Southeast LRT Downtown to Mill Woods Concept Plan

March 2011

We're moving forward. Learn more.

On January 19, 2011, City Council approved the Southeast LRT Concept Plan.

Throughout 2010, approximately 700 Edmontonians provided their input and contributed to develop the plan that defines:

- where the LRT tracks will fit within the route;
- where LRT stops will be located;
- how access will be provided to communities and businesses.

Highlights:

- Travel time from Mill Woods to Downtown in 20 25 minutes;
- 46,000 future daily boardings;
- Service to Mill Woods Town Centre, Grey Nuns Hospital, Bonnie Doon Mall, the Muttart Conservatory and the Quarters development;
- A new LRT line that would connect with the future West LRT line and provide opportunities for transfers to the existing LRT system in the downtown core.

No funding is currently in place to construct the Southeast LRT. Given the cost of the line, funding support is required from other orders of government.



LRT Network Plan

In June 2009, City Council adopted a long-term LRT Network Plan that defines the future size, scale, and operation of the regional LRT system. Eventually, the LRT network will have six lines extending to the Northwest, Northeast, East, Southeast, South, and West. The LRT Network Plan supports overarching policy direction by making downtown Edmonton the focal point of the LRT system. In reviewing the overall system operation, it was determined future expansions would need to operate on a separate LRT line due to limited tunnel capacity on the existing system.

As part of the LRT Network Plan, a vehicle technology review was completed to help choose the style of LRT vehicles most appropriate to meet long-term transportation objectives. The review recommended new, low-floor LRT vehicles be used for new lines that do not connect to the existing line. The Southeast LRT will be part of the new low-floor LRT system that will connect with the other future low-floor LRT lines such as the Downtown Connector and the West LRT line.



Low-Floor LRT

Low-floor LRT vehicles were first introduced in the late 1980s and have since evolved to become the industry standard for new LRT systems in Europe and North America. Most of the mechanical equipment on a low-floor LRT vehicle is located on the roof which means doors can be provided at street-level for stepfree boarding onto the vehicle.

A great advantage of a low-floor LRT system is that the stops can be small and require minimal infrastructure – a stop can be as simple as a raised curb and sidewalk. This makes it easier to integrate stops into their local surroundings with a more urban feel. Since ramps and steps are not needed, lowfloor LRT stops also provide better pedestrian connections and fewer barriers to people with mobility difficulties.









- Proposed LRT at Grade
 Proposed Elevated LRT
 Proposed LRT Below Grade
 Proposed Station Platform
 Proposed Roadworks
 Proposed Sidewalks
- Potential Property Requirements

The LRT will continue east of the Quarters Station and the Downtown corridor on the south side of the existing 102 Avenue. Just east of 96 Street, the LRT will transition to become an underground line, crossing Jasper Avenue underground, and continuing south under 95 Street in an approach to cross the North Saskatchewan River. Coordinated with the ultimate roadway configuration planned for the Quarters, 102 Avenue east of 96 Street will be reconfigured to provide one lane of traffic in each direction.

To accommodate the track as the LRT enters the tunnel and curves to the south, some property acquisition is required on the south side of 102 Avenue approaching Jasper Avenue.

- Service to Quarters redevelopment area
- Coordinated with ultimate
 Quarters roadway configuration
- Tunnel under 95 Street



Proposed LRT at Grade
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The LRT will continue south and emerge from the tunnel to cross the North Saskatchewan River on a bridge on the

Saskatchewan River on a bridge on the eastern edge of Louise McKinney Park. The LRT bridge will cross the river in approximately the same location as the existing Cloverdale footbridge. The bridge is being planned as a split level bridge, which would have pedestrian activity on a level below the LRT crossing. The pedestrian bridge elevation would be approximately the same height as the existing footbridge to allow trail connections to be maintained. The LRT would travel above the pedestrian level, in a design similar to the existing Menzies LRT bridge. The structure will continue over 98 Avenue, and touch down along the service road that is located west of the Muttart Conservatory.

- Minimize impacts to Louise McKinney Park
- Preserve trail connections
- Maintain a pedestrian link across the river
- New LRT and pedestrian bridge





The Muttart LRT station will be located northwest of the Muttart site. A traffic signal will be provided to allow access across the tracks to the Muttart greenhouses.

The LRT would then continue north up the hill adjacent to the north edge of Connors Road. Traffic lanes on Connors Road will be maintained. A portion of property will be needed on the north side of Connors Road at the Edmonton Ski Club Site. Pedestrian connections will be maintained in the area, and the pedestrian bridge that connects the trail system across Connors Road will be rebuilt in approximately the same location.

- Service to Muttart Conservatory and River Valley activity areas
- Maintain existing pedestrian links and connections to trail system
- Follow existing transportation corridors to minimize impact to River Valley



At the top of Connors Hill, the LRT will turn from following Connors Road on the north side to a centre-running LRT on 95 Avenue. The LRT then continues east in the centre of 95 Avenue, with one lane of traffic on either side of the LRT trackway. This station is located between 89 Street and 88 Street and serves the mature neighbourhood and the future Strathearn

Heights redevelopment. Signalized intersections at 92 Street, 87 Street, and 85 Street allow for neighbourhood circulation.

The tracks would then turn south onto the east side of 85 Street while maintaining the service road on the east side of 85 Street. Some property will be required at the southwest corner to make this turn.

- Service to Strathearn neighborhood
- Maintain existing pedestrian links and connections to trail system
- Minimize property acquisition along 95 Avenue



The LRT will turn south from 95 Avenue to run on the east side of 85 Street. A service road will be maintained on the east side of 85 Street. Traffic lanes will be reduced in the area, however the lane configuration will accommodate the projected traffic volumes and required neighbourhood access, while providing a more desirable pedestrian space through wider sidewalks and boulevards. The Holyrood Station would be located just south of 93 Avenue to serve the mature neighbourhood as well as a potential higher density redevelopment of the

Holyrood apartment site. A traffic signal will be added at 93 Avenue and 85 Street to maintain access into Holyrood neighbourhood.

The east side-running alignment along 85 Street best serves the predominant traffic volumes through the new, reconfigured traffic circle intersection. A close examination of the existing Bonnie Doon traffic circle resulted in a reconfigured intersection that accommodates the traffic and LRT interface.

- Service to Holyrood neighborhood
- Wider sidewalks and boulevards along 85 Street
- Reconfigure Bonnie Doon Traffic Circle to a 4 legged signalized intersection



From east side running north of 90 Avenue, the LRT will cross a reconfigured Bonnie Doon traffic circle. The traffic circle will be reconfigured to become a traditional intersection, and the LRT will cross on the east side. This configuration will facilitate the predominant traffic movements in the area (northbound to westbound, and eastbound to southbound).

As the LRT continues south of the 90 Avenue, it will transition to the west side of 83 Street just north of 86 Avenue to align with the future access into the Bonnie Doon Campus Park. The Bonnie Doon Station will be located just south of 84 Avenue on the shopping centre site, to provide direct access to the shopping centre and position the LRT to cross the 82 Avenue intersection. As the LRT crosses 82 Avenue, it will transition to a centre alignment on 83 Street.

Traffic will continue to have two lanes in each direction north of 82 Avenue. A signal at 84 Avenue will provide access to the shopping centre and the LRT station.

- Service to Bonnie Doon Shopping Centre
- Reconfigure Bonnie Doon Traffic Circle to a 4 legged signalized intersection
- Minimize impact to Bonnie Doon Campus Park



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From Bonnie Doon Station, The LRT crosses 82 Avenue and transitions to a centre-running LRT. It continues south along 83 Street in the centre running alignment through this area. A station is located at 73 Avenue.

The traffic lanes on 83 Street are reduced south of 82 Avenue to one traffic lane in each direction. The traffic lane reduction minimizes the need for property acquisition in the area where space is very constrained from 82 Avenue to 76 Avenue. Traffic analysis indicates that the reduction in lane capacity can be accommodated, with greater utilization of other north-south corridors such as 99 Street, 75 Street, and 50 Street.

South of 76 Avenue the LRT continues in the centre of the roadway with one lane of traffic, parking, and wide boulevards on either side. Traffic signals are provided at 76 Avenue and 73 Avenue, and pedestrian signals are provided at 80 Avenue and 78 Avenue to maintain community connectivity. Property acquisition is required around 76 Avenue to accommodate the required movements at the intersection.

- Service to Avonmore and King Edward Park Neighbourhoods
- Minimize property required north of 76 Avenue
- Wider sidewalks and boulevards along 83 Street south of 76 Avenue

Southeast LRT — Argyll



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The LRT continues along the centre of 83 Street with a signalized intersection at 69A Avenue. Some property impacts are anticipated around 69A Avenue.

The LRT then begins to climb up on a structure to cross over Argyll Road and the Canadian Pacific Railway tracks immediately south of Argyll Road. The bridge structure will cross over the Mill Creek Ravine and ramp down in the vicinity of Wagner Road and Davies Road.

- Wider sidewalks and boulevards along 83 Street south of 76 Avenue
- Minimize impacts to church site at 69A Avenue
- Bridge over Argyll Road and CP Railway





Approved Concept Plan (2011):

Amendment to Concept Plan (Mar. 2012):









The LRT will continue south on the east side of 66 Street at street-level. The Millbourne Station will be located just north of 38 Avenue to serve the residential community and nearby commercial area. Intersections at 38 Avenue and 36A Avenue will be signalized and provide access into bordering neighbourhoods. A mid-block crossing will be added for pedestrians.

- Service to North Mill Woods neighbourhoods
- Minimized property impacts



Following along the existing 66 Street corridor, the LRT will continue along the east side of the roadway at street-level. The Grey Nuns station will be located just north of 31 Avenue to serve the health care facility and nearby businesses as well as the adjacent neighbourhoods. Signalized intersections at 36A Avenue, 34 Avenue, and 31 Avenue will provide full movement access into nearby neighbourhoods.

- Service to Grey Nuns Hospital
- Minimized property impacts



The Southeast LRT approval on December 15, 2009 defined the Southeast LRT corridor from Downtown to 31 Avenue. Additional analysis has concluded the line should continue to 28 Avenue, in order to provide a station centrally located to serve Mill Woods Town Centre and the neighbouring higher density developments. In future years, the LRT would be extended further south.

The LRT will turn east from 66 Street onto the south side of 28 Avenue with two lanes of traffic on the north side. The Mill Woods Station will be located west of Hewes Way and the existing bus terminal in the area will be relocated to be south of the LRT station and provide direct pedestrian access between the bus and LRT.

- Service to Mill Woods Town Centre
- Major transit interchange at new Mill Woods Transit Centre







Strategy

Where we are today CONCEPT PHASE

Design

Build

> Operate

To find more about the Southeast LRT project

Visit www.edmonton.ca/LRTprojects
Call the LRT projects info line at 780-496-4874
E-mail LRTprojects@edmonton.ca
Join our e-mail update list! E-mail LRTprojects@edmonton.ca and type "subscribe to Southeast LRT" in the subject box.

