

# Welcome!

**Valley Line West**  
Lewis Farms - Downtown

Edmonton

## Public Engagement Session

Valley Line West LRT will play an essential role in connecting Edmonton's communities, and we are working to have it ready to go as soon as funding becomes available for construction.

Following up on public engagement sessions held earlier this year, we welcome your input on refinements being considered to account for changes that have occurred since the preliminary design was prepared in 2013.

# Purpose of this engagement

**Valley Line West**  
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## Project update and input opportunity

- **Inform:** Provide a status update on refinements to the LRT preliminary design
- **Consult:** Report on the assessment of LRT crossings at key intersections (including what we heard during previous engagement) and obtain further advice and input

Your input will help to inform City Council as it considers options

### PUBLIC ENGAGEMENT

## OUR PROMISE

**This is our city.**

We value your input on how we maintain, grow and build Edmonton.

We believe engagement leads to better decision making.

We are committed to reaching out to our diverse communities in thoughtful and meaningful ways.

We want to understand your perspectives and build trusting relationships with you.

We will show you how you help influence City decisions.

**Share your voice with us and shape our city.**

# Where we are in the process

## Valley Line West Lewis Farms - Downtown

Edmonton



### Timeline

- 2008:** City Council approves planning criteria for future LRT
- 2009:** City commits to urban-style LRT to enable better fit into neighbourhoods
- 2009:** Council selects Valley Line West corridor, from list initially containing 15 options, as best supporting redevelopment opportunities, encouraging density and achieving a more compact urban form
- 2012:** City Council approves Valley Line West concept plan
- 2013:** Preliminary design completed
- 2016:** Public Transit Infrastructure Fund support provided to review preliminary design and prepare Valley Line West for procurement
- 2017:** Review of Valley Line West preliminary design

### Next steps

- 2017-18:** Review public input & complete review of preliminary design
  - 2018:** Recommendations to City Council
  - 2018:** Complete procurement-readiness
- The following steps are subject to funding**
- 2019:** Possible start of construction
  - 2024:** Possible start of operation

# Edmonton's future LRT network

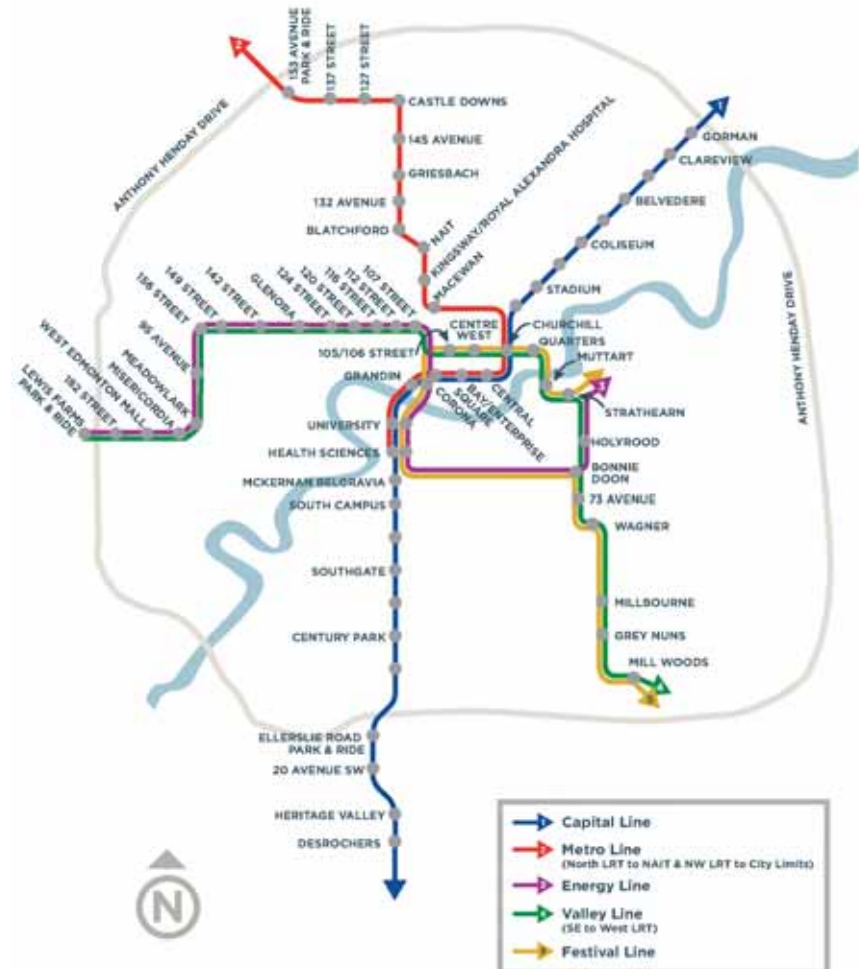
Over the next several years, the City's LRT network will grow to make light rail accessible to more and more Edmontonians. With Valley Line Southeast now under construction, the next LRT priorities are:

### Construction

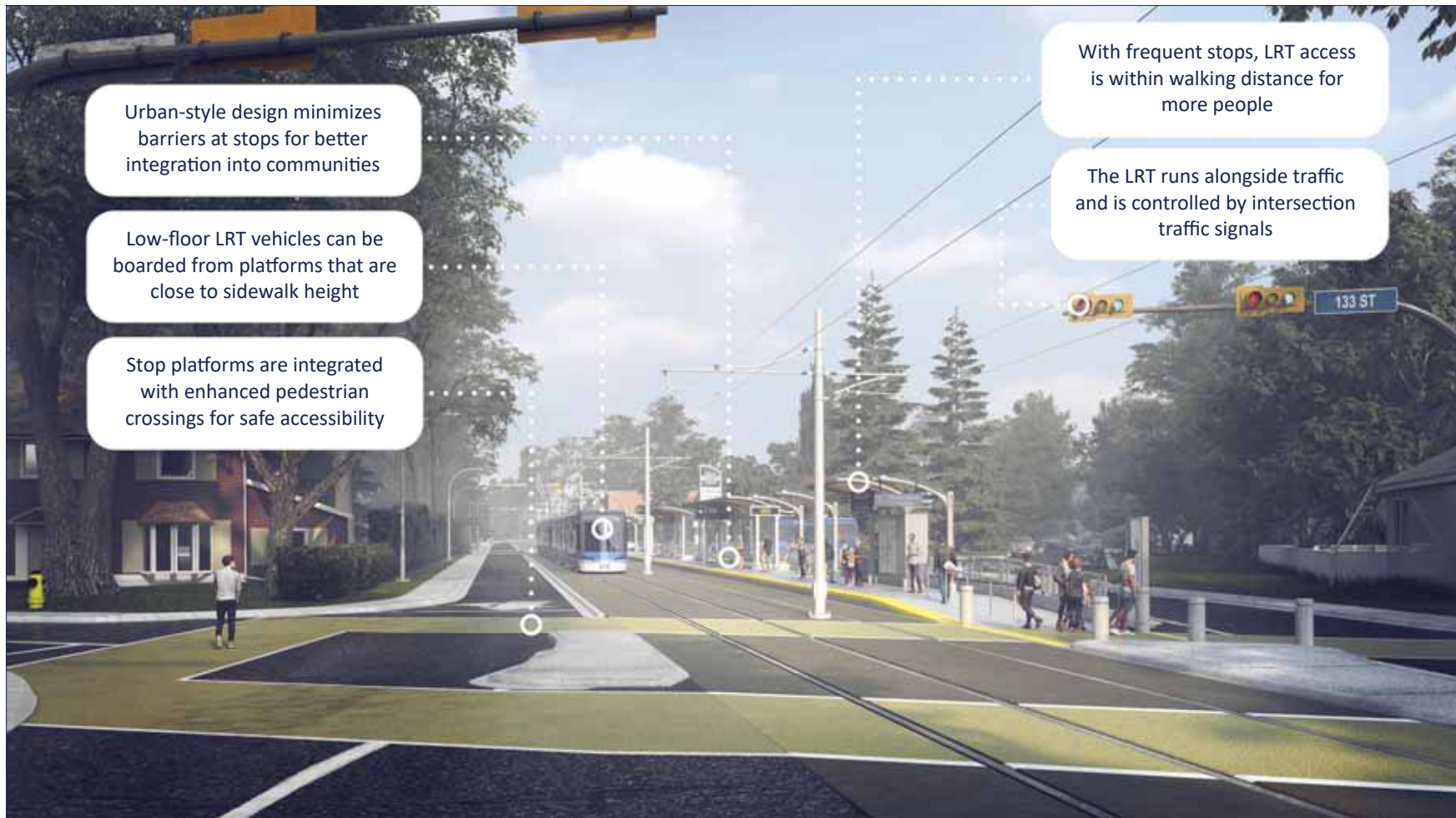
- Valley Line West (Lewis Farms to Downtown)
- Metro Line north to Blatchford

### Further developmental work (listed alphabetically)

- Capital Line south to Ellerslie—to update preliminary engineering
- Centre LRT (previously known as Downtown Circulator or Downtown Connector)—for concept planning
- Metro Line from North Blatchford to Campbell Road—for preliminary engineering



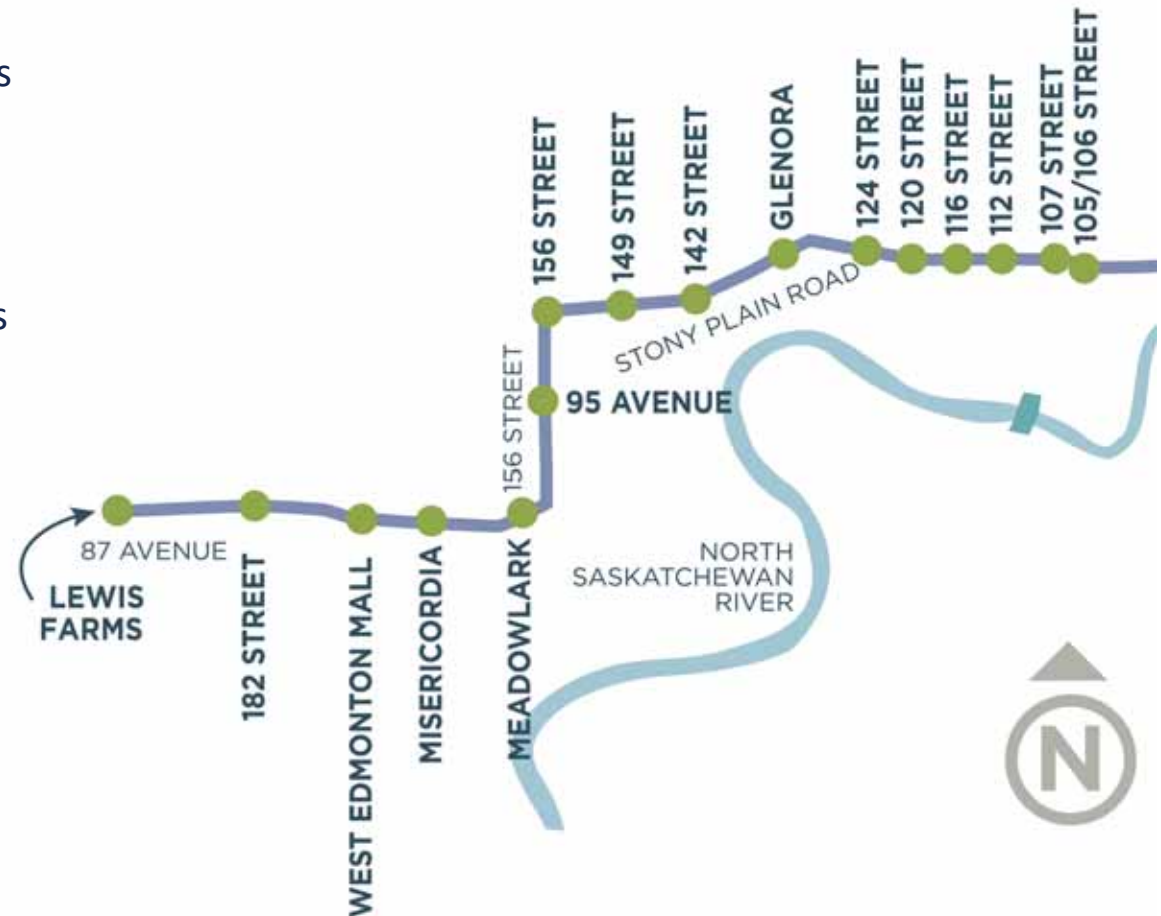
## New urban-style and low-floor LRT



Rendering of a typical Valley Line LRT stop (pictured: Glenora Stop)

## Valley Line West corridor highlights

- 14 kilometres
- 14 street-level stops & two elevated stations
- Transit centres at Jasper Place, West Edmonton Mall & Lewis Farms
- Park & Ride at Lewis Farms
- Travel time 30-35 minutes from Lewis Farms to downtown
- Trains every 5 minutes during peak periods
- Concept plan approved by Council in 2012
- Preliminary design completed in 2013; currently under review for refinements to prepare for possible procurement in 2018

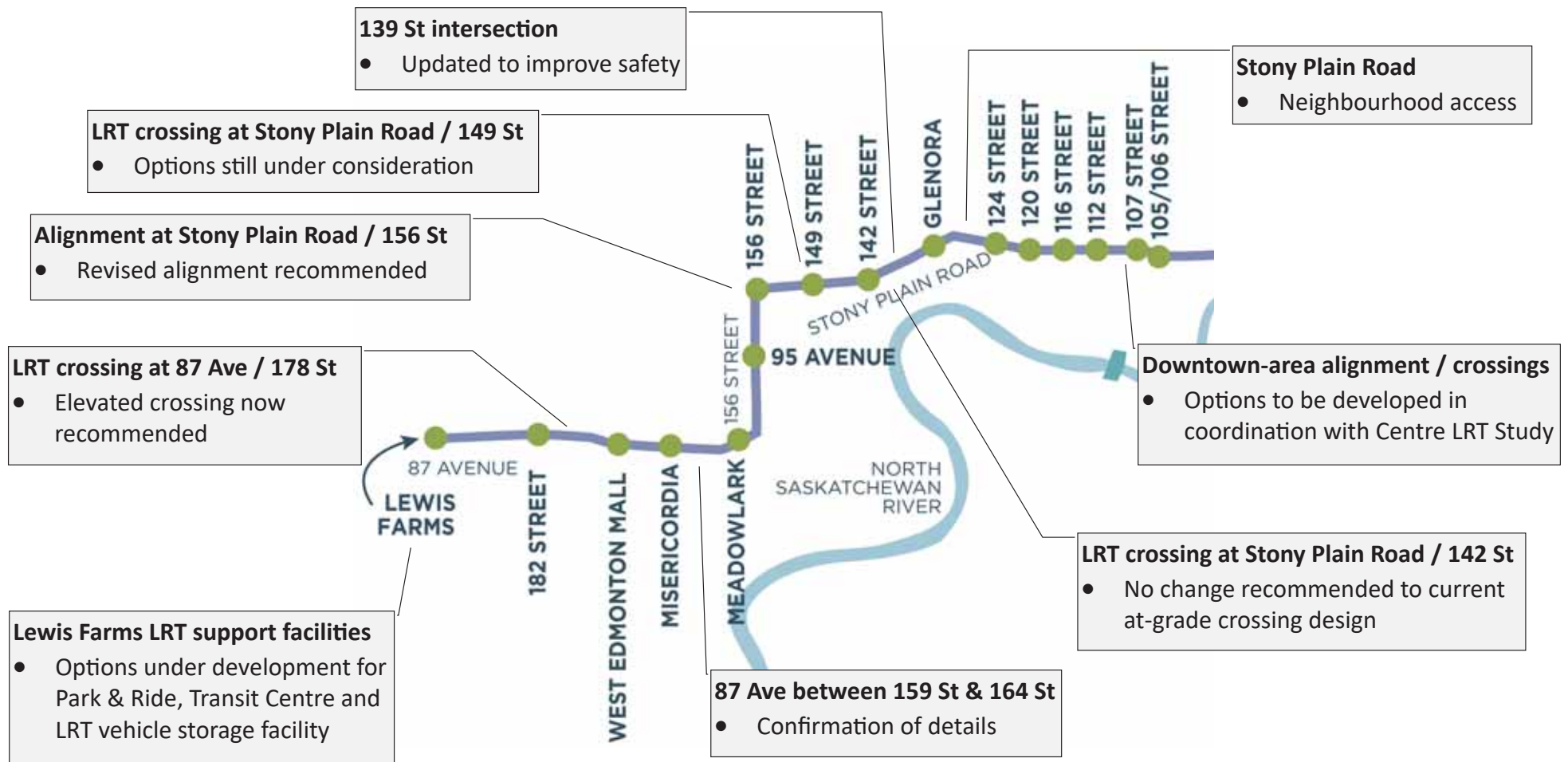


# Review & update

## Valley Line West Lewis Farms - Downtown

Edmonton

### Locations highlighted in this session



## Lewis Farms

### Current design description

- The current design calls for the integration of the new stop adjacent to the transit centre and Park & Ride facility, with a sidetrack to provide temporary storage of LRT vehicles

### Updated details

- Expansion of Park & Ride area
- Identification of Kiss & Ride area
- Relocation of LRT vehicle storage facility

### What's next

- Complete design update
- Submit for consideration as part of Neighbourhood Structure Plan





## 87 Avenue / 178 Street crossing (current)

### Current design description

- Under the 2013 preliminary design, the LRT track would leave the elevated station at West Edmonton Mall, remain elevated as it crosses 87 Avenue, and come down to ground level slightly east of 178 Street

### What we heard

Public engagement for the crossing assessment at this location revealed:

- Concern over congestion and a high collision history at the intersection
- Residential neighbourhood impacts, including access, non-resident parking and short-cutting
- Adjacent property impacts, including noise
- Significant support for an elevated crossing

This input has been considered along with other factors in the assessment process.

### Status

- This is no longer the preferred option



## 87 Avenue / 178 Street crossing (recommended change)

### Recommended change: elevated LRT crossing

- Based on the assessment, an elevated crossing at 178 Street is recommended
- With this alignment, the LRT track would leave the elevated station at West Edmonton Mall, and cross 87 Avenue as with the previous design, but it would remain elevated over 178 Street and come back to ground level just east of 182 Street

### Reasons for recommendation

- Reduced impact on 178 Street traffic
- Eliminates 178 Street impact on LRT run-time
- Lowest-cost of grade-separated options
- Maintains pedestrian connection along south side of 87 Avenue

### Considerations

- LRT would be more visible from adjacent properties on south side of 87 Avenue due to elevated guideway

### Other grade-separated options considered

- North side alignment would be more visible from north side properties and has more constructability, traffic and access issues
- Median alignment involves greater constructability and traffic issues



## Stony Plain Road / 149 Street crossing (current)

### Current design description

- Under the 2013 preliminary design, the LRT track follows a median alignment down Stony Plain Road and crosses 149 Street at ground level

### What we heard

Public engagement for the crossing assessment at this location revealed:

- General concern over road congestion
- Impacts on local residential neighbourhoods, including access, non-resident parking and short-cutting
- Visual impacts if the LRT were elevated
- Business impacts, including access and parking
- Support for a grade separation was somewhat stronger than support for the at-grade crossing

This input has been considered along with other factors in the assessment process.

### Status

- This option remains under consideration



## Stony Plain Road / 149 Street crossing (alternative option 1)

### Under consideration: elevated LRT crossing

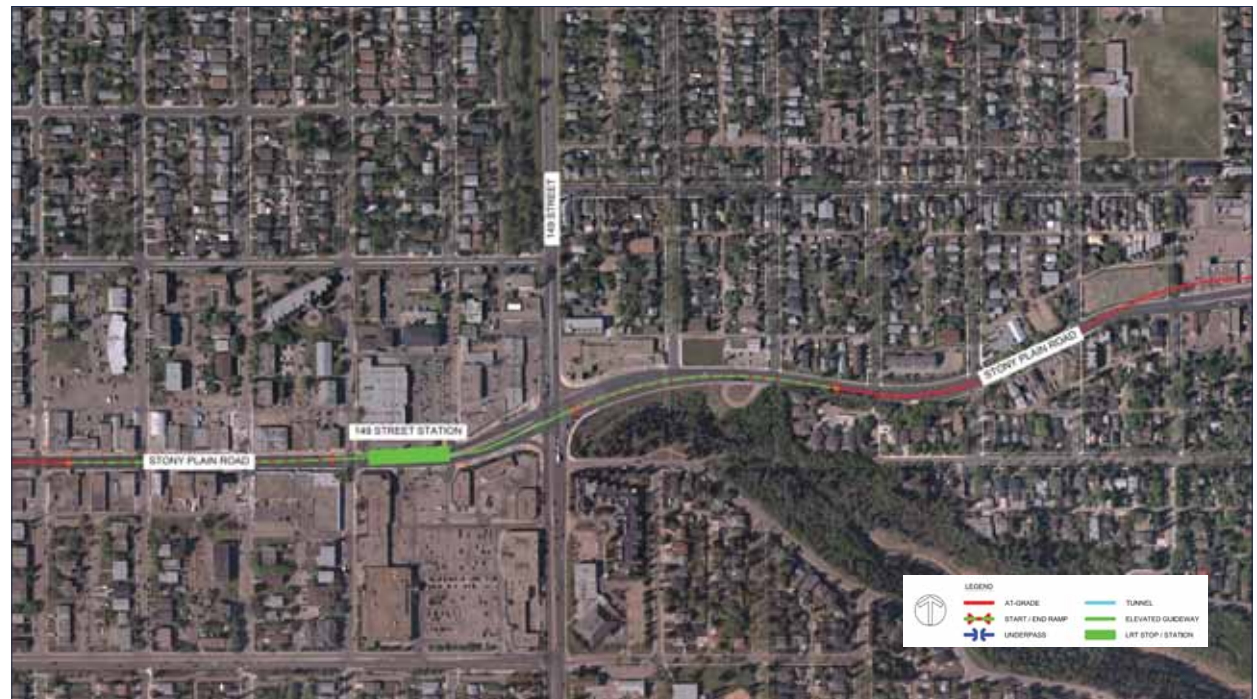
- An elevated crossing of 149 Street would follow the same median alignment as the current design, but cross above 149 Street to an elevated station instead of a street-level stop
- On the east side, the track would begin to ramp up just west of 146 Street
- On the west side, track would reach ground level again just east of 154 Street

### Considerations:

- Eliminates impact on 149 Street through traffic
- Improved LRT run-time
- High cost
- Affects more accesses and is more visible from adjacent properties
- Requires elevated station, making access to LRT less convenient

### Status

- This option remains under consideration



## Stony Plain Road / 149 Street crossing (alternative option 2)

### Under consideration: LRT in tunnel

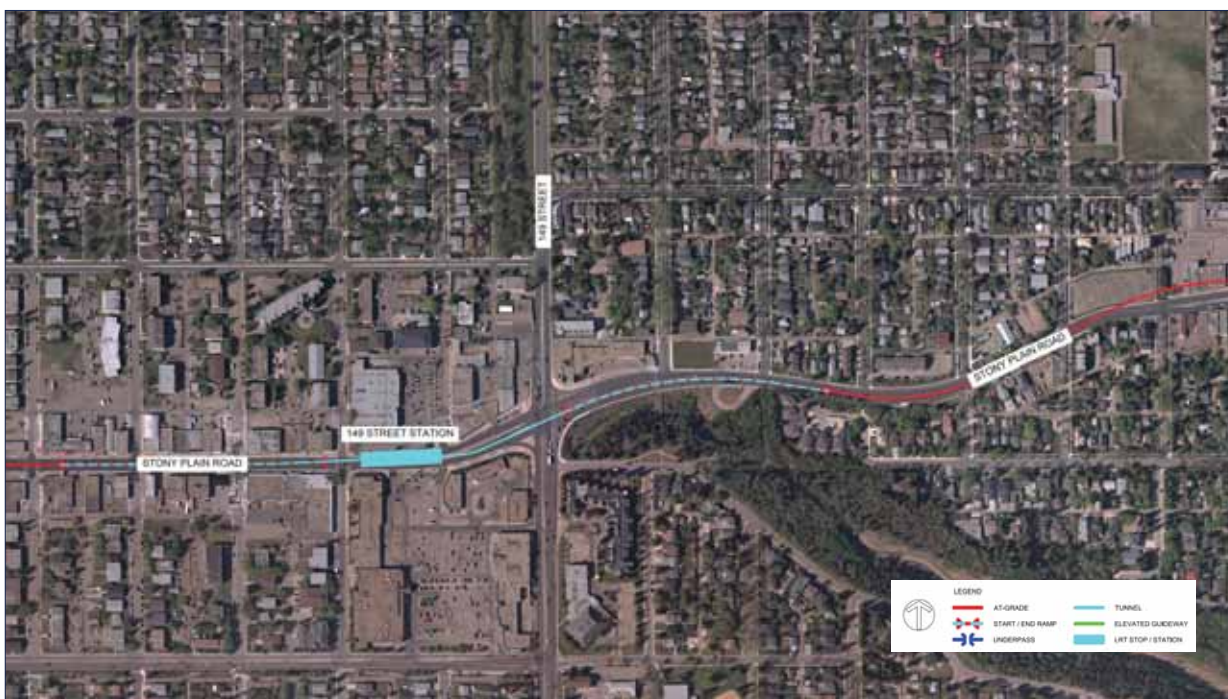
- In a tunnel crossing of 149 Street, the LRT would follow the same median alignment as the current design, but cross underneath 149 Street to an underground station instead of a street-level stop
- The tunnel portal on the east side would be located just west of 146 Street
- On the west side, the tunnel portal would be located just east of 154 Street

### Considerations

- Eliminates impact on 149 Street through traffic
- Improved LRT run-time
- LRT less visible from adjacent properties along tunnelled portion, although tunnel portals would have significant visual presence
- Much higher cost than at-grade and elevated options
- Requires underground station, making access to LRT less convenient

### Status

- This option remains under consideration



## Stony Plain Road / 149 Street crossing (alternative option 3)

### Under consideration: 149 Street underpass

- In this new urban interchange option, the LRT and Stony Plain Road would remain at ground level, with 149 Street passing underneath

### Considerations

- Free flow for 149 Street through traffic under Stony Plain Road
- Improved LRT run-time
- Cost and constructability challenges
- Arrangement has larger footprint requiring additional property acquisition

### Status

- This option remains under consideration



## Stony Plain Road / 156 Street (current)

### Current design description

- Under the 2013 preliminary design, the LRT track takes a diagonal path across the block south-east of the 156 Street intersection
- The design included the relocation of the Jasper Place Transit Centre to the southwest corner of the intersection

### Review findings

- Proposed Jasper Place Transit Centre location poses design and operational constraints
- As a result, it is recommended that the Jasper Place Transit Centre remain at the existing location just west of 156 Street



## Stony Plain Road / 156 Street (recommended change)

### Recommended change: 90-degree turn

- With this change, the alignment would continue down the middle of Stony Plain Road and turn onto the west side of 156 Street
- The LRT stop would be just a few steps away from the Jasper Place Transit Centre, which would remain in its existing location

### Reasons for recommendation

- Places LRT stop closer to existing transit centre for a more direct and efficient bus-LRT transfer with no street crossings required
- Better urban form and potential for transit-oriented development

### Considerations

- Increases LRT run-time due to sharper turn
- Higher impact on road traffic with greater restrictions on intersection turning movements

### Other options considered

- Tunnel alignment would have much higher cost than at-grade options and would require underground station, making access to LRT less convenient





## Stony Plain Road / 142 Street (no change recommended)

### Current design description

- Under the 2013 preliminary design, the LRT track follows a median alignment down Stony Plain Road and crosses 142 Street at ground level
- It is recommended that the current design remain unchanged

### Reasons for recommendation

- Supports integration of at-grade LRT stop at this location with ongoing development currently underway
- Better integration into neighbourhood

### Considerations

- Current design has higher impact on traffic crossing the tracks at 142 Street than a grade separation
- Public input on 149 Street and 178 Street crossings suggests there may be similar concerns regarding congestion at 142 Street

### Other options considered

- Elevated crossing has higher cost than at-grade option; requires elevated station with less convenient access; inconsistent with local development requirements
- Tunnel alignment has much higher cost than at-grade; requires underground station with less convenient access; also inconsistent with local development requirements



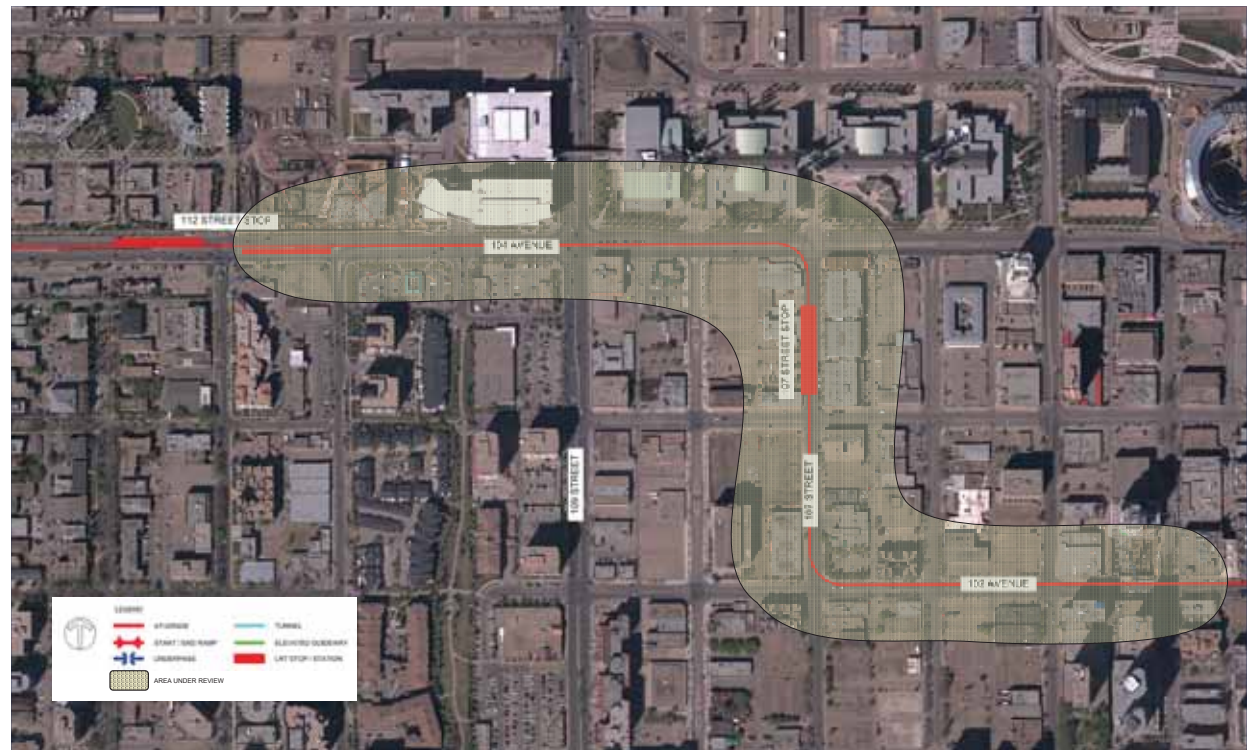
## Downtown (under review)

### Current design description

- Under the 2013 preliminary design, the LRT track follows a north side alignment westward along 102 Street, proceeds north on the west side of 107 Street, and then turns west down the middle of 104 Avenue

### Status

- This area is undergoing further review to ensure coordination with the Centre LRT study currently underway





## Neighbourhood access from Stony Plain Road

### Using jughandles

- For safety reasons, LRT tracks can only be crossed where there are signals
- For efficient movement of traffic, the number of signals on Stony Plain Road is limited, thereby reducing left-turn opportunities into and out of neighbourhoods
- Due to space constraints, not all signalized intersections permit left turn movements
- Designated turnaround loops at 129 Street and 127 Street are no longer being recommended due to safety and slope stability considerations
- By using a jughandle path around the block, motorists can continue to reach their destinations

The U-turn route for a westbound vehicle on Stony Plain Road would be right on 128 Street, left on 104 Avenue, left on 129 Street and left onto Stony Plain Road.

The U-turn route for an eastbound vehicle would be left at the signal at 127 Street, right on 105 Avenue, right on 126 Street and right again onto Stony Plain Road.



To head north onto 124 Street from eastbound Stony Plain Road, a vehicle can make a right turn at 123 Street, followed by consecutive right turns at 104 Avenue and 124 Street.





## At-grade LRT crossings—typical characteristics

- In an at-grade crossing, the LRT crosses through the intersection when the light is green (and waits when the light is red), just like a car
- At some intersections, the green light may be extended briefly until the LRT passes through
- At typical intersections on the Valley Line, there will be no crossing arms, flashing lights or bells



At-grade intersection crossings of Portland MAX (low-floor LRT)  
(TravelPortland.com 2013)

## Elevated LRT crossings—typical characteristics

- Above-grade or elevated LRT crossings require a bridge to clear the intersection
- The bridge consists of a single, large beam that is strong enough to support the weight of the bridge, trains, snow, wind, etc.
- Depending on location, the guideway may be supported by a single pedestal or a wide-legged structure
- Side railings are required for safety of maintenance staff
- If a station is needed near the intersection, it will be elevated as well



Calgary, AB



Seattle, WA



Seattle, WA



Richmond, BC

## Below-grade LRT crossings—typical characteristics

- A below-grade LRT crossing has the LRT travelling below the intersection in a tunnel
- The tracks need to ramp downward towards the entrance of the tunnel (the portal)
- The ramps begin as far as two blocks away from the intersection on each side
- The ramp down to the portal is typically an open, excavated area with walls and safety railings at surface level



Rendering of Valley Line LRT tunnel portal in the Quarters  
(Architectural theme is specific to this location)



Pedestrian entrance at Grandin station



Portal for Capital Line on 111 Street south of 63 Avenue, looking north



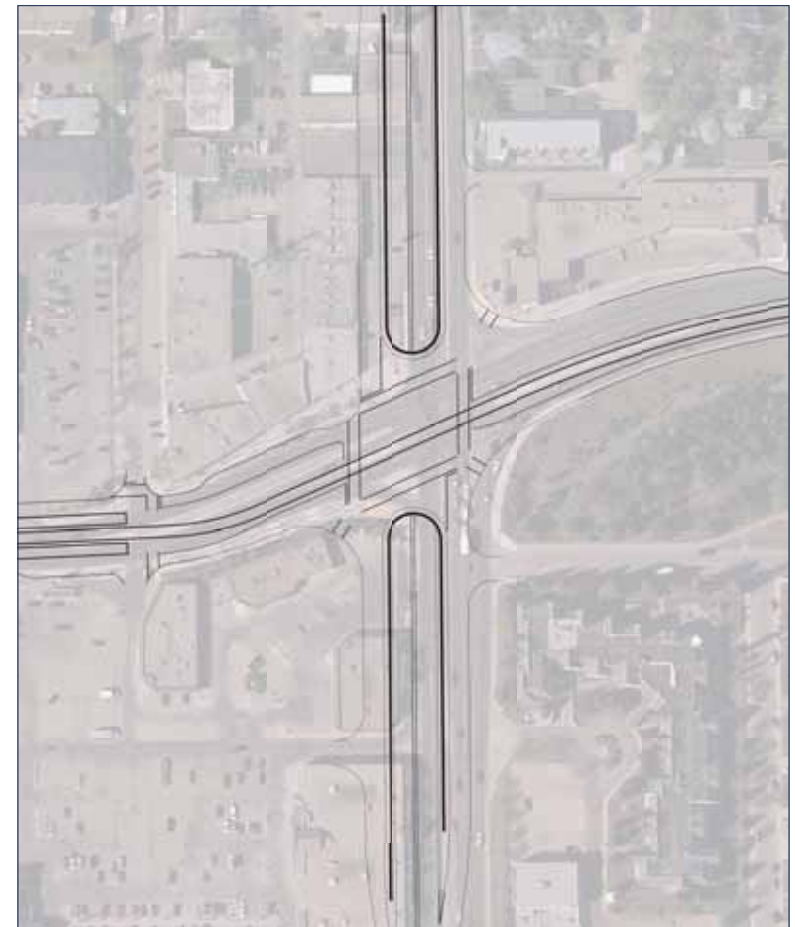


## Road underpass crossings—typical characteristics

- For a road underpass, the cross-street is lowered to pass under a bridge that carries the LRT and the street beside it
- To retain the turns to and from the cross-street, a small interchange can be built, which increases the footprint compared to the original intersection
- The arrangement would be similar to the single-point interchange at Yellowhead Trail and 97 Street, but more compact



Single-point interchange at Yellowhead Trail and 97 Street



Approximate layout for underpass at 149 Street

Feedback &  
information

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Edmonton

## What Do You Think?

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### COMPLETE A FEEDBACK FORM

- Tell us your views on the LRT crossing assessment results and the design refinements

### LEARN MORE ABOUT VALLEY LINE WEST AND TELL US WHAT YOU THINK

- Visit us at [www.edmonton.ca/valleylinewest](http://www.edmonton.ca/valleylinewest)
- Email us at [LRTprojects@edmonton.ca](mailto:LRTprojects@edmonton.ca)
- Contact the LRT Projects Information Centre by phone at [780-496-4874](tel:780-496-4874)