

URBAN LRT

LRT NETWORK PLAN

Edmonton's strategic plans, including *The Way We Move* and *The Way We Live*, as well as the *Transit Oriented Development (TOD) Guidelines*, all support a commitment to grow green and create a compact, more integrated urban environment where people have an opportunity and choose to use alternative transportation modes. This means designing a rapid transit system that not only serves communities and destinations, but also integrates and identifies with them.

To support this, in 2009 City Council adopted a long-term LRT Network Plan, which recommends planning and implementing Light Rail Transit in Edmonton in a new way. The ultimate LRT network includes six lines extending from downtown to the Northwest, Northeast, East, Southeast, South, and West sectors of the city.

A vehicle technology review was completed to provide an overview of technology options and identify the LRT vehicle style most appropriate to meet long-term transportation objectives. The review recommends:

- Using new low-floor LRT vehicles on new lines that do not physically connect to the existing system.
- Maintaining high-floor LRT vehicle style on the existing system and the extension of existing lines.

Edmonton's LRT Network will be the central feature of an integrated transportation system, offering new, long-term infrastructure and high-capacity alternatives to the current limitations of passenger vehicle travel and traffic congestion.

URBAN LRT: HIGH-FLOOR AND LOW-FLOOR

An important part of the LRT Network Plan is a change in approach to the overall system style. While the current LRT system can best be described as a "suburban" system, the LRT Network Plan calls for a change in approach to an urban LRT system. Edmonton's LRT system will include high-floor vehicles on some lines, and low-floor vehicles on others. All new LRT lines will be designed and constructed with an urban LRT philosophy. Over time, changes can be expected on the existing LRT system to incorporate urban LRT characteristics, including adding stations as redevelopment and ridership potential increase. Transit riders will be able to change from one LRT route to another at key transfer stations located centrally, or by walking a short distance from one line to another downtown.



AN URBAN LRT SYSTEM MEANS:

- Building smaller scale stops that are spaced closer together than on the existing LRT system.
- Integrating the LRT with the surrounding area by providing better links to a greater number of destinations, and providing more direct transit, pedestrian and cyclist connections.
- Integrating visual elements that minimize intrusion and maximize openness of space to create a safe environment.
- Respecting communities. The LRT will operate with reduced speeds in congested areas, allowing LRT to fit and operate safely in pedestrian-oriented communities with reduced right-of-way and fewer barriers.
- Investing in aesthetics to fit within an urban environment. Landscape architecture, architecture, and streetscaping are key design components of an urban LRT system. Opportunities to use embedded track instead of traditional rock ballast and railway ties will be explored to improve visual appeal and integration.

LOW-FLOOR URBAN LRT: SAME GREAT SERVICE, NEW PASSENGER EXPERIENCE

Cities from Denver to Helsinki successfully use urban low-floor LRT to provide convenient service that fits seamlessly into communities. Urban low-floor LRT is:

Road Safe - Where the train operates at street level, it will travel at or under the posted speed limit for all other traffic. Where the train is elevated or below ground, its travel speed will not exceed 70km/h. In areas between stops, the LRT will function like any other part of Edmonton's existing roadway system, with clear signs and signals. Safely interacting with low-floor LRT requires the same good traffic sense that Edmonton drivers, cyclists and pedestrians are expected to show on our urban roads today.

Stop Safe - Stop areas are designed to be open and visible, designed with Crime Prevention Through Environmental Design principles in mind.

Frequent - Passengers can expect the same great service on all LRT lines.

Reliable - The Southeast to West LRT will operate in its own right-of-way, with priority. Unlike a pre-emptive system, in which the LRT receives absolute priority at every intersection and all cross-traffic stops to let the train pass, a priority system includes communication between the LRT and the signals at some intersections. The signal lengths are then automatically adjusted to promote smooth flow for vehicle traffic while ensuring the efficiency of the LRT.

Accessible - Stops are universally accessible and low-floor trains offer step-free boarding.

For more information on urban LRT, visit www.edmonton.ca/LRTprojects or call 780.496.4874.