

# 16th Ave. N.W. Six-Lane Widening and Off-Ramp Project



#### Welcome to the open house

At this open house you will be able to:

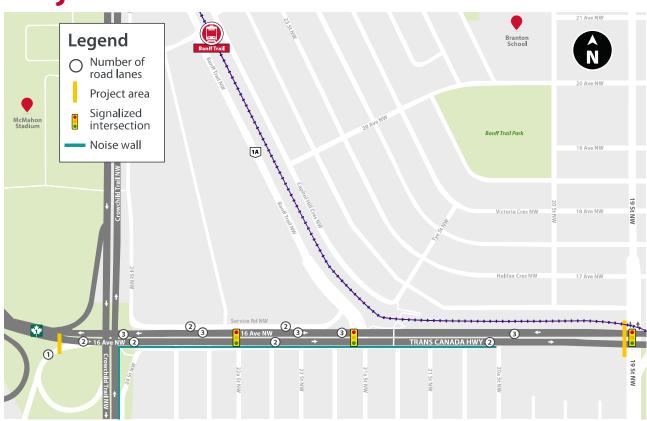
- Learn more about the project.
- Ask questions.
- Review and provide input into crossing options and improving the experience along 16th Ave. N.W.
- Learn about the next steps of the project.



#### Where do you live/work?

I live in the mapped area	l live in: Hounsfield Heights Briar Hill Banff Trail Capitol Hill	I work right next to or across from the mapped area
(place dots)	(place dots)	(place dots)
I do not live in one of those communities	l travel by the project area (via automobile)	l travel by the project area (via walking or biking)
(place dots)	(place dots)	(place dots)

#### **Project area**





#### **Project limits**

#### Phase 1

(Funded and subject of this open house)

16th Ave. N.W. six-lane widening from 19th St. N.W. to Crowchild Tr. N.W.

Budget = \$18.0 M

New off-ramp connecting to northbound Crowchild Tr. N.W.

Budget = \$10.5 M

Total = \$28.5 M

#### Phase 2 (Unfunded)

16th Ave. N.W. six-lane widening from Crowchild Tr. N.W. to 29th St. N.W.

Estimated = \$41.0 M

18-00973717

#### **Project development**

#### Crowchild Trail Corridor Study

- Requirement of the off-ramp was identified through the study
- Additional noise wall requirements identified for Briar Hill community, south of 16th Ave. N.W. along northbound Crowchild Tr. N.W.

#### Municipal Development Plan

- Identifies 16th Ave. N.W. as part of the University of Calgary Major Activity Centre and a Main Street
- Activity Centres and Main Streets will increasingly act as priority locations for:
  - Accessible, safe and convenient public transit hubs along the Primary Transit Network
  - Higher density residential and employment concentrations outside of the Centre City
  - Provide walkable destinations and local gathering places for adjacent communities

#### North Crosstown Bus Rapid Transit Program

- Primary route for the new Max Orange bus rapid transit (BRT) service
- Widening of 16th
   Ave. N.W. will provide
   improved lane
   continuity and safety
   while providing
   opportunities to build
   new BRT stations in
   the vicinity

#### **Main Streets**

- Accommodate people and cars
- Provide better quality for other travel modes
- Create more of a destination by improving the local streetscape

#### 16th Ave. N.W. widening and off-ramp

#### Banff Trail Station Area Redevelopment Plan

- Introduce an integrated street network
- Prioritize modes of transportation
- Facilitate a broad mix of transit supportive uses

#### Calgary Transportation Plan

- Transportation Goal #4: Enable public transit, walking and cycling as the preferred mobility choices for more people
- Transportation Goal #5: Promote economic development by ensuring the efficient movement of workers and goods
- Identifies 16th Ave. N.W. as a primary transit route
- Identifies 16th Ave. N.W. as a regional connection
- Supporting goods and truck corridor

## Investing in Mobility: 2015-2024 Transportation Infrastructure Investment Plan (TIIP)

- Funding for the widening of 16th Ave. N.W. indicated in TIIP
- Improve transit and vehicular access along 16th Ave. N.W. while reducing traffic moving through the Banff Trail Station area site
- Support employment and residential redevelopment of the University of Calgary Major Activity Centre
- Reduce long-term infrastructure and operating costs by supporting redevelopment and slowing the outward expansion of Calgary



#### **Project goals and objectives**

- Complete "missing links" for pedestrians and cyclists.
- Provide additional bus stops for both local routes and the north crosstown BRT route.
- Increase safety by providing an additional visibility and auxiliary lane along 16th Ave. N.W. by widening it to six lanes, recognizing it is a significant corridor moving people and goods through the city.
- Add the missing off-ramp to connect westbound 16th Ave. N.W. to northbound Crowchild Tr.
- Address shortcutting along Banff Tr. N.W. to assist with the redevelopment of the Motel Village area and contribute to Transit Oriented Development (TOD).
- Provide high quality urban design and green infrastructure where feasible.
- Align 16th Ave. N.W. closer to its Urban Boulevard classification.



#### What is an Urban Boulevard?

16th Ave. N.W. is classified as an **Urban Boulevard**. This means that:

- Priority is given to walking, cycling, and transit patrons, while accommodating high volumes of vehicular traffic.
- They provide high levels of connectivity to the surrounding communities, and support mixed land uses.
- Posted speeds are 50 kph, typically two lanes in each direction and accommodate traffic volumes of 17,000 to 25,000 vehicles per day.
- Pedestrian crossings are typically at street level.
- Lane widths can be as low as 3.3 metres.
- 16th Ave. N.W. supports the University of Calgary Major Activity Centre, a large employment centre outside the downtown core.



#### 16th Ave. N.W. - Urban Boulevard

This segment of 16th Ave. N.W. is classified as an Urban Boulevard. What does this mean? Photographic examples of an Urban Boulevard.











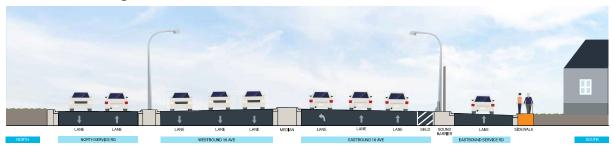




#### 16th Ave. N.W. today

- 16th Ave. N. W. between Crowchild Tr. N.W. and 19th St. N.W. currently accommodates three westbound lanes and two eastbound lanes.
- On the north side of 16th Ave. N.W., a two-way service roads exists serving businesses within Motel Village.
- The Red Line LRT (Tuscany) runs along the north side of 16th Ave. N.W. and turns north along Banff Tr. N.W. to the Banff Trail LRT station.
- The current connection to Crowchild Tr. N.W. from westbound 16th Ave. N.W. is through Banff Tr. N.W.
- Sidewalks are discontinuous throughout the area, making it difficult for pedestrians and cyclists to navigate 16th Ave. N.W.

Section 1 – Existing 16th Ave. N.W. west of Banff Tr. N.W.



Section 2 – Existing 16th Ave. N.W. east of Banff Tr. N.W.





# Pedestrian and cyclist crossings as they exist today



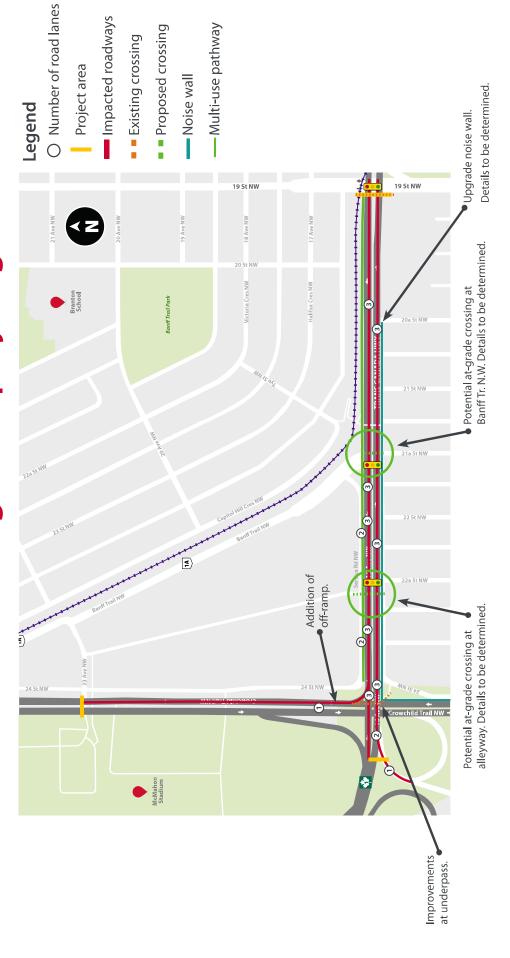


#### Pedestrian and cyclist crossing experience

How do you typically cross 16th Ave. N.W.?	How is your crossing experience in this area?	How could your crossing experience be enhanced?
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# Where we want to get to - project goals



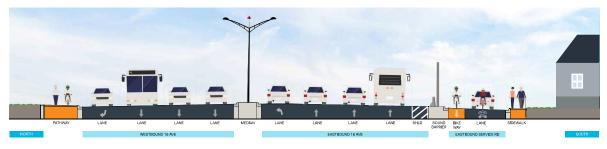


# The challenge of widening and achieving an Urban Boulevard

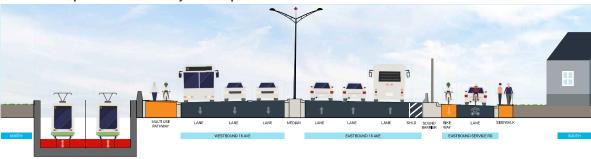
There are "non-typical" characteristics for this segment of 16th Ave. N.W. relative to an Urban Boulevard:

- Average vehicle trips per weekday are 50,000 per day, which exceeds the range of 25,000 vehicles per day for Urban Boulevard classification.
- Currently five lanes across (typical Urban Boulevard is four lanes).
- Discontinuous sidewalks.
- Large distances between crossings, and underutilization of the pedestrian underpass at Crowchild Tr. N.W. and 16th Ave. NW.
- Primarily car-oriented in its current state; 16th Ave. N.W. also serves as an important connection to Crowchild Tr. N.W., a skeletal roadway.
- The area is constrained by the LRT tunnel and tracks on the north, and the soundwall on the south. This will impact the ability to accommodate future overhead or at-grade crossings.
- Urban boulevards typically accommodate pedestrian crossings at street-level (at-grade).

Section 3 – 16th Ave. N.W. west of Banff Tr. N.W. with additional lane and auxiliary lane to off ramp. Pedestrian and cyclist improvements are shown.



Section 4 – 16th Ave. N.W. east of Banff Tr. N.W. with additional eastbound lane and pedestrian and cyclist improvements are shown.





# The challenge of achieving an Urban Boulevard

#### Accommodating pedestrian and cyclist movement

- For Urban Boulevards, typically pedestrian crossings are at-grade and located at intersections.
- The project section of 16th Ave. N.W. has pedestrian crossings spaced out over relatively large distances due to the presence of the noise wall on the south side of 16th Ave. N.W.
- There are disadvantages and advantages to maintaining the existing pedestrian bridge as the primary means of crossing 16th Ave. N.W. or implementing at-grade crossings at existing intersections.
- Due to space constraints to widen, and using only City-owned land, we cannot choose to keep both the bridge span over 16th Ave. N.W. and implement at-grade pedestrian crossings.
- The existing pedestrian bridge median pier infringes with the planned 16th Ave. N.W. widening.

Section 5 – 16th Ave. N.W. west of Banff Tr. N.W. shown as a complete Urban Boulevard. Includes additional eastbound lane.



Section 6 – 16th Ave. N.W. east of Banff Tr. N.W. shown as a complete Urban Boulevard. Includes additional westbound lane.



# Accommodating pedestrian and cyclist movement

#### Please provide your input

As a result of the challenges with implementing an Urban Boulevard while widening 16th Ave. N.W., the design team is looking at two, high-level options to accommodate pedestrian and cyclist movements:

#### Option A – Street level crossing (at-grade)

- This option introduces pedestrian crossings at controlled intersections.
- In order to accommodate the space for the crossings on the south side of the noise wall, the bridge spanning 16th Ave. N.W. would have to be removed, while keeping the existing span over the LRT tracks.
- A ramp could be added to the north side of 16th Ave. N.W., to increase accessibility in addition to the staircase that currently exists.
- Pedestrian refuges would be required on the south side of the noise wall, which would necessitate opening(s) of the noise wall.

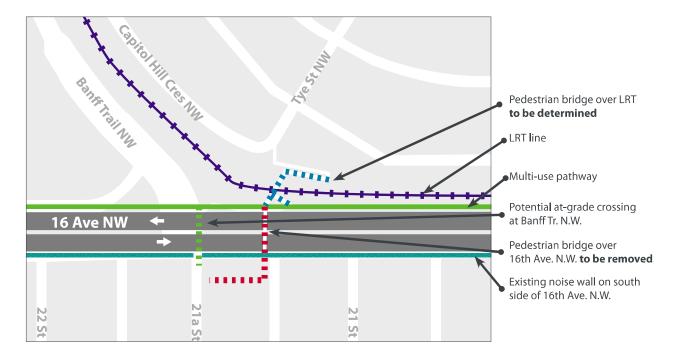
### Option B – Overhead crossing (keep existing pedestrian bridge)

- This option proposes to keep the existing overhead pedestrian crossing, that currently spans 16th Ave. N.W. and the LRT tracks.
- No additional at-grade crossings can be introduced due to space constraints.
- A ramp could be added to the north side of 16th Ave. N.W., to increase accessibility in addition to the staircase that currently exists.



# **16th Ave. N.W. crossing options**Option A – Street level crossing (at-grade)

- Introduces a pedestrian crossing at street level, at controlled intersections.
- Remove the bridge span over 16th Ave. N.W.



# At grade crossings eliminate the need to climb the vertical elevation of the bridge which may be beneficial to users, specifically from an accessibility standpoint. There may be opportunity for landscaping enhancements. Existing pedestrian bridge median pier infringes with planned widening. Openings would be required in the noise wall. Impacts to traffic with signalized pedestrian crossings.

What are the issues?	What are the opportunities?
(place sticky notes here)	(place sticky notes here)



# **16th Ave. N.W. crossing options** Option B – Overhead crossing

• No at-grade crossings – maintains the concept of the overpass to connect north and south of 16th Ave. N.W. for cyclists and pedestrians.



#### Advantages Challenges · Maintains similar conditions to existing, • Existing pedestrian bridge median pier infringes with planned widening. Modification including free flow of pedestrians and cyclists without signalization. to the structure would require investment costs. • Minimizes impacts to 16th Ave. N.W. traffic by • Elevated crossings require users to climb the not adding crossing signals. height of the bridge through ramps or stairs. • Would provide a safe crossing separated from traffic. · There may be opportunity for landscaping enhancements. • Noise wall continuity could be maintained.

What are the issues?	What are the opportunities?
(place sticky notes here)	(place sticky notes here)



#### 16th Ave. N.W. – six-lane widening

What's next?

