

LRT Network Expansion and Renewal Projects Summary

This attachment outlines the status of LRT network expansion and renewal projects currently underway in the design, build and operate phases.

Design Phase

Capital Line LRT - South Extension (Century Park to Allard/Desrochers)

The Capital Line LRT - South Extension is a total of 7.7 kilometres long and consists of two segments. The first segment is an update to the preliminary design for the 4.5 kilometres between Century Park and the Heritage Valley Park & Ride at Ellerslie Road and 127 Street Southwest (originally completed in 2010). The second segment is the completion of concept planning and development of preliminary design for the 3.5 kilometres between the Heritage Valley Park & Ride and the Allard/Desrochers Station.

The project includes completion of a Neighbourhood Area Structure Plan for Heritage Valley Neighbourhood #14, which was developed jointly between the City of Edmonton and the Government of Alberta. The plan is for provincially-owned lands — home to the new south Edmonton hospital scheduled to be opened in 2030 to be serviced by LRT. In addition to specifying land uses, road network, and servicing strategy, the Neighbourhood Area Structure Plan finalized the station location and LRT alignment through these lands.

Project Status

- The preliminary design for the first segment of the Capital Line (Century Park to Heritage Valley Park and Ride) is complete.
- Concept validation and some preliminary design work is complete on the second segment of the Capital Line (Heritage Valley Park and Ride to Allard/Desrochers). This work included an assessment of the future LRT crossing at Ellerslie Road, in accordance with the Council-approved CR_4512: *LRT Crossing Assessment Framework*. The assessment is complete and recommends a grade separation over Ellerslie Road. The resulting Concept Plan amendment will be brought forward to City Council for approval in 2021.
- The Neighbourhood Area Structure Plan for Heritage Valley Neighbourhood #14, jointly developed and funded with the Government of Alberta, is complete and was approved by Council on August 17, 2020.
- Council prioritized the construction of the first segment (Century Park to Ellerslie Road) as the next LRT expansion project after the Metro Line (NAIT to Blatchford) and the Valley Line West.

- A business case for the first segment (Century Park to Ellerslie Road) was submitted to the Province for review on September 4, 2020. The Province has confirmed its support for the project and has submitted the business case for a review by the federal government.
- The approved scope of this project is complete, pending advancement to the build phase.

Communications, Consultation and Public Engagement

- The City held public engagement sessions on November 28, 2019, and January 30, 2020, for the Heritage Valley Neighbourhood 14 to gather public input before finalizing the land use concept plan.
- A virtual meeting with the Twin Brooks Community was held on July 9, 2020. The meeting discussed the Phase 1 extension and responded to questions on stations and level crossings at 12 Ave and 9 Ave.

Metro Line LRT Northwest Extension (Blatchford to Campbell Road)

The Metro Line Northwest Extension is divided into two separate projects that will ultimately bring the Metro Line to the Naki Transit Centre & Park and Ride on Campbell Road. The first phase, which will extend the Metro Line into Blatchford, is currently under construction. The second phase, which will extend the Metro Line from Blatchford to Campbell Road, now has a complete preliminary design.

More specifically, the second phase of the Metro Line Northwest includes a 10-kilometre extension from north Blatchford Station to the proposed Campbell Road Station, which will be integrated with the City of St. Albert Nakî Transit Centre & Park and Ride. The project scope includes a validation of the existing concept plan and preliminary design.

Project Status

- The preliminary design is complete.
- Council prioritized construction from north Blatchford to Castle Downs as the next LRT expansion priority after the Capital Line South (Century Park to Ellerslie Road).
- Administration will continue preliminary engineering
- Administration prepared a budget for land acquisition costs from Blatchford to Campbell Road and submitted it as part of the fall 2020 SCBA. Administration will continue to pursue funding opportunities to support the detailed design and delivery phase of the project.
- The approved scope of this project is complete, pending advancement to the delivery phase.

Communications, Consultation and Public Engagement

- Administration completed public engagement in Q4 2019 and held two capstone events to share the outcomes of the public engagement process to update the concept plan and complete the preliminary design.

Build Phase

Metro Line LRT Northwest Extension (NAIT to Blatchford)

The Metro Line Northwest Extension, from the Northern Alberta Institute of Technology (NAIT) to Blatchford, includes approximately 1.6 kilometres of track, replacement of the temporary NAIT Station with the permanent NAIT/Blatchford Market Station, and the addition of the Blatchford Gate Station in north Blatchford. Construction for this project has received support from all levels of government and the capital profile has been approved.

Project Status

- The detailed design is complete.
- PCL Construction Management has been selected as the Construction Manager.
- The early works construction program, including realignment of 109 Street and reconfiguration of the Jefferson Armoury, was substantially completed in 2020.
- Installation of underground utilities including duct banks, water and drainage infrastructure, began in 2020 and is scheduled for completion in 2021.
- Construction of the stations and utility complexes, including foundations and structures, will continue throughout 2021.
- Concrete trackway installation will begin in 2021.

Communications, Consultation and Public Engagement

- The City has developed and is implementing a comprehensive integrated marketing communications strategy for the project.
- Discussions continue between the project team and key stakeholders such as (NAIT), Department of National Defence officials located at the Jefferson Armoury, EPCOR, and the Blatchford Redevelopment Office.

Valley Line West LRT (Downtown to Lewis Farms)

The Valley Line West LRT is a 14-kilometre extension to Valley Line from Downtown (102 Street) to Lewis Farms Transit Centre & Park and Ride. The design and construction of the infrastructure is being delivered through a Design-Build-Finance Agreement. The supply of up to 40 low floor light rail vehicles is being procured separately.

Project Status:

- On December 22, 2020, the City reached financial close with Marigold Infrastructure Partners. The project is currently in the construction phase. Marigold is mobilizing their team, preparing project plans and designs, procuring major construction contracts, and conducting geotechnical investigations along the alignment.
- In order to allow bus service to continue safely and effectively during Valley Line West construction, the West Edmonton Mall Transit Centre will be temporarily relocated to 90 Avenue and 175 Street for up to six years. Construction of the temporary transit centre has started with bus service to shift to the temporary location starting this fall.
- Light rail vehicle (LRV) procurement commenced in November 2020. The request for qualifications (RFQ) closed on February 4, 2021. On March 4, 2021, the City shortlisted 3 teams to participate in the Request for Proposal (RFP) phase of LRV procurement. The supplier is to be named by the end of 2021.
- Administration is continuing with early works to prepare for construction, including building removals, building condition assessments on commercial properties, and coordination of utility relocations.
- Administration has developed an Operations and Maintenance Procurement Strategy and hired an Operations and Maintenance Advisor to provide an operator perspective during the procurement, design, and construction stages of the project.
- Land acquisition is 94% complete, with 222 of 237 required properties now in the City's possession. Of the 222 individual files, 8 objections were received and one file went to an inquiry hearing. This demonstrates the open and collaborative approach that Administration has taken. Discussions are progressing on the remaining properties. Similarly, all 99 required Access Closure Bylaws have been approved by City Council. Only a few landowners registered to speak against the Bylaws.

Communications, Consultation, and Engagement

- Residents and businesses can expect timely, relevant and targeted communications, which includes regular updates, opportunities for discussion and LRT staff that are available to answer questions and concerns.

- We are committed to being a good neighbour and working with our contractors to lessen the impacts of construction on residents and businesses.
- The City has developed and is implementing a comprehensive integrated marketing communications strategy for the project.
- The City is working closely with Marigold Infrastructure Partners to communicate about the early work for the project.
 - Construction bulletins via webpage, subscriber list, social media and targeted outreach.
- The City developed a stakeholder relations program for the build phase of the project.
 - Ongoing direct outreach with key stakeholders along the LRT alignment.
 - A project postcard was sent to 60,000 stakeholders along the alignment in April 2021.
 - The City released a survey for stakeholders in April 2021.
 - Direct outreach with businesses along the LRT alignment is scheduled to begin once public health restrictions are lifted.
 - Specific initiatives related to stakeholder relations will begin in 2021 and last for the duration of the project.
 - An online campaign preparing stakeholders for construction is scheduled to begin in mid-2021.
- The City continues to publish information on project progress and milestones through a variety of channels, including email and web updates, blogs, social media and traditional media.

Valley Line Southeast LRT (Downtown to Mill Woods)

Valley Line Southeast LRT is a new 13-kilometre low-floor LRT line from Downtown (102 Street) to Mill Woods Town Centre. The design, construction, vehicle supply, financing, operations, and maintenance are being delivered through a Public-Private Partnership Agreement with TransEd Partners, which includes a 30-year operating and maintenance period following construction completion.

Project Status

- Work continues along the entire 13 km corridor with construction 90.3% complete as of the end of March 2021.
- TransEd is installing the final interior touches to the Churchill Connector building, which will provide the physical connection from the existing Capital and Metro lines to the new low-floor Valley Line at the Churchill Stop on 102 Ave.
- TransEd is also finishing the installation of the decorative paving stone roadway, bikeway and sidewalks along 102 Avenue.

- TransEd has installed a colourful roof and screening walls over the tunnel portal on 102 Avenue in Chinatown, complete with a Chinese style gate.
- Tawatina Bridge work is ongoing. TransEd has started off-site fabrication of the steel deck for the shared-use path (SUP), which will run underneath the main concrete deck. Installation of the steel deck for the SUP will start in late spring 2021.
- TransEd has completed installation of steel canopies at all eleven street-level community stops and installation of heated shelters at the stops is ongoing.
- TransEd is installing the final interior touches to the Davies Transit Centre and the elevated Davies Station, where transit users will be able to transfer between bus and LRT.
- Testing and commissioning of the Valley Line Southeast is underway along the 66 Street corridor. Currently, this testing is being escorted by flagpeople, with signal integration work anticipated to begin in June.
- LRT service commencement, originally targeted for December 2020, will be delayed. The Valley Line LRT is expected to open to the public in late 2021.
- Administration's focus is to ensure Edmontonians receive the high-quality transit infrastructure they expect in order to provide safe and reliable service.
- Mill Woods Transit Centre was completed on time and on budget. Bus service commenced on April 25, 2021 in conjunction with the implementation of the Bus Network Redesign.

Communications, Consultation and Public Engagement

- Administration continues to work in partnership with TransEd to communicate about the project with Edmontonians.
- In April, TransEd and City Administration completed a series of five virtual open houses along the corridor, educating stakeholders on current project progress and upcoming work this construction season, providing an early look at the testing and commissioning process, and the new light rail vehicles, and providing brief updates about the City's Bus Network Redesign and Parking Management Strategy plans.
- The City continues to share stories on traditional and social media to increase public awareness of project progress and milestones. Most recently, we have partnered with the Edmonton Arts Council to begin highlighting new public art along the line.
- The City has developed a program to educate Edmontonians about how to safely interact with the new low-floor LRT system. Safety communications and public outreach will take place throughout the year, with a marketing campaign set to begin closer to service commencement.
- Administration continues to meet and work with Civic Events and Civic Precinct stakeholders to manage area impacts. Most recently, this has

involved coordination around understanding the needs of festival events in Churchill Square and working to accommodate.

Operate and Renewal Phase

Metro Line (Downtown to NAIT)

The Metro Line LRT (Downtown to NAIT) is a 3.3-kilometre extension from Churchill Station to NAIT Station. The project included the integration of a new Communications-Based Train Control signalling system. The Metro Line opened to public service in September 2015 with speed and other operating restrictions due to an incomplete signalling system.

Project Status

- Administration issued Thales a Notice of Termination in Q2 2019 after the contractor failed to meet their December 4, 2018 deadline to complete their signalling system.
- Administration hired Alstom Transport Canada Inc. in Q2 2019 to complete detailed design and installation of an alternative signalling plan to replace the Thales signalling system.
- On the weekend of February 27, 2021, the Thales signal system was decommissioned and replaced with the Alstom system. The transition was successful and the line is now operating fully as designed.
- The transition to the Alstom signal system coincided with a number of changes to the roadway traffic/LRT interface. These changes resulted in considerable reductions to the average and maximum traffic wait times at the 111 Avenue and Kingsway crossings. Before/After field surveys during LRT activity have reduced average peak hour queue lengths (length of the vehicle line up) by 49% and 40% along 111 Avenue and Kingsway respectively.

Communications, Consultation and Public Engagement

- The City has developed and is implementing a comprehensive integrated marketing communications strategy to support this project.

LRT Renewal Projects

Stadium Station Renewal

The project scope is to complete the redevelopment of the Stadium LRT Station including a mid-life upgrade to the station that addresses the asset condition and improves the overall sense of customer safety, security, and barrier-free accessibility. Integration with Stadium Station area redevelopment plan (ARP)

and Kinnaird Ravine Master Plan, including alignment with the Muttart Lands Development and safety and security improvements related to the six-bay bus transit centre.

Project Status

- The northbound track was closed on October 5, 2020 to complete the demolition, east concourse roof waterproofing, signals and communication duct bank repairs and two pedestrian crossings. The tracks are now in full service.
- All station gantries that support the station roof were installed in April 2021.
- Construction is underway for pilings, grade beam, NE crossing, and interim overhead catenary systems.
- 2021 work will include installation of roof canopy, cladding, construction of a new southbound platform, station fitouts, and installation of permanent Overhead Catenary System.
- Construction is currently forecast to be completed in Q4 2021 (station in operation) with landscaping to be completed in Q2 2022.

LRT Platform Renewal

This project involves completing a detailed structural engineering assessment of the five LRT Stations Platforms (Belvedere, Coliseum, McKernan/Belgravia, South Campus, and Century Park). The platforms at these LRT Stations are in poor condition and experiencing early signs of failure such as cracking, delamination, concrete pieces becoming detached, and rusting of structural steel. The work will involve demolishing and rebuilding the safety sections of the platforms as well as other repairs to the platform areas. LRT Service will need to be maintained throughout the duration of this project. The construction is a multi-year program starting in 2020.

Project Status

- The design for LRT Stations Platform Renewals is complete.
- Construction of the McKernan/Belgravia LRT Station Platform was completed in summer 2020.
- The construction of the South Campus station will start in April 2021 and is scheduled to be complete in August 2021.
- The construction for the remaining stations will be included in the 2023-2026 budget cycle.

Major Facilities and LRT Signals, and Electrification projects

- Escalator design for Corona and Central LRT stations are completed, the construction for the Central LRT will start Q4 2021/Q1 2022. The

construction of Grandin Electrical/Mechanical will start in Q4 202. Due to budget constraints, the construction for Corona Escalator and Corona Electrical/Mechanical will be deferred to the next cycle budget as one standalone project.

- LRT University Traction Power Substation Upgrades design is completed. Construction will start in Q4, 2021.

LRT Crossing Upgrades and Track Renewal

The purpose of this project is to renew the Capital Line LRT crossings to current standards. Advances have been made since the original construction and the project will identify safety improvements and consider accessibility, functionality, safety and condition of the existing infrastructure. This project will modify multiple Capital Line crossings north and south of downtown and associated infrastructure to improve vehicle and pedestrian safety. The construction will begin in 2020 and will be carried out over multiple years.

Project Status

- The construction for 95 Street, 82 Street, 92 Street, 115 Avenue and 112 Avenue crossings were completed and in-service in 2020. The design for 129 Avenue crossings and remaining streetlight for 115 Avenue and 95 Street are scheduled to be completed in 2021.
- 84 Avenue crossing is the only one south of downtown completed in 2020.
- The design for 66 Street and 125 Avenue is underway.
- The overall project is on target to be complete by 2021.
- Northbound track renewal from 92 Street to 112 Avenue and 66 Street to 129 Avenue are scheduled to be completed between July to September 2021.

Communications, Consultation and Public Engagement

- The City has developed and is implementing a comprehensive integrated marketing communications strategy to support the LRT renewal program, organized under the banner of TLC for LRT, which focuses on informing transit users about the impacts and importance of the renewal program each year.