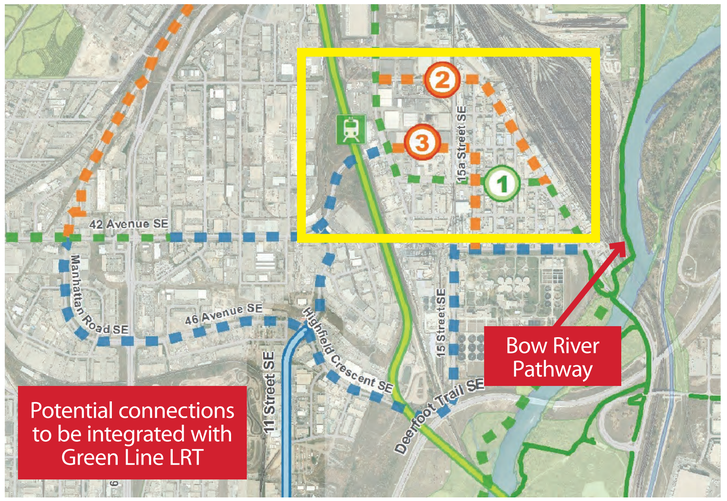
Calgary

B&W = Exisiting
Colour = Future Option

Improved Connections – North (Long-Term Implementation)

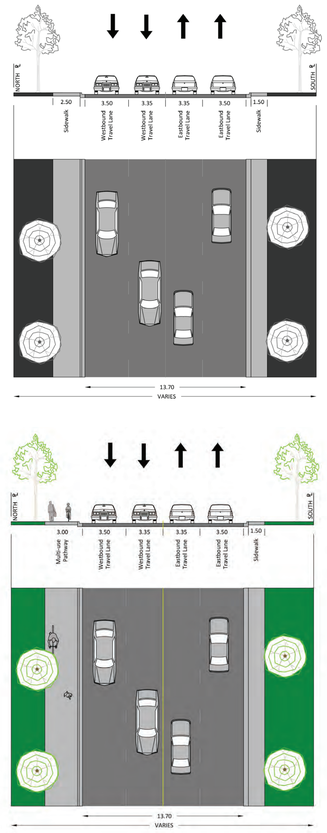
Which connection do you prefer?

Place a dot on the one you like best.



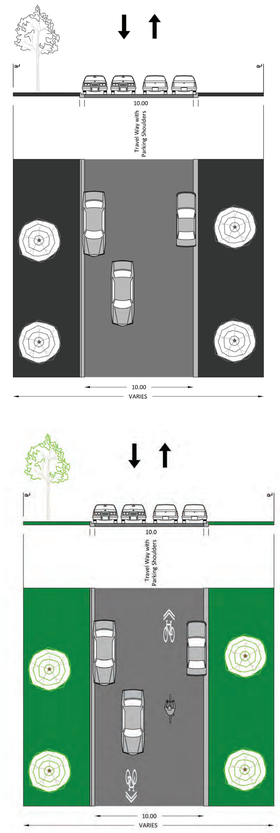
Three potential long-term options have been identified to connect the 11 Street S.E. bikeway to Ogden Road S.E and the Bow River Pathway. *These options will be considered for further review and implementation as part of the Green Line LRT planning and design process.*

Option 1: Ogden Road S.E.
Multi-use Pathway



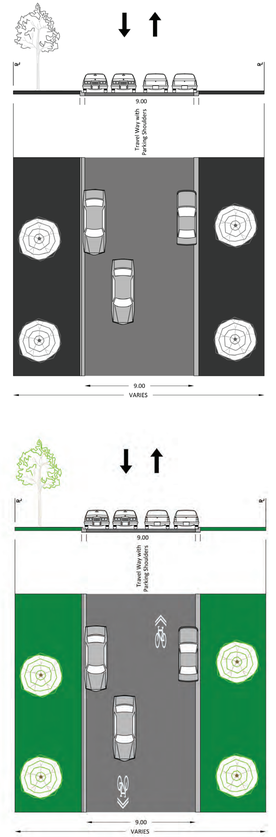
+ Most direct connection
+ Physically separated off-street facility
+ Shortest connection from the Bow River Pathway
- Highest cost
- Facility runs along a truck route
- Several conflict points at driveways and intersections

Option 2: Bonnybrook Road / 34 Avenue S.E.
Shared Lanes



+ More direct connection for users from southeast of the Bow River
+ Lower cost
- Less direct connection to the north
- Lower cost, but still requires a short segment of off-street pathway
- More circuitous for users coming from north of Bow River Pathway

Option 3: 15a Street / 38 Avenue S.E. Shared Lanes



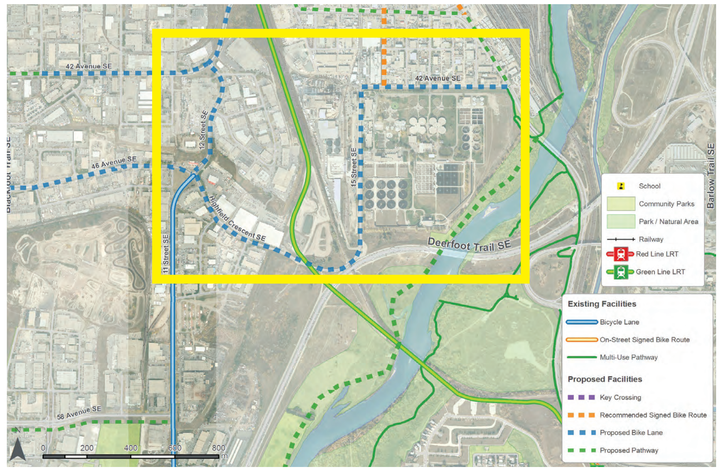
+ Lowest cost
+ Direct connection
+ Extension of Highfield Boulevard S.E. bicycle lanes
+ Utilizes proposed bike lane connection on 42 Avenue S.E. to the Bow River Pathway
- Slightly more indirect connection with several jogs
- No physical separation from traffic
- Intersection upgrades required at Ogden Road S.E.

B&W = Exisiting
Colour = Future

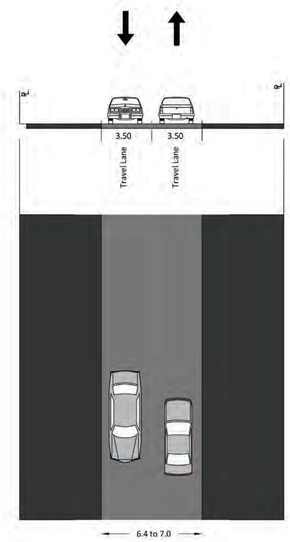
Improved Connections – East (Long-Term Implementation)

Do you have ideas about how to improve this connection?

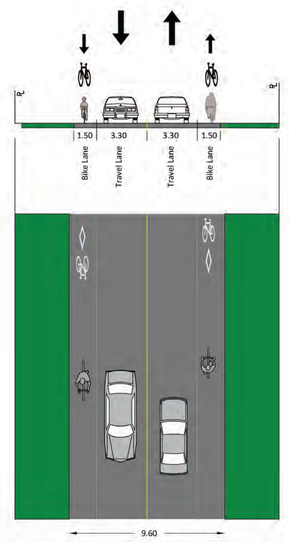
Use a sticky to make suggestions.



Highfield Crescent/46 Avenue S.E. / 15 Street S.E. has been identified as a proposed priority connection to the Bow River pathway system.



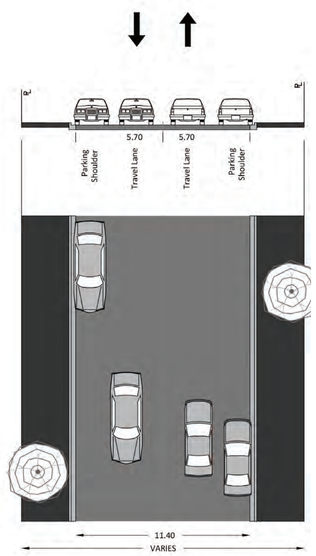
Existing Highfield Crescent / 46 Avenue S.E. / 15 Street S.E.



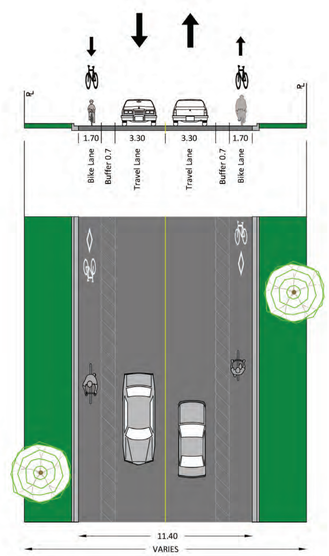
Future Highfield Crescent / 46 Avenue S.E. / 15 Street S.E.

Highfield Crescent / 46 Avenue S.E. / 15 Street S.E.

- Requires widening road by paving shoulders to accommodate bicycle lanes
- Connection to 42 Avenue S.E. bicycle lanes and 15a Street S.E. shared use lanes (North Option 3)



Existing 42 Avenue S.E.



Future 42 Avenue S.E.

42 Avenue S.E.

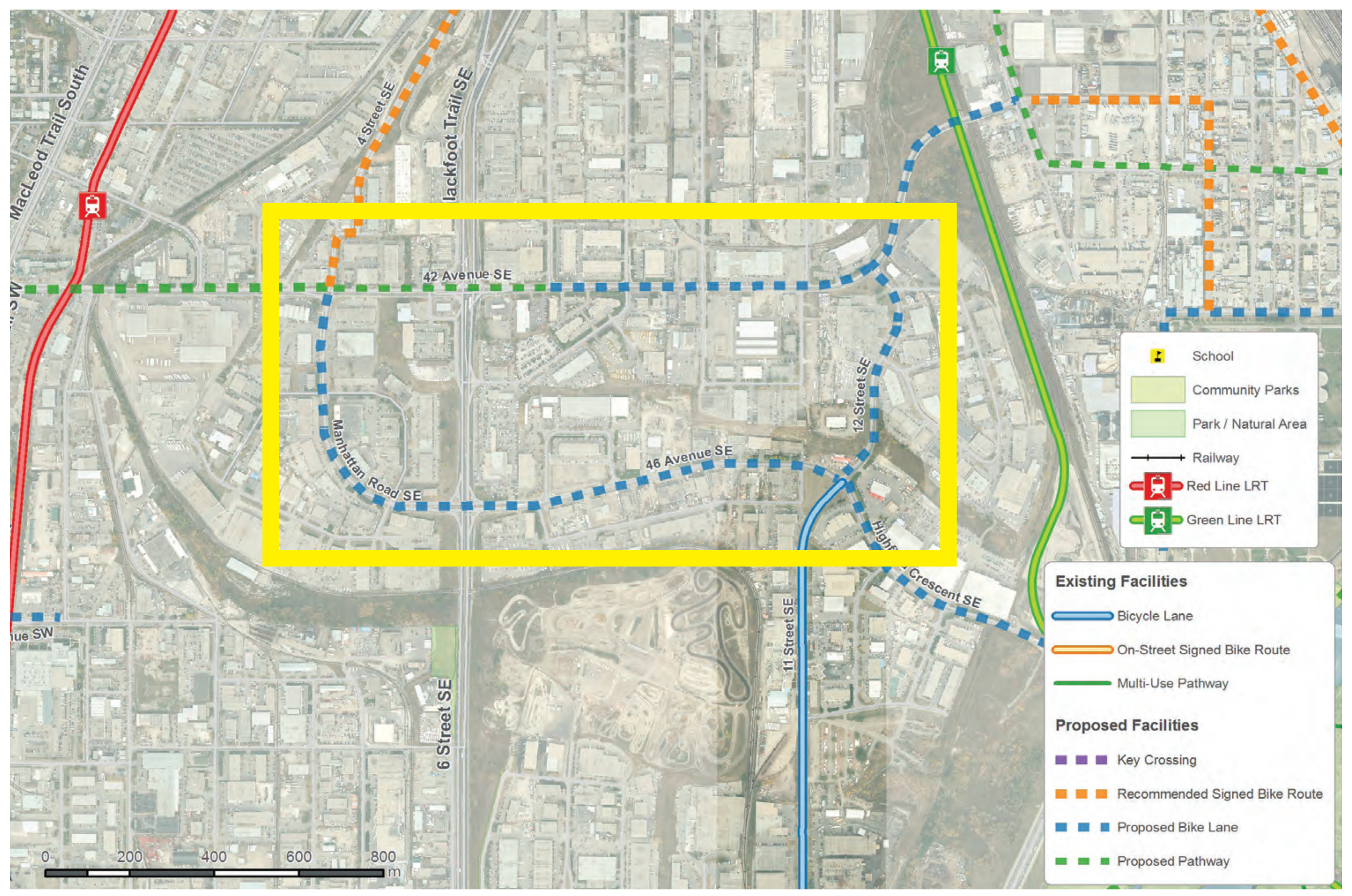
- Painted bicycle lanes between 7 Street S.E. and 11 Street S.E.
- Reallocate existing road space to provide buffered bicycle lanes, with no removal of travel lanes
- Off-street pathway west of 7 Street S.E.

B&W = Exisiting
Colour = Future Option

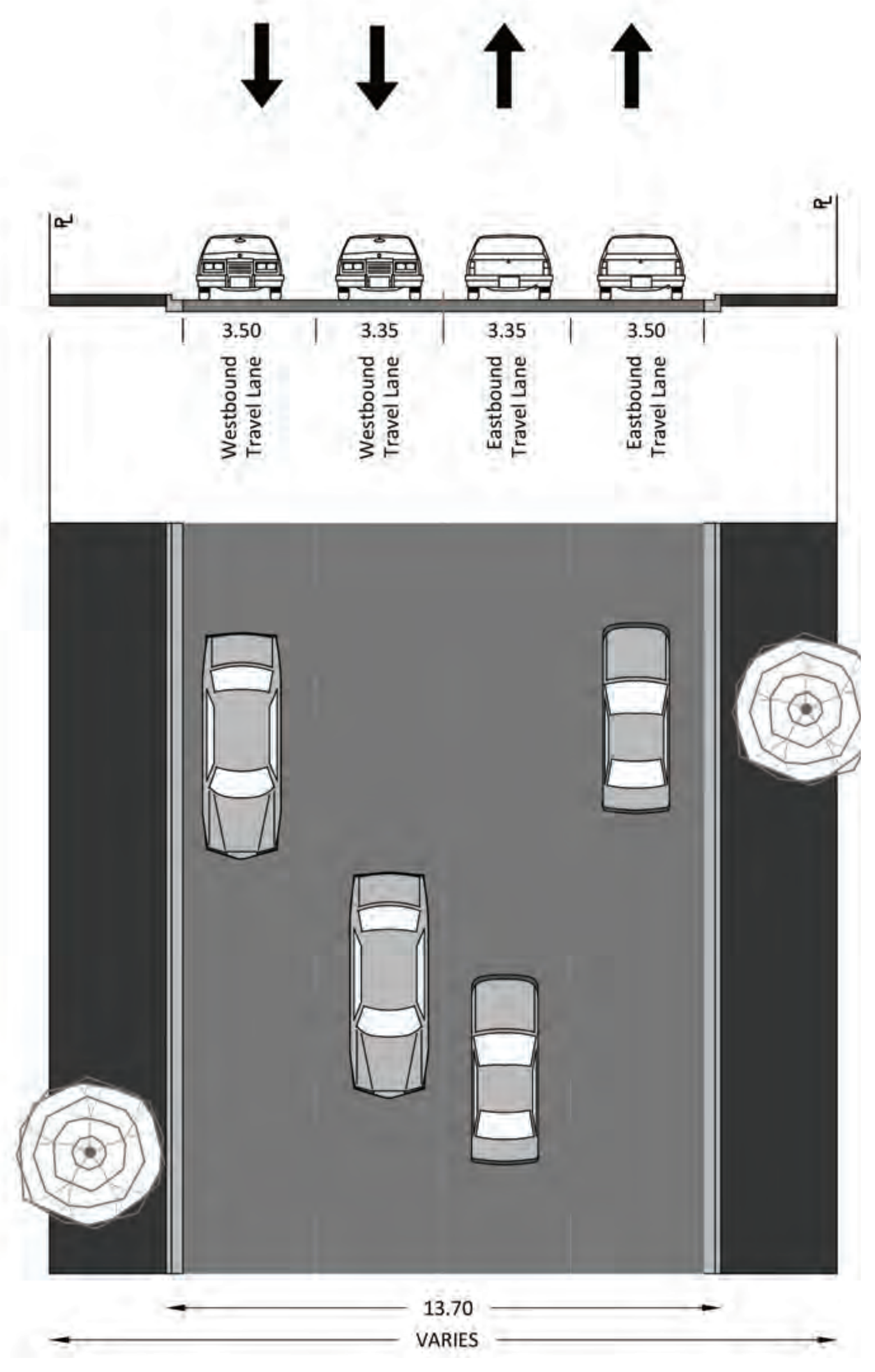
Improved Connections – West (Long-Term Implementation)

Though both routes are part of the long-term plan, which route would you like to see constructed first?

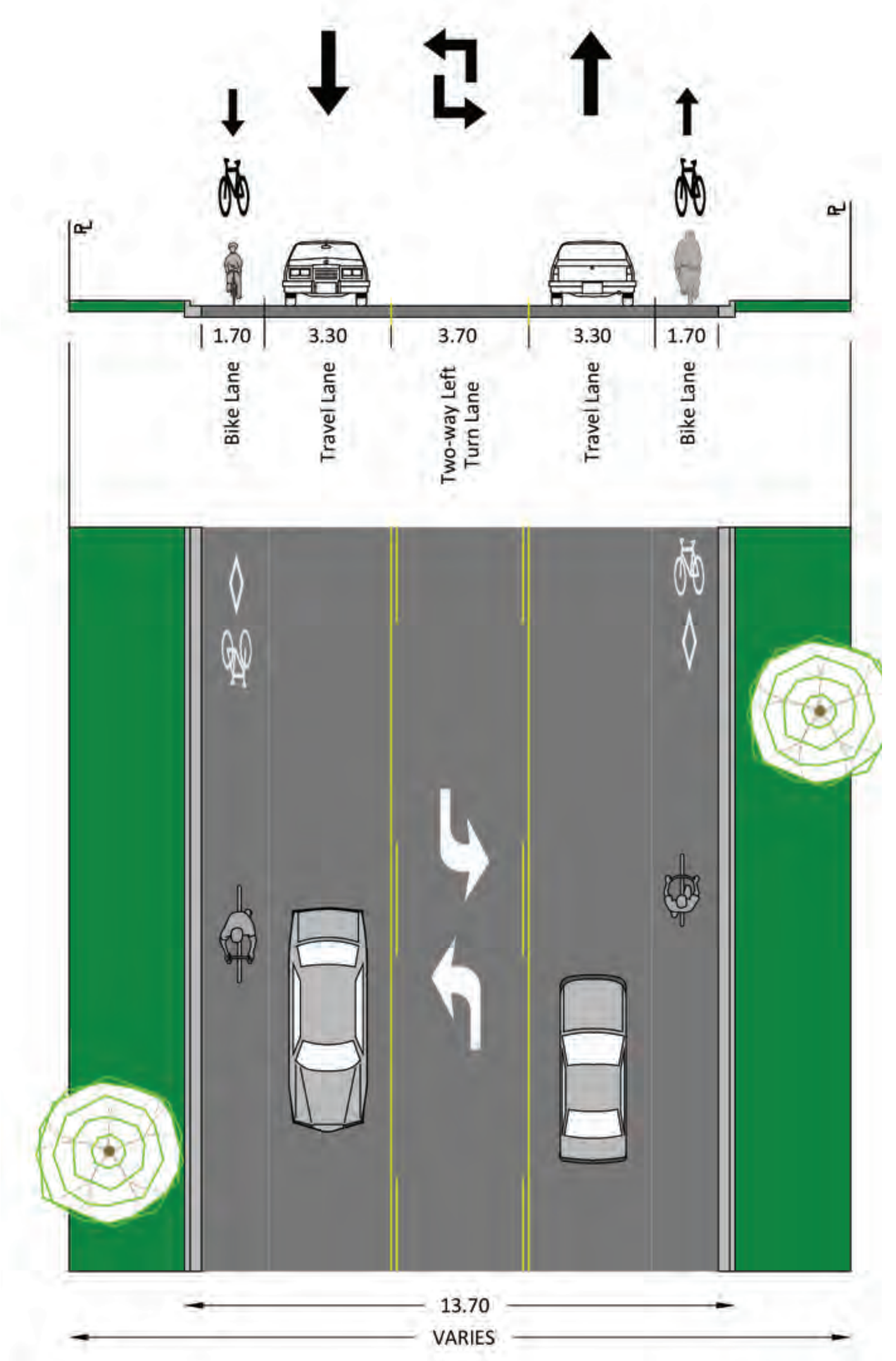
Place a dot on the one you think is the priority.



Two potential long-term options have been identified to connect the 11 Street S.E. bikeway to the west.



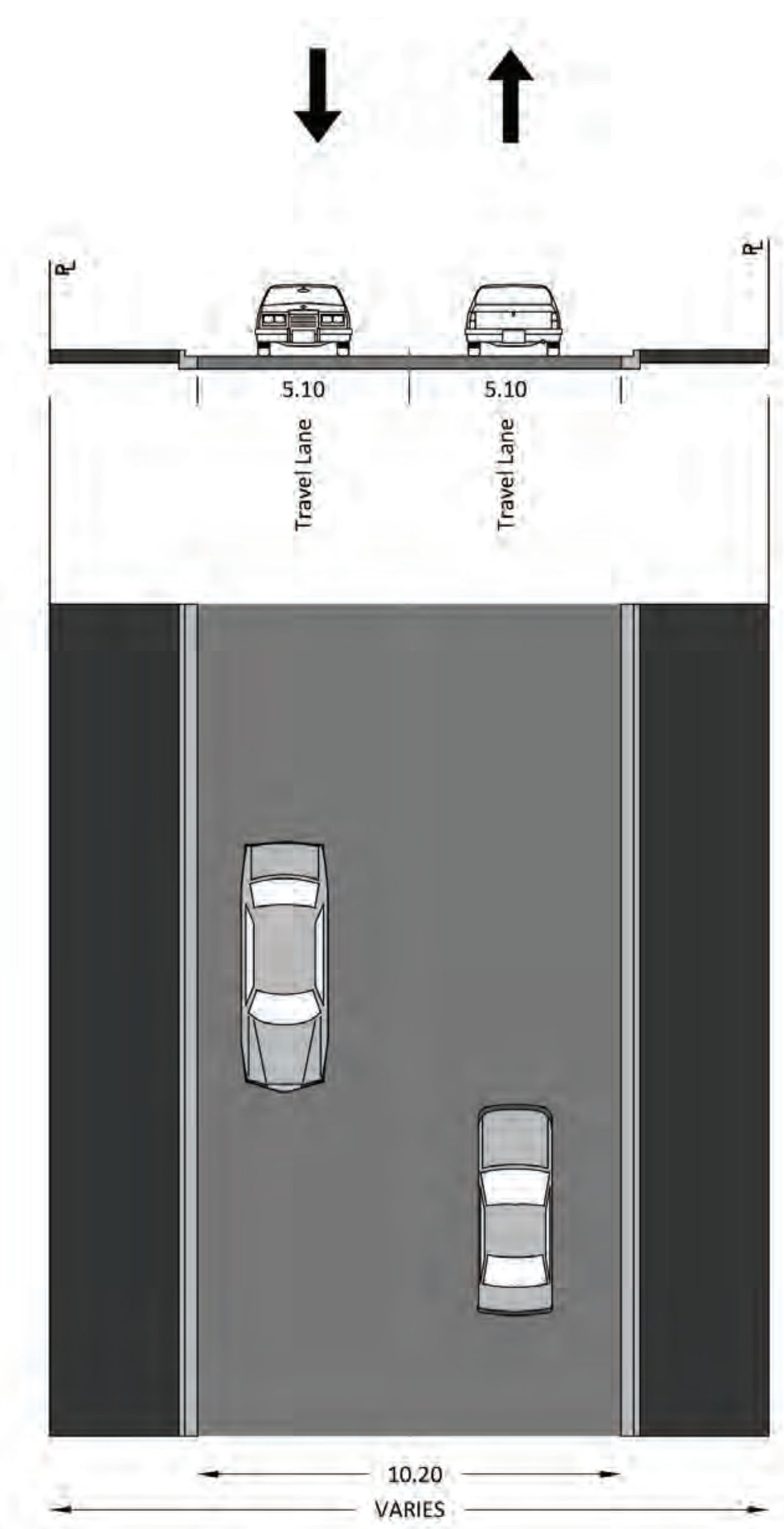
Existing



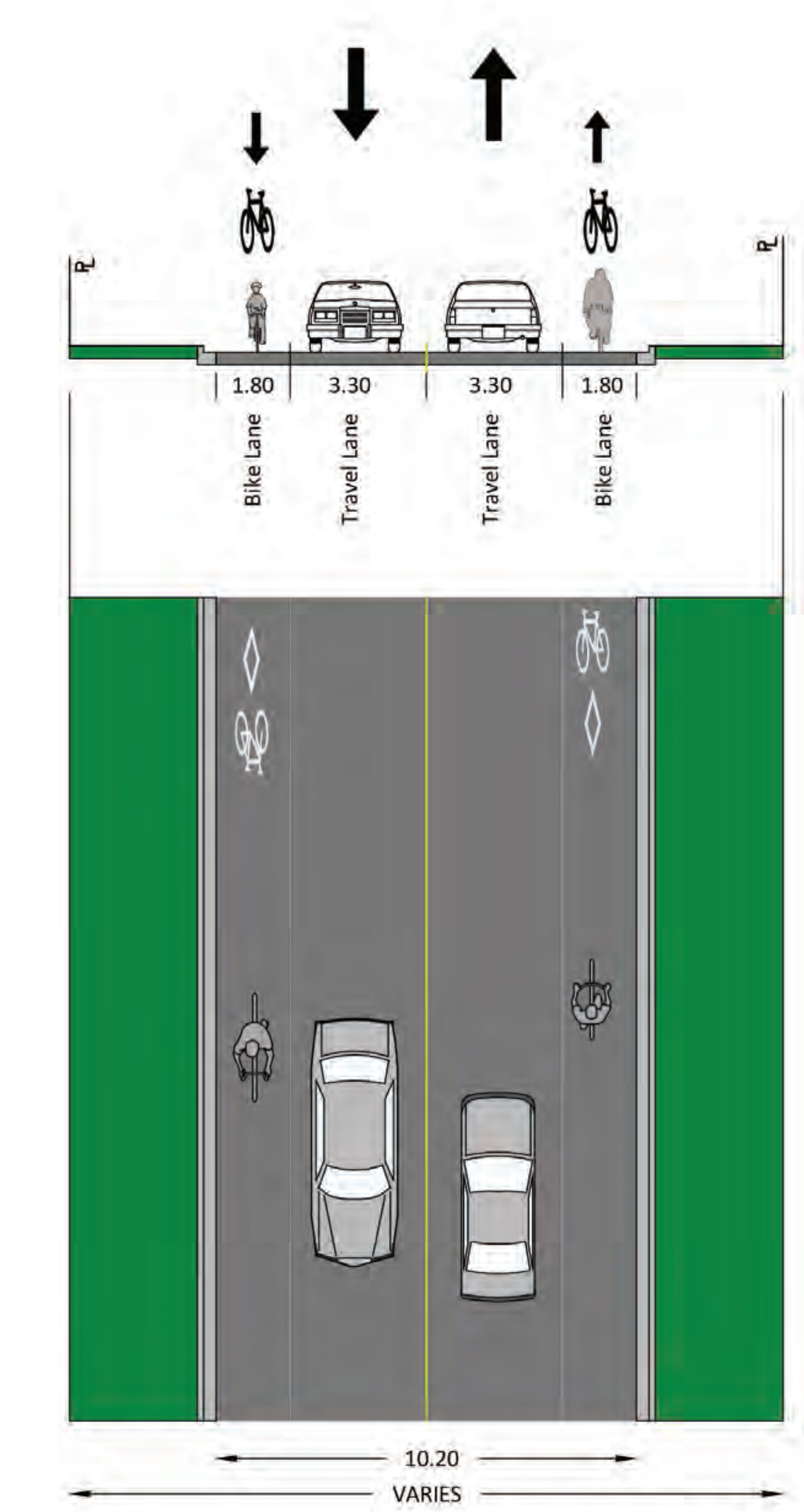
Future

Option 1:
46 Avenue / Manhattan Road S.E. Bike Lanes

- Painted bicycle lanes
- Convert four travel lanes to two lanes with a centre two-way left turn lane to accommodate bicycle lanes



Existing



Future

Option 2:
42 Avenue S.E. Bike Lanes / Multi-use Pathway

- Painted bicycle lanes between 7 Street S.E. and 11 Street S.E.
- Reallocate existing road space to provide buffered bicycle lanes, with no removal of travel lanes
- Off-street pathway west of 7 Street S.E.

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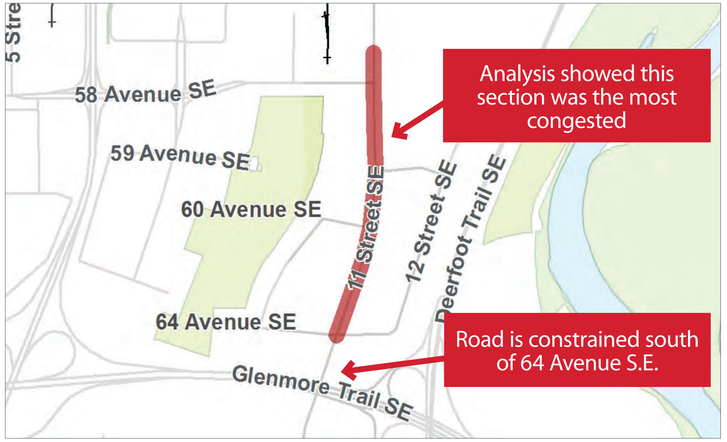
Improve Traffic Operations (Short-term Implementation)

Which option do you prefer?

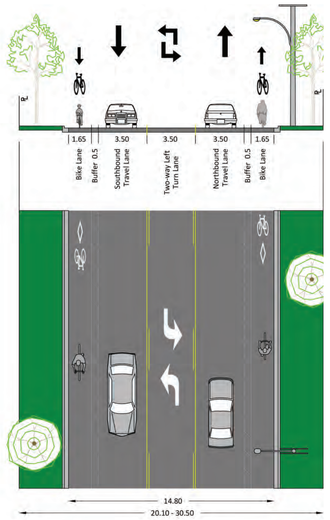
Place a dot on the one you would like to see implemented.



Both options include optimizing and coordinating the traffic signal timing at the intersections listed below, resulting in modest reductions in travel times.

- 46 Avenue S.E.
- 58 Avenue S.E.
- 59 Avenue S.E.
- 70 Avenue S.E.
- Heritage Drive S.E.

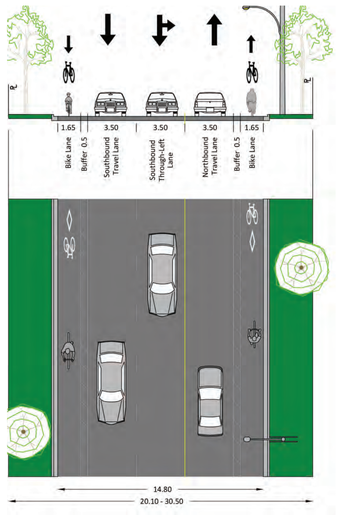
Buffered bike lanes are also provided in both options, improving safety and comfort for people who bicycle.



46 Avenue to 64 Avenue S.E.

Option A:
Maintain centre left turn lane

+ Travel time savings of approximately five seconds in the A.M. peak direction and approximately 30-40 seconds in the P.M. peak direction
+ Slight reduction in delay and queues at key intersections such as 58 Avenue S.E. and Heritage Drive S.E.
+ Improve pedestrian/cyclist safety and comfort by increasing separation from cars
+ Does not encourage more speeding (data shows most drivers are traveling above the speed limit most of the day)
+ Narrowed dedicated left turns maintain access to properties and cross streets
- Modest changes to overall traffic operations



North of 58 Avenue to 64 Avenue S.E.

Option B:
Convert centre left turn lane into a southbound lane

+ Travel time savings of about 20 seconds in the A.M. peak direction and about 1.8 minutes in the P.M. peak direction
+ Reduced delays and queues at key intersections such as 58 Avenue S.E. and Heritage Drive S.E.
- May encourage more speeding (data shows most drivers are traveling above the speed limit most of the day)
- Increased speeding will decrease comfort for people who walk and bicycle
- Lack of dedicated turn lanes may present access issues
- Northbound left turns require crossing two lanes of traffic and may lead to queueing
- Increased potential for *multiple threat and pedestrian collisions

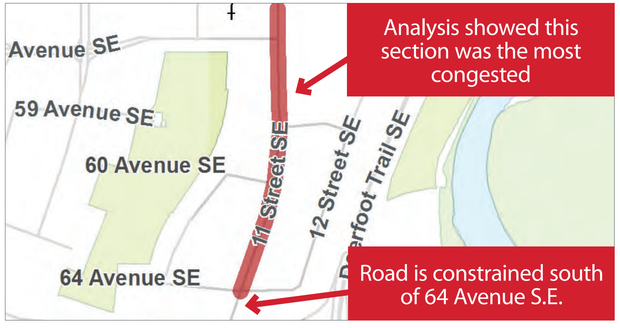
*A multiple threat crash occurs when one driver slows down or stops to let a pedestrian cross the street and another driver tries to go around the first driver, creating multiple threats for the pedestrian while crossing the street.

Calgary

Improve Traffic Operations (Short-term Implementation)

Which option do you prefer?

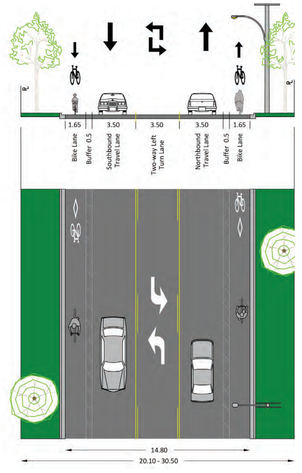
Place a dot on the one you would like to see implemented.



Both options include optimizing and coordinating the traffic signal timing at the intersections listed below, resulting in modest reductions in travel times.

46 Avenue S.E. | 58 Avenue S.E. | 59 Avenue S.E. | 70 Avenue S.E. | Heritage Drive S.E.

Buffered bike lanes are also provided in both options, improving safety and comfort for people who bicycle.

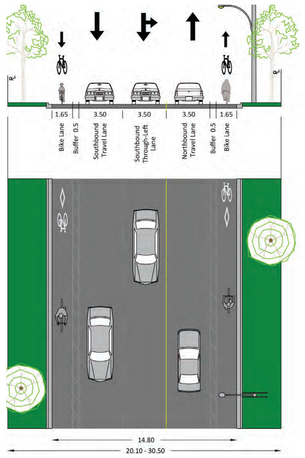


46 Avenue to 64 Avenue S.E.

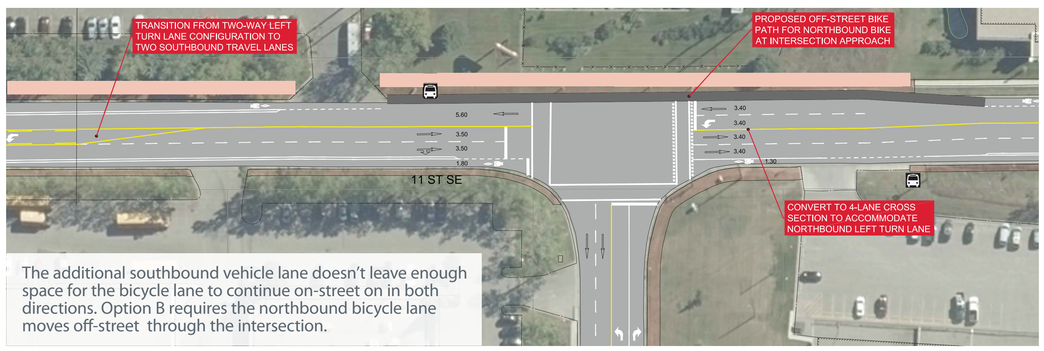
Option A: Maintain centre left turn lane

+ Travel time savings of approximately five seconds in the A.M. peak direction and approximately 30-40 seconds in the P.M. peak direction
+ Slight reduction in delay and queues at key intersections such as 58 Avenue S.E. and Heritage Drive S.E.
+ Improve pedestrian/cyclist safety and comfort by increasing separation from cars
+ Does not encourage more speeding (data shows most drivers are traveling above the speed limit most of the day)
+ Narrowed dedicated left turns maintain access to properties and cross streets
+ Buffered bicycle lanes can be maintained through the 58 Avenue S.E. intersection
- Modest changes to overall traffic operations

Option B: Convert centre left turn lane into a southbound lane



North of 58 Avenue to 64 Avenue S.E.



The additional southbound vehicle lane doesn't leave enough space for the bicycle lane to continue on-street on in both directions. Option B requires the northbound bicycle lane moves off-street through the intersection.

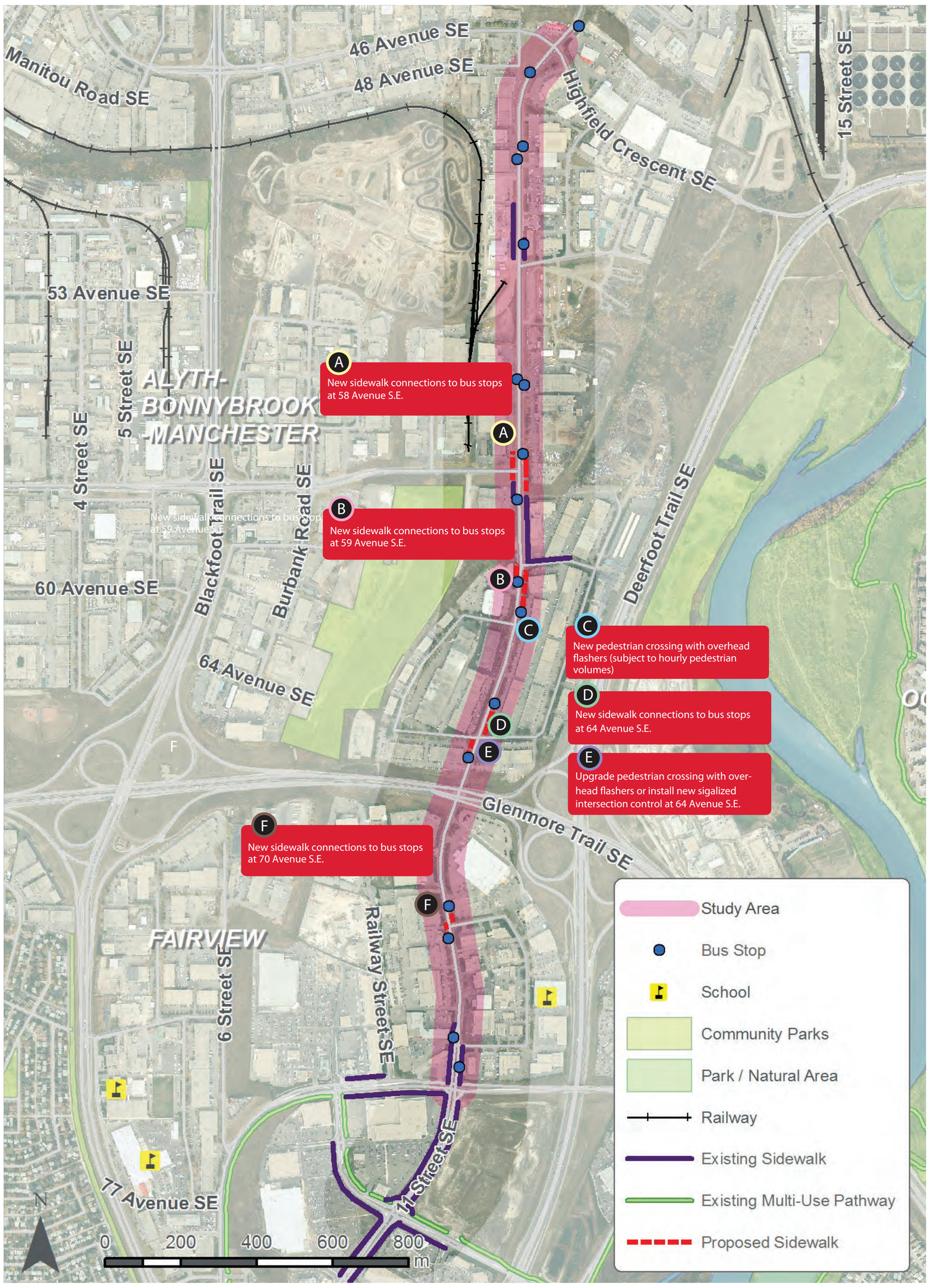
+ Travel time savings of about 20 seconds in the A.M. peak direction and about 1.8 minutes in the P.M. peak direction
+ Reduced delays and queues at key intersections such as 58 Avenue S.E. and Heritage Drive S.E.
- May encourage more speeding (data shows most drivers are traveling above the speed limit most of the day)
- Increased speeding will decrease comfort for people who walk and bicycle
- Lack of dedicated turn lanes may present access issues
- Northbound left turns require crossing two lanes of traffic and may lead to queueing
- Increased potential for *multiple threat and pedestrian collisions
- Additional cost of off-street northbound bicycle lane at 58 Avenue S.E.
- Narrowed, less comfortable southbound bicycle lane at 58 Avenue S.E.

*A multiple threat crash occurs when one driver slows down or stops to let a pedestrian cross the street and another driver tries to go around the first driver, creating multiple threats for the pedestrian while crossing the street.

Pedestrian Improvement Priorities

Six potential pedestrian improvements have been identified. Funding is limited and the cost of the proposed improvements varies. Some of these potential pedestrian improvements may be implemented in the short-term as funding becomes available.

Place a dot on the pedestrian improvement that you think is most important.



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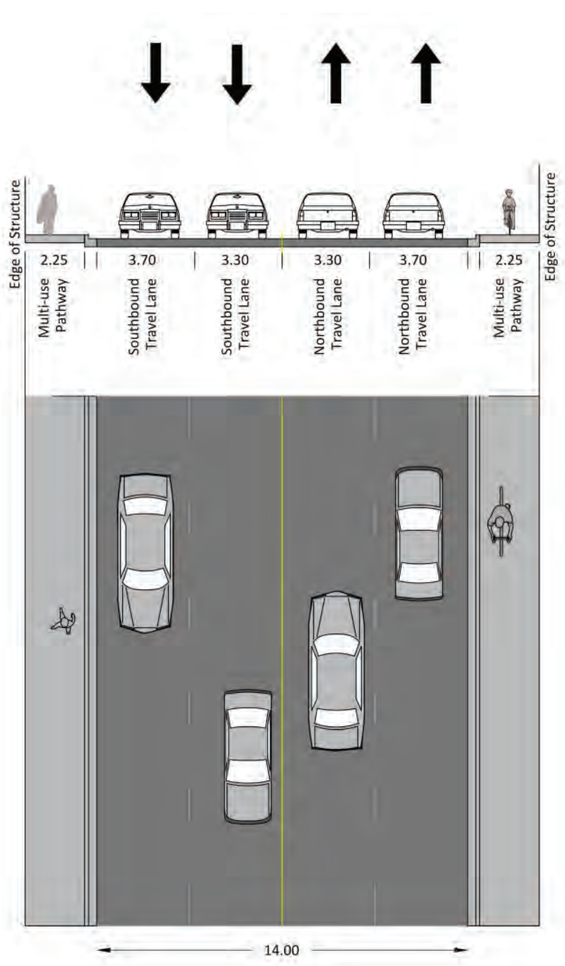
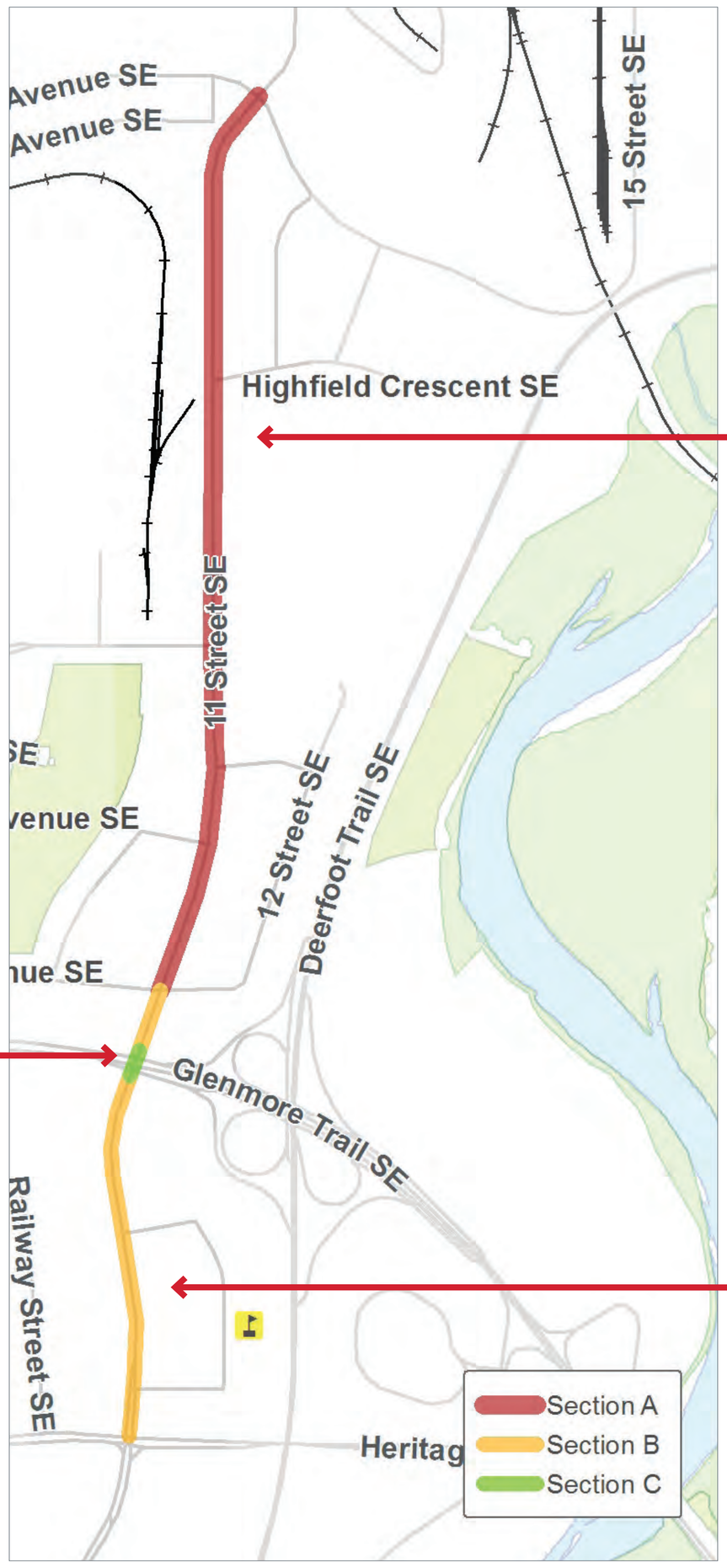
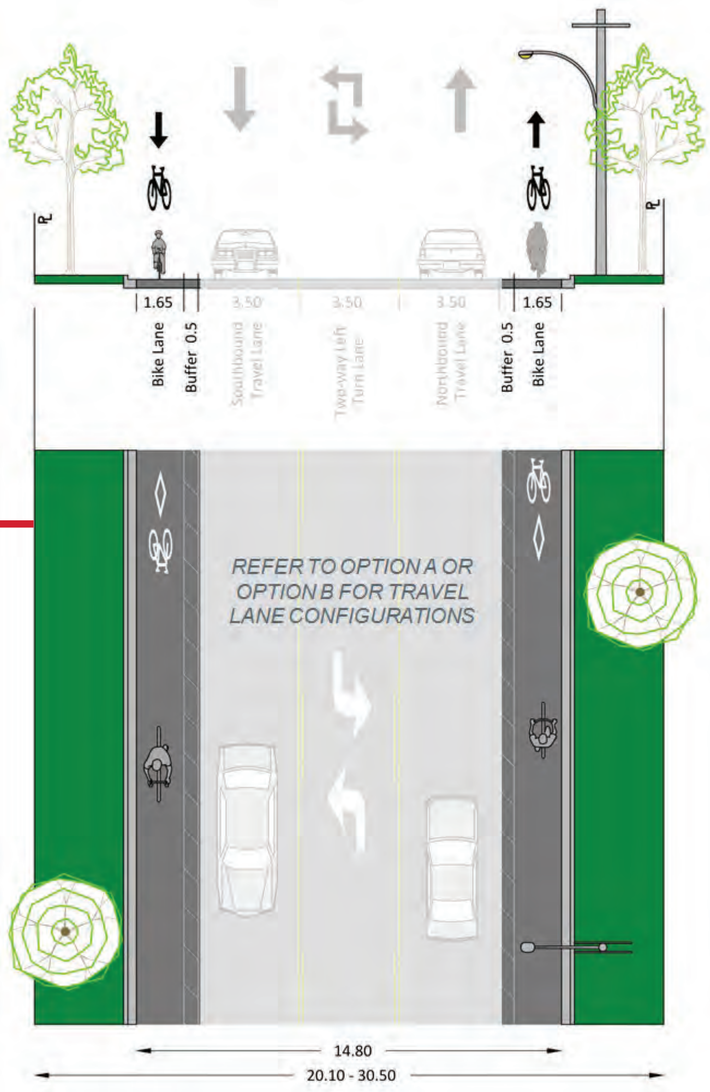
Improving Existing Active Transportation Infrastructure

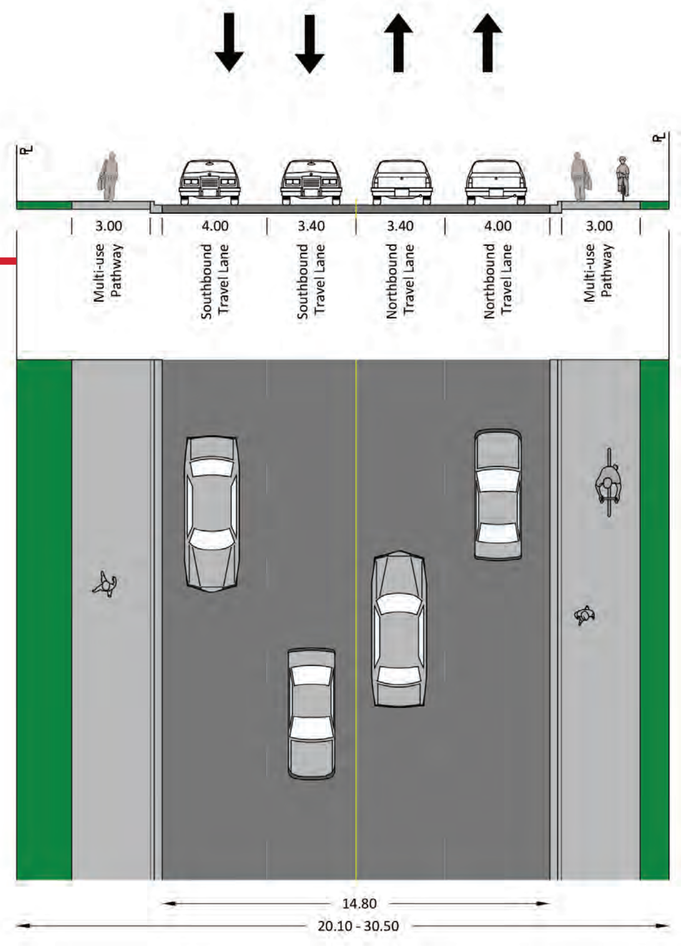


Multi-use Pathway
Long-term Implementation





Buffered Bike Lanes
Short-term Implementation



Multi-use Pathway
Long-term Implementation

Thank you for coming!

We appreciate your comments.
Please visit **calgary.ca/bikeprojects** to sign up for email updates and fill out an online feedback form before **March 16, 2016**.

Next steps

Review and analyze public input

Evaluate and prioritize options using technical analysis, public input, cost and constructability

Report back to stakeholders and community on recommendations