

Transportation Report to  
SPC on Transportation and Transit  
2019 May 22

ISC: UNRESTRICTED  
TT2019-0506

## **17 Avenue SE Stampede Crossing (17SX)**

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### **EXECUTIVE SUMMARY**

In 2018 December, Calgary Municipal Land Corporation (CMLC) released the [Rivers District Master Plan](#) (RDMP)—a plan to integrate and align with the many existing and evolving plans, programs and development aspirations of the various stakeholders in the area. To enable the RDMP, the 17 Avenue Stampede Crossing (17SX) project was initiated to extend 17 Avenue SE at Macleod Trail via an at-grade crossing of the Red Line CTrain tracks into Stampede Park, accommodating all modes of transportation.

In support of the 17SX project, Administration completed a preliminary design report in 2018 outlining the modifications required to Victoria Park / Stampede CTrain Station, the surrounding CTrain infrastructure and roads as shown in the design concepts in Attachment #1. The most significant change to the area will be the at-grade crossing which will improve connectivity for all modes of transportation, providing greater accessibility for Calgarians with limited mobility, increased platform capacity and the re-imagining and reconstruction of Victoria Park / Stampede Station. However, the 17SX will introduce new conflict points among pedestrians, vehicles and CTrains; these risks cannot be eliminated, but mitigations will be sought through a Road Safety Audit, appropriate design, safety measures and treatments. During construction, there will be impacts to CTrain service and customer access through station closures, as well as a need for temporary lane closures on northbound Macleod Trail north and south of 17 Ave SE. The crossing will introduce a noticeable impact to vehicle queues and delays on northbound Macleod Trail and eastbound 17 Avenue SE.

Public engagement was conducted by CMLC in partnership with The City of Calgary as part of the development of the RDMP. The vision of the RDMP was incorporated into the land use policy for the area, through amendments to the Beltline Area Redevelopment Plan.

As part of CMLC's mandate to lead the delivery of the overall RDMP for east Victoria Park, CMLC will manage the delivery of this project and it will be funded through the Community Revitalization Levy (CRL). A project steering committee has been established to oversee and provide direction on all major project decisions. A preliminary project schedule has been developed but is subject to change as the prime design consultant begins contributing to the project planning efforts. Project design will begin with the selection of a prime-design consultant in May 2019 and project completion is expected for Q3 2023.

#### **ADMINISTRATION RECOMMENDATION:**

That the SPC on Transportation and Transit recommends that Council receive this report for information.

#### **RECOMMENDATION OF THE STANDING POLICY COMMITTEE ON TRANSPORTATION AND TRANSIT, 2019 MAY 22:**

That Council receive Report TT2019-0506 for information.

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**PREVIOUS COUNCIL DIRECTION / POLICY**

At the 29 April 2019 Combined Meeting of Council, that with respect to the Beltline Area Redevelopment Plan – Part 2: East Beltline Area and Land Use Bylaw 1P2007 Amendments Beltline (Ward 11), PUD2019-0007, the following was adopted:

That Council:

1. ADOPT, by bylaw, the proposed amendments to the Beltline Area Redevelopment Plan; and
2. Give three readings to Proposed Bylaw 34P2019.
3. ADOPT, by bylaw, the proposed amendments to the Land Use Bylaw 1P2007; and
4. Give three readings to Proposed Bylaw 35P2019.
5. DIRECT Administration to proceed with amendments to Phase 2 of the Beltline ARP.

That Bylaw 34P2019 be amended in Schedule A, Part 2 Culture 7 & Entertainment District, Page 16, section 2.2.2 Community Priorities, by adding a new Community Priority, as a second paragraph, under “Safety and accessibility in the public realm”, as follows:

“Gender-based analysis should be pursued for public open space design and operation, publicly accessible private space design, public realm design, the mobility network design and operation, and building design.”

At the 17 December 2018 Regular Meeting of Council, that with respect to Rivers District Community Revitalization Discussion Update (Report C2018-1285), the following recommendations were approved:

That Council:

1. Approve the BMO Centre expansion project conditional upon written confirmation from the Government of Canada that it will fund one-third of the capital and the Government of Alberta approves an amended Rivers District Community Revitalization Levy (CRL) Bylaw for a 20-year extension period (2028-2047);
2. Authorize the Government of Alberta portion of the Project costs (including financing) to be funded from the CRL extension;
3. Direct the Administration to bring options for funding The City's portion of the Project costs (including financing) to the Strategic Meeting of Council on 2019 January 28.
4. Direct Administration to amend the Rivers District Community Revitalization Levy Bylaw to incorporate a 20-year extension period (2028-2047) and advertise the proposed bylaw within the required timeframe to return to the Combined Council Meeting on 2019 January 14;
5. Authorize Administration to share the recommendations and materials discussed during the closed portion of the 2018 December 17 Regular Council Meeting and adopted by Council, with Calgary Municipal Land Corporation and the Calgary Stampede; and
6. Direct that this report and presentation remain confidential pursuant to Sections 16(1), Section 23(1)(b), 24(1)(a), 24(1)(b), 25(1)(c), and 27(1)(a) of the Freedom of Information and Protection of Privacy Act (Alberta), until Government of Alberta and Government of Canada funding matters have been resolved.

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### **BACKGROUND**

Since its opening in 1981, the Red Line CTrain has provided critical public transportation connectivity to Stampede Park and the surrounding area with an average weekday boarding of 111,300 served by 351 train trips per day. While providing critical transportation service, at the same time, the Red Line CTrain line acts as a physical barrier to integration between the Beltline communities west of the CTrain tracks and east Victoria Park.

In 2018, Calgary Municipal Land Corporation (CMLC) partnered with The Calgary Stampede on the development of the Rivers District Master Plan (RDMP). The RDMP vision is to create an authentic, connected, resilient, and vibrant culture and entertainment district in which 8,000 people from diverse backgrounds and across demographics will one day live. Integrating into the city and established downtown neighborhoods, the district will not only become the premier culture and entertainment destination of the region, but also become home to those seeking the excitement and convenience of urban living.

Four distinct principles form the foundation of this plan—to create an authentic, connected, resilient, and vibrant Rivers District. Of these four principles, creating a connected Rivers District seeks to redevelop, implement and activate public infrastructure to meet the needs of the community and Calgarians by improving walkability, cycling, and increasing accessibility.

The RDMP identified the extension of 17 Avenue SE at Macleod Trail via an at-grade crossing of the Red Line CTrain tracks into Stampede Park as an important access point for future development in the area. The plan will create improved connectivity within the Rivers District, through a new connection to Stampede Park and support the creation of an attractive right-of-way for new retail and commercial development.

As part of CMLC's mandate to lead the delivery of the RDMP, CMLC will manage the delivery of the 17 Avenue SE Stampede Crossing (17SX) project and it will be funded through the CRL.

A project steering committee has been established to oversee and provide direction on all major project decisions. The steering committee consists of the following members and their organizations: CMLC's Vice President of Development, Calgary Stampede's Vice President of Park Planning and Development and Calgary Transit's Manager of Infrastructure. Should a dispute arise that the steering committee cannot resolve, the dispute will be referred to the GM of Transportation, the President and CEO of CMLC, and the CEO of The Calgary Stampede.

The participation of stakeholders in the 17SX project will be defined under the leadership of the steering committee. Calgary Transit is the largest stakeholder and is the owner/operator of the infrastructure to be built by the project, and as a result will be tightly woven into the project decisions. Calgary Transit will be the sole officiant of transit operations in accordance with a Transit Construction Protocol Agreement created for this project.

Calgary Transit and Calgary Stampede have each identified one project representative who will act as CMLC's single point of contact within their respective organizations. These individuals are empowered to make decisions on behalf of their organization and they will communicate internally and involve additional resources when required to arrive at a decision.

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### **INVESTIGATION: ALTERNATIVES AND ANALYSIS**

The project will connect 17 Avenue SE at Macleod Trail into Stampede Park via an at-grade crossing of the Red Line CTrain tracks, facilitating access for all modes of transportation. To evaluate and accommodate the at-grade crossing, a preliminary design report was completed in 2018, outlining the modifications required for the Victoria Park / Stampede CTrain Station, the surrounding CTrain infrastructure and roads. The risk based preliminary design report included the modeling and analysis of the interaction between vehicles, CTrains, and pedestrians.

The preliminary design report outlines the following scope of work to be completed in design development:

- Entire re-visioning and reconstruction of Victoria Park / Stampede Station;
- New at-grade road crossing of the CTrain tracks;
- Two new at-grade pedestrian crossings of the CTrain tracks;
- Modifications to CTrain infrastructure, including track, overhead catenary system, signalling and communications;
- Modifications to road and lane configurations at 17 Avenue and Macleod Trail SE to enable two eastbound lanes and one westbound (with potential to expand to two) on 17<sup>th</sup> Avenue;
- A Road Safety Audit (RSA) and additional modelling work to inform the safety measures that will be implemented for pedestrians, vehicles and CTrains;
- A new CTrain bridge over the Elbow River to relocate the track siding which is currently located at Victoria Park / Stampede Station;
- Removal of the pedestrian bridge at Victoria Park / Stampede Station (connecting the west side of Macleod Trail to Stampede Park); and
- Permanent closure of the elevated walkway connection from the BMO Centre to the Saddledome by The Calgary Stampede to accommodate future BMO expansion.

### **Benefits:**

- A connected Rivers District seeks to redevelop, implement and activate public infrastructure to meet the needs of the community and the City of Calgary by improving walkability, cycling and increasing accessibility;
- Improved connectivity within the Rivers District, through a new connection to Stampede Park supports the creation of an attractive right-of-way for new retail and commercial development;
- Entire re-visioning and reconstruction of Victoria Park / Stampede Station with two-side loading platforms, creating more space so customers can wait safely and comfortably for the CTrain;
- At-grade design improves accessibility to Victoria Park / Stampede Station, Stampede Park and the Rivers District for Calgarians with limited mobility;
- The removal of the pedestrian bridge at Victoria Park / Stampede Station enables the improvement of the public realm and incorporating Crime Prevention Through

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Environmental Design (CPTED) principles will allow better sightlines resulting in a 'feeling safer' effect;

- Improved Macleod Trail urban realm street experience; and
- Opportunity to reduce maintenance and operational costs by removing end of life items and aging infrastructure.

### **Risks and Impacts (Attachment #2):**

- The new 17SX introduces new conflict points between pedestrians, vehicles and CTrains. A crossing safety assessment was completed to analyze the risks and hazards, and identified these risks cannot be eliminated, but mitigations will be sought through a Road Safety Audit, appropriate design, safety measures and treatments;
- The addition of an east-leg at Macleod Trail and 17 Avenue SE, combined with forecasted increase to traffic and pedestrian volumes, as well as CTrain pre-emption of the traffic signal will result in a noticeable impact to northbound and eastbound vehicle delays and queues throughout the day. Once constructed, there will be limited opportunities to make dramatic changes to signal operations;
- Due to the revised track geometry, train speeds will need to be reduced, increasing train run times which could result in the need for one more CTrain to maintain the same schedule;
- The City can expect an increase in complaints regarding this crossing from the public, particularly with signal timing concerns; and
- Potential full-closure of Victoria Park / Stampede Station during construction.

### **Next Steps:**

- Project steering committee to select an engineering firm to perform the services of prime design consultant to substantiate the preliminary design report and to move forward with design development;
- A preliminary project schedule has been developed but is subject to change as the prime design consultant begins contributing to the project planning efforts:
  - Select prime design consultant: May 2019
  - Complete substantiation of preliminary design report: June 2019
  - Complete design development: February 2020
  - Construction Tender: March 2020
  - Construction Start: July 2020 following Calgary Stampede
  - Construction Completion: Q3 2023

### **Stakeholder Engagement, Research and Communication**

In 2017, CMLC formed a working committee to guide the master plan process over the following two years. The committee included Ward 8 and 11 Councillors, Remington Development Corporation, Victoria Park Business Improvement Area, the Ramsay, Inglewood and Beltline Community Associations, Calgary Stampede, and The City of Calgary. The working committee completed a series of reviews on the master plan prior to a draft plan being taken through a

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rigorous nine-month public engagement campaign. The public engagement process was designed to ensure the ambitions of the master plan aligned with the vision for the community.

Involving 36 engagement events and assembling data from nearly 4,000 surveys about the future of Calgary's Culture and Entertainment District, engagements efforts spanned the entire city. To make the most of the broad engagement and ensure the master plan aligned with policy for the area, CMLC partnered with The City for public engagement to advance the master plan as well as proposed amendments to the Beltline Area Redevelopment Plan.

The engagement program provided citizens with an overall review of the master plan goals and critical connections including the 17th Avenue extension. Through these engagement sessions, participants shared the importance of the area being well-connected for all modes of transportation and improving connections in and out of the district.

### **Strategic Alignment**

The 17SX Project is in alignment with:

- The Rivers District Master Plan (RDMP): Reshape east Victoria Park as an active, walkable, accessible community with enhanced connections to adjacent neighbourhoods;
- The Municipal Development Plan (MDP): Create great communities, connecting the city, enhancing the public realm, and creating a vibrant city centre;
- The Calgary Transportation Plan (CTP): Increase mobility choices, enable public transit, universal access for all, make walking and cycling attractive and convenient, and provide safe accessible customer focused public transit;
- RouteAhead: Improve customer experience, make transit attractive, make stops and stations attractive public spaces;
- 2020 Sustainability Direction: Investment in public transit and increase transportation choice;
- The Beltline Area Redevelopment Plan: An authentic, connected, resilient, and vibrant culture and entertainment district; and
- imagineCalgary: Convenient, comfortable, affordable, accessible and efficient transportation modes - and improve the pedestrian environment, attract tourism and reduce energy consumption.

### **Social, Environmental, Economic (External)**

The RDMP is guided by four distinct principles that form the foundation for all planning and development work moving forward, including the extension of 17 Avenue into Stampede Park:

- An authentic Rivers District with a distinct Calgary experience that celebrates the history and heritage of the neighbourhood and city;
- A connected Rivers District that links adjacent neighbourhoods to the district, the river and one another. The plan seeks to redevelop, implement and activate public infrastructure to meet the needs of the community and the City of Calgary by improving walkability, cycling, and increasing accessibility;

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- A resilient Rivers District that exemplifies best practices for economic development, green infrastructure and transit-oriented design, by promoting economic resiliency, environmental sustainability, social sustainability, and encouraging urban lifestyles that are associated with improved human health; and
- A Vibrant Rivers District by providing an active, mixed-use district, with a series of distinct places and spaces that is the heart and gathering place for adjacent neighbourhoods and a regional destination.

The improvements associated with the 17SX project will allow:

- Re-visioning and reconstruction of Victoria Park / Stampede Station with larger platforms so customers can wait safely and comfortably for the CTrain, while having the potential to increase ridership.
- At-grade design to improve accessibility to Victoria Park / Stampede Station, Stampede Park and the Rivers District for Calgarians with limited mobility;
- Opportunities for reduced infrastructure maintenance costs, operating costs and lifecycle replacement costs while attracting private investment to the district.

### **Financial Capacity**

#### ***Current and Future Operating Budget:***

There will be an extended operating cost to run supplemental bus service as a replacement to the Red Line CTrain while the Victoria Park / Stampede Station is rebuilt. Traffic on Macleod Trail will be impacted during construction through permanent and temporary lane closures. These costs will be covered by CMLC through the project.

It is expected that there will be:

- Increased operational requirements to facilitate road closures during major events in Stampede Park; and
- A reduction in future maintenance and utility costs as this project will remove aging infrastructure.

Additional effort will be required for crews to maintain the new traffic signal controllers, the new CTrain crossing signals and the new track crossing. As well, additional peace officers will be required to ensure users adhere to the warning signals at the CTrain track crossings during major events in Stampede Park.

It is estimated that the future operating costs and savings will balance each other out.

#### ***Current and Future Capital Budget:***

There are no capital budget impacts as CMLC is funding the 17SX project through the CRL. Through this funding, The City of Calgary will benefit from the replacement of aging infrastructure requiring lifecycle replacement, avoiding future capital budget requirements.

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### **Risk Assessment**

In 2018, a preliminary design report was completed, outlining modifications required for the Victoria Park / Stampede CTrain Station, the surrounding CTrain infrastructure and roads to accommodate an at-grade crossing at Macleod Trail and 17 Avenue.

Throughout the project construction, there will be impacts to all modes of transportation in the immediate area. Impact mitigations include planning of the work to minimize the duration of station, road and sidewalk closures. There will also be times where the CTrain system needs to be closed completely to train service during weekends and long weekends. During these times, replacement bus service will be put in place.

The addition of an east-leg at Macleod Trail and 17 Avenue combined with a forecasted increase in traffic and pedestrian volumes and CTrain pre-emption, will have a noticeable impact to northbound and eastbound vehicle delays and queues.

The new at-grade crossing introduces conflict points between pedestrians, vehicles and CTrains. A crossing safety assessment was completed to analyze the risks and hazards, and identified these risks can be mitigated, however not eliminated, through appropriate design, safety measures, and treatments.

There is potential for area businesses to be impacted with a reduction of customers who use the 17 Avenue / Victoria Park Station during construction.

### **REASON(S) FOR RECOMMENDATION(S):**

The 17 Avenue SE Stampede Crossing was identified as a crucial access point, requiring at-grade access to accommodate all modes of traffic in the RDMP; and

CMLC will manage the delivery of this project and it will be funded through the Community Revitalization Levy (CRL).

### **ATTACHMENT(S)**

1. Attachment 1 – 17SX: Victoria Park / Stampede Station Design Concepts
2. Attachment 2 – 17 Avenue SE Stampede Crossing: Anticipated impacts to Roads and Calgary Transit