

A Case for Edmonton to Explore Bus Rapid Transit

Edmonton Transit System Advisory Board

Recommendation:

That Administration provide a report on the feasibility, implications and details on the potential of adopting bus rapid transit in Edmonton as both an interim method of servicing routes earmarked for future LRT expansion (LRT Network Plan) as well as other high-traffic corridors that are suitable for high-speed, high-frequency transit services.

Report Summary

The Edmonton Transit System Advisory Board has explored the characteristics of bus rapid transit and the benefits of implementing bus rapid transit in cities similar to Edmonton. Based on this analysis the Board believes there is value in the City of Edmonton exploring bus rapid transit as an alternate mode of transit to complement LRT and regular bus service.

Report

Bus rapid transit is a high-speed, high frequency bus-based mode of transit that delivers fast, high-capacity, and cost-effective transit services in urban areas.

Bus rapid transit differs from regular bus service based on several key characteristics:

- The use of dedicated busways lanes (exclusive street-level lanes, often fully segregated from mixed traffic).
- Off-board fare collection for less idle time at stations (simultaneous boarding at all doors).
- Platform-level boarding for improved accessibility.
- High frequency (focus is on ridership, not coverage; service is based on a pre-determined frequency rather than a schedule).
- High capacity; bus rapid transit often uses articulated buses capable of transporting 80+ passengers.
- High quality stations.

Compared to a regular bus service, bus rapid transit is faster, has a higher ridership capacity, runs more frequently, and offers greater reliability and convenience.

Compared to LRT, bus rapid transit has significantly less costly infrastructure and capital costs, can be developed faster, and is less expensive to operate on a per-kilometer basis. Bus rapid transit is also more flexible and scalable, and offers the benefit of being able to operate before the entire line is fully constructed. Bus rapid transit also has the potential to yield a higher return on investment with regards to Transit Oriented Development. In the short to medium term, bus rapid

transit has the potential to increase transit capacity and ridership, shorten travel times for transit commuters, reduce traffic congestion on high-traffic corridors, and better integrate public transit with urban development. In the long run, incorporating bus rapid transit into the public transit system would improve the sustainability of our public transit system, the financial resilience of the City, and ultimately Edmonton's livability.

Community Engagement:

The Edmonton Transit System Advisory Board is comprised of public volunteer members appointed by Council.

Corporate Outcomes

If implemented, this report could contribute to the following outcomes:

- Edmonton is attractive and compact, by encouraging transit oriented development.
- The City of Edmonton has sustainable and accessible infrastructure, by better connecting geographically underserved areas.
- Edmontonians use public transit and active modes of transportation, by providing fast, reliable, convenient service to more people in more areas.
- Edmontonians are connected to the city in which they live, work and play, by better connecting geographically underserved areas.
- Edmonton is an environmentally sustainable and resilient city, by prioritizing bus lanes and reducing the difference in car and bus travel times thus encouraging modal shift.
- The City of Edmonton has a resilient financial position, by investing in transit infrastructure with a significantly lower cost than LRT.

Justification of Recommendation

Bus rapid transit has been successfully employed in other cities, and offers a higher level of transit service than is currently offered by regular bus service. High growth and constrained funding may also make bus rapid transit a practical solution as a precursor to LRT.

Attachment

1. A Case for Edmonton to Explore Bus Rapid Transit