

Welcome

Metro Line Northwest LRT Extension Project

Today's open house provides you with an update on the Metro Line NW LRT extension, and an opportunity to help us plan how stations will be integrated into your community.



Please put a pin on the map to let us know where you are coming from in the community and please stay engaged!



Please tell us where you live

For more information on the Metro Line NW LRT project, please visit edmonton.ca/metronw

Future Metro Line NW LRT Extension

-  Future Metro Line Extension Alignment
-  Future Metro Line Stations

Edmonton



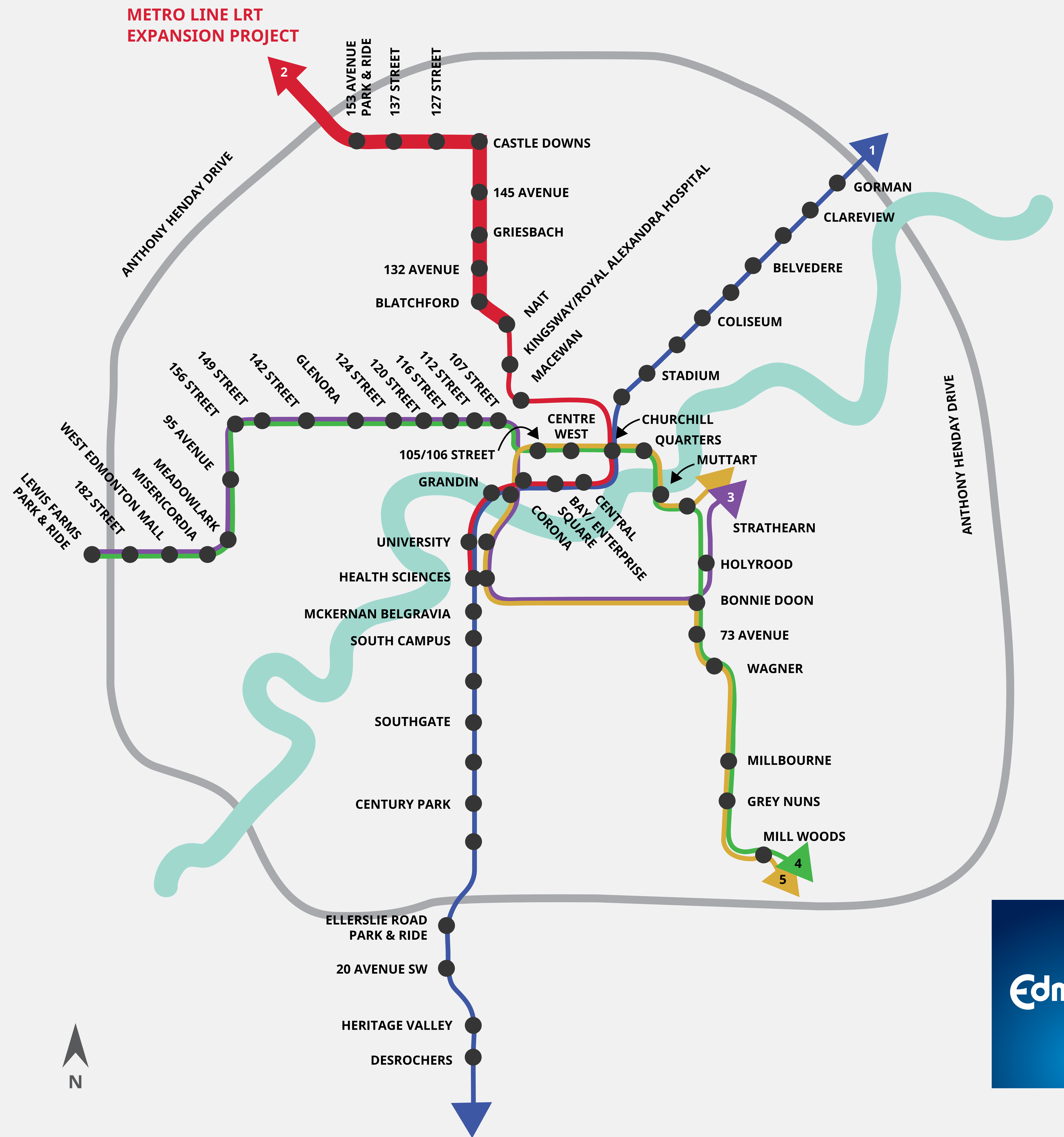
Edmonton's LRT Network Plan

Expanding the LRT system is a key priority for the City to meet Edmonton's transportation needs as it continues to grow.

By 2040, the City of Edmonton aims to expand LRT service to all sectors of the City.

The Metro Line NW LRT extension will connect communities in the northwest part of the city to key destinations and the City Centre.

- 1 **CAPITAL LINE**
NE EDMONTON TO HERITAGE VALLEY
- 2 **METRO LINE**
153 AVENUE TO HEALTH SCIENCES
- 3 **ENERGY LINE**
LEWIS FARMS TO SHERWOOD PARK
- 4 **VALLEY LINE**
LEWIS FARMS TO ELLERSLIE
- 5 **FESTIVAL LINE**
SHERWOOD PARK TO ELLERSLIE



Metro Line Northwest Project History

In 2009/2010, the city evaluated corridor options to connect the planned NAIT station to a future Park and Ride facility at the northwest city limits

In 2013/2014, City Council approved the northwest LRT Concept Plan and identified public support for the LRT expansion to the north and northwest parts of the city.

What stakeholders had to say:

- Support for expanding the Metro Line to connect to the City of St. Albert.
- LRT expansion has great potential to serve both the region and the local population.
- The alignment must serve residents where they live, work and play.
- Concerns regarding traffic congestion at intersections, noise impacts and safety.
- LRT planning should integrate and complement other transportation modes, such as transit, pedestrian and cyclist connections.

Examples of adjustments made to the recommended Concept Plan:

- Provided intersection access to YMCA from Castle Downs Road signalled and pedestrian crossings.
- Provided a Park and Ride at Campbell Road.
- Improved continuity of shared use path at 137 Avenue.
- Established 'urban style' guidelines to improve how LRT 'fits' into communities.

1,381
Public engagement participants

2009 February to July Corridor Selection

The City of Edmonton launched a study to evaluate potential Northwest LRT corridors. A public involvement process was developed to work within the technical analysis of route options and the LRT Route Evaluation Criteria. Public involvement included online questionnaires, workshops and public hearings.

July

The Edmonton City Council approved the corridor for the Northwest LRT and added this corridor to the Transportation Systems Bylaw.

2011 & 2012 Concept Planning Study & Public Engagement

Input was gathered from key internal and external stakeholders, including directly impacted residents, businesses and the communities in which they live to assist with the concept planning phase of the project.

Comments received at public meetings, individual stakeholder meetings and through online consultation and communications informed the overall design process.

2013 Concept Plan Approved by City Council

2014 - 2015 Applications for Funding

2016 Engineering/Design Funding Becomes Available through the Public Transportation Infrastructure Fund.

November

June

2017

Concept Validation & Preliminary Engineering, Contract is awarded

2018 January

Late Fall 2018

Procurement

Public engagement events, stakeholder meetings and online engagement will continue through the preliminary engineering phase.

Final engagement reporting and transition to procurement will take place.

Metro Line

Centre Running LRT Alignment

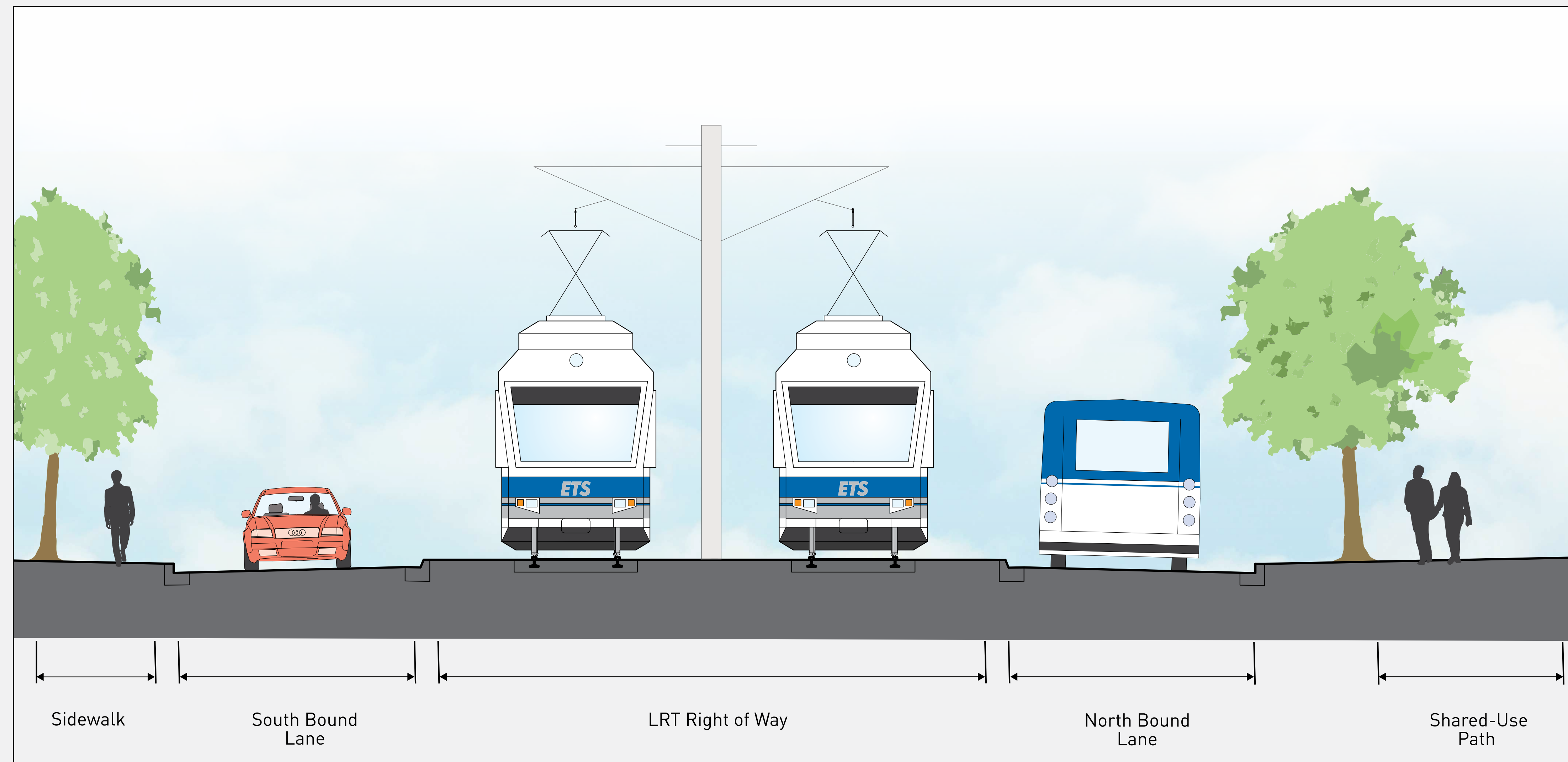
Urban style LRT is designed to be easily accessible for all transit users, and to fit into the roadway to allow for efficient traffic flow.

Embedded track design is recommended from NAIT Station to Castle Downs Station when the track is running at street level.

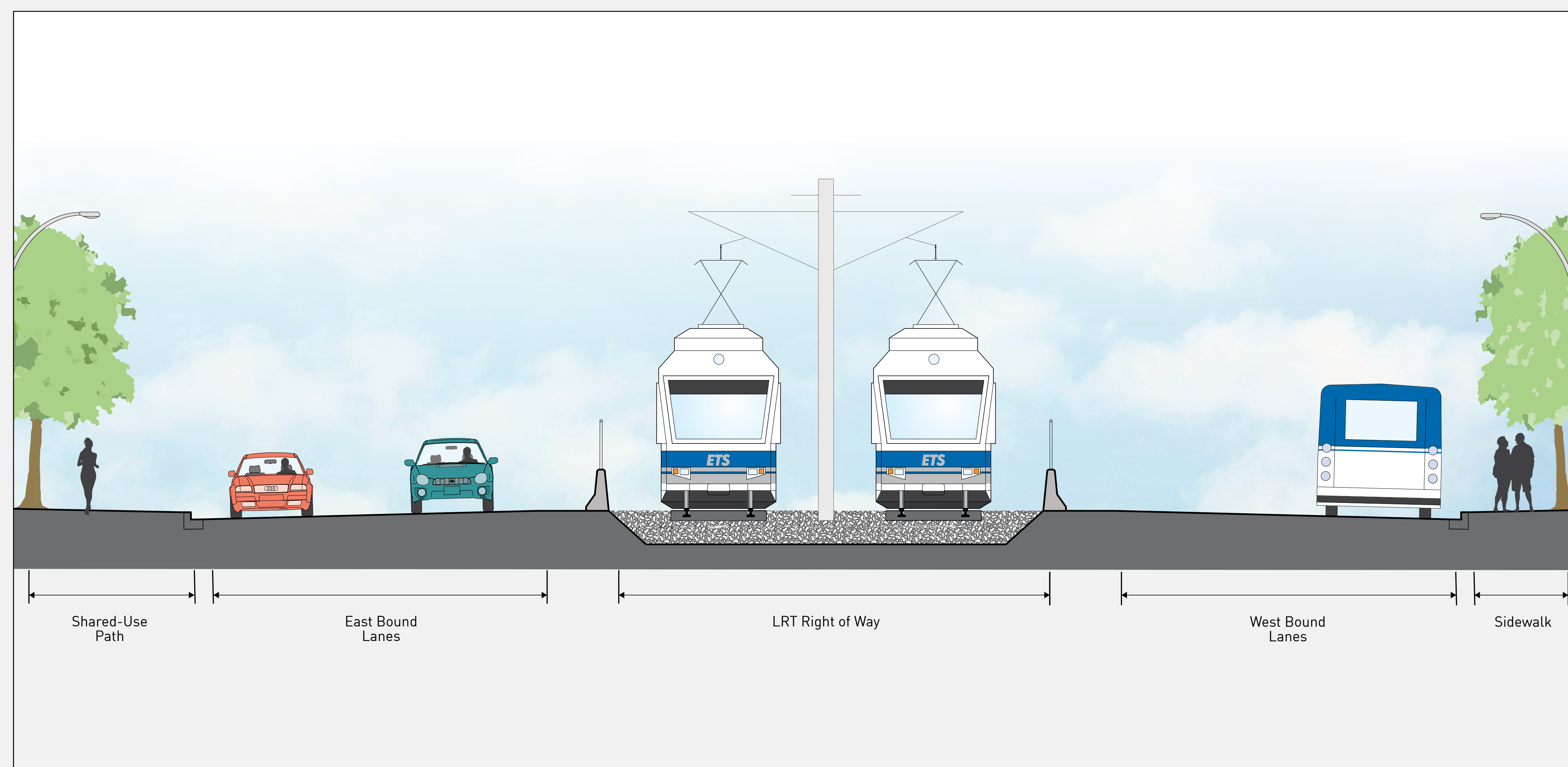
- This design has fewer barriers (e.g., gates, fencing). LRT trains move at lower speeds (less than 50km/hr). Construction costs and maintenance requirements are higher compared to ballasted track.

Ballasted track is recommended from Castle Downs Station west to 153 Avenue Station when the track is running at street level.

- Ballasted track is lower cost for construction and maintenance. The LRT travels at faster speeds, and the track is fenced and separated from traffic.



Centre running alignment with 'embedded' track



Centre running alignment with 'ballasted' track

Metro Line LRT Station Design

The LRT alignment at 137 Avenue, Castle Downs, 127 Street and 142 Street intersections is being evaluated to determine if the LRT track should be elevated, at-grade or trenched.

Princess Elizabeth Avenue crossing has been evaluated in response to a City Council motion in 2017. It is recommended that this crossing remain at-grade due to insufficient improvements for traffic, with high costs for grade separation and urban integration challenges.

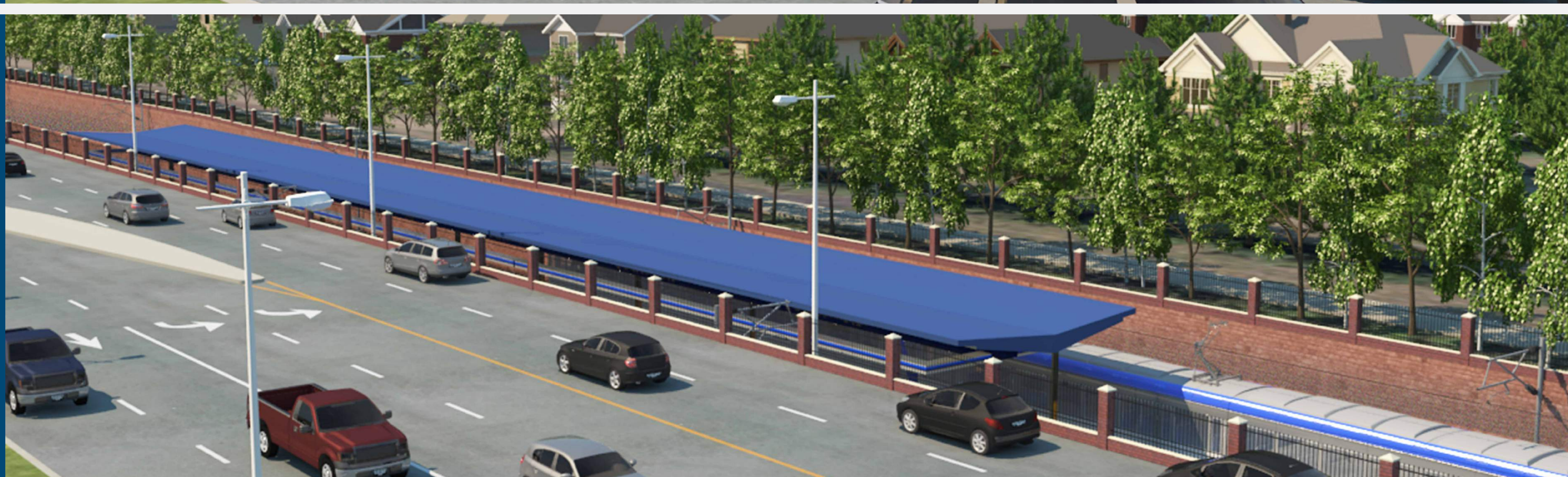
Elevated LRT
Example



At-grade LRT
Example



Trenched LRT
Example



The following criteria are being used to evaluate options:

Accessibility

Promotes safe and efficient pedestrian connections and transfers between various transportation modes

Transportation Network Operations

Provides safe interactions between various modes of transportation

Urban Design and Social Environment

Promotes the City's vision for integrating land use and transportation development through urban LRT

Feasibility and Construction

Reduces life cycle costs - capital, operating, maintenance and renewal

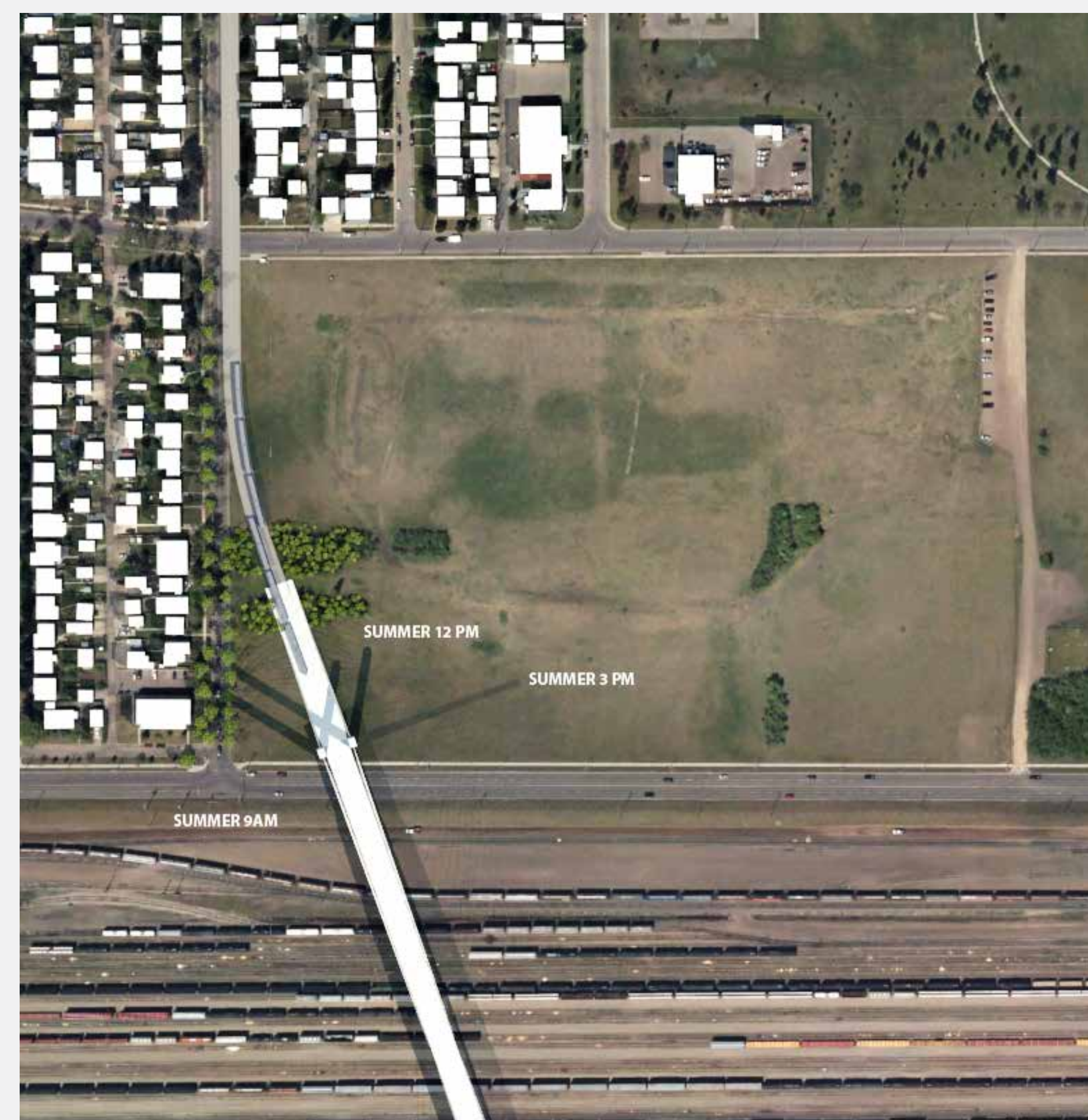
Metro Line

CN Walker Yard Crossing – 2013 Concept Plan Alignment Option

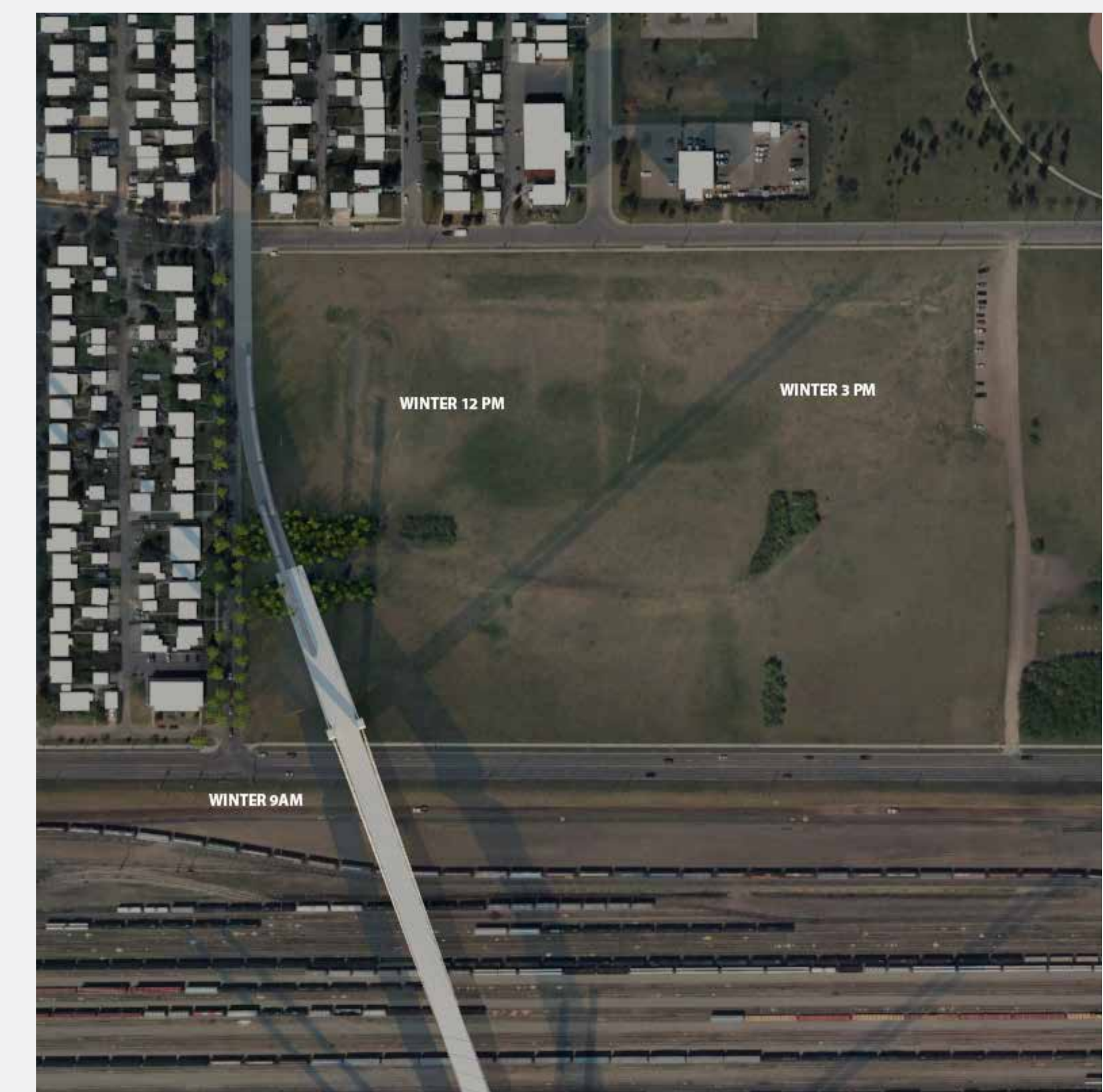
The Metro Line LRT will be elevated to cross over the CN rail yard. The crossing proposed in the 2013 Concept Plan placed the alignment close to homes on 113A Street. Further evaluation has identified a new option to move the alignment towards the dog park area.



2013 concept plan option



Summer shadow effect



Winter shadow effect

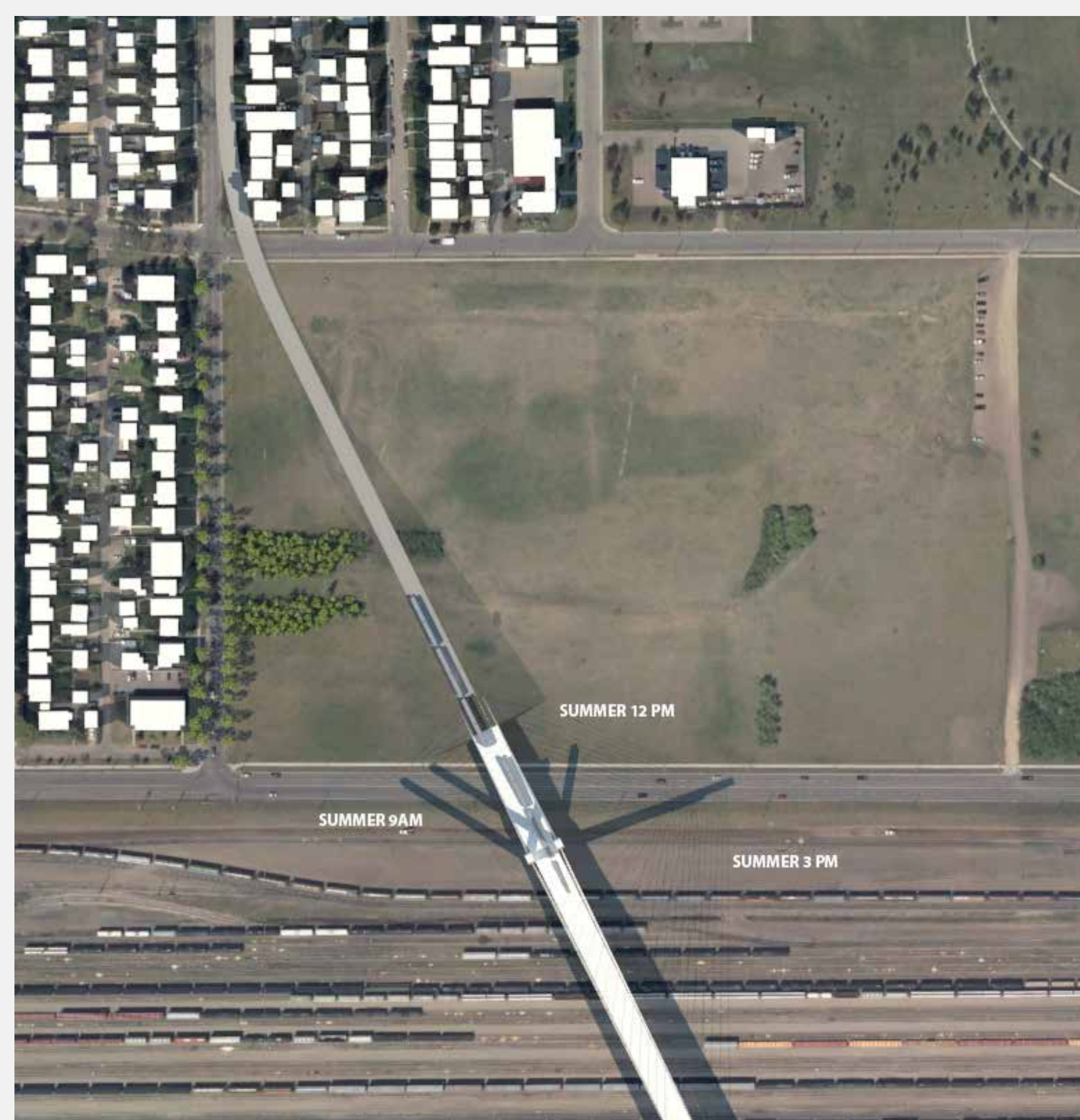
Metro Line CN Walker Yard Crossing – 2018 Alignment Option

Continued planning for the CN Walker Rail Yard crossing has identified an alignment that potentially moves the crossing farther away from homes on 113A Street.

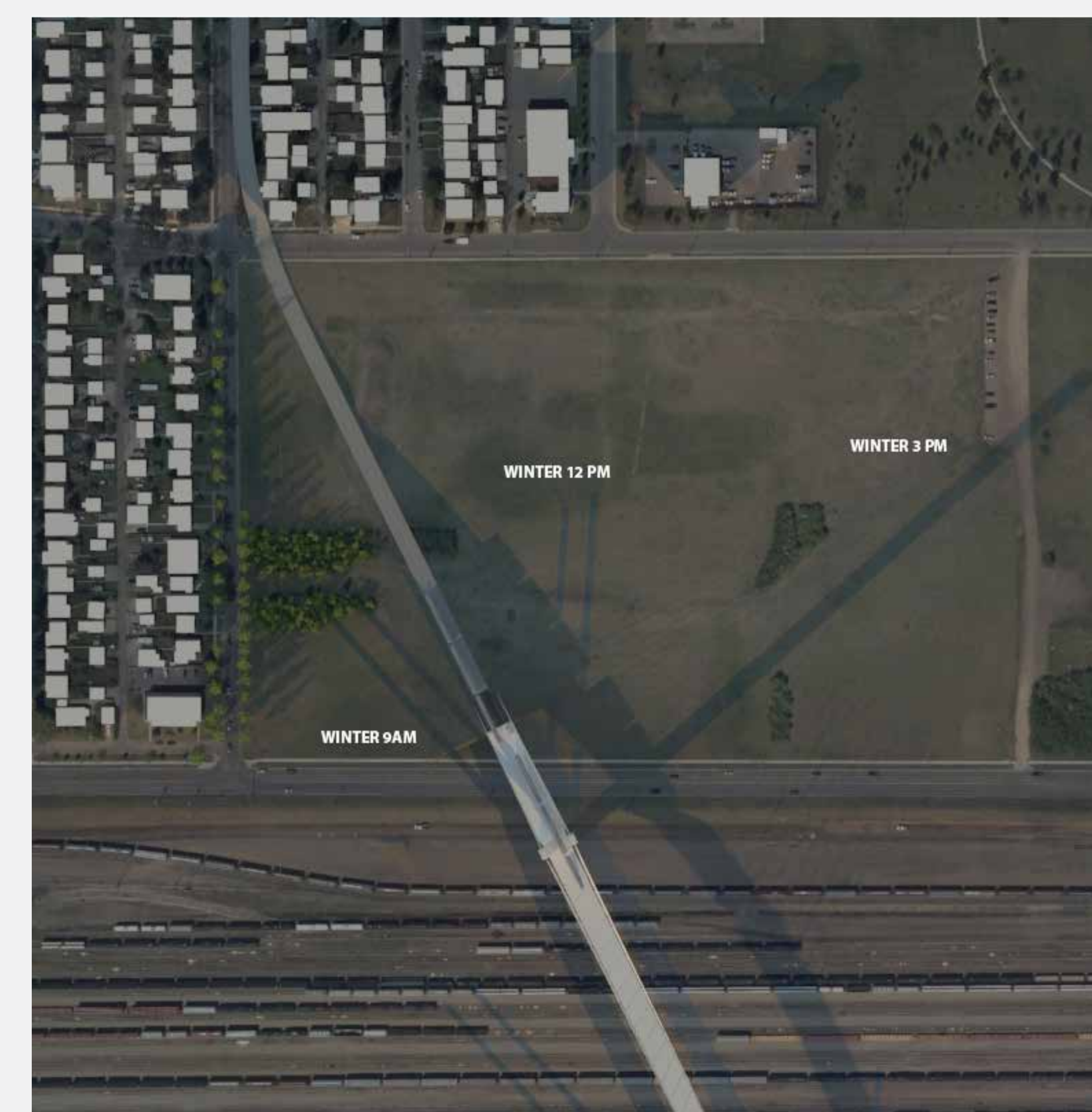
This option is still being evaluated.



2018 alignment option



Summer shadow effect



Winter shadow effect



Metro Line

137 Avenue NW/ 113 A Street/Castle Downs Road

137 Avenue NW is an arterial roadway, used by over 34,000 vehicles per day. At-grade and trenched options have been evaluated for this location and show that:

- **At-grade LRT is better for urban design, environment and construction feasibility**
- **The trenched option is better for traffic and network operations**
- **Both options are equally good for transit user access**



At-grade perspective



Trenched perspective

Metro Line

Castle Downs Road/153 Avenue

This busy intersection is located in a residential area, close to the Castle Downs Family YMCA and a proposed Transit Centre.

At-grade and trenched options have been evaluated for the alignment and the station. This evaluation shows that:

- **LRT at-grade is better for transit user accessibility**
- **The trenched option is better for traffic and network operations**
- **Both at-grade and trenched options have similar urban design and environmental benefits**



At-grade perspective



Trenched perspective (from above)



Trenched perspective (from station looking up)

Metro Line

127 Street/ 153 Avenue

The 127 Street and 153 Avenue intersection is surrounded by residential neighbourhoods with commercial businesses on the SE and SW corners. 127 Street is an arterial roadway, providing a direct connection to Anthony Henday Drive.

At-grade and trenched options have been evaluated for this location, and show that:

- **LRT at-grade is better for transit user accessibility, urban design and construction**
- **The trenched option is better for traffic and network operations**



At-grade centre loaded platform



the 137 Avenue trenched option shown above provides an example of how a similar trenched option at 127 Street and 153 Avenue might look

Metro Line

Blatchford Stations

The Blatchford development is located on 217 hectares at the retired Edmonton municipal airport site. This development will eventually be home to about 30,000 residents, who will live in a sustainably designed, carbon neutral community.

Blatchford development will include:

- 2 primarily residential communities on the east and west side of the site
- A town centre that includes commercial, retail and other mixed-use opportunities
- A 33 hectare central park, a multi-use trail network, civic plaza and green space throughout
- Sustainable, carbon neutral design
- Retention of historic structures that reflect the aviation history of the site

A centre running, Metro Line NW LRT alignment will be a prominent feature providing a sustainable transit choice for people who live, work and play in the community



Permanent NAIT station



Blatchford North station

Metro Line

Express Bus Service

Express bus service or bus rapid transit is a rapid transit option that can help meet transit needs in advance of LRT funding availability and construction. Express buses can operate in traffic or in dedicated lanes separated from traffic to deliver a faster and more efficient transit service.

Typical Characteristics:



High Occupancy Vehicle (HOV) lanes for buses, vanpools and carpools



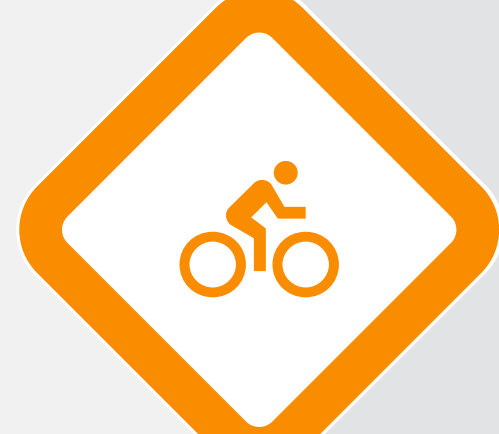
Frequent, high-capacity service with passenger wait times of less than 10-minutes during peak periods



High-quality vehicles that are easy to board, quiet, clean and comfortable



Pre-paid fare collection to minimize boarding delays



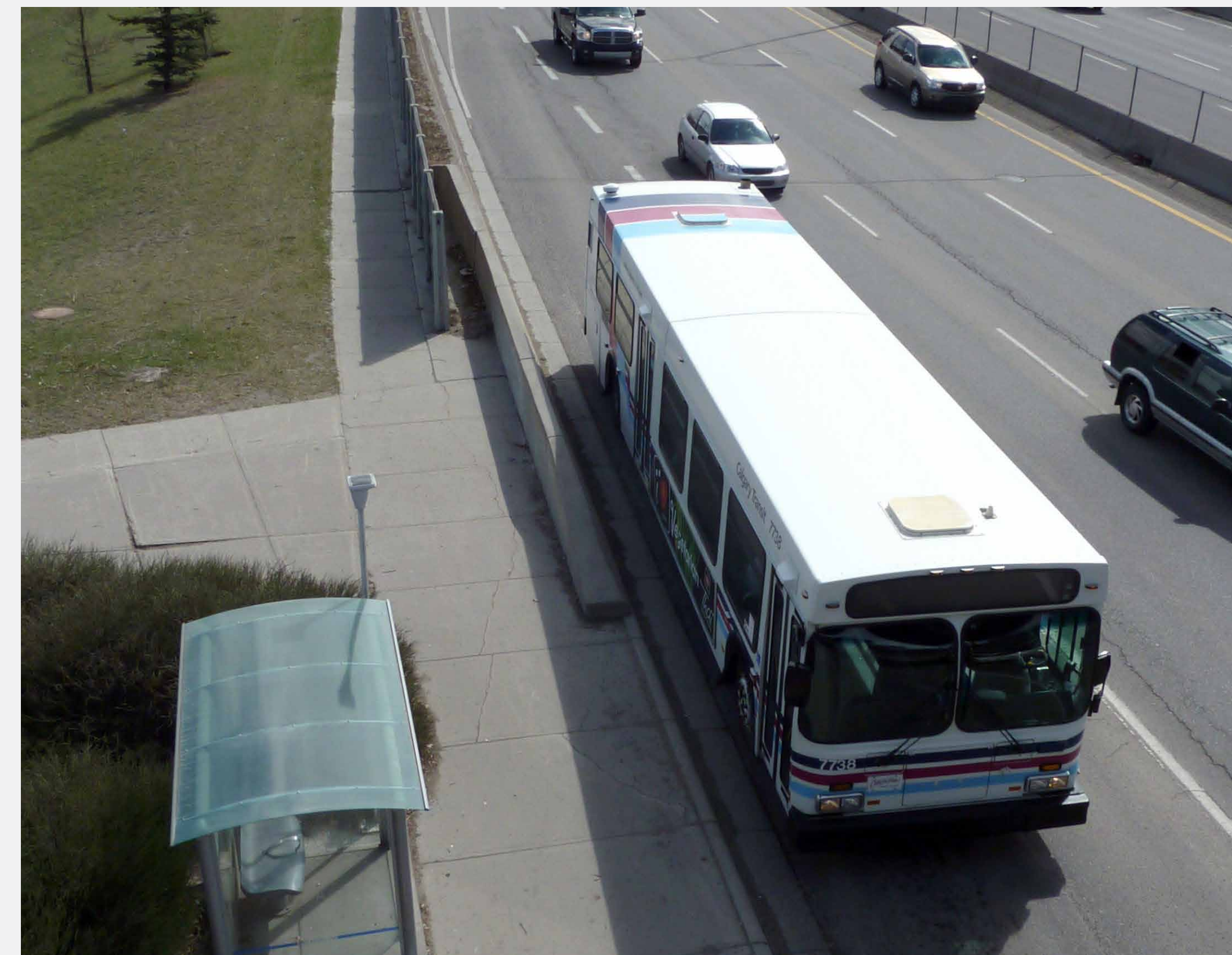
Integration with other transportation modes, including walking and cycling facilities, taxi services and intercity bus



Improved security for transit users and pedestrians



EBS stations include heated shelters, seating, and other design features similar to LRT stations



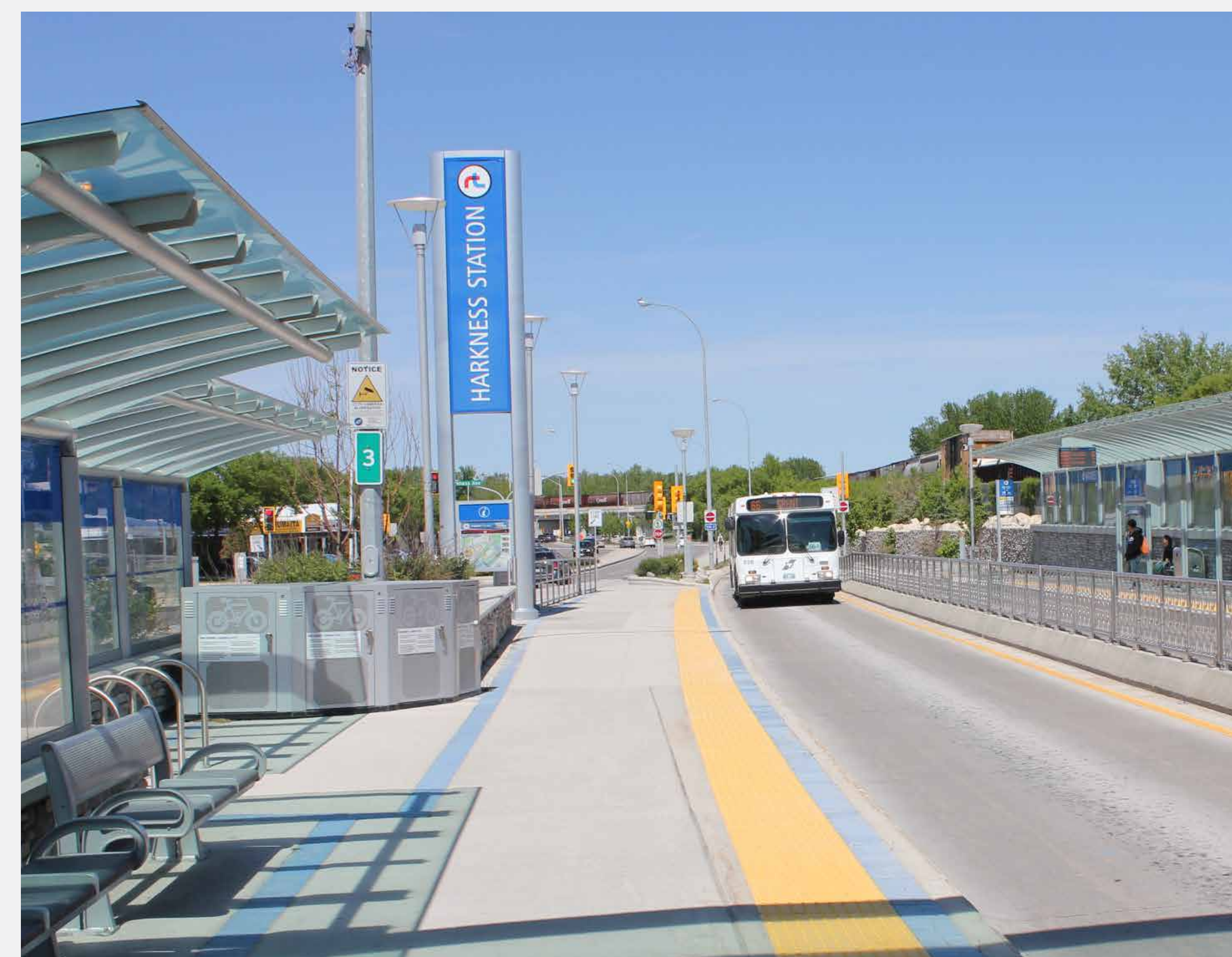
City of Calgary Express Bus

Express bus service can operate in mixed traffic with dedicated pull-outs for station loading



York Region Transit

Express bus stations can be separated from traffic for ease of access and boarding



Winnipeg Transit

Express buses can operate in dedicated lanes separated from traffic to avoid congestion and providing fast service



TransLink Express Bus

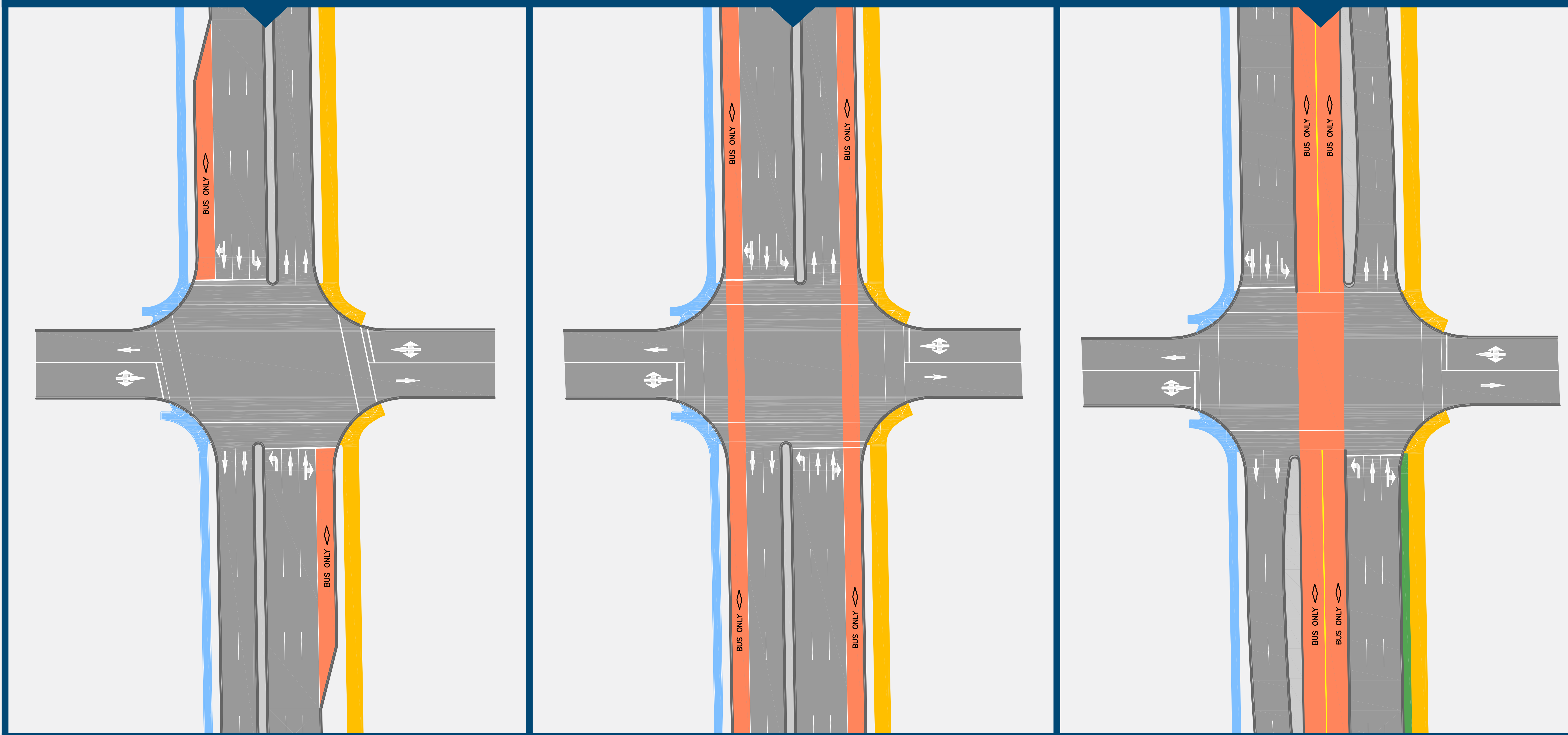
Bus only lanes help express buses to avoid congestion

Metro Line

Express Bus Service and the Metro Line NW LRT

On June 27, 2017 Edmonton City Council directed the Metro Line NW LRT project team to study the feasibility of express bus service while funding and construction plans for the Metro Line NW LRT are being finalized. Express bus would be an interim transit service on the future Metro Line NW LRT corridor with stops/stations at planned LRT station locations.

Three options for EBS were developed for consideration and presentation to City Council in 2018. Options have different costs and infrastructure requirements, and provide different levels of transit service.



Option 1: Express Bus with Queue Jumps

Lowest cost option. Express bus travels in mixed traffic with queue jumps at key intersections.

Option 2: Express Bus Lanes in Mixed Traffic

Higher cost than option 1. Combination of express buses in mixed traffic with queue jumps (similar to option 1) and sections with dedicated bus lanes so that buses can avoid congestion.

Option 3: Express Bus in Dedicated Lanes

Highest cost and fastest transit service compared to Options 1 and 2. Express bus travels in dedicated lanes separated from traffic.



Metro Line and LRT Signalling

The City is committed to implementing improvements for the Metro Line NW LRT extension to optimize traffic and LRT performance within the road corridor. This work has included separating the LRT crossing warning systems from the traffic lights at Princess Elizabeth Avenue and 106 Street to help improve traffic flow while minimizing impacts to LRT service.

Improvements have been made based on evaluations by the City of Edmonton and external experts to ensure safety requirements continue to be met.

The Metro Line Extension project team will continue to apply lessons learned from other LRT projects through the design process.

Metro Line Indigenous Engagement

The City of Edmonton is committed to keeping First Nations and Métis communities with historic and cultural connections to locations within city boundaries informed and engaged when projects of interest intersect with Indigenous concerns.

The City is developing an Indigenous Engagement Charter, and reaching out to Indigenous communities to work together on future Light Rail Transit projects.

Over the past 12 months the City has engaged Indigenous communities on projects such as:

- **Valley Line LRT Southeast - Site Visits and Site Monitoring**
- **River Crossing - Heritage Interpretive Design Site Visits and Workshops**
- **Breathe - Open Space Master Plan and In-Community Meetings**
- **Ribbon of Green - River Valley Plan Workshop and In-Community Meetings**

From September - December 2017, the City has been meeting with First Nations and Métis communities to seek their input on how together we may continue to deliver affordable, accessible, and environmentally sustainable public transportation in Edmonton.



Metro Line

June 2017 Engagement Results

Public Engagement

13
Individual Stakeholder Meetings



3
Public Open Houses



420
Project Web Page Visits



4
Community Pop-Ups




What you shared

How do you see LRT in your community?

Community and City Connections	Convenience and Environmental Impacts	Accessibility to Recreational Activities
Faster and easier access to downtown and other City destinations	Alternative transit option that will take vehicles off the road	Access to concerts, arts and sporting events with the concern of parking or the financial impact

How can we encourage ridership?


Integration
Integration of bus and LRT service, with station locations and run times that are convenient




Fares
Establish affordable LRT fares and certain periods in which people can travel for free



Parking
Increased parking facilities for LRT users



Public Information Campaign
Help Edmontonians understand all of the benefits of using LRT



Straight from the community

“As a senior, not having to drive means less accidents, injuries, hospital bills etc. not to speak of outrageous annual insurance and auto maintenance bills.”

Castle Downs resident

“Greater access to shopping, education, health services.”

St. Albert resident

“I can leave my car at home!”

Cumberland resident

“More options for low-income families for work locations.”

Lorelei-Beaumaris resident

“Edmonton will finally get up-to-date with transit in general.”

Edmonton resident

“Encourage more transit users and decrease carbon emissions.”

Griesbach resident

