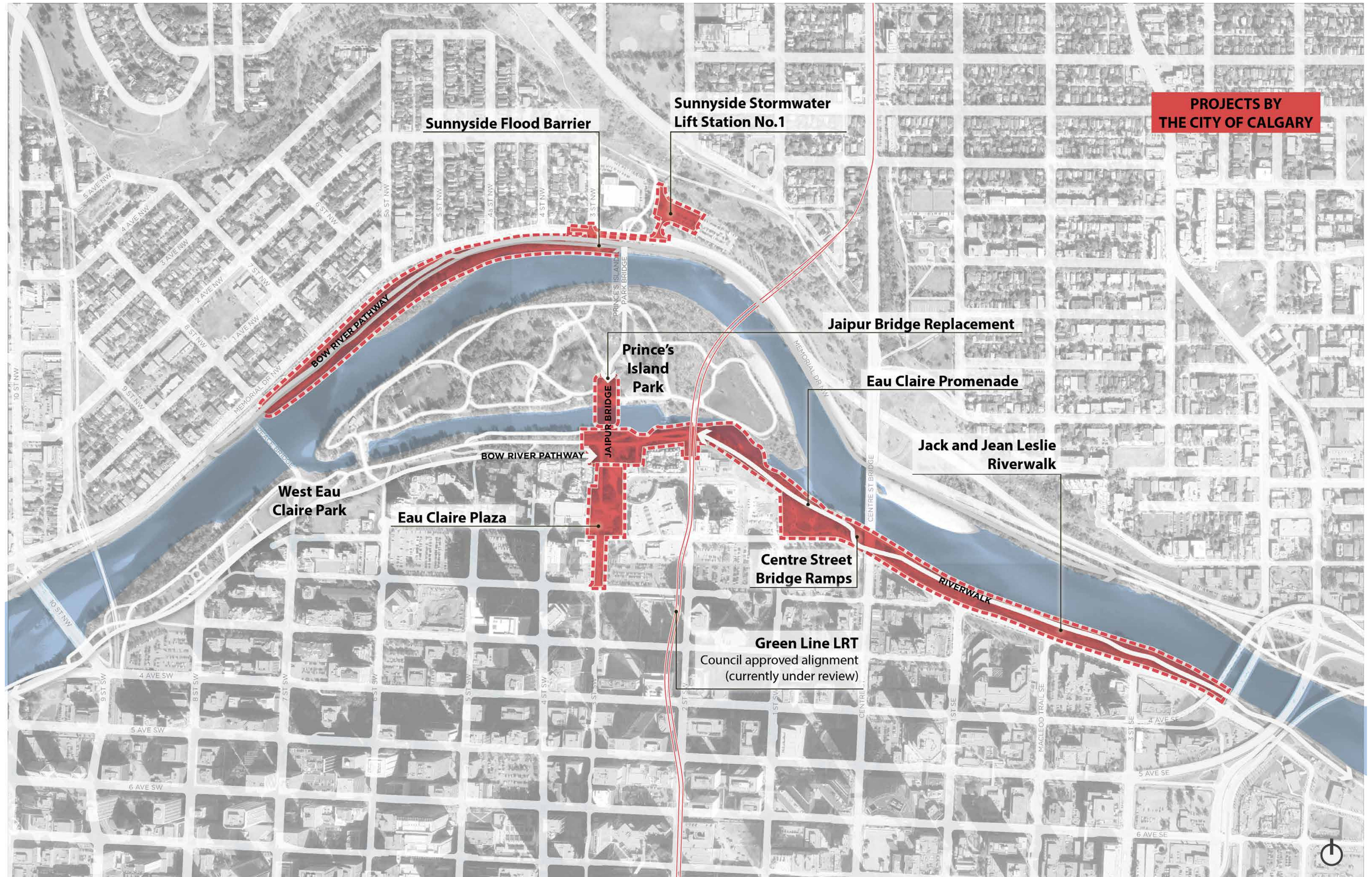




# Eau Claire Area Projects





# Eau Claire Public Realm Plan

The draft Eau Claire Public Realm Plan provides a comprehensive vision for the future of the Eau Claire Public Realm and is the guiding framework for projects happening in your community. It highlights key considerations, programs and elements that will allow Eau Claire area projects to capitalize on the many opportunities that exist in the area.

## Vision

Connecting the heart of the river with the heart of downtown, the public realm will evolve toward pedestrian and multi-modal activity, embracing opportunities to invigorate the public realm with social activity and ecology.

### For the City and Community

- Create spaces of various scales that provide for diverse users.
- Design for flexibility and adaptability.
- Embrace winter.
- Clearly connect Eau Claire Plaza and Promenade with complementary programming and spaces.
- Celebrate the area's history through the preservation and continued use of existing buildings and structures.

### Resilient and Responsible

- Incorporate green infrastructure where possible to provide opportunities for stormwater cleansing and or infiltration.
- Incorporate efficient and programmable lighting.
- Utilize high quality, durable and beautiful materials and furnishing to create an authentic and timeless sense of space.
- Incorporate flood mitigation along the Eau Claire Promenade and Jack and Jean Leslie Riverwalk to protect the area from at least a 2013-level flood.

### Active and Multi-modal

- Plan for temporary programming/installations by providing necessary infrastructure and space.
- Utilize comfortable micro-climates to create places for interaction and rest. Provide broad space for pedestrian movement.
- Extend the separated cycle path from West Eau Claire Park through to Jack and Jean Leslie Riverwalk.

# Project Impacts

Construction of these projects will have a major impact on access to Prince's Island Park, Eau Claire Plaza, Eau Claire Promenade and Jack and Jean Leslie Riverwalk from Spring 2020 to Fall 2022. Flood mitigation and bridge lifecycling projects need to begin immediately and proceed uninterrupted to completion.

The City is currently working to find a solution that minimizes the impact that construction will have on residents, commuters, businesses and events. Unfortunately, there is no option that will allow for the area to function as it currently does, during construction.

Expected impacts include:

- Dust
- Noise
- Vibration
- Pathway and public space closures
- Relocation of events to other downtown locations

The City is committed to ensuring accessibility in the area for all Calgarians and visitors during construction periods. We are developing a construction plan and a detour plan that will minimize these impacts and allow people to move through and access sites in the area.

Please stop by the Eau Claire Promenade station to review preliminary construction and detour plans.



# Construction timeline

Project	Q4 2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022
Eau Claire Promenade	Design	Design	Construction preparation	Construction	Construction	Construction	Construction	Construction	Construction	Construction	Construction	Construction
Jaipur Bridge	Design	Construction preparation	Construction preparation	Construction	Construction	Construction	Construction					
Centre Street Bridge Ramps	Design	Design	Construction preparation	Construction								
Sunnyside Flood Barrier	Design	Design	Design	Design	Construction	Construction	Construction	Construction	Construction			
Sunnyside Stormwater Lift Station	Construction	Construction	Construction	Construction	Construction							
Eau Claire Plaza	Plaza is currently funded for design and partially for construction.											

\* Construction timelines are all tentative and subject to change. Timelines may change based final design options, regulatory approvals, tendering processes, weather and other consideration.

**Legend**

- Design
- Construction preparation
- Construction

# Replacing Jaipur Bridge

## Building a new bridge- CURRENT CONDITION

Built in 1968 as the primary south connection between the Eau Claire area and Prince's Island Park, Jaipur bridge has reached the end of its service life. Its condition has deteriorated due to salt-laden moisture inside the structure. Furthermore, the design of the bridge no longer meets the current demands - it's a popular bridge!



The Jaipur Bridge is the primary access to and from festivals and Prince's Island Park.



Looking at the current condition of the bridge's underside.

# Replacing Jaipur Bridge

## Building a new bridge

As the main south access to Prince's Island Park, the 50 year old bridge needs to be replaced.

A new bridge will keep this access open for the next 100 years. It will accommodate the needs of a growing downtown and one of Calgary most popular park destinations for citizens and visitors:

- Meets today's bridge design and engineering standards
- Flood resilient
- Fits with the new Eau Claire promenade and community
- Accommodates emergency vehicles

## The new bridge – design criteria FOLLOWED

We followed six mandatory criteria when selecting the bridge type:

1. Meet today's bridge standards and guidelines
2. Meet today's accessibility requirements
3. Help increase the City's flood resiliency
4. Accommodate emergency vehicles
5. Minimize impact to residents, businesses and events, by limiting construction to one year
6. Stay within budget

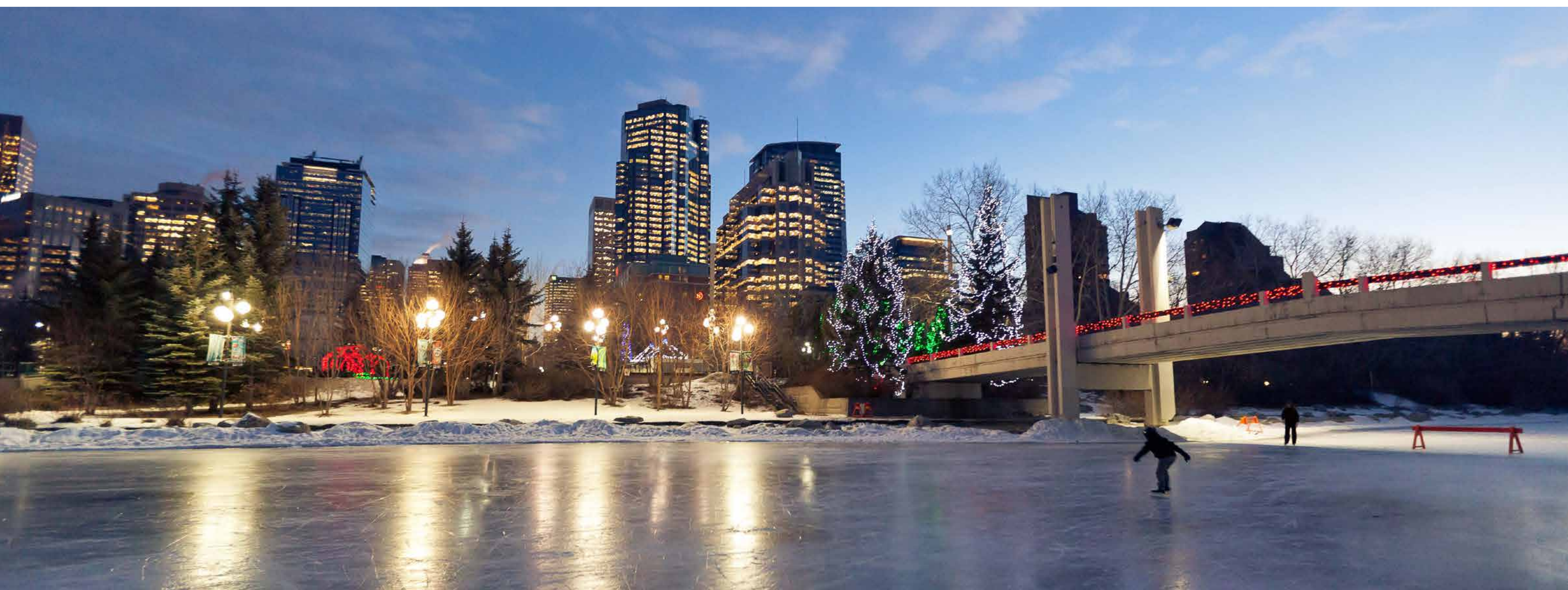


# Replacing Jaipur Bridge

## The new bridge – design criteria CONSIDERED




We also considered a number of other criteria, when designing this bridge:

- Future Eau Claire promenade design
- Aesthetics
- Construction schedule
- Fit with its surroundings
- Impact to Prince's Island landscaping
- Complexity of construction
- Interruptions to utilities
- Safety and connectivity for people traveling in the area
- Impact of construction
- Helicopter flight path
- Durability in extreme flooding
- Maintenance costs
- Impact of construction materials on environment
- Accommodates daily and event use
- Achieves regulatory requirements; e.g. Dept. of Fisheries and Oceans



# Replacing Jaipur Bridge

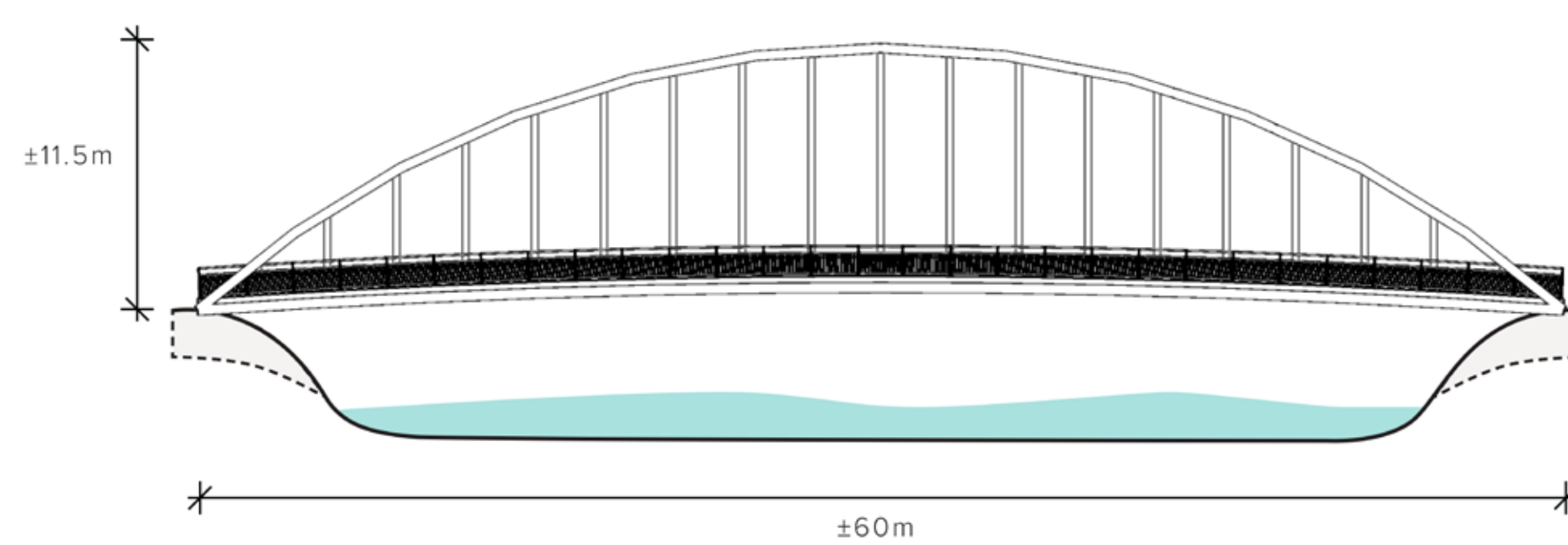
The new bridge – design options

Option	Strength	Weakness
<b>A-Frame</b>		
	<ul style="list-style-type: none"> <li>▪ Good sight lines</li> <li>▪ Bold design</li> </ul>	<ul style="list-style-type: none"> <li>▪ 20 m height creates a challenge to inspect and maintain</li> <li>▪ High construction complexity</li> <li>▪ Not sensitive to surrounding environment</li> <li>▪ Longer construction schedule</li> <li>▪ Higher cost</li> </ul>
<b>Box Girder</b>		
	<ul style="list-style-type: none"> <li>▪ Fits with the park landscape</li> <li>▪ No paint required to maintain steel material</li> </ul>	<ul style="list-style-type: none"> <li>▪ Cladding makes inspections difficult</li> <li>▪ Poor sight lines for viewing the area and safety concern</li> <li>▪ More vulnerable in extreme flooding</li> </ul>
<b>Tied Arch</b>		
	<ul style="list-style-type: none"> <li>▪ Requires the least amount of construction material</li> <li>▪ Good sightlines</li> <li>▪ Design can accommodate enhancements for special events or seasons</li> <li>▪ More resilient to extreme flooding</li> </ul>	<ul style="list-style-type: none"> <li>▪ Repainting steel over river is challenging</li> <li>▪ Similar to other bridges in Calgary</li> </ul>

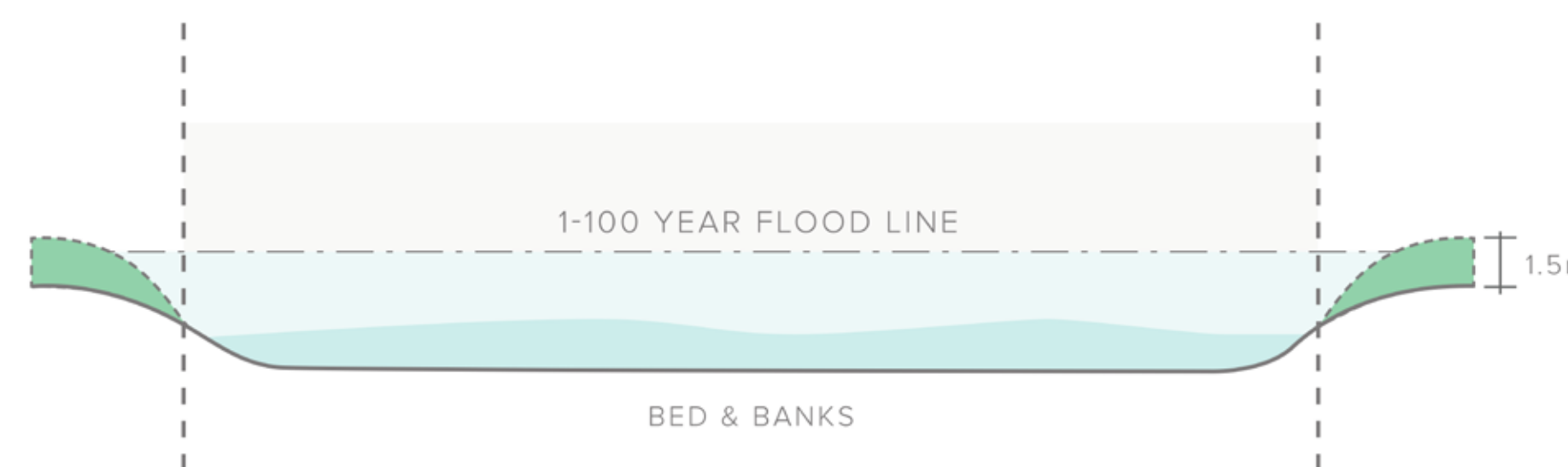


# Replacing Jaipur Bridge

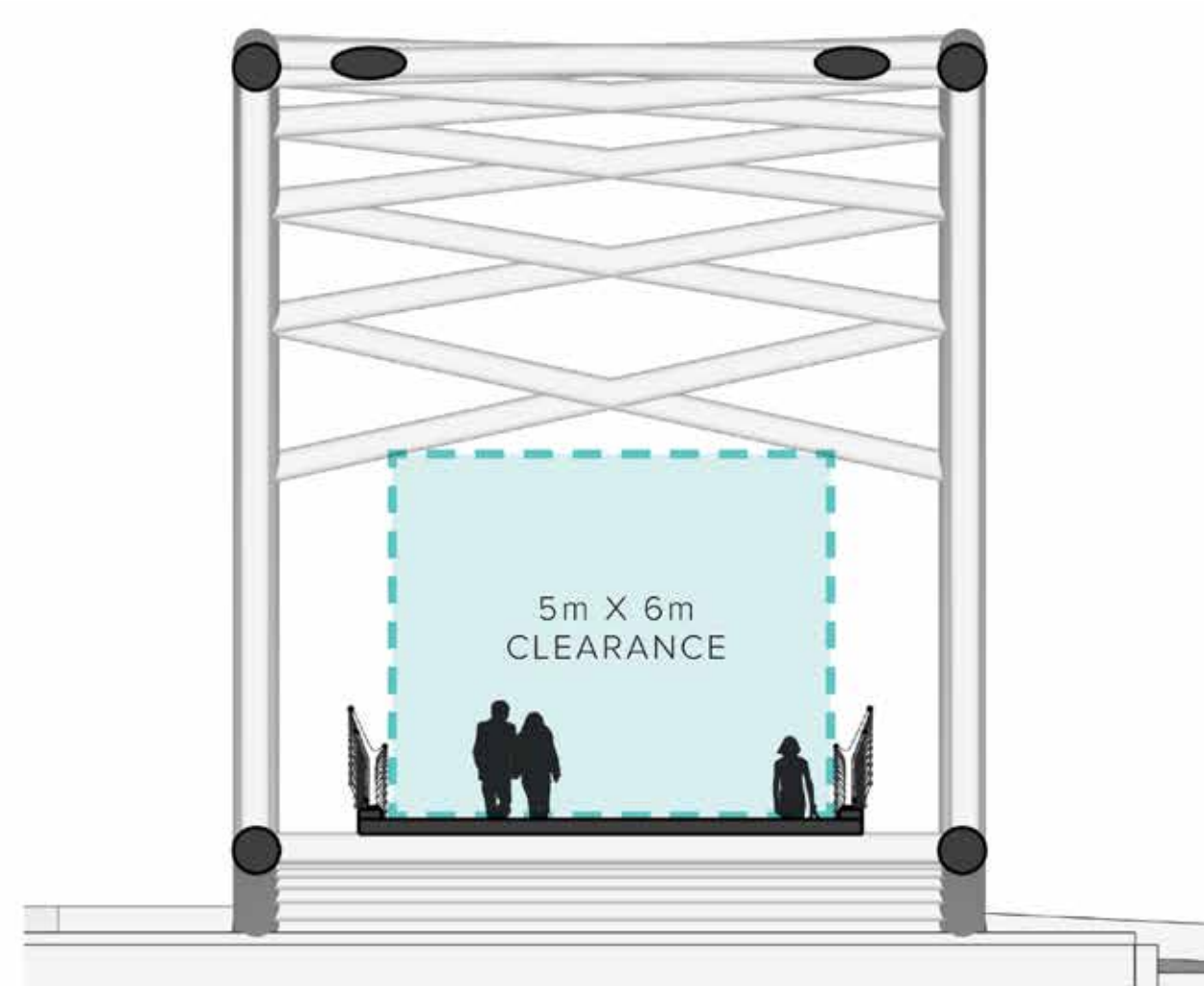
The new bridge – SELECTED bridge type



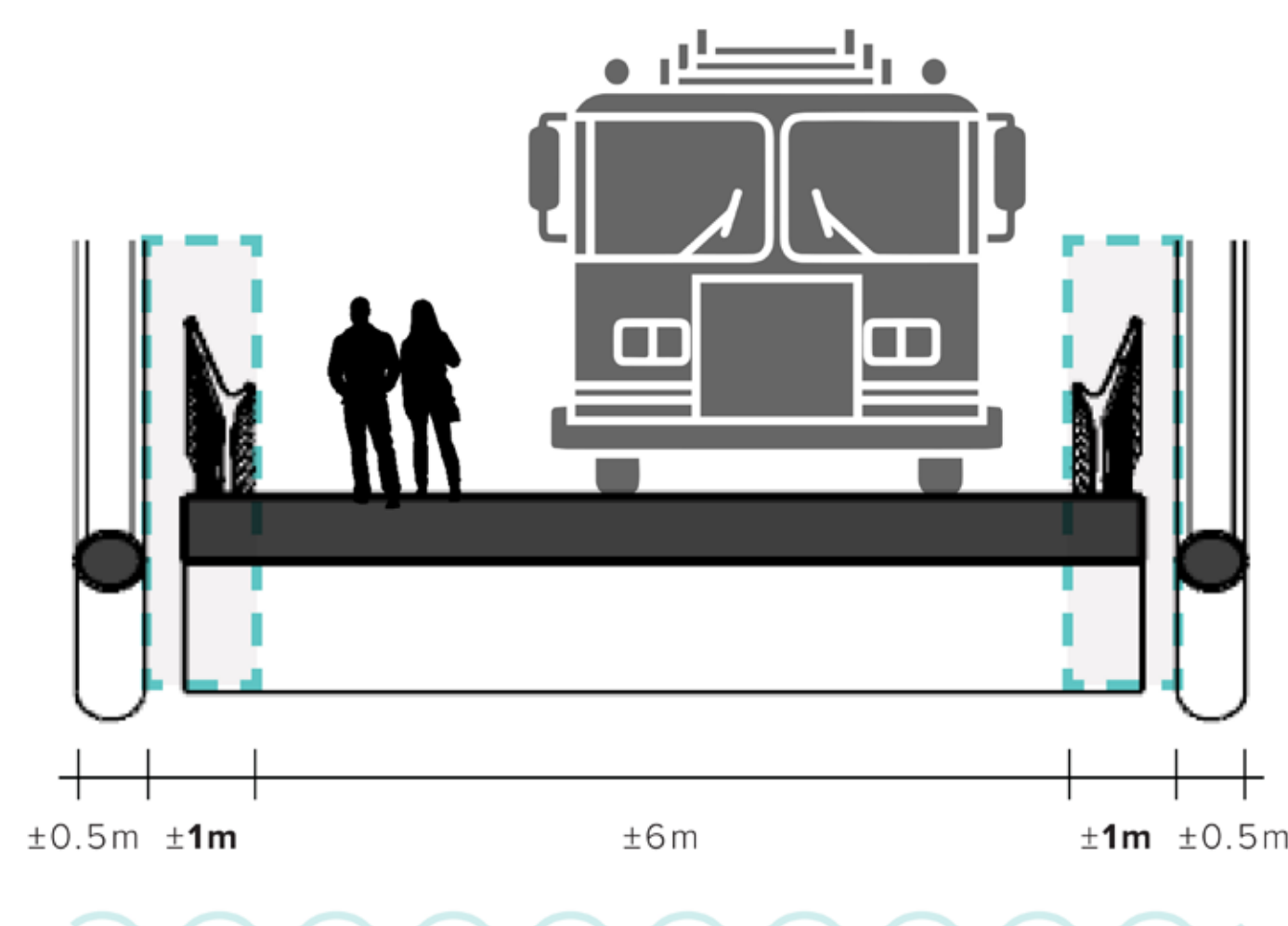
Height and length of bridge



New bridge is above flood line



Height clearance for emergency vehicles

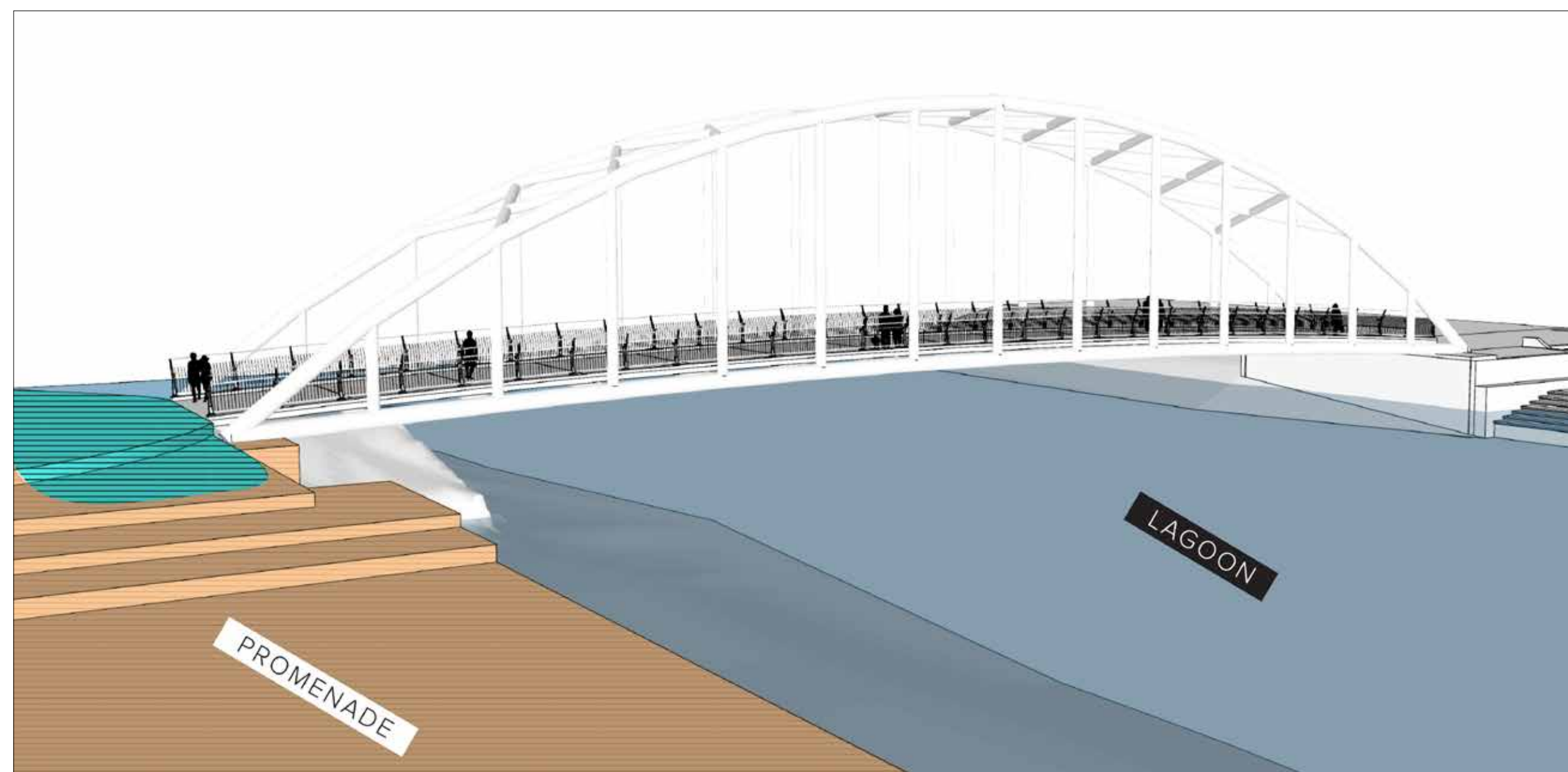


Width of bridge safely allows for emergency vehicles access and people leaving Prince's Island Park .

# Replacing Jaipur Bridge

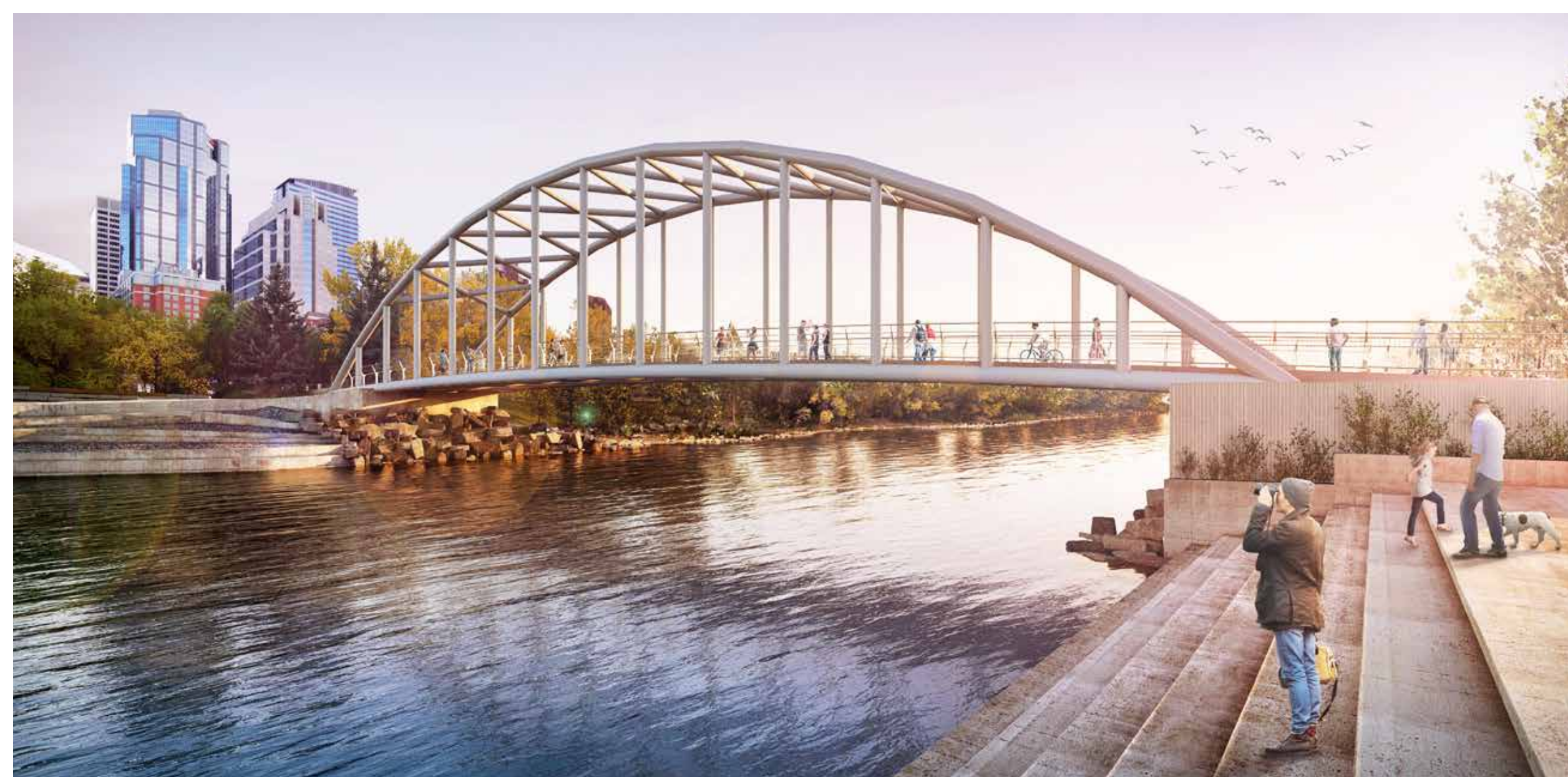
The new bridge –bridge type SELECTED

The project team will continue work on the design, for the remainder of the fall.



Selected bridge type: Tied Arch

## PRELIMINARY bridge design



Looking west, from the north side of the lagoon.



Looking south to downtown, from the north side of Jaipur bridge.

# Replacing Jaipur Bridge

## Constructing the new bridge – SCHEDULE

Project	Q4 2019	Q1 2019	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021
Complete new bridge design	■						
Remove trees *Must be done prior to nesting period		■	■				
Hire bridge contractor							
<b>Close Jaipur Bridge August 2020</b> Construct new bridge				■	■	■	■
Open new bridge June 2021*							■

\* Schedule may change due to weather or other circumstances, once construction begins

### Next steps on bridge design

- Continue bridge design to 100%:
  - Lighting
  - Hand railings
  - Finishes
  - North and south approaches
  - Materials
  - Colour
  - Jaipur references
- Review and consider comments and feedback from open house