

A colorful illustration of a city street scene. In the background, there's a city skyline with a red sign that says 'Calgary' and a city crest. A large school building with 'SCHOOL' written on it is in the middle ground. The street is filled with various vehicles: a yellow car, a white SUV, a blue delivery van with 'DELIVERY' written on it, and a red and white bus with the number '10'. Pedestrians are shown walking, a family with a dog, a person on a skateboard, and two people on bicycles. The scene is set against a backdrop of green trees and a blue sky with white clouds.

Calgary



# North Central BRT and Mobility Studies update

April 21, 2021

In the spirit of reconciliation, we acknowledge that we live, work and play on the traditional territories of the Blackfoot Confederacy (Siksika, Kainai, Piikani), the Tsuut'ina, Stoney Nakoda (Chiniki, Bearspaw & Wesley First Nations), the Métis Nation (Region 3), and all people who make their homes in the Treaty 7 region of Southern Alberta.


# How to participate

Questions and comments can be posted in the chat box  
of the Microsoft Teams live event


- Questions will be read by the moderator and answered by our presenters following the presentation
- No names will be used when questions or comments are read out during the session

# Improving user experience

## Translation

To change the caption language, select **Settings**  > **Captions / Subtitles**, and choose the language you want.

## Closed Captioning

To turn on live captions and subtitles, select **Captions/Subtitles On**  **in your video controls**

For more information on other Teams assistive technologies, please visit:  
<https://engage.calgary.ca/greenline/green-line-session-instructions>

# Today's agenda

1. Welcome and introductions
2. Green Line project update
3. Engagement journey
4. North Central Bus Rapid Transit (BRT) Study
5. North Central Mobility Study
6. Next steps
7. Questions



# Welcome and introductions

# Green Line project update

June 2020

- 17 recommendations were put forward by the Green Line Committee and adopted by City Council including:
  - Report back on segment 2A functional LRT plan
  - Report back on segment 2B functional LRT plan
  - **Functional plan for mobility corridor in North Central Calgary from 160 Avenue to downtown**
  - Direct Administration to include a cost-benefit comparison, based on the Council approved evaluation criteria themes: Mobility, Connectivity, Development, Environmental, Cost and Value, Risk and Constructability, for the 10 and 12 Avenue S and 11 Avenue S alignments

## Connection to Green Line

- The connection of the studies to the Green Line LRT is related to a surface running LRT along Centre Street that is being considered in segment 2 of the Green Line LRT project.
- In segment 2 of the Green Line LRT, (16 Avenue North to 4 Street S.E.) we are moving through a process called **functional planning**.
- Functional planning is where we better understand the unique engineering requirements and any specific issues that need to be addressed to develop more detailed plans for project areas.
- To complete the functional planning for segment 2 of Green Line LRT, a number of projects, studies and analysis needs to be completed in the area and north of 16 Avenue that include these two studies:
  - North Central BRT Study
  - North Central Mobility Study



# Engagement journey

# Segment 2 – Public engagement

## 2020

October



### Inform

- Keep Calgarians up-to-date on Green Line planning initiatives through online events and electronic updates
- Host an online open house for projects impacting downtown in late-October
- Ensure previous public input informs our technical planning this fall

November–December



### Explore

- Present ideas and considerations that will inform functional planning
- Gather input from Calgarians through online engagement

## 2021

January–February



### Evaluate

- Share what we've heard and how it informed proposed concepts
- Gather input to help us evaluate proposed concepts
- Host virtual engagement through online workshops and The City's Engage Portal

March–onwards



### Reveal

- Share what we've heard and how it informed functional planning
- Develop and share final recommendations with Calgarians

We are here

# Who we reached - GL projects segment 2



## AWARE 60,000+

The number of people who were made aware of the project and opportunity to get involved. Tools used to build awareness included: Social media, bold signs and informational displays, mailed postcards/ brochures, and email updates.

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## INVOLVED 15,000+

The number of people who actively or passively got involved in some way. This includes people who visited the website, attended an event, subscribed for email updates etc.

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## ENGAGED 1,400+

The number of people who provided input online or at an event.

# North Central Mobility Study

## What We Heard

### Key themes

- Community is concerned about cut-through traffic on residential streets
- Commuters have concerns on congestion/delays to travel to and from downtown on parallel corridors
- Want improved:
  - turning movements & signal timings at major intersections
  - traffic flow through the adding or lengthening of turning lanes at intersections
- Enhance connections for walking and wheeling on main corridors to encourage active transportation modes
- Concerns over cost of mobility improvements to taxpayers
- **Public feedback was incorporated** in the development of the proposed short-medium- and long-term recommendations for the study

# North Central BRT Study

## What We Heard

### Key themes

- Desire for faster and more reliable bus service
- Interest in reducing congestion for transit vehicles and cars
- Need to balance providing on-street parking and accommodating traffic during peak travel hours

# **North Central Bus Rapid Transit (BRT Study)**

# Project Background

## Previous Council Direction - June 2020 GL Committee:

### Recommendation 14 of GC2020-0583 June 15, 2020

Direct Administration to develop a Functional Plan for a flexible and convertible mobility corridor in North Central Calgary from 160 Avenue to Downtown (including but not limited to improvements identified in Attachments 7a and 7b) and return with recommendations for which improvements can be accommodated within the Council approved Green Line Program budget. This Functional Plan shall:

- Take into consideration the mode progression from express buses to a convertible BRT/LRT mobility corridor from 160 Avenue N to Downtown, including but not limited to the improvements identified in Attachment 7b from 160 Avenue N to 96 Avenue N; and
- Identify potential funding sources and strategies required to construct improvements beyond the funding that is part of the Council approved Green Line Program budget.

Administration to report back to the Green Line Committee no later than the end of Q2 2021 with the functional plan and the delivery plan for the funded improvements;

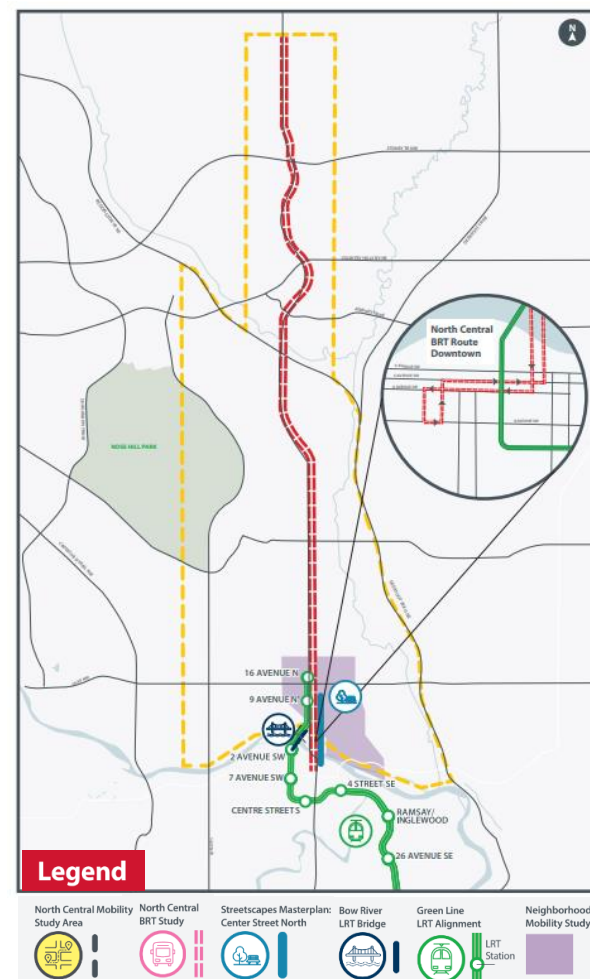
### Motion Arising GC2020-0583 June 15, 2020

That City Council directs City Administration, in association with Green Line planning, Tomorrow's Chinatown local area planning, and the Main Streets program, to develop a streetscape masterplan for Centre St S (Centre Street Bridge to 4 Av S) to improve public realm, improve pedestrian safety, and integrate with future BRT infrastructure, with a funding structure identified outside of the Green Line program.

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## Overview & Objectives

- The North Central BRT Study reviewed opportunities to improve BRT operations through North Central Calgary and as the busses loop through downtown.
- Green Line will impact BRT operations south of 16 Avenue N.
- Improvements have been examined along the current BRT route between downtown and the North Point Park and Ride lot in the short, medium and long term as well as the future expansion to the north.
- Recommendations for potential improvements to the corridor at specific intersections and enhanced station amenities as well as considerations for improvements to active mode connections.





# Study Recommendations

The first phase of Green Line Light Rail Transit (LRT) will extend to 16 Avenue N. The proposed improvements will link the investments that The City is making with Green Line to provide improved connections to north central communities and support the future transition to LRT along the corridor.

The proposed improvements will:

- Provide shorter transit travel times
- Increase reliability
- Enhance comfort and convenience
- Improve accessibility
- Improve walking and wheeling amenities



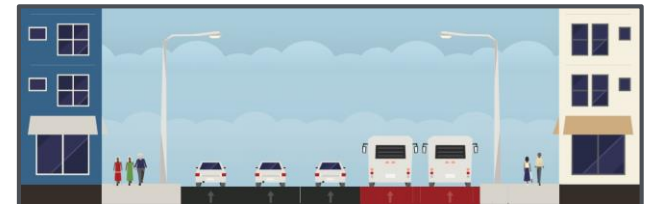
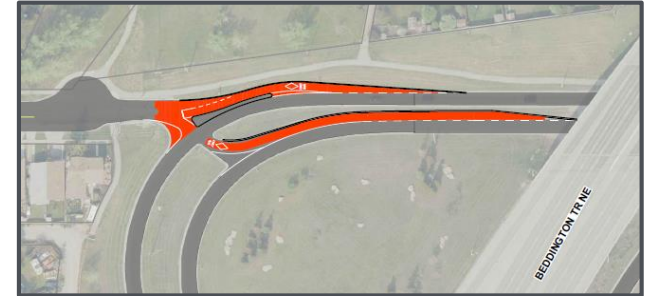
# North Central BRT Study: Short-Term Improvements

## Short-term improvements:

- Implement in 0 – 5 years
- Quick and immediate improvements to the current services
- Focus on pedestrian accessibility and operational improvements

## Includes:

- Downtown bus-only lanes
- Pedestrian and wheeling improvements
- Intersection improvements
- Bus priority improvements



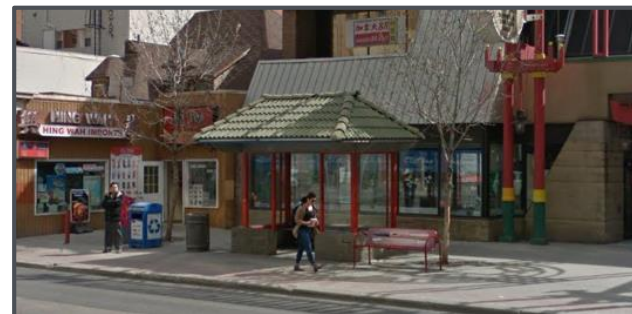
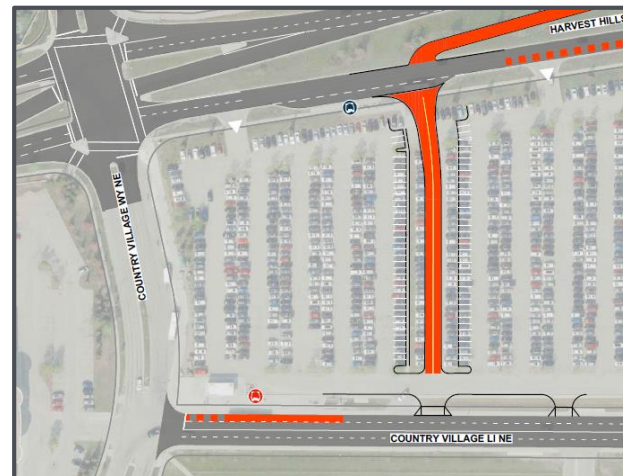
# North Central BRT Study: Medium-Term Improvements

## Medium-term improvements:

- Implement in 5 – 10 years
- Improvements will be timed with Green Line LRT opening

## Includes:

- North Pointe Park and Ride operational improvements
- Pre-build Future Green Line Park and Ride lot
- Stations upgraded to MAX standard
- Peak hour transit-only lanes
- Centre Street South Public Realm & Streetscape improvements



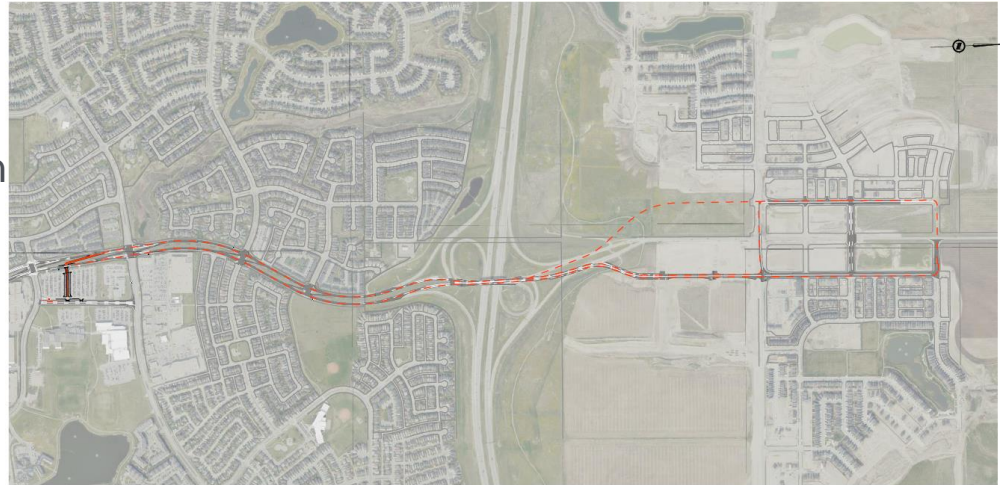
# North Central BRT Study: Long-Term Improvements

## Long-term improvements:

- Implement in 10+ years
- Long-term improvements would be triggered based on increased transit ridership, increased traffic and congestion and demand for route extension

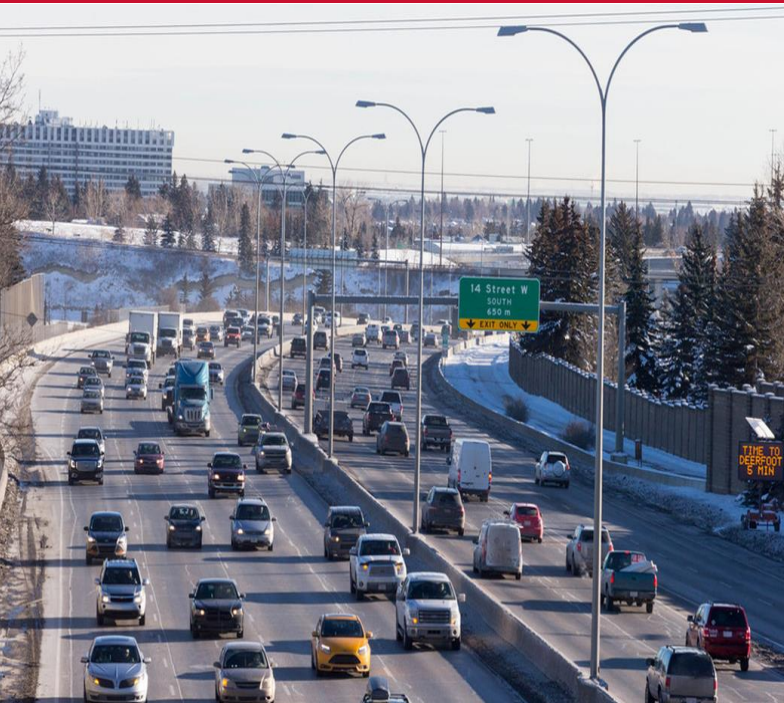
## Includes:

- Extend BRT service north to 160 Ave N.
- Transit-only lane additions
- New MAX stations





# North Central Mobility Study



## Project background

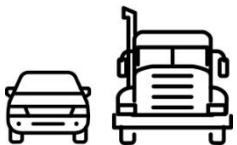
### **Previous Council Direction - June 2020 GL Committee: Recommendation #6**

1. To report back on mobility studies and plans
2. Related language in the attachment
  - Mobility studies and plans will include:
    - Community Traffic Review and Plan to address changes to the mobility network and which may include additions and modifications to existing community traffic-calming measures; and
    - Network Traffic Review to examine existing traffic patterns, determine which alternate routes will receive more traffic, and develop strategies to manage impacts.

# Projects completed

## Projects:

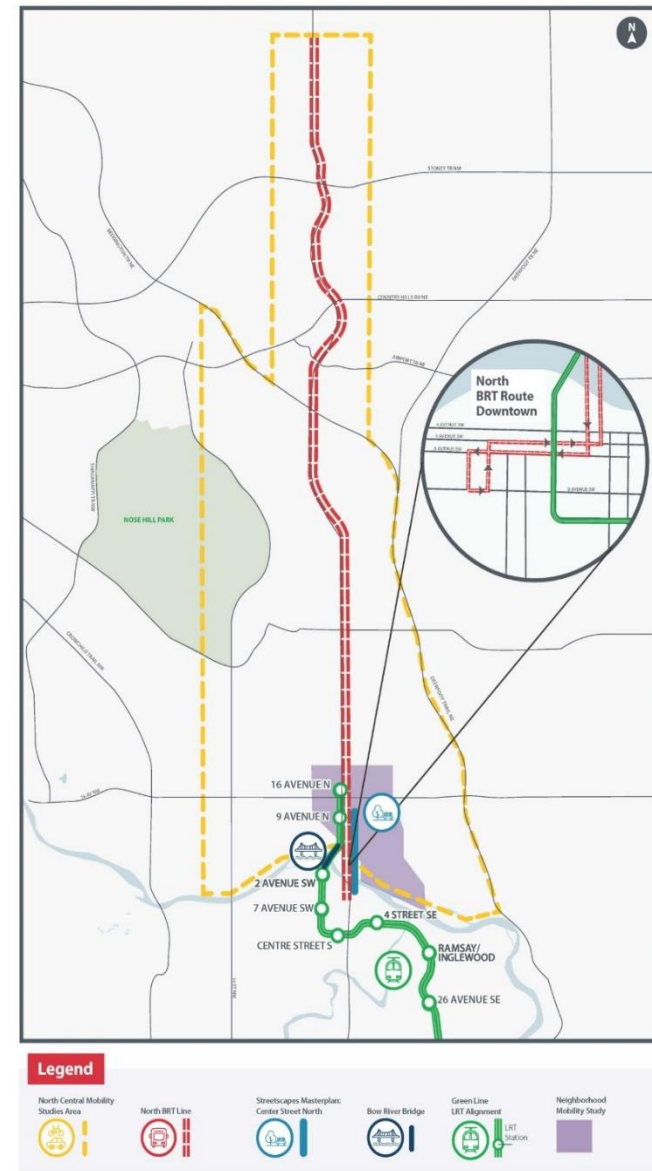
- Community Traffic Review:
  - Crescent Heights Mobility Study, part of Green Line Functional Plan
- Broader Network Review – North Central Mobility Study
  - Community traffic and safety review – communities bounded by 16 Ave., McKnight Boulevard, 4 Street and Edmonton Trail
  - Major roads and intersections review – connectivity to downtown



# Approach to the study

## What's our approach?

- The approach used for this study is a multimodal approach to understand how Green Line and BRT lanes can be supported in the network.
- The goals of this work are to improve overall mobility along Centre St. N. corridor and Harvest Hills Boulevard, protect community liveability along the Transit corridor by reducing cut-through traffic and to improve safety and connections for all transportation users.
- The outcomes of this study will support Green Line and BRT and will help provide safe and efficient travel experiences for all users of the network.

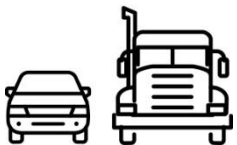




# Goals of the North Central Mobility Study

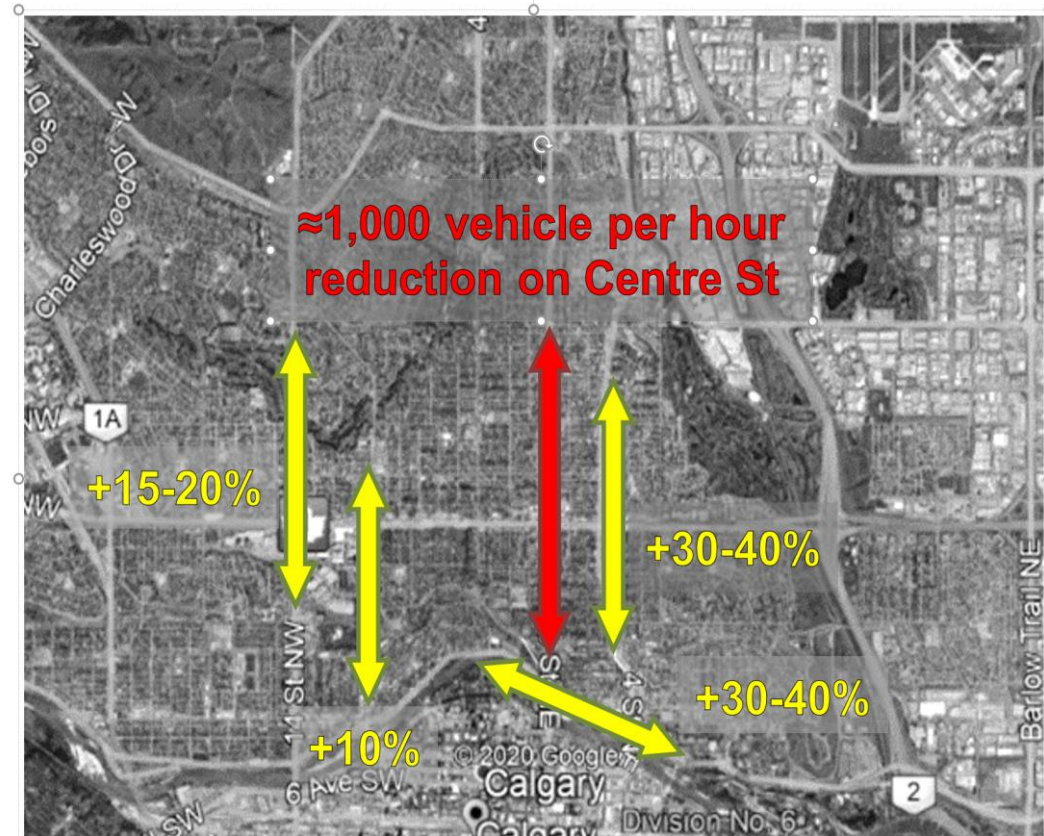
- **Outcomes:**

- Proposed measures to improve walking and wheeling
- Proposed measures to reduce cut-through traffic
- Proposed intersections for multi-modal enhancements
- Proposed locations to review for travel-time reliability for all transportation users and for connectivity to downtown



# Dispersion of traffic from Centre Street

- Opening day of Green Line stage 1, it is estimated that during the rush hours over half of the vehicles currently using Centre Street N. will be displaced to nearby corridors as identified below:
- Approximately 30-40% diverted to Edmonton Trail N.E.
- Approximately 30-40% diverted to Memorial Drive (east and west of Centre Street N)
- Approximately 15-20% diverted to 14 Street N.W.
- Approximately 10% diverted to 10 Street N.W.



# Short – term recommendations Walking and wheeling measures



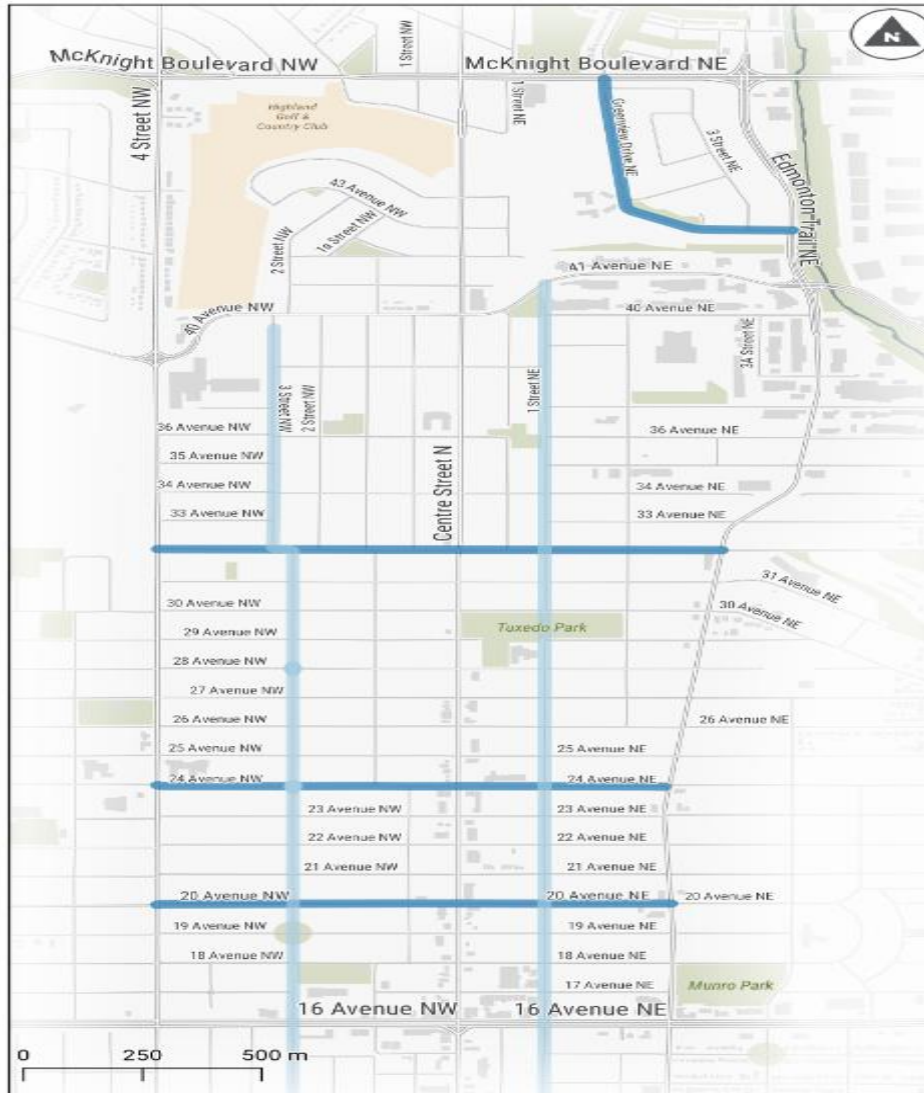
## Walking and wheeling measures

### Legend

-  Proposed Pedestrian Crossing Enhancement
-  Build Sidewalk
-  Build Shared Use Pathway
-  Install Neighbourhood Greenway Features
-  Upgrade Shared Use Pathway to Current Standards

# Short – term recommendations

## Traffic calming measures

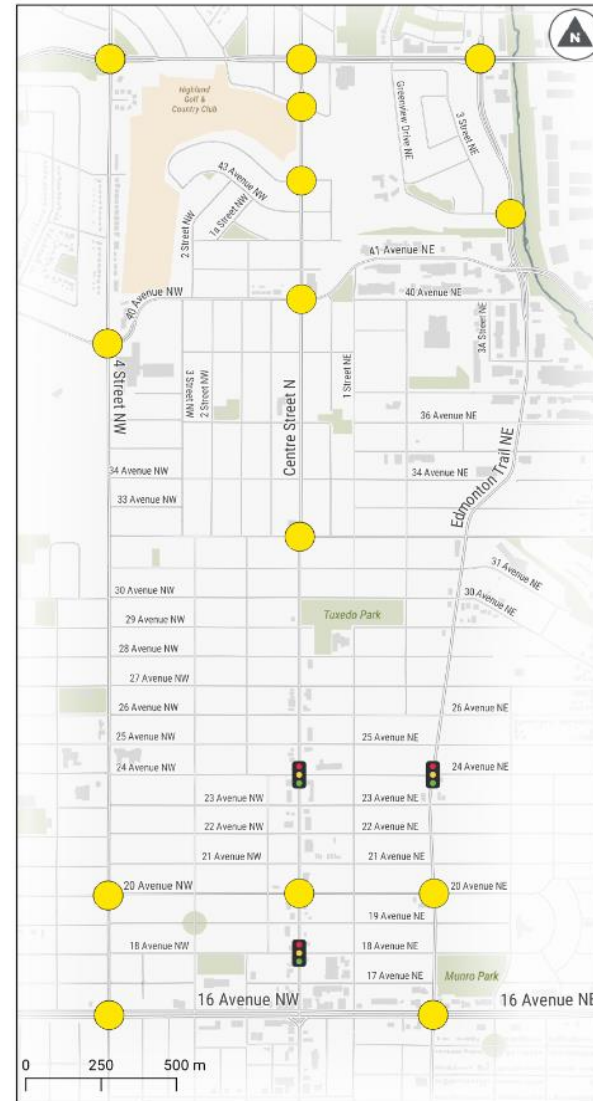


### Traffic calming measures

#### Legend

- Formalize Temporary Traffic Calming Measures (refine based on feedback)
- Introduce Traffic Calming Measures

- Safety and operational improvements for all transportation users
- Corridor-wide review for multi-modal enhancements:
  - Edmonton Trail N.E. (south of 16 Avenue N.E.) & 14 Street N.W.
- Add northbound and southbound right turn lanes at the intersection of 16 Avenue N.E. and Edmonton Trail N.E.
- Add a northbound right turn lane at the intersection of McKnight Boulevard N.E. and Edmonton Trail N.E.
- Add northbound and southbound left turn lanes at the intersection of Centre Street N and 40 Avenue N.W. and 41 Avenue N.E. (part of BRT project)
- Lengthen southbound left turn lane at intersection of Centre Street N and 64 Avenue N. (part of BRT project)
- Monitor northbound left turn to determine if enhancements are required at Centre Street N. and Beddington Boulevard N. (part of BRT project)

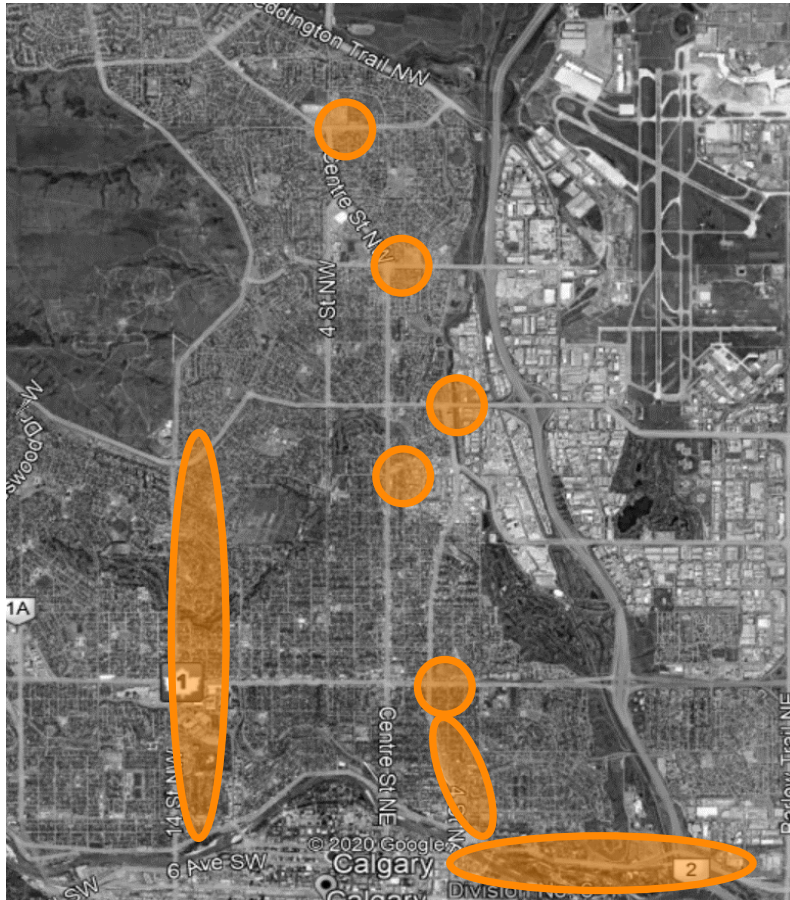


## Legend

- Intersection Operations and Design Modifications
- 🚦 Potential New Traffic Signal



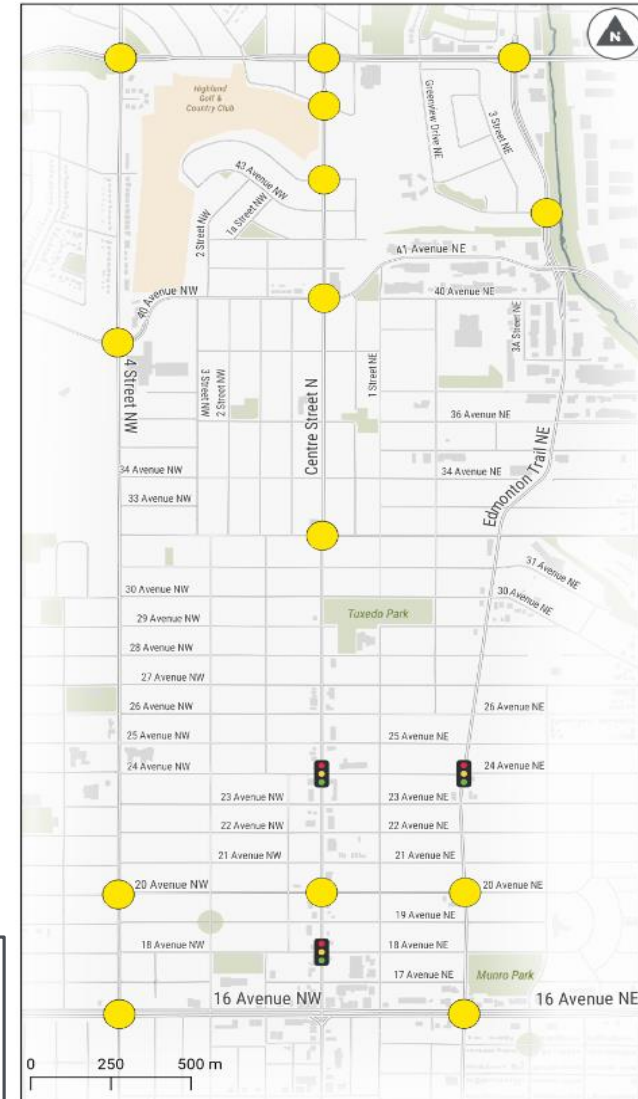
# Medium-term intersection improvements



- Proposed locations for multi-modal mobility enhancements

## Legend

- Intersection Operations and Design Modifications
- Potential New Traffic Signal



## Long-term recommendation

- Enhance connections along Memorial Drive N.E. between downtown and Deerfoot Trail



## Next steps

- Present recommendations to Council on May 21, 2021
- Identify funding through corporate priorities
- Develop implementation strategies



**Recordings posted online for all public presentations**

## **Last Event – Drop-in Session**

Thursday, April 22 from 6:00 – 8:00 p.m.

Register at [\*\*engage.calgary.ca/greenline\*\*](https://engage.calgary.ca/greenline)

# Questions?



Visit [engage.calgary.ca/greenline](https://engage.calgary.ca/greenline) to learn more about the North Central BRT and Mobility Studies



**Thank you!**

