

## 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 preliminary design will be brought forward to City Council for approval in 2021.
- The Neighbourhood Area Structure Plan for Heritage Valley Neighbourhood #14 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 will also coordinate a review by the federal government. Once feedback has been provided, Administration will prepare a capital profile for Council's consideration.
- 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 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 prepared a budget for land acquisition costs from Blatchford to Campbell Road and is preparing an unfunded capital profile for Council's consideration.
- 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 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 now received support from all levels of government and the capital profile has been approved.

#### *Project Status*

- The preliminary design for the first stage of the Metro Line (NAIT to Blatchford) is complete.
- The detailed design for this segment is scheduled for completion in Q4 2020.
- The Naming Committee has formally approved the station names: NAIT/Blatchford Market and Blatchford Gate.
- The funding agreement between the Government of Alberta and the City of Edmonton has been fully executed.
- The procurement process for a Construction Manager is complete and PCL Construction Management Inc. was the successful proponent.
- Construction is underway including site grading, removals, reconfigurations of 109 Street and the Jefferson Armoury parking lot, and installation of underground utilities.

#### *Communications, Consultation and Public Engagement*

- The City has developed and is implementing a comprehensive communications strategy for the project.
- Regular, ongoing discussions occur 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 from Downtown (102 Street) to Lewis Farms. The design and construction of the infrastructure along with integration with Valley Line Southeast is being procured as a Design-Build-Finance Agreement. The supply of up to 40 low floor light rail vehicles will be procured separately.

#### *Project Status:*

- The project is currently in the procurement phase. Following a pause in 2019, the Design-Build-Finance procurement relaunched in January 2020. The Request For Qualification process was completed with three shortlisted Proponents announced in March 2020. The Proponents have completed technical proposals, with financial proposals due in October 2020 and financial close/contract award expected by the end of 2020. Light rail vehicle procurement will commence in November 2020 with a supplier to be named by mid-2021.
- Administration is continuing with early works to prepare for construction, including land acquisition, 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 current stages of the project.

#### *Communications, Consultation, and Engagement*

- The City completed public engagement for the preliminary design update in 2019.
- Administration implemented a comprehensive communications strategy to support the procurement process, in accordance with the Accountability, Transparency, and Disclosure Framework. Project updates have been shared on City social media accounts, along with media and community updates over the course of the year to increase public awareness of project progress and milestones.
- Administration is developing communication and stakeholder relations strategies to support the construction phase of the project.

### Valley Line Southeast LRT (Downtown to Mill Woods)

Valley Line Southeast LRT is a 13-kilometre extension 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, which includes a 30-year operating and maintenance period following construction completion.

#### *Project Status*

- Construction activities are underway along the entire corridor including the construction of the Churchill Connector in Churchill Square; construction of 102 Avenue and river bank portals; installation of rail supports and systems in the tunnel; Tawatinâ Bridge construction in the River Valley; Davies Station construction; Davies Transit Centre and Park & Ride construction; operation and maintenance facility building commissioning; stop construction along the entire corridor; overhead catenary installation along the entire corridor; track slab/rail installation/roadway construction along the entire corridor; and light rail vehicle final assembly in Kingston, Ontario. Testing and commissioning activities have started on the system along 66 Street.
- TransEd has achieved several significant milestones over the past year, including completion of the concrete lining in the Quarters Tunnel; completion of the Tawatinâ Bridge primary structure; removal of the Connors Road Pedestrian Bridge and installation of the Kâhasinîskâk Bridge; a first test of the light rail vehicles under overhead power along 66 Street; and delivery of 17 light rail vehicles to Edmonton as of September 30, 2020.
- Despite the good progress this season, LRT service commencement, originally targeted for December 2020, will be delayed. The Valley Line LRT is expected to open to the public in 2021.
- Administration's focus is to ensure Edmontonians receive the high-quality transit infrastructure they expect.
- Administration has tendered and awarded the construction of the Mill Woods Transit Centre separately from the rest of the project. Construction has progressed well on the facility, which has a target completion of Q4 2020.

#### *Communications, Consultation and Public Engagement*

- Administration continues to work in partnership with TransEd to communicate about the project with Edmontonians.
- The City has published numerous project blogs, video and media updates over the course of the year to increase public awareness of project progress and milestones.

- A Public Safety Outreach Program is currently in development and is targeted to launch in the lead-up to the line opening to the public.
- Due to COVID-19, TransEd and the City have shifted community outreach opportunities to an online meeting format in order to ensure we continue to maintain a public forum for discussions. Approximately a dozen of these meetings have been held since the outbreak began.
- Administration has met and worked with Civic Events and Civic Precinct stakeholders throughout the year to manage area impacts. Most recently, this has involved work in coordinating construction around the Winspear renovations and the reopening of the Stanley Milner Library.

### **Operate and Renewal Phase**

#### **Metro Line (Downtown to NAIT)**

The Metro Line LRT (Downtown to NAIT) extension included a 3.3-kilometre extension from Churchill Station to NAIT Station. The project also 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 with 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.
- Alstom is finalizing design work, material procurement is complete, hardware is being installed, train control software is near completion, and testing of the system is ongoing.
- Transition to the replacement signalling system is currently scheduled for Q1 2021.

#### *Communications, Consultation and Public Engagement*

- The City has a comprehensive communications strategy to support this project.

## LRT Renewal Projects

### **Stadium Station Renewal**

The project scope is to complete the Redevelopment of Stadium LRT Station including a mid-life upgrade to the Stadium Station LRT that addresses the asset condition and improves the overall sense of customer safety, security, and barrier-free accessibility. Integration with Stadium Stadium 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*

- Construction is underway. Pilings, grade beam, duct banks, interim overhead catenary systems, southbound track, and ballast replacement along the Southbound Platform are completed.
- The Southbound Track is now in service. The Northbound track was closed on October 5 and single-tracking will continue to complete the demolition, east concourse roof waterproofing, and two pedestrian crossings. Construction is currently forecast to be completed in Q4 2021 and in operation in Q1 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. The total estimated concept budget for the entire project is \$4,500,000.

#### *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 2021.
- The construction for the remaining stations will be included in the 2023-2026 budget cycle.

## **LRT Crossing Upgrades**

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, and condition of the existing infrastructure. This project will modify multiple Capital Line crossings north 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, and 112 Street crossings is complete. 115 Avenue and 129 Avenue crossings are scheduled to be completed in 2021.
- The design for 66 Street and 125 Avenue is underway.
- The overall project is on target to be complete by 2021.

## **Strategy Phase**

### **Centre LRT (Bonnie Doon to Downtown)**

The Central LRT route was identified in the City's long term LRT Network Plan to provide connections between Downtown, the Alberta Legislature, the University of Alberta, Strathcona, Bonnie Doon, East Edmonton, and the wider LRT network. The Downtown (102 Avenue to the North Saskatchewan River) and Whyte Avenue (83 Street to 109 Street) segments of the Centre LRT route were approved for further concept level planning by the City Council on August 21, 2018.

### *Project Status*

- Since the preferred route was shared for feedback in February 2018, the City has learned that the river crossing and the route through the University of Alberta Area and Garneau community requires further study and stakeholder involvement.
- In keeping with our commitment to continue to explore options and possible approaches to effectively address any issues raised by the public and stakeholders, the river crossing and route through the University of Alberta area/Garneau community segments were not taken with the rest of the preferred route for City Council approval.
- A river crossing study was undertaken to further understand the feasibility of the High-Level Bridge to continue to accommodate cars, pedestrians, and cyclists, in addition to potential mass transit. The study, once



- finalized, will support Administration in understanding the costs, constructability, and life expectancy of a new bridge compared to the scope and cost of required upgrades to the existing High Level Bridge, which is approaching a required life cycle renewal. This study is examining the suitability of the existing High Level Bridge compared to a new bridge for a mass transit corridor, while taking into consideration factors such as life cycle renewal requirements, capital cost, historical designation of the existing bridge, among other factors.
- A comprehensive Mass Transit Study was completed by Administration as part of the development of The City Plan. The mass transit study considered and analyzed elements of the approved LRT network and provided insight into other forms of non-LRT mass transit options to be considered as an overall mass transit network as identified in The City Plan. Its findings indicated that the demand generated along the Whyte Avenue corridor could be accommodated by non-LRT mass transit technologies. Additionally, the study identified important direct desired lines between Whyte Avenue and the Downtown core and between the University area and the western portion of the city through dedicated river crossings. These findings warrant further study of the approved Centre LRT route, however, Administration believes that a transit technology other than LRT could be more appropriate.

### *Next Steps*

- Through subsequent phases of mass transit network assessment and implementation, the central area mass transit service will be reviewed to determine the next steps.

### *Communications, Consultation and Public Engagement*

- Last formal communication with representatives of the University of Alberta, Walter C. Mackenzie Health Sciences Centre, and The Garneau community occurred in June 2019 where the stakeholders were informed of the potential change in direction as a result of the City Plan, Mass Transit work. The stakeholders agreed it would be best to wait until there was City Plan approval before engaging any further.