

Transportation Report to  
Calgary Planning Commission  
2019 June 20

ISC: UNRESTRICTED  
CPC2019-0749

## Airport Trail Interchanges

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### EXECUTIVE SUMMARY

The Airport Trail Phase 2 program completes the Airport Trail corridor from Deerfoot Trail to Stoney Trail, supporting the unimpeded flow of goods and vehicles to and from the Calgary International Airport, the growing logistics business around the Airport, and development in the City's Northeast communities. The program is funded in partnership by the Government of Canada (\$50 million), the Government of Alberta (\$27.7 million), the Calgary Airport Authority (\$20 million, plus half the land costs) and the City (\$20.65 million, plus half the land costs). The \$153.35 million program includes the following projects:

1. Extension of tender-ready Airport Trail NE, from 36 Street to 60 Street NE (under Construction);
2. Construction of ring road access at Stoney Trail NE (southbound Stoney to westbound Airport Trail NE (in Preliminary Design); and
3. Construction of two grade – separated bridge structures and associated ramps at 19 Street NE and Barlow Trail NE, crossing over Airport Trail NE.

This report provides an overview of the third project listed above.

### ADMINISTRATION RECOMMENDATION:

That Calgary Planning Commission **RECEIVE AND ACCEPT** this report for information.

### PREVIOUS COUNCIL DIRECTION / POLICY

On 2018 July 30 at the Combined Meeting of Council, Council approved a budget appropriation of \$153.35 million to Program 859- Airport Trail Phase 2 (TT2018-0856).

This followed previous Council direction:

- 2012 December 03 – Council approved 'Airport Trail Functional Planning Study' (TT2012-0658).
- 2014 May 26 – 2015 -2024 Investing in Mobility – Airport Trail was included as an unfunded transportation infrastructure project list (TT2014-0308).
- 2017 April 10 – Council approved 'The Review and Update of the 2012 Airport Trail Functional Planning Study' (TT2017-0168).
- 2017 July 24 – Council approved the Airport Trail Corridor project for submission to the Government of Canada for funding under the National Trade Corridors Fund (C2017-0614).

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### **BACKGROUND**

Airport Trail NE serves as a key corridor in Calgary's northeast communities, connecting Deerfoot Trail to Stoney Trail through the Airport Trail Tunnel. It is a key 'Primary Goods Movement' and 'Primary Transit' corridor and improves access in and out of the Calgary International Airport and adjacent lands.

The Airport Trail Tunnel, which opened in May 2014, was constructed as the first phase of this vital East – West Corridor within Calgary. The timing of the Airport Trail Tunnel construction coincided with the construction of the Airport's new Runway, in order to significantly reduce ultimate construction cost. The Airport Trail Tunnel Agreement, signed by The City and the Calgary Airport Authority, tied connecting the tunnel through to Stoney Trail with the completion of grade separated bridge structures at 19 Street NE and Barlow Trail NE. Airport Trail Phase 2 completes the corridor, and includes the following project components:

- Airport Trail Extension, from 36 Street NE to 60 Street NE, began construction in the fall of 2018, and will form the road linking to Stoney Trail NE in the East;
- Stoney Trail NE southbound to Airport Trail NE westbound ramp at the ring road;
- Interchanges at 19 Street NE and Barlow Trail NE

The project is proceeding at this time with contributions provided by our funding partners - \$50 million from the Government of Canada, and \$27.7 million from the Government of Alberta. The Calgary Airport Authority is also contributing \$20 million and half the land costs towards the project.

A project rendering, with a view from the northwest, is included below, and as Attachment 1.



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

The Airport Trail Interchange configuration has been extensively studied through a succession of Functional Planning studies – in 2005, in 2012, and with the 2017 update. The close proximity of Barlow Trail NE and 19 Street NE means that the two grade separated structures and associated ramps essentially function as one interchange.

A number of options were considered for the ultimate configuration, tied to Airport expansion considerations; and the selected interchange for construction has resulted in the most cost-effective to date. The 2017 Functional Plan Update has shaved over \$100 million off the ultimate costs identified in the 2012 Functional Plan. It is noted that this option does consider, and allow for, future LRT Airport access within the footprint of anticipated roadworks. The current interim orientation of interchanges under design is consistent with ultimate expansion, with no throw-away costs.

Logistical and detour planning is a key component to the anticipated project success. 19 Street NE and Barlow Trail NE represent the only access points to the Calgary International Airport; and as such, multi-stage detours are proposed with the goal of meeting current levels of service. Key detour stages for Barlow Trail NE and 19 Street NE are appended as Attachments 2 and 3.

One element of the interim Interchanges – 98 Avenue NE connecting east – west between Barlow Trail NE and 19 Street NE has been deferred until traffic demands require it. It is currently not needed, and the construction of it would require a relocation of the Budget Car Rental facility located on the acquired lands. A term-defined leaseback opportunity is currently under negotiation between Budget Car Rental and the City's Real Estate and Development Services.

The Public Art funding component is being held as required and will be dedicated to Public Art once the program proceeds at Council's direction. Separate from Public Art funds, a number of different enhancements have been considered for this project, including aesthetic treatments to the MSE walls and facing girders, as well as lighting and other features. Some representative examples of options generated are attached to this Report as Attachments 4 and 5. These will be further refined, with selection based on collaboration between the City and the Calgary Airport Authority.

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

Engagement with the Public occurred during preparation of the 2012 Airport Trail Functional Plan.

The Calgary International Airport is the primary stakeholder impacted by the project and has participated as a 50/50 planning and funding partner in both the original Airport Trail Functional Plan (2012), and the Review and Update of the 2012 Airport Trail Functional Planning Study (2017). They are also contributing \$20 million in value towards the Interchanges and will share in 50 percent of the needed land costs.

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Land needed for the Interchanges is currently being acquired through Expropriation.

Communication efforts to date have centered around alignment with the Calgary Airport Authority to develop a consistent (City – Airport) communications message. Presentations have been made to the Airport Executive, and Town Hall availability to both staff and White Hatters. The Airport will coordinate communications to their stakeholders (airlines, concessionaires, taxis, buses and shuttles). City – led public open houses are planned prior to construction in the fall of 2019 and spring of 2020. Specific contact has been made with adjacent landowners at Oxford Properties and Budget Car Rental.

Additional project information is found on the City of Calgary Website. Project updates are posted regularly, and the site will continue to be updated during construction and implementation of project detours.

### **Strategic Alignment**

The project is aligned with City priorities providing a City that moves, supporting Transportation and Transit, and supporting an inland Port and Logistics District centered around the Airport.

The Airport Trail Phase 2 Interchanges Project aligns with the following specific policies:

**Action Plan: #M3** - Invest in strategic road improvements in priority growth areas as funding becomes available by enhancing the design of transportation infrastructure and increasing connectivity.

**CTP: Transportation Goal #1:** Align transportation planning and infrastructure investment with city and regional land use directions and implementation strategies.

**CTP: Transportation Goal #2** - Promote safety for all transportation system users by providing grade separation at key intersections.

**CTP: Transportation Goal #5** - Promote economic development by ensuring the efficient movement of workers and goods to and from the Airport, and to the City's Northeast.

**CTP: Transportation Goal #6:** Advance Environmental Sustainability by increasing traffic network effectiveness and reducing idling time.

**CTP: Transportation Goal # 7** - Ensure transportation infrastructure is well managed by providing Northeast Calgary a crucial link between Deerfoot Trail N and Stoney Trail NE

**MDP: 2.5.1 Transportation choice** - Maintain automobile, commercial goods and emergency vehicle mobility in Calgary while placing increased emphasis on sustainable modes of transportation (walking, cycling and transit) by providing increased connectivity and infrastructure for sustainable modes.

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### **Pathway Connectivity, Accessibility**

Multi-use pathways are proposed along the west sides of both bridge structures for direct north-south access into the Airport campus. The proposed pathways provide equal or better access than exists prior to construction. Additionally, the City is identifying future work that can be undertaken to extend a multi-use pathway connection between 19 Street NE and Barlow Trail NE. Planned pathway connections across the bridge structures are shown in Attachment 6, and a letter from the Airport supporting the pathway configuration attached as Attachment 7.

Trees located on Airport property that will be removed to accommodate the work, will be replaced following construction. However, Airport operations typically do not promote tree coverage that encourages bird habitat in the vicinity of aircraft approach and take-off, so no new trees are planned.

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

Social benefits include providing a direct goods and transportation movement between Deerfoot Trail N and Stoney Trail NE, improving goods and transportation movement to and from the Calgary International Airport, supporting adjacent commercial development in the vicinity of the Airport and along the Airport Trail Corridor, and provides fibre optic network redundancy.

Environmental benefits include a reduction in Calgary's economic footprint, reducing vehicle emissions by eliminating delays at existing Airport Trail traffic signals at 19 Street NE and Barlow Trail NE, and reducing travel time for vehicle trips to and from the City's northeast communities.

Economic benefits include stimulating investment in the vicinity of the Airport and along the corridor between Deerfoot Trail N and Stoney Trail NE; leveraging the previous investment in the Airport Trail Tunnel and providing the planned transportation and transit connections; stimulating job growth with the addition of 400 construction jobs; and facilitating the movement of goods and services.

### **Financial Capacity**

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

Roads have provided estimates for ongoing annual operating budgets needed to maintain the new infrastructure as follows:

Bridge Structures - \$16,000 per bridge for a total of \$32,000  
Roadways - \$9,500 per lane-km, for a total of \$92,340

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

The total program is projected to cost \$153.5 million, whereof the City share is \$20.65 million, plus half the land costs.

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### **Risk Assessment**

There are a number of potential risk elements identified for the Interchanges project. They include:

- **Land** – needed for the project is being secured through expropriation, and negotiations are underway to permit a time limited leaseback to Budget Car Rental. Risk associated with the land is therefore significantly reduced.
- **Budget** – expropriation of land adds uncertainty around ultimate land costs, which will not be finalized until well into the future. Additional risks exist with anticipated construction costs, as the project has yet to be put to the market.
- **Environment** Provincial Water Act requirements have been retired. Potential exists for wetland impacts on Federal land and we are working with our Airport partner and Federal agencies to mitigate. Environmental contamination of the acquired land has been retired through a Phase I/II investigation of possible contaminants.

### **ADMINISTRATION RECOMMENDATION TO CALGARY PLANNING COMMISSION**

Recommend that the Calgary Planning Commission **RECEIVE AND ACCEPT** this report for information.

### **ATTACHMENT(S)**

1. Rendering of Finished Interchanges
2. Key Barlow Trail Detour During Construction
3. Key 19<sup>th</sup> St Detour Orientation During Construction
4. MSE Wall Aesthetic Treatment
5. Girder Front Facing Aesthetic Treatment
6. Final Pathway Orientation into Airport Property
7. YYC Pathway Support