

In late 2016, the City received federal funding through the Public Transit Infrastructure Fund to continue design work on the Valley Line West (Downtown to Lewis Farms). The project team is using this funding to proactively prepare the LRT extension for construction. This includes updating and finalizing the preliminary design work that was completed in 2013.

With this recent ramp-up of work, as well as the public engagement activities that go along with it, members of the public are looking for information as to how the Valley Line West LRT route was chosen. In addition, the commencement of LRT construction, as well as the public release of the Measures of Effectiveness Report for Valley Line Southeast LRT, has raised interest about potential impacts to nearby traffic that the west leg of the LRT may bring to their areas.

Public engagement

Public input has played an essential role in shaping the Valley Line, from corridor identification in 2009, finalization of the concept plan in 2011, through to completion of preliminary design in 2013.

- Corridor Selection Phase (2008-2010) - A total of 3,811 participants contributed to the public involvement process through 94 public involvement events for both the West and Southeast LRT during this phase.
- Concept Planning Phase (2010-2012) - four workshops, four open houses and various small group meetings with stakeholders were held for the west portion of the line.
- Preliminary Design Phase (2011-2013) - Public stakeholders were divided into six groups focusing on their area of interest along the route. Between March 2012 and June 2013, the City met with these groups in five stages to ensure feedback could inform the design process.

Public consultation is ongoing through Citizen Working Groups made up of representatives from each area along the LRT alignment, including community leagues, non-profit associations, educational institutions, businesses and citizens-at-large. These groups meet regularly to discuss the LRT project. Public members for the West Citizen Working Groups have been selected. The Valley Line West public engagement web page contains informational videos as well as a project history summary detailing the entire planning and public engagement process from start to finish. The Valley Line West public engagement page can be found at

https://www.edmonton.ca/projects_plans/transit/lrt-valley-line-west-public-engagement.aspx

Route selection

When planning and designing a future LRT line, the City balances considerations such as costs of construction, operation and maintenance, as well as development opportunities, accessibility, social and natural environment, and population density near each proposed line. Consideration is also

given to emerging technologies and trends in other areas and how those could be incorporated into future construction and existing LRT infrastructure.

In 2008, City Council approved a set of route planning and evaluation criteria for LRT (see Attachment 1). One key consideration is that LRT run at-grade wherever possible. At-grade LRT is designed with urban integration in mind and promotes future urban growth opportunities such as transit-oriented development and connections to new or existing walking trails and bike paths.

Using this criteria, the City examined many different routes before recommending the final Valley Line alignment for City Council's approval. The results of the decision-making process for the Valley Line West route are reflected in the West LRT Corridor Selection Report, which can be found at https://www.edmonton.ca/documents/PDF/West_LRT_Route_Selection_Report.pdf. This report comprehensively explains other routes that were considered and the rationale for why the 102 Avenue/Stony Plain Road route was selected. The removal of two lanes of traffic to accommodate LRT on Stony Plain Road is consistent with the evaluation criteria referenced above.

Each potential route (corridor option) was considered using a two-stage screening process. During the first stage, as per the LRT Route Planning and Evaluation Criteria, the corridors were screened using general categories: feasibility, community and environment. During the second stage, the corridors were screened using weighted categories: land use, movement of people and goods, feasibility and constructability, parks, river valley and ravine system, natural environment and social environment.

The results show that both 87 Avenue options (or "southern corridors," connecting to existing Capital Line via Health Sciences Station or via Fox Drive/Belgravia Road) scored considerably lower during second stage screening and were therefore dropped from consideration (pages 5-10).

The Executive Summary of the report states that the preferred 102 Avenue/Stony Plain Road corridor was selected as it:

- Best supports the City's strategic vision of promoting compact urban form.
- Best serves the majority of potential redevelopment areas.
- Is the most direct corridor to downtown.
- Results in strong potential ridership.
- Has less property impacts than the 107 Avenue option.
- Reinforces current major transit patterns to/from downtown.

The results on pages 5-6 of the report show that the 107 Avenue corridor was not chosen because it:

- Does not directly serve neighbourhoods, but is located on the boundary between the residential areas north of 107 Avenue and those south of 107 Avenue.
- Serves predominantly single-family residential areas along 107 Avenue.

- Offers a future opportunity for developing compact urban form, but no supportive plans.

City Council accepted Administration's recommendation and approved the Valley Line West route in December 2009.

Managing traffic

As a result of traffic-related concerns, City Council asked Administration to examine intersections along LRT corridors and the possibility of raising or lowering several arterial road and LRT crossings above or below grade level. This is called "grade separation" and occurs when the LRT is physically separated from street-level traffic. Grade separation can offer reduced traffic congestion and shorter travel times in the short term, but must be balanced with the long-term needs anticipated across the transportation network for current and future users of all transportation modes. The City has committed to building out the LRT network in an urban style which will be predominantly at-grade. This is consistent with the type of urban form envisioned for the city--compact urban form with transit-oriented development along transportation nodes and corridors.

The Crossing Assessment Framework (see Attachment 2) approved in June 2017 provides a consistent and objective process for determining the optimal configuration for LRT crossings and adjacent LRT stations or stops. New LRT route corridors will be evaluated using this framework to ensure the preferred corridor reflects the City's Transportation Master Plan, The Way We Move and LRT Network Plan.

A typical four-lane urban roadway is able to move 1,600 vehicles per hour in one direction. Assuming an average of 1.5 people per vehicle, this would equate to 2,400 people utilizing the roadway over an hour in one direction. Similarly, a typical two-lane urban roadway is able to move 700 vehicles per hour in one direction, equating to 1,050 people utilizing the roadway over an hour in one direction. In comparison, a two-car LRT train can carry 6,600 people per hour in one direction. The ability of LRT to move relatively large volumes of people makes it an attractive option for growing cities and supports the reallocation of public road space for LRT corridors.

Not every Edmontonian will be able to use LRT to get to where they need to go, but many more will be able to use LRT when they have not before. The goal is not to take away from private vehicle commuters or add to traffic congestion, but rather to balance the City's transportation system by providing transportation options for citizens. As a growing City, existing transportation corridors need to be assessed and designed based on people-moving capacity and providing opportunities for users to choose between different transportation modes. This is part of the City's overall plans to respond to a rapidly-growing population and anticipated road congestion.