Information Booklet from the Open Houses

WEST HIGH SPEED TRANSIT

BUS RAPID TRANSIT (BRT) PLAN

Information on the proposed alignment recommendation for Bus Rapid Transit from Lewis Estates Transit Centre to Downtown Edmonton

Presented at Open House Sessions:

June 5 ■ Stratford School
June 6 ■ Grovenor School
June 7 ■ NorQuest College

- The materials presented in this booklet and at the open house displays relate only to the *BRT alignment from Lewis Estates Transit Centre to Downtown Edmonton*.
- Recommendations for the *BRT from Lewis Estates to South LRT* were addressed in the fall of 2006.
- The recommendation for the *LRT alignment from West Edmonton* will be made in the fall of 2007.
- Following Council approval of the BRT alignment, detailed planning will be undertaken and the affected stakeholders (communities, businesses, associations and institutions) will be involved as per the City of Edmonton's Public Involvement Policy.

THE CITY OF Edmonton TRANSPORTATION

COUNCIL DIRECTION

Council Motion, April 27, 2004

To commence additional planning studies to evaluate routes and develop staging plans and cost for BRT-mixed mode on the following corridors:

- Downtown to NAIT
- West Edmonton to South LRT
- West Edmonton to Downtown
- Downtown to Mill Woods

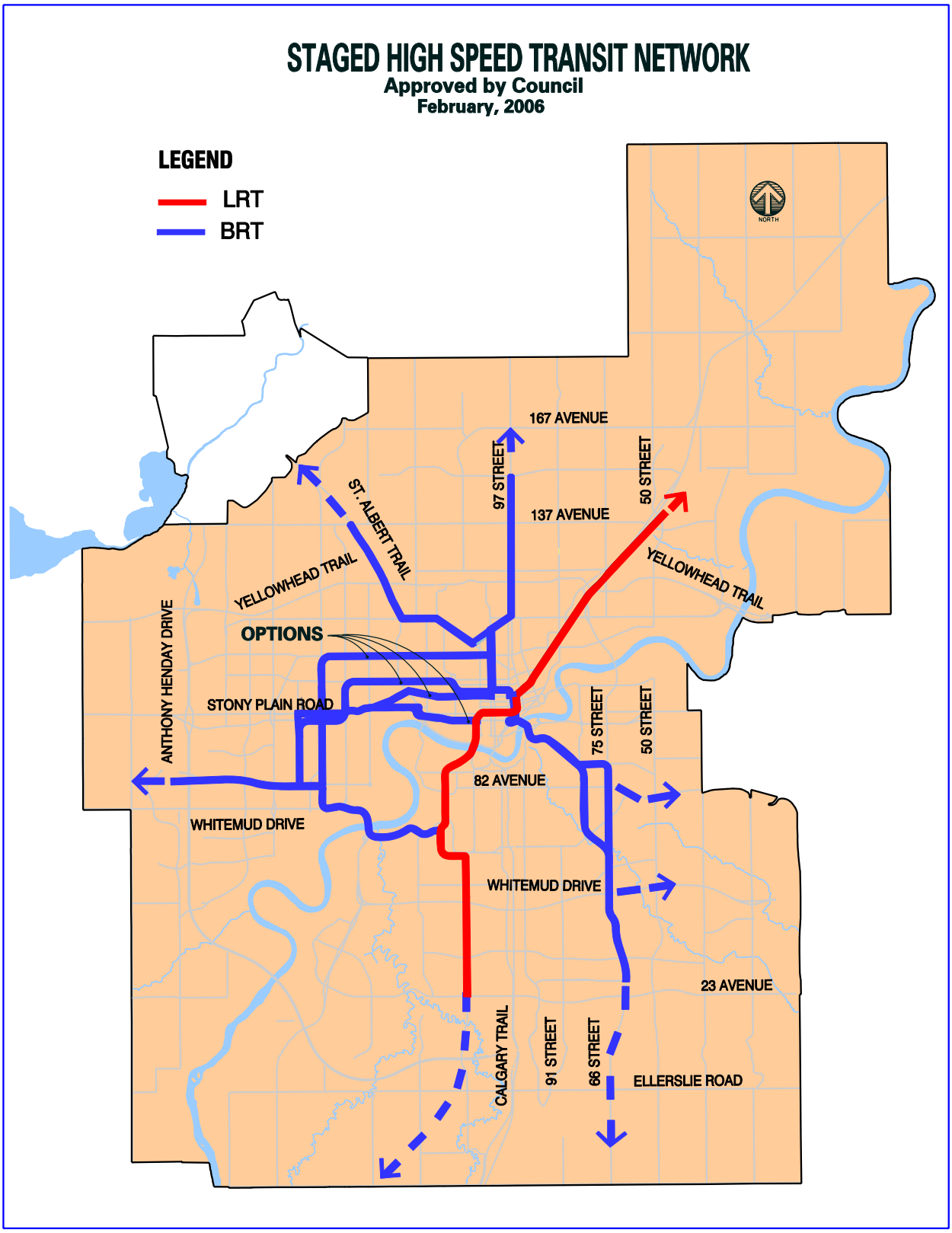
Amendment to West HST Planning Study Terms of Reference, March 21, 2006

Delete 87th Avenue/University Avenue, from 149th to 114 Streets, from consideration as a potential Bus Rapid Transit Route.

The revised planning Study Terms of Reference includes assessing as West Edmonton to Downtown BRT Corridor alternatives:

- 106 Avenue, 107 Avenue and 104 Avenue
  instead of 105 Avenue between 105 and 116 Streets, and

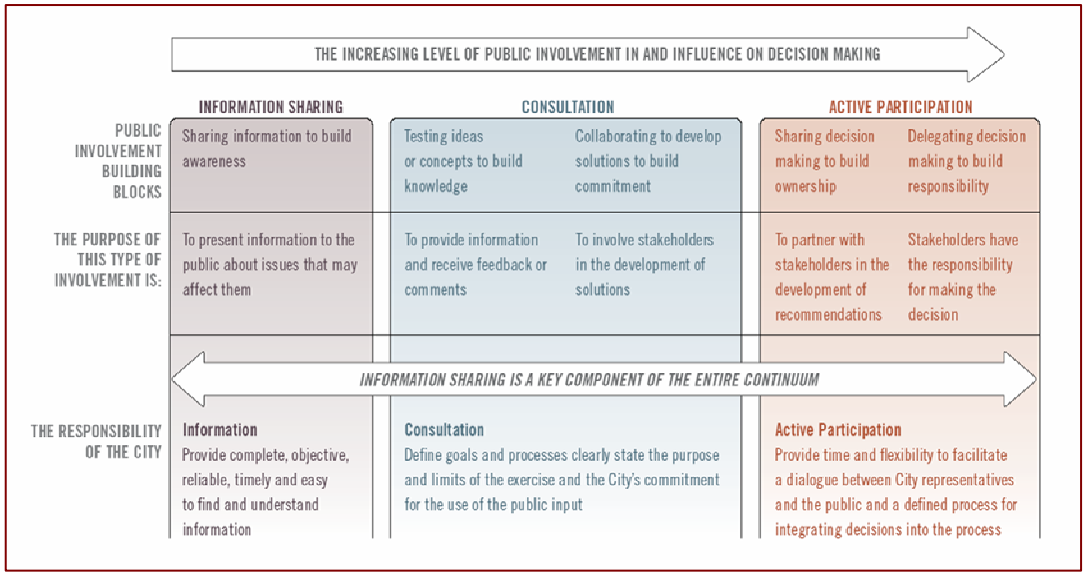
- 111 Avenue.


STAGED HIGH SPEED TRANSIT NETWORK
Approved by Council
February, 2006
LEGEND
LRT
BRT
NORTH
167 AVENUE
97 STREET
137 AVENUE
50 STREET
ST. ALBERT TRAIL
YELLOWHEAD TRAIL
YELLOWHEAD TRAIL
OPTIONS
ANTHONY HENDAY DRIVE
STONY PLAIN ROAD
75 STREET
50 STREET
82 AVENUE
WHITEMUD DRIVE
WHITEMUD DRIVE
23 AVENUE
CALGARY TRAIL
91 STREET
66 STREET
ELLERSLIE ROAD

PUBLIC INVOLVEMENT

In January 2006, City Council adopted the *Involving Edmonton Policy* which clearly outlines a consistent approach for all public processes conducted by the City of Edmonton. This includes identifying where each involvement process fits on the public involvement continuum (see below).

This public involvement event fits primarily in the **information sharing section** of the continuum—the purpose is to share information on BRT and the recommended alignment for this specific route. We welcome your comments on the draft recommendations being presented. The activities of the West High Speed Transit Stakeholder Committee fit in the **consultation** section of the continuum and the City has worked with the Committee to test ideas and develop solutions.



Edmonton City Council will make the final decision on HST plans after they receive the final recommendations from the Transportation Planning Branch—which will include a detailed account of all stakeholder consultations.

Since its inception the stakeholder committee has held over 20 meetings to review planning materials and concepts and provide stakeholder perspectives to the City of Edmonton and the engineering consultants.

Over 1,000 hours of volunteer time has been dedicated to the review and consideration of the West High Speed Transit Planning Study.

CONSIDERATIONS AND ASSUMPTIONS

... that informed this planning study

Time frame for evaluation of first Stage BRT

The year 2015 was chosen as the timeframe for which a first stage BRT system needed to be developed, analyzed and proven to be effective.

Major transportation network in the year 2015

The following assumptions were made about the city-wide transportation network:

- Anthony Henday Drive will be fully built around Edmonton, with interchanges at arterial intersections, including the currently signalized ones in the southwest.
- South LRT will be extended from Health Sciences Station to Century Park (formerly Heritage Mall) with stations at South Campus, Southgate Centre and Century Park.
- Major Park and Ride facilities at Century Park and Lewis Estates.
- Transit network will be adjusted to fit SOUTH LRT extension.
- Whitemud Drive (159 Street to 53 Avenue) will be widened to 6 through lanes plus 2 auxiliary lanes from 149 Street to Fox Drive (i.e. 8 lanes on Quesnell Bridge).
- 23 Avenue will be twinned from 119 Street to Hodgson Way.
- 170 Street will be widened by one lane southbound (Whitemud Drive to 88 Avenue).
- 170 Street/87 Avenue intersection improvements will be: (1) northbound and southbound double left turn lanes, and (2) longer east-bound and westbound left turn lanes.
- North and Southeast BRT assumed to be in place.

Transportation Master Plan Principles that have guided this study

- Take advantage of the carrying capacity of the public transit as a means of managing high levels of demand on the transportation system, particularly in congested corridors inside the inner ring road.
- Provide viable and competitive alternative to automobile travel in high demand corridors.
- Mitigate community impacts.
- Manage, rather than eliminate congestion.

High Speed Transit Planning Parameters

- Bus rapid transit is intended to move significant numbers of people between major activity centres or gathering spots. It is not intended to replace local or express bus service.
- If capacity on a roadway is reduced because of dedicated high speed transit (BRT or LRT), an adjacent roadway will be modified to accommodate (replace not increase) capacity.
- Transit considerations are ridership, travel time, predictability/consistency, and directness of route. Where ridership and travel time are comparable, other factors such as service reliability, community impacts and transit orientated development (TOD) opportunities will be deciding factors.
- The introduction of LRT on 87th Avenue will require the acquisition of property.
- It is recognized that there is no solution that will have unanimous support. The goal is to identify the route that will provide the greatest transit benefit with the least impact and then work to mitigate the impacts.
- The primary target market for Bus Rapid Transit is primarily the business commuter. The goal is to provide a system that would attract them to using transit as an alternative to the private vehicle.
- While not a primary consideration, the location of High Speed Transit routes (BRT or LRT) will take into consideration current and/or future TOD opportunities, and the TOD developments should be designed to integrate the BRT or LRT as much as possible.

BRT implementation approach

- The ultimate vision for high speed transit is dedicated right-of-ways, or travel lanes, that will remove transit vehicles from other traffic congestion in designated high use corridors.
- Through the use of innovative and creative techniques and technologies, BRT service will be implemented in Edmonton in a manner that imposes little or no impacts on adjoining properties and communities.
- BRT service will, by and large, be provided without requiring property purchases and service will operate on existing roadways within existing traffic regulations, including speed limits.

WEST BRT PROPOSED RECOMMENDATIONS

Developing a BRT system from West Edmonton to Downtown will be a **two stage process.**

Stage One

In combination, transit service, intelligent transportation system, and roadway improvements will be used to develop the transit enhancements as a foundation for future West BRT service. Over the next 1 to 3 years, improvements will be made to address issues affecting transit operations in this corridor. The 1 to 3 year priorities are:

- The 87 Avenue bus lanes through 170 Street
- Geometric improvements 87 Avenue (163 Street to 165 Street)
- Transit service priority along 87 Avenue
- Bus lanes along Stony Plain Road (139 Street to west of 142 Street)
- Bus lanes on Stony Plain Road west of 149 Street
- Expand West Edmonton Mall Transit Centre
- Staged development of Lewis Farms Transit Centre

Stage Two

The second stage would be the creation of exclusive BRT lanes along the corridor which would separate BRT from the other vehicular traffic and reduce impacts of congestion and traffic issues. For the most part, this will be accomplished by using one traffic lane from the current roadway. As per the planning assumptions, where this does occur vehicle capacity will be replaced on an adjacent roadway.

After detailed analysis, ISL Consulting is prepared to recommend

the Stony Plain Road/104 Avenue Alignment

(with improvements on 107 Avenue to accommodate displaced vehicles)

as the BRT route from Lewis Estates to Downtown Edmonton.

(see drawings provided)

Main Features

- Dedicated bus lanes on 87 Avenue, 156 Street, Stony Plain Road and 104 Avenue by re-allocating existing travel lanes.
- Some widening needed along corridor where traffic capacity cannot be replaced, e.g. 87 Avenue (175 to 163 Street), Stony Plain Road (142 to149 Street).
- Improvements on 107 Avenue to absorb displaced traffic from Stony Plain Road (widening from 149 to 135 Street; replace traffic circle at 142 Street; lane control east of Groat Road).
- Entrance to Downtown at 104 Avenue/107 Street.
- Possible BRT stations at high activity locations and/or at potential TOD sites.

RESPONSE TO STAKEHOLDER CONSIDERATONS

Since the inception of this project, the West HST Stakeholder Committee and the general public have identified the following factors and impacts which they felt should be taken into consideration in the development of the BRT alignment recommendation.

This section lists the considerations and provides responses on each point.

Factors considered	West BRT Plan Results
Transit Passenger Impacts ***How will the alignment affect transit service and transit users?***	▪ Depending on origin, passengers from West Edmonton destined to Downtown Edmonton should experience about 3 minutes of travel time improvements relative to today. ▪ West Edmonton residents will have the benefit of more frequent transit service as a result of BRT and related service changes. ▪ People can expect a significant improvement in transit schedule reliability, meaning their travel time will be less variable and more consistent on a day-to-day basis. ▪ Depending on origin and destination, passengers should experience a minimum number of transfers. ▪ Passengers can expect a more comfortable experience using transit due to enhanced stations, passenger information systems, off-board fare payment and new buses. ▪ A Park and Ride lot will be provided at the Lewis Estates Transit Centre to facilitate access to BRT and other transit services.
Change in Transit Use ***Will more people use transit?***	▪ Introduction of BRT service, together with other related service changes, is expected to lead to an increase of approximately 20% in weekday transit ridership.
Regional Connections ***How will people from the region get to the BRT?***	▪ Connection of BRT to any regional services can occur at either Lewis Estates or West Edmonton Mall.
Transit Orientated Development (TOD) Opportunities	▪ The most likely area for TOD is land at the southeast corner of 170 Street and 87 Avenue.

Factors considered	West BRT Plan Results
River Valley Impacts	▪ No impact is expected on Edmonton's river valley.
Community Impacts ***How will a dedicated BRT route affect communities?*** ***How will dedicated BRT lanes affect local traffic movement?***	▪ Introduction of BRT service is not expected to have perceptible changes in noise levels along the BRT corridor. ▪ Service roads and treed boulevards along 87 Avenue will be unaffected by BRT service. ▪ New BRT vehicles will be more environmentally friendly than current vehicles. ▪ Location of the Lewis Estates Transit Centre along the south side of 87 Avenue will require an amendment of the Lewis Estates Area Structure Plan. Through the ASP amendment process, measures will be taken to buffer existing residents to the west and south.
Traffic Impact ***Will BRT have an impact on traffic congestion?***	▪ BRT service will increase the person capacity of the corridors it will operate on. (Consider: 40 people on a bus or 40 cars) ▪ The additional BRT buses are not expected to affect congestion levels however some traffic will be displaced to other routes.
Property Requirements ***Will property be required?***	▪ Limited property acquisition is anticipated. Wherever possible, the development will utilize the existing boulevard space or be contained within setbacks from roadway to building.
Pedestrian and Bicycle Accessibility	▪ BRT stations will be fully connected to sidewalks to ensure convenient and safe access. ▪ BRT stations will be equipped with bicycle racks to encourage and facilitate bicycle access. ▪ It is anticipated that bicycles will be allowed in BRT lanes.
Safety	▪ All BRT and related enhancements will reflect latest and best practices to maximize passenger safety—both on buses and at stations.
Capital Costs	▪ First stage 1-3 year transit improvement program is estimated at $20-25 million (in 2006 dollars) for capital expenditures.

ALIGNMENT ASSESSMENT

Route Description	107 Avenue	Stony Plain Road	Stony Plain Road BRT with 107 Avenue Improvements
MOVING PEOPLE, OTHER BENEFITS			
Corridor Length	15.5 km	13.9 km	13.9 km
BRT One-way Travel Time (vs. Route 100)	33 min (30)	30 min (30)	30 min (30)
Potential Total Daily Ridership *passengers; in 5 years*	8,350	8,450	8,450
Potential TOD Zones/BRT Stations	4	5	5
Net Travel Time Savings *minimum per passenger*	-	3.2 min	3.2 min
FITTING IT IN			
Impact on Green Areas/River Valley	None	None	None
Potential Impact on Traffic Operations	Moderate	Moderate	Minimal
Change in Peak Hour/Peak Direction Traffic Volumes *vph = vehicles per hour*	None	None	Stony Plain Rd -600 vph 102 Ave +200 vph 107 Ave +400 vph
Change in Peak Hour Bus Volumes	from 4 to 20	west of 142 Street *from 48 to 64* east of 142 Street *from 28 to 44*	west of 142 Street *from 48 to 64* east of 142 Street *from 28 to 44*
Loss of Single Family Housing	15	15	15
Loss of Apartment/Condo Buildings	1 – 3	0	0
Loss of Commercial Buildings	8 – 25	7	7
Loss of Residential Service Roads	n/a	n/a	n/a
Restricted Accesses	None	None	None
Potential for shortcutting	Risks minimal and common to all; to be mitigated as necessary.		
BUILDING IT			
Construction Cost	$$$$$	$$$$	$-$$
BRT Vehicles (for 7.5 min. headway)	12	11	11
Operating Cost (Annual)	Higher	Base	Base

STAKEHOLDER COMMITTEE MEMBERS

Since February 2005, representatives of central, west and southwest Edmonton communities and the institutions that might be affected by West HST implementation, have been meeting with the planning team to discuss the project and explore impacts that will need to be considered in the planning process. The Stakeholder Committee is a volunteer advisory committee whose members have a dual role of representing community or organizational perspectives and taking information back to their respective organizations. While not all communities appointed volunteer representatives, all communities affected by the alignment receive regular updates on the project.

Stakeholder Committee Member	Representing
Rob Hutchinson	Belgravia
Tony Lovel	Canora
Brian Monaghan	Caritas Health/Misericordia Hospital
Elaine Solez	Central Area Council
Warren Champion	Central MacDougall
Guy Bridgeman	Edmonton Transit System Advisory Board
Sharon Tearne	Elmwood
Stuart MacLean	Grant MacEwan College
Marian Kwasnitza	Jasper Park
Bill Eadie	Glenora
Bob Haraba	Grovenor
Sue Lambert	Grandview
Frank Weichman	McKernan
David Gibbens	Meadowlark
Susan McNamara	NorQuest College
Cole Pederson	North Glenora
Al Marshall	Northwest Industrial Business Association
Hilda Sucre	Oliver
Lloyd Mildon	Parkview
Derrick Forsythe	Queen Mary Park
Diane Kereluk	Stony Plain Road BRZ
Everett Hewitt	Thorncliffe
Tim Cartmel	Terwilligar Riverbend Action Committee
Sandy Reid	West Edmonton Business Association
Gary Hanson/Mark Solik	West Edmonton Mall
Jay Smith	West Edmonton Transportation Coalition
Keith Duffield	Westmount/Groat Estates
John Collier	Windsor Park