



## Green Line Frequently Asked Questions

### Why build the Green Line now?

Building the Green Line is our next step towards completing Calgary's transit network as described in RouteAhead: A Strategic Plan for Transit in Calgary. Along with the new MAX bus rapid transit lines Calgarian will have fast, frequent and reliable transit service that strategically connects communities, employment hubs (including those outside downtown like Quarry Park) and key destinations across the city.

The Green Line is vital to keeping Calgarians on the move in the future and has added benefits that contribute to Calgary's economic recovery and resiliency. Benefits include creation of approximately 20,000 jobs to build Stage 1, connecting people to employment hubs including the downtown core, industrial centre and Quarry Park, improving mobility by creating capacity for growth, and reducing congestion of Deerfoot Trail and the Red Line south for example.

### Why did The City have to review stage 1?

In the summer of 2019, the Green Line team advised Council about the need to re-evaluate Stage 1 for the a few key reasons.

**Project budget:** Cost estimates were exceeding Green Line's funding of \$4.9 billion by approximately 10%.

**Construction risk:** The proposed tunnel under the river was increasing construction cost and risks, and pushing the depth of the tunnel and stations to approximately 8 storeys deep.

**Customer experience:** the 8-storey deep tunnel and stations would impact user experience making stations less convenient, comfortable and easy to navigate which would impact the rider experience.

### Why build 16 Avenue N to Shepard, why not look at other options?

The Council approved first stage of Green Line construction from 16 Avenue N to Shepard builds the core of the project while preparing for the future.

The Stage 1 boundaries of 16 Avenue to Shepard provide a catalyst for improvements on Centre Street and advance the street towards its long-term vision, increases the likelihood and ease of expansion north of 16 Avenue and provides best value for tax dollars.

As part of our review in 2019, other options were evaluated including:

- Options that look to connect into Red & Blue Lines using the existing City Hall tunnel
- Options to separate north and southeast LRT lines
- Options for a shortened line that stops in the Beltline or Downtown Core (does not cross the Bow river)



- Bus Rapid Transit (BRT) options

The third-party due diligence review concluded that the updated Stage 1 alignment would deliver the best value for Calgarians by moving a high number of LRT riders on opening day, providing strategic rapid transit network connections (e.g. Green Line LRT connection to MAX Orange BRT), spurring private redevelopment and investment opportunities, and providing the greatest opportunity for incremental LRT expansions to the north central and southeast in the future.

The updated Stage 1 alignment can be built within the \$4.9B capital budget, minimizes construction risk, and helps achieve the customer experience envisioned while advancing the project's long term vision. A report detailing this review will be included in the Updated Stage 1 Alignment Recommendation report that will be presented to City Council's Green Line Committee in June.

### **What's going on with Green Line funding?**

The approved budget for Green Line is \$4.9 billion. This is divided between The City, Government of Alberta and Government of Canada. In the 2019 budget the Province changed their cash flow schedule for this project indicating more funds later in the construction phase. We're working closely with our funding partners to ensure the Green Line can be built on time and on budget.

### **If the LRT is surface on Centre Street, can we build 9 Avenue Station?**

We've heard a lot of requests for the addition of a 9 Avenue station. We're currently evaluating this station to look at what having a 9 Ave stations might mean to the community, area businesses and developments and the mobility network.

### **Will there be parking on Centre Street?**

With the addition of the LRT on Centre Street, on-street parking along Centre Street will have to be removed. A parking strategy will be developed to determine other means of providing short-term parking.

### **What are the costs savings of going at-grade on Centre Street?**

Previously our project cost estimates were coming in at approximately 10% over budget. The updates to the alignment, including segments with surface running LRT, bridge over the Bow River and shallow underground stations, now allow us to build the project within our approved budget.

### **What will surface running LRT on Centre Street look like?**

The Green Line will use low-floor vehicles, which are different from the existing high floor LRT vehicles used in Calgary. The low-floor vehicles will be designed to integrate with the community, have curb height platforms and will have better accessibility for all Calgarians. They require less infrastructure and are smaller scale stations. The trains are embedded in the road, operating next to vehicle lanes and travel within the speed limit of Centre Street



There will be a low curb separating the traffic lanes. Similar to 7 Avenue there we don't anticipate it will require crossing arms and warning bells where there is good visibility for operators and pedestrians. The interaction between LRT, vehicles and pedestrians is managed by traffic signals.

We anticipate the new fleet of trains will be quieter than the existing system on 7 Ave.

### **Will there be public realm improvements along Centre Street corridor?**

The final design for Centre Street has not been determined yet. While the width of the corridor is constrained with limited space, we're looking at a number of urban design solutions to improve the public realm for pedestrians and businesses along the corridor. One of our design objectives in the area is to improve the pedestrian experience along and across Centre Street.

### **Why Centre Street?**

The Centre Street alignment was selected through the North Central LRT (now Green Line North) review which looked at different routes including the Nose Creek valley and Edmonton Trail. At the time, we heard through community engagement it was important to ensure LRT service is accessible and close to where people live.

The Green Line will ultimately connect North Central Calgary with the downtown core and communities in southeast Calgary. By reaching 16 Avenue N as part of Stage 1, we are providing an important connection to the broader rapid transit network, and serving one of the most dense population areas across Calgary's LRT network. In addition, by including 16 Avenue as part of Stage 1, this maximizes the ease of expandability to the north central once future funding becomes available.

### **How will the bridge impact the Bow River Pathway?**

The Bow River Pathway is important to our city and would serve as a connection for people accessing the Green Line. Our planning team is exploring different bridge types and how they would interface with the pathway, and have set a design objective to provide continued functionality and experience along the river pathway.

### **Will there be environmental impacts to the Bow River and Prince's Island Park as a result of the bridge?**

As part of the planning process Environmental Specialists provided input into the bridge alignment, and recommended that the bridge minimize its footprint within the constructed wetland.

Further detailed environmental studies will be completed as the bridge design is finalized to ensure the design and construction plans minimize the impact to the constructed wetland and meet the municipal, provincial and federal regulatory requirements relating to wildlife and other environmental considerations.

### **How will this impact nearby properties?**

The design details for the updated stage 1 alignment are under development to confirm property requirements and have not been finalized. The updated stage 1 alignment will have changes to property



requirements, some properties previously identified may no longer be required, while new or revised property requirements may be identified. It is important to The City that our Green Line team have the opportunity to meet with property owners to discuss these requirements once they are known.

Property requirements will include residential and commercial properties to varying degrees from partial to full acquisition. Where opportunities exist, The City will be working with property owners to have station entrances integrated within private development.

### **Why can't the Centre Street bridge be used?**

2 Street S.W. was determined to be the best route for the Green Line because it optimizes ridership by getting closer to the centre of Downtown. Centre Street does not serve the highest density of jobs in the downtown core.

Using the Centre Street bridge for the Green Line was evaluated by the technical team and eliminated because the bridge is too narrow, would require modifications and the elimination of three traffic lanes or narrowed sidewalks to accommodate the LRT and transitioning the LRT from Centre Street bridge to 2 Street S.W. would require significant property impacts.

### **What will the bridge look like and how will it be designed?**

We're looking at a number of different design options for the bridge, however a design process has not yet been decided. Right now, the team is exploring which bridge type are best suited for LRT use, and identifying the planning and design process and defining the role stakeholders and public in the planning process.

Upon approval of the recommended alignment, The City would commence a detailed technical investigation including geotechnical, hydrotechnical, archaeological and survey investigations. The technical analysis will be accompanied by a public engagement process to gather more specific input on bridge architecture objectives. The bridge design will then be advanced with consideration for architectural solutions that best meet the defined objectives. A preferred bridge design will then be advanced and finalized in conjunction with construction procurement and environmental approvals.

### **How will the tunnel entrance (portal) downtown impact 2 Street SW?**

The team is reviewing solutions and finalizing the location of the portal downtown. A key planning and design objective is to identify potential solutions for integrating the portal into the public realm and adjacent developments.

**For more information on the Green Line and to provide your feedback online visit [engage.calgary.ca/GreenLine](https://engage.calgary.ca/GreenLine).**