



HIGH SPEED TRANSIT PLANNING STUDY

LRT & BRT West Edmonton to Downtown/South LRT Progress Report

CITY OF EDMONTON
Transportation & Streets Department
Transportation Planning Branch
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High Speed Transit Planning Study

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- The West High Speed Transit Concept Planning Study Terms of Reference were presented at the March 15, 2005, City Council meeting. One of the deliverables of this Study was to evaluate long term LRT alignments from the West End, considering both 107 Avenue and Whitemud Drive and to report findings back to City Council.
- An additional deliverable of the West High Speed Transit Planning Study was the evaluation and development of Bus Rapid Transit staging plans and costs from West Edmonton to Downtown and South LRT.
- On March 15, 2005, City Council passed an amendment to the Staged High Speed Transit Network to delete 87 Avenue/University Avenue from 149 Street to 114 Street, from consideration as a potential Bus Rapid Transit route; and approved the West High Speed Transit terms of reference with an amendment to include 106 Avenue, 107 Avenue and 104 Avenue, instead of 105 Avenue, between 105 Street and 116 Street, as routes to be evaluated.
- Edmonton Transit currently operates a super express service from West Edmonton Mall to Downtown. To entice west end commuters onto BRT, recommended corridors must offer improved travel times.
- The West High Speed Transit Planning Study was initiated in April 2005. Infrastructure Systems Limited in partnership with AECOM were appointed to undertake the technical component of the Study. Kaleidoscope Consulting were appointed to undertake the stakeholder involvement component of the Study. The Study is scheduled to be completed by early 2006.
- Since April 6, 2005, a stakeholder committee comprising representation from both communities and institutions has been meeting on a monthly basis to introduce the committee to concept of high speed transit, the corridors under consideration, and to collate comments and issue identification.
- Three open houses were held in June 2005. Over 700 stakeholders attended these open houses and provided input to the project. Overall themes from the open houses were shared with the stakeholder committee in July. These included:
 - Support for public transit as an alternative to private vehicles.
 - Need to focus on the benefit to the whole city.
 - Balance the impacts on communities and mitigate impacts as much as possible.
 - Routes need to capture ridership.
 - Neighbourhoods want access to the system if routes are adjacent to them.
 - Protect the river valley.
 - Consider alternative transit vehicles to minimize fuel consumption and pollution.
 - Coordinate with other major transportation projects.

- Demonstrate a clear benefit of investing in HST.
- Plan well, plan for the long term and don't be cheap.

Commitment made at July stakeholder meeting to return in fall with more technical data.

- Technical data on four, long term LRT alternatives has been collated over the summer months. A high and mid level river crossing were considered on the 87 Avenue alignment in addition to 107 Avenue and Whitemud Drive.

CONCLUSIONS LRT

- This data re-confirms the findings of the Strategic High Speed Transit Study (April 2004).
- Costs for both 87 Avenue alternatives and the Whitemud Drive alternative are the approximately the same. Costs for both 87 Avenue alternatives include estimates for "cut and cover" LRT through Capital Health lands and under University Avenue.
- Costs for 107 Avenue are 20% higher than both 87 Avenue and Whitemud Drive alternatives.
- The 87 Avenue alignments generate 30% more ridership than the Whitemud Drive and 107 Avenue alignments.
- Travel time from West Edmonton to Downtown (26 minutes) is lower on the 87 Avenue corridor when compared to Whitemud Drive (32 minutes) and 107 Avenue (29 minutes).
- LRT on Whitemud Drive/Quesnell Bridge doubles the number of trains on 114 Street necessitating a grade separation between LRT and traffic at the University Avenue crossing.
- 107 Avenue alignment requires significant property acquisition from east of Groat Road into Downtown.

CONCLUSIONS BRT

- Initial results indicate that Stage 1 BRT on 107 Avenue into Downtown would not be competitive with an enhanced Route 100. Consideration of Stage 1 BRT along Stony Plain Road or 102 Avenue is proposed for consideration as an option.
- Stage 1 BRT from West Edmonton to South LRT to operate on Whitemud Drive/Quesnell Bridge.
- Bus lanes to be added to Fox Drive from Whitemud Drive to Belgravia Road.

NEXT STEPS

- Completion of technical analysis.
- Assessment of transit oriented development opportunities.
- A second series of open houses will be held in early 2006 to present recommendations for BRT and LRT to stakeholders.
- Presentation of a final report to City Council is anticipated following the open houses.

LRT Comparison Matrix

	87 Avenue		Whitemud Drive	107 Avenue
	High Level Bridge	Mid Level Bridge		
Cost (billion)	\$1.0	\$1.0	\$1.0	\$1.2
Travel Time to Downtown (minutes)	26	26	32	29
Peak Hour Ridership at 2.5 million regional population (passengers/hour)	4400	4400	3500	3300
River Valley Area Affected (ha)	0.5	1.0	3.2	0
Property Required	Single Family Homes	17	7	84
	Condo Units	0	25	475
	Commercial Units	3	3	33

Note: Existing (2005) LRT peak hour ridership is 3400 passengers/hour in the peak direction