

# Welcome!

**LRT Crossing Assessment**  
**Valley Line West**  
Lewis Farms - Downtown

Edmonton

## Public Engagement Session

The Valley Line plays an essential role in connecting Edmonton's communities.

With construction underway on Valley Line Southeast, we are now working to have Valley Line West ready to go as soon as additional funding becomes available.

This includes reviewing and refining the preliminary design to account for changes that have occurred since it was prepared in 2013.

# Purpose of This Engagement

## LRT Crossing Assessment (178 Street) Valley Line West Lewis Farms - Downtown

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## Preparing to Launch Valley Line West

- As we fine-tune the preliminary design, we are looking at high-volume intersections to ensure planned crossings are still appropriate.
- We want to hear from you on any issues and opportunities we need to consider as we assess the crossing at 87 Avenue and 178 Street.



## Valley Line—New, Urban-Style LRT

- The Valley Line is a new, urban-style LRT line that is very different from the existing Metro Line and Capital Line.
- It uses low-floor cars that can be boarded from platforms that are close to sidewalk height, like a bus stop.
- It runs alongside traffic and is controlled by regular traffic signals, like the cars on the road.



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

- With frequent stops, LRT access will be within walking distance for thousands more people.
- It is designed to fit into surrounding communities without creating visual or physical barriers.

# Background

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### Valley Line Corridor

- 27 kilometres
- 25 stops; 3 stations
- 2 Park & Ride locations (Davies & Lewis Farms)
- 3 Kiss and Ride locations
- 6 bridges
- Pedestrian bridges at Connors Hill and over Whitemud Drive
- 1 tunnel
- 1 operations and maintenance facility



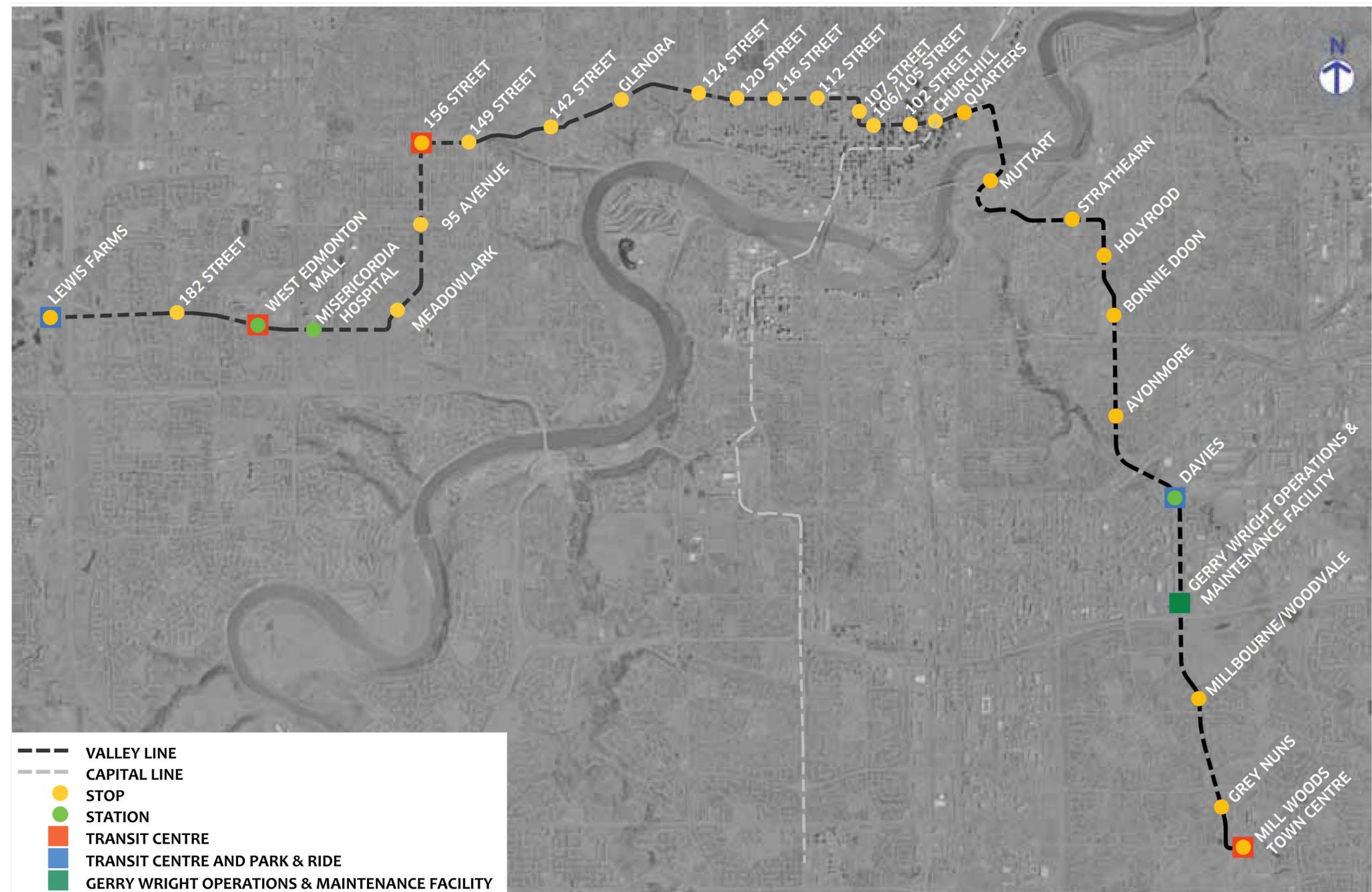
#### PARK & RIDE

Carpark connected to transit station that allows commuters to park vehicles and transfer to bus or LRT



#### TRANSIT CENTRE

A stopping point for bus and LRT where commuters can move from one transit mode to the other



# The Options & Their Characteristics

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### Current Approved Concept Plan (2012)

- Preliminary design for the Valley Line was set in 2013, based on the concept plan approved by City Council in 2012. The concept plan defined the location of the tracks, stops and stations.



## At-Grade Crossings—Typical Characteristics

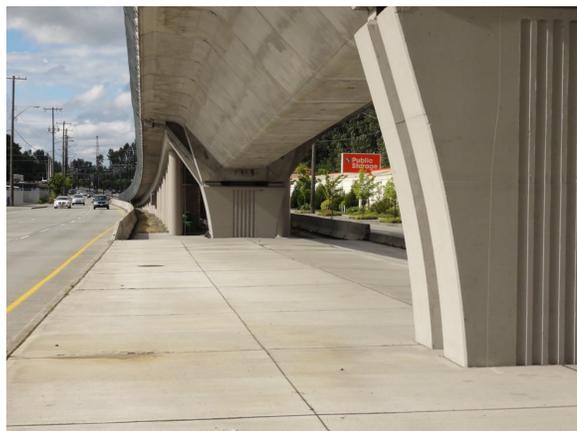
- In an at-grade crossing, the LRT crosses through the intersection when the light is green (and waits when the light is red), just like a car.
- At some intersections, the green light may be extended briefly until the LRT passes through.
- At typical intersections on the Valley Line, there will be no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



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

## Above-Grade Crossings—Typical Characteristics

- Above-grade 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 needs to be elevated as well.



Seattle, WA



Richmond, BC



## Below-Grade Crossings—Typical Characteristics

- A below-grade LRT crossing involves 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 would 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)



Valley Line tunnel under construction



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



# Assessment Framework

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### Many Factors to Consider

| LRT CROSSING ASSESSMENT FRAMEWORK*  |   |
|---|---|
| Category  | Key Factors   |
| <b>Accessibility:</b> <i>How the various transportation modes link between one another and with adjacent developments</i> | <ul style="list-style-type: none"> <li>• Promotes pedestrian connectivity through safe and efficient transfers and connections between various transportation modes (includes pedestrian connectivity)</li> <li>• Ease of LRT station/stop accessibility based on pedestrian connectivity</li> <li>• Connectivity between LRT stations/stops and transit centres</li> <li>• Ease of vehicular access (delivery, service and emergency) to adjacent businesses, communities and future developments</li> </ul>   |
| <b>Network Operations:</b> <i>How the surrounding and broader transportation network is impacted</i>                      | <ul style="list-style-type: none"> <li>• Provides safe interactions between the various transportation modes</li> <li>• Improves network efficiency through minimization of travel delays for active modes (pedestrian, bike, etc), transit, emergency vehicles and goods movement in both opening day and long-term time horizons</li> <li>• Provides the optimal LRV (Light Rail Vehicle) reliability / minimizes potential of delay to LRT operations and as a result minimizes LRV fleet requirements</li> <li>• Transportation network resiliency (surrounding network capacity)</li> </ul>  |
| <b>Urban Design &amp; Social Environment:</b> <i>How the surrounding communities and stakeholders are impacted</i>        | <ul style="list-style-type: none"> <li>• Promotes City vision of integrating land use and transportation development through Urban LRT</li> <li>• Promotes increase in adjacent property values</li> <li>• Minimizes negative impacts to connectivity between adjacent communities</li> <li>• Privacy and visual impacts</li> <li>• Promotes public safety</li> <li>• Creates “placemaking” (positive public spaces) opportunities</li> <li>• Appropriate fit with adjacent land uses (planned or existing) and proposed Transit Oriented Development (TOD) planning</li> <li>• Minimizes impacts to parkland and open spaces</li> <li>• Reduces potential noise/vibration impacts</li> </ul> |
| <b>Feasibility &amp; Construction:</b> <i>Feasibility, cost and risk assessments</i>                                      | <ul style="list-style-type: none"> <li>• Reduces life-cycle costs – capital, operating, maintenance and renewal</li> <li>• Reduces need for private property acquisition</li> <li>• Constructability</li> </ul>   |
| <b>*Approved by City Council June 2017</b>  |   |

## What Do You Think?

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### COMPLETE A FEEDBACK FORM

- In addition to the City's LRT crossing assessment framework, what issues, opportunities and other considerations should we take into account when the LRT crossing is reviewed?

### 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)