

Eau Claire Area Improvements:

Building flood protection and downtown vibrancy



February 2021 Information Session

Package of information

Investing in Eau Claire

We're investing in Eau Claire, Chinatown and the East Village to enhance areas where Calgarians can proudly participate in a desirable, active and lively cultural destination. We're working towards building more resilient and vibrant communities that support future growth and development for the people who live, work, visit and travel the area. The projects in the area combine flood protection, lifecycle improvements, upgrades to public spaces and walking and cycling paths, enhanced safety measures and the goal of building and maintaining downtown vibrancy.

With many projects in the Eau Claire Area, we know a lot is going on. To help reduce repeated disruptions and impacts to the community, we are working together and coordinating all the projects happening in the area.

Projects such as those in the Eau Claire Area Improvements Program have been identified as infrastructure projects that are an important part of our economic recovery, and shovel ready projects are being prioritized by all orders of government to stimulate the economy and get people working. The Eau Claire Area Improvement Program will generate jobs in the short term through enabling works project and long term through main construction.

Eau Claire Area Improvements

2020 – 2023 Construction Projects

1
Downtown Flood Barrier and Eau Claire Promenade

2
Jaipur Bridge Replacement

3
Centre St. Ramp Upgrades

4
3 Avenue S. Walking and Wheeling Upgrades

5
Eau Claire Plaza

Eau Claire Area Improvements

- 1 Downtown Flood Barrier and Eau Claire Promenade**
Enabling Works: Q4 2020
Construction: Q1 2021 – Q3 2023
- 2 Jaipur Bridge Replacement**
Q1 2021 – Q3 2022
- 3 Centre St. Ramps Upgrades**
Q2 – Q4 2021
- 4 3 Avenue S. Walking and Wheeling Upgrades**
Q2 – Q3 2021
- 5 Eau Claire Plaza**
Enabling works: Q1 2021
Construction: Q2 2021 - Q3 2023

Other Projects in the Area

- 6 Sunnyside Stormwater Lift Station No. 1**
Q2 2019 – Q4 2020
- 7 Sunnyside Flood Barrier**
Q2 2021 – Q4 2022
- 8 Upper Plateau Separation Project**
Q4 2020 – Q2 2022
- 9 Gravel Bar Modification**
Q3 2021
- 10 2 St. S.W. and 3 St. S.W. Streetscape Master Plan**
On Hold
- 11 Tomorrow's Chinatown**
TBD
- 12 Green Line (2 Avenue S.W. Station)**
2027

21-0011486

We want to make sure you have the information you need and the opportunity to ask questions, so we're bringing all these projects together under one coordinated communication and engagement program. Visit [Calgary.ca/EauClaire](https://calgary.ca/EauClaire) for more information and to stay connected.



Building flood protection for downtown Calgary

The June 2013 flood experienced in Calgary was catastrophic. Sadly, one Calgarian's life was lost and 80,000 residents were forced to evacuate their homes. In downtown Calgary:

- Buildings, roadways and park spaces were flooded
- Emergency critical services were affected
- Head offices, businesses and government facilities were closed
- C-Train and bus service was disrupted
- Homes and personal property were damaged

It remains one of Canada's costliest disasters with an estimated \$5 billion in damages across Alberta and an estimated \$400 million to City of Calgary infrastructure alone.

As a river city, there will always be a need to prepare, respond and adapt to floods. That's why building resilience to flooding is one of our top priorities. And while we can't prevent future floods, we have a plan to reduce their impact.

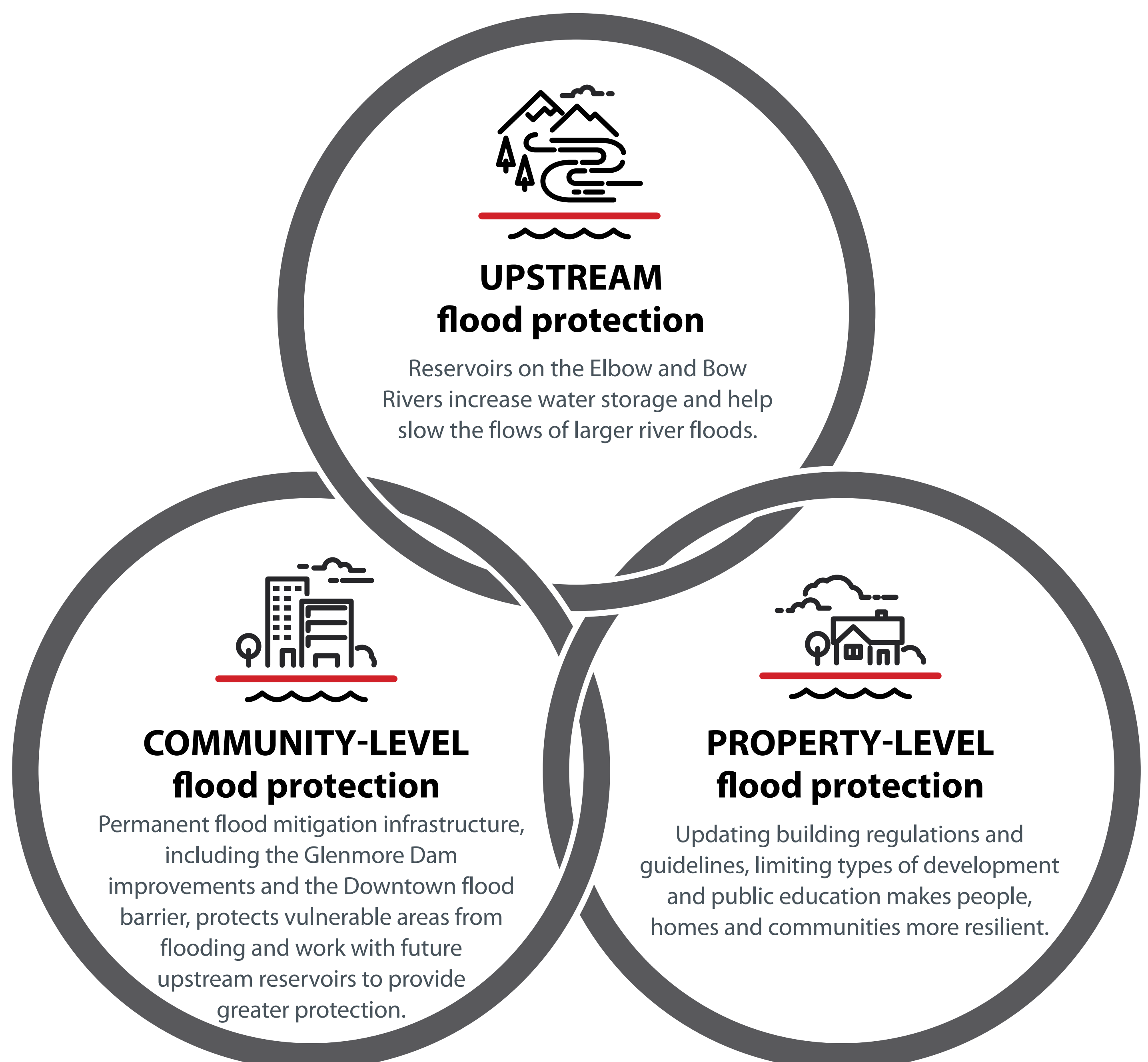
Funding

The estimated \$25 million investment in flood protection and the Eau Claire promenade is a collaboration between The City of Calgary, and the Government of Alberta.

Building flood protection for downtown Calgary

A three-layered plan

The City's Flood Resilience Plan uses a three-layered approach where each element works together to manage our flood risk in Calgary. Built at the junction of the Bow and Elbow Rivers, the measures outlined below will make Calgary's downtown resilient to at least a future 2013-level flood and significantly reduce the flood risk. To learn more about community-level projects that will protect other vulnerable areas in Calgary, visit calgary.ca/floodinfo.



Project Timelines and Delivery



Downtown Flood Barrier and Eau Claire Promenade

- Contractor procurement
- Construction start in Riverwalk 2021
- Construction at Centre Street 2021-2022
- Construction at the Lagoon 2021-2023



Jaipur Bridge

- Contractor Procurement
- Construction start 2021
- Completion Q3 2022



Centre Street Ramps

- Construction 2021



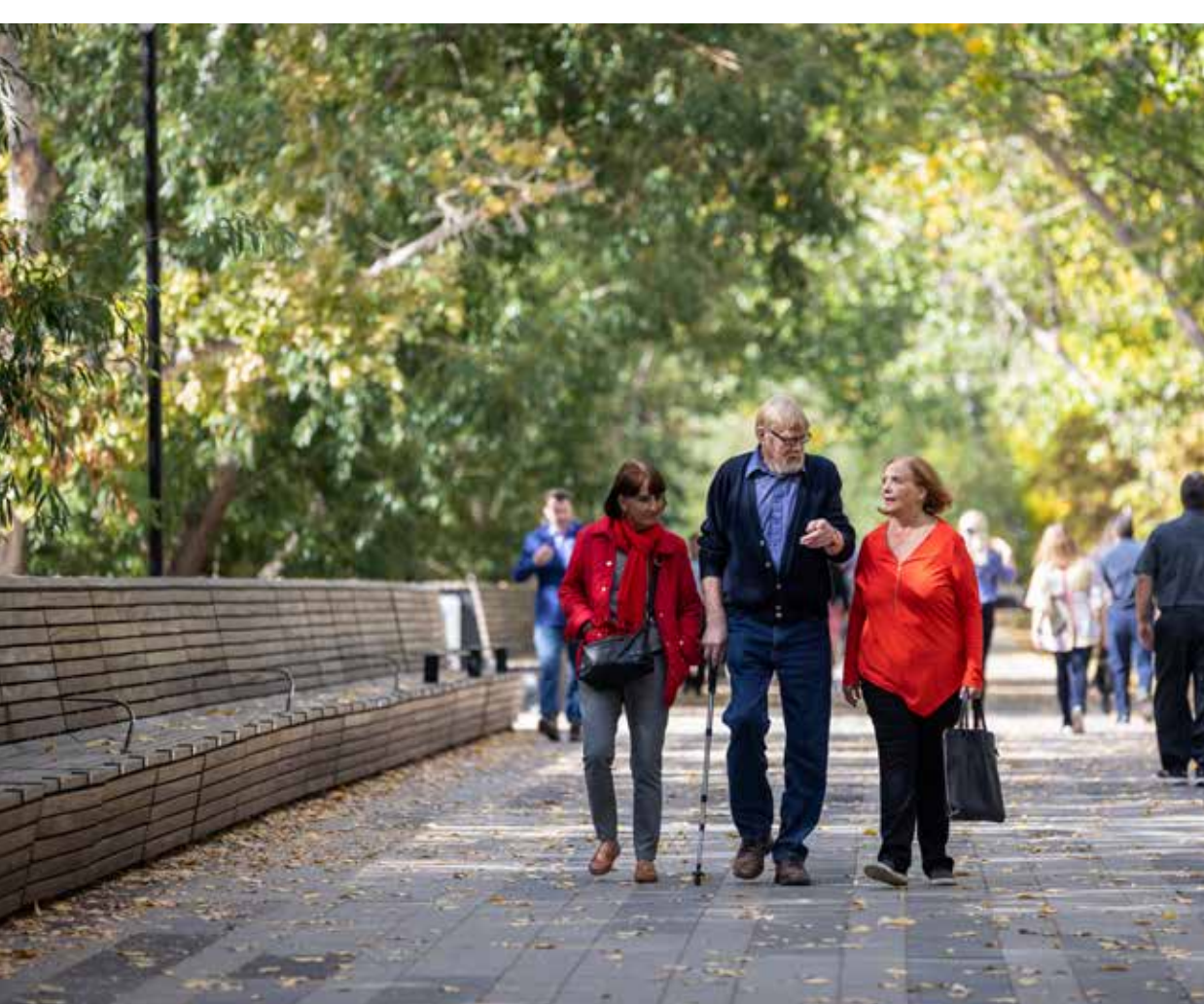
3 Ave Walking and Wheeling

- Design complete 2020
- Public info session Q1 2021
- Construction Q2-Q3 2021



Plaza

- Construction for the enabling works for the Plaza is expected to start in Q2 2021, with overall project completion in 2023. Construction will be phased to minimize impact and will be completed in alignment with the Eau Claire Promenade/Downtown Flood Barrier and Jaipur Bridge replacement.



Getting around Eau Claire

The City of Calgary is looking at the transportation network in and around Eau Claire to understand where people need to go and how we can make it easier, safer, and more accessible for everyone, whether you travel by foot, bike, bus or car.

No one mode of transportation serves all needs for all people, and that's especially true in the communities of Eau Claire.

It's policy.

The demand for our city's transportation network grows with Calgary's population. With another million Calgarians expected in the next coming decades, The City plans to keep Calgarians moving for generations to come. Our objective? To provide more convenient, affordable, and attractive transportation choices for all Calgarians. This means emphasizing comfortable, safe, walkable streets, as well as reliable transit service.

So what does this mean for Eau Claire?

Eau Claire is already a very walkable neighbourhood, with good connections to top destinations like the shops and restaurants in Chinatown and Eau Claire, Prince's Island Park, East Village and the Downtown Core. Riverwalk and its pathway network make it easy to connect to neighbouring communities like East Village, Chinatown, Downtown West, Sunnyside, and Beltline.

Detours

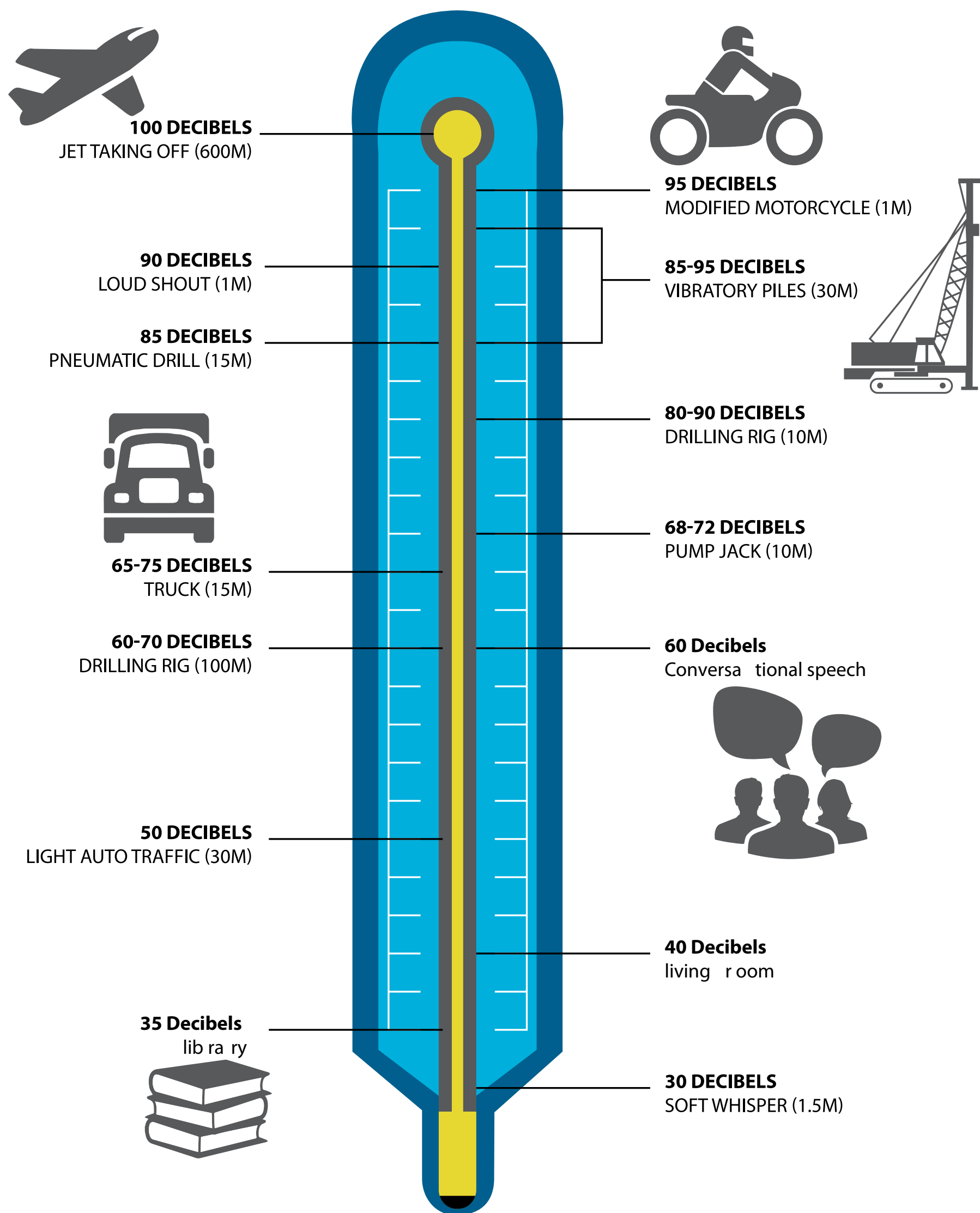
In late 2019, it was identified by the Eau Claire Area Improvements Program team that extensive detours would be required during the multi-year flood mitigation, bridge replacement, and public realm improvements in the area.

What we learned from our West Eau Claire Park project was that constantly changing detours for roadway and pathway users was costly, unsafe and not well received by those travelling in the area. To support Calgarians in navigating the area throughout construction, it was determined that long-term detours would best serve the community.

As we move closer to construction beginning, we will be able to provide a more detailed construction schedule, along with a finalized closure and detour map.

Managing the construction zone

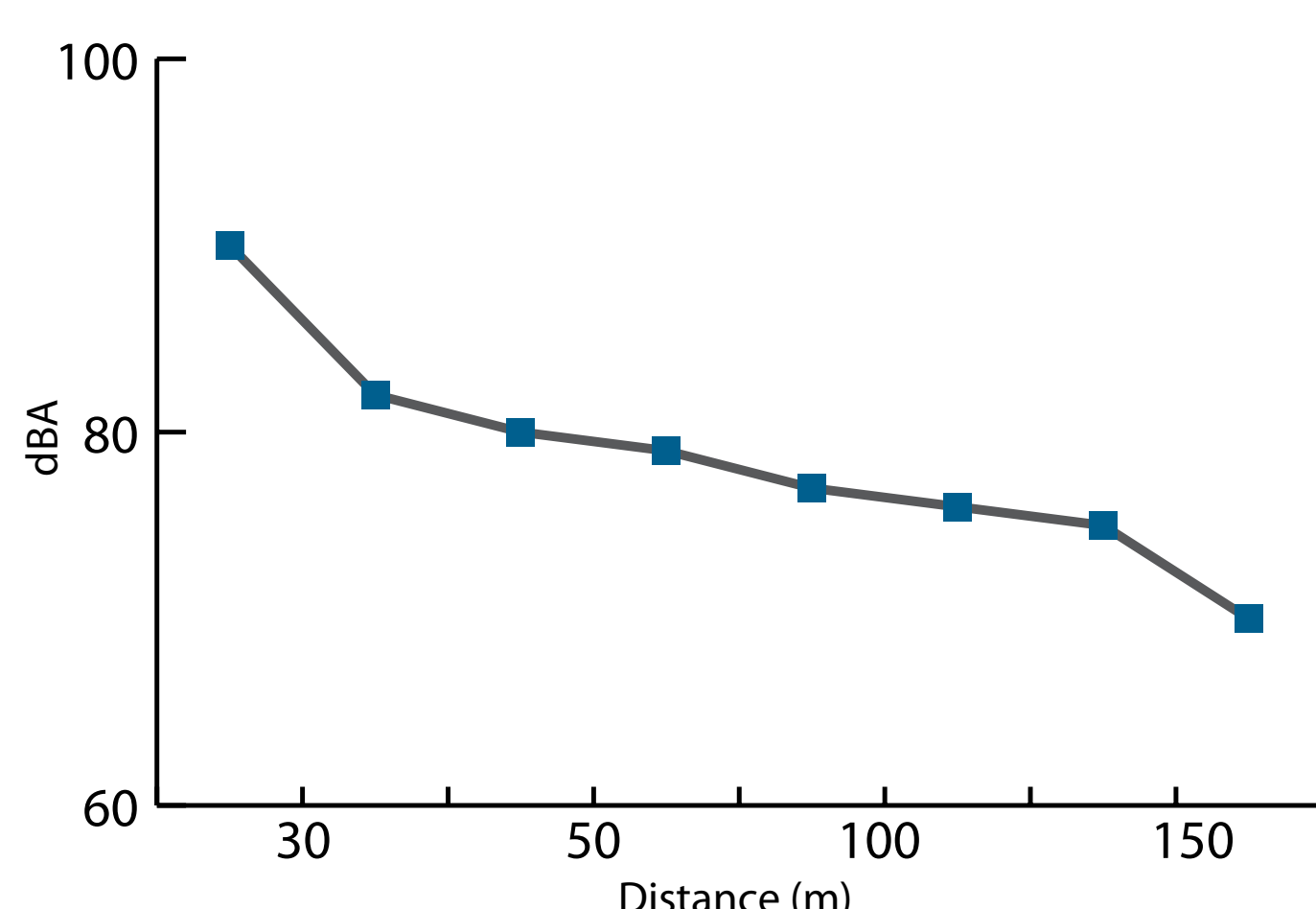
Sound levels



Sound levels Vibratory sheet piling

DISTANCE	VIBRATORY SHEET PILING
30m	85-90 dBA
45m	82 dBA
55m	80 dBA
60m	79 dBA
75m	77 dBA
90m	76 dBA
100m	75 dBA
150m	70 dBA

Note
1. Sheet piling will only occur between 7 a.m. and 7 p.m. on weekdays



At The City of Calgary, we pride ourselves on building a great place to live and a great place to make a life. We know that construction can be disruptive and can feel counter to those goals. Our project managers and contractors have extensive experience in this area. They use lessons learned from previous projects to find new, alternative, and better ways to mitigate the direct impact on Calgarians.

The safety and wellbeing of staff, contractors and the community is an utmost priority for The City. As a community we continue to work through the impacts of COVID19 and will continue to monitor and adjust to ensure the safety of those working on the Eau Claire Area Improvement projects.

Construction is expected to start in Q1 2021, so it is important you know what to expect. We are committed to keeping business accesses open throughout construction.

What to expect:

When construction is underway, here's what you can expect:

- An increase in on-site construction activity, including construction crews, vehicles and heavy equipment.
- Pathway and sidewalk closures and detours along the Bow River Pathway Network and surrounding areas to ensure pedestrians and cyclists can travel safely through the area and still access their destinations.
- The temporary removal of some parking, road closures and potential road detours.
- Fencing around construction areas and on-site signage.
- An increase in noise and vibrations throughout construction. Due to, for example, demolition, pile driving, motorized equipment, group compaction and vehicle back-up alarms.
- Installation of steel sheet piles that will generate ground vibrations in localized areas.
- Soil disturbance and dust emissions.
- An increase in truck and equipment traffic accessing the construction site(s) and surrounding areas.
- Material removal and delivery, as well as on-site flaggers to help direct traffic and pathway users.
- Temporary utility shut-downs may be required.
- Temporary transit stop relocations and detours.
- Construction activity on weekends, weekdays, and overnight as required.

Trees in Eau Claire

Tree Impacts

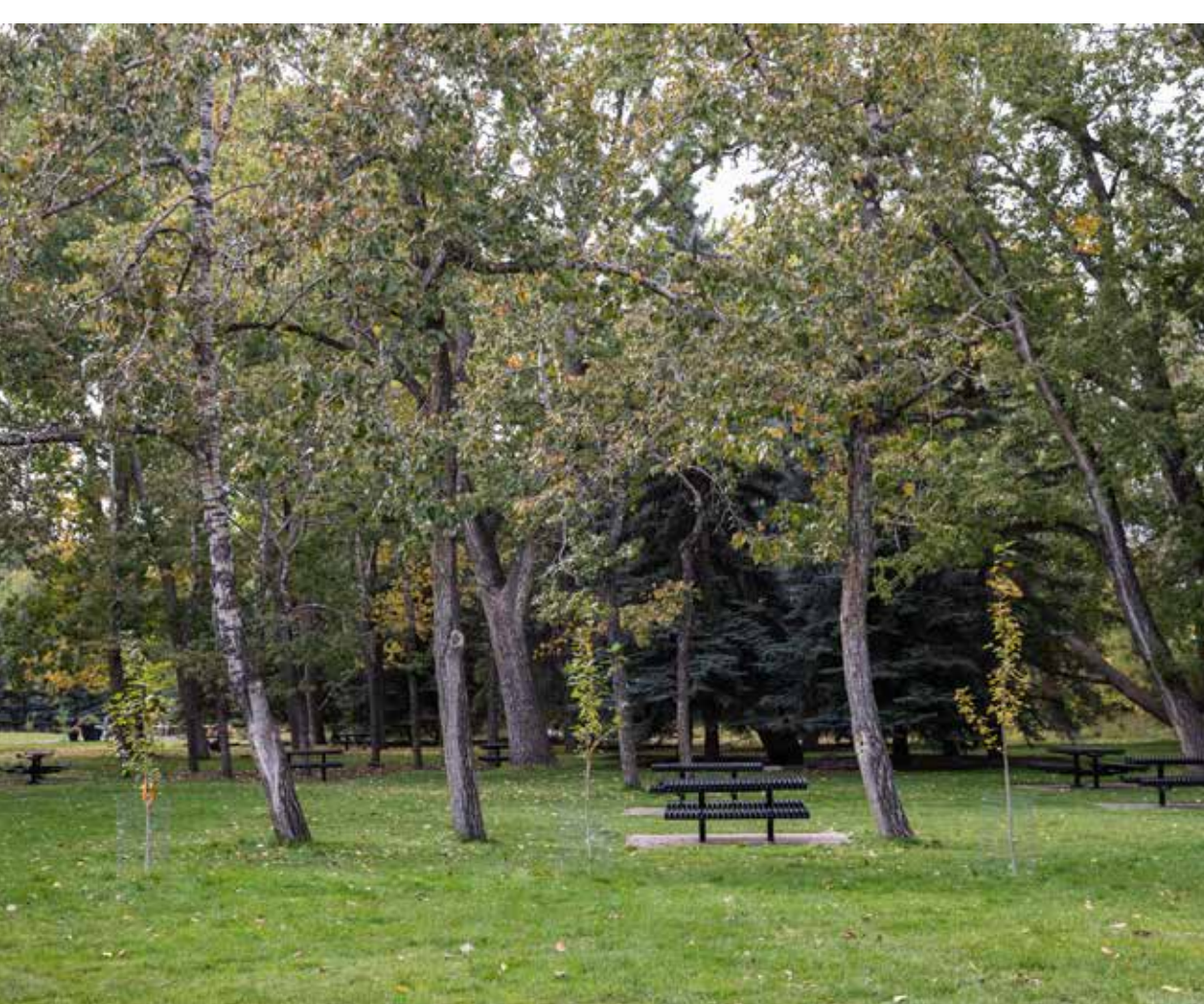
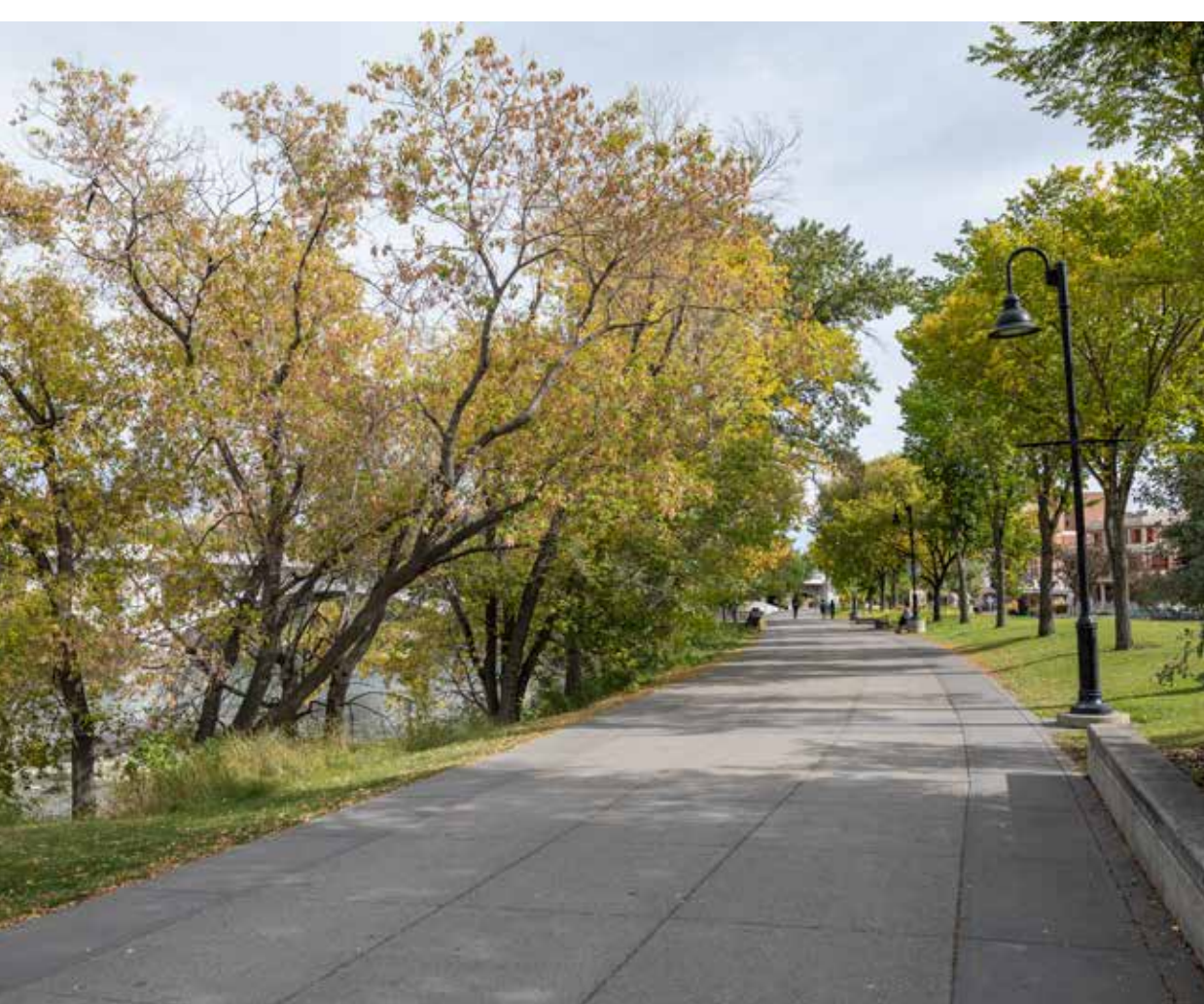
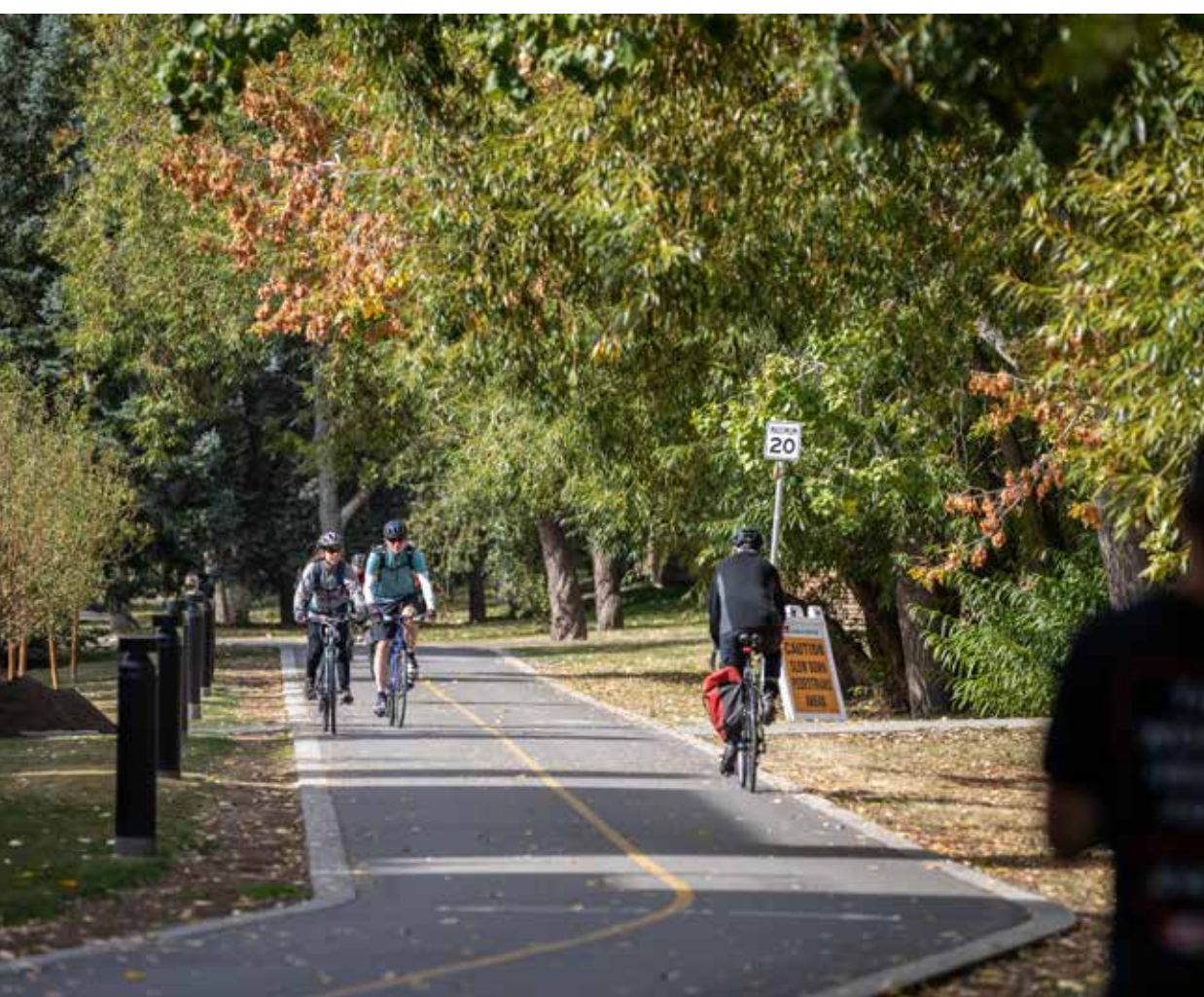
While we make every effort to avoid impacts to trees, sometimes the nature of a capital project requires that some trees are removed. In those unavoidable cases, The City has two ways to replace the loss of existing trees.

Manicured areas

When trees are impacted in manicured areas, a tree protection plan is created that first attempts to protect the trees during construction and, if not possible, tree compensation is applied to replace the lost trees. Tree compensation is based on the value of the impacted trees, determined by the health, size, species and location of the trees. It's important to note that replacement trees are planted in the closest suitable location to replace the impacted trees.

Natural areas

When trees are impacted in natural areas, a restoration plan is developed to restore the ecological health of the area. A restoration plan aims to restore the ecological health of an area by identifying the ecological needs of that area and measuring the success of the actions taken to meet those needs. Depending on the location, it may mean planting more trees to restore the area, but sometimes it may mean planting other types of vegetation to help restore the health of the local ecosystem.



Tree Impacts in Eau Claire

We know that trees will need to be removed for the Eau Claire Area Improvements project, some of which are already sick and/or dying. Many of the trees will be re-purposed; some as fish and wildlife habitat at the Inglewood Bird Sanctuary, others as woody organic matter in planting beds on Prince's Island. As part of the program's compensation and restoration plan, 114 trees, shrubs and flowers, including native species, will be replanted in the area. The species of plants we will be replanting will provide canopy coverage, age diversity through successional planting, and resiliency against Calgary's unpredictable weather.

We know that the trees in Eau Claire are important to our city and the community. When we have more information on where and how the trees will be removed, replaced and restored, we will be able to provide an update to the community. The City of Calgary will make every effort to give citizens at least 14 days notice before trees are removed by marking the impacted trees or area; however, trees may be removed with shorter notice if it poses a danger to City assets or people.



Downtown Flood Barrier and Eau Claire Promenade

Downtown flood barrier

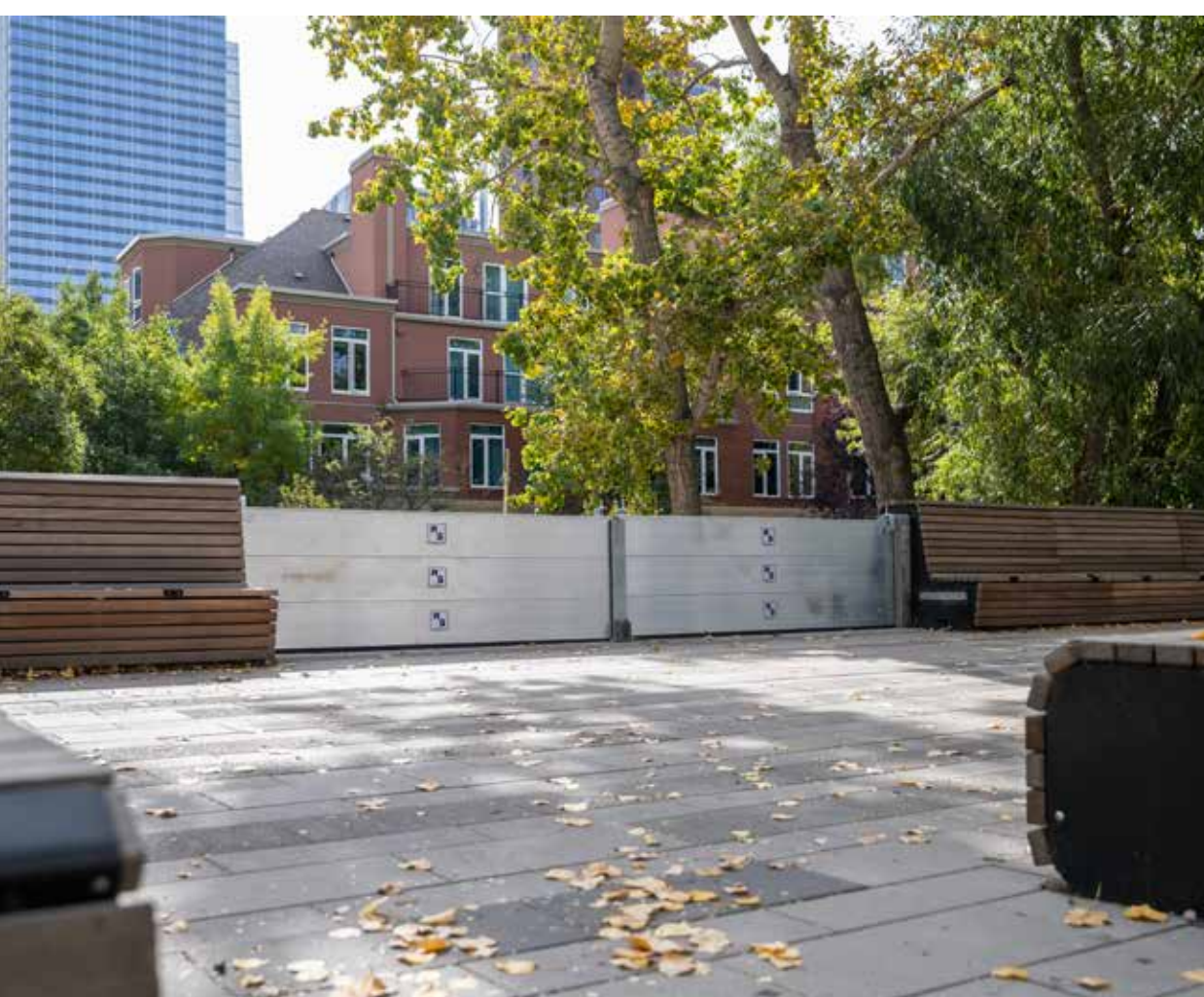
The Downtown flood barrier will be constructed along the south side of the Bow River and extend from Eau Claire Plaza to Reconciliation Bridge, reducing the flood risk to Downtown, Chinatown, East Village and Eau Claire communities. It will blend seamlessly into the public spaces of the Eau Claire Promenade/Jack and Jean Leslie Riverwalk, while being integrated with the West Eau Claire flood barrier that was completed in 2018.

Once constructed, this barrier will:

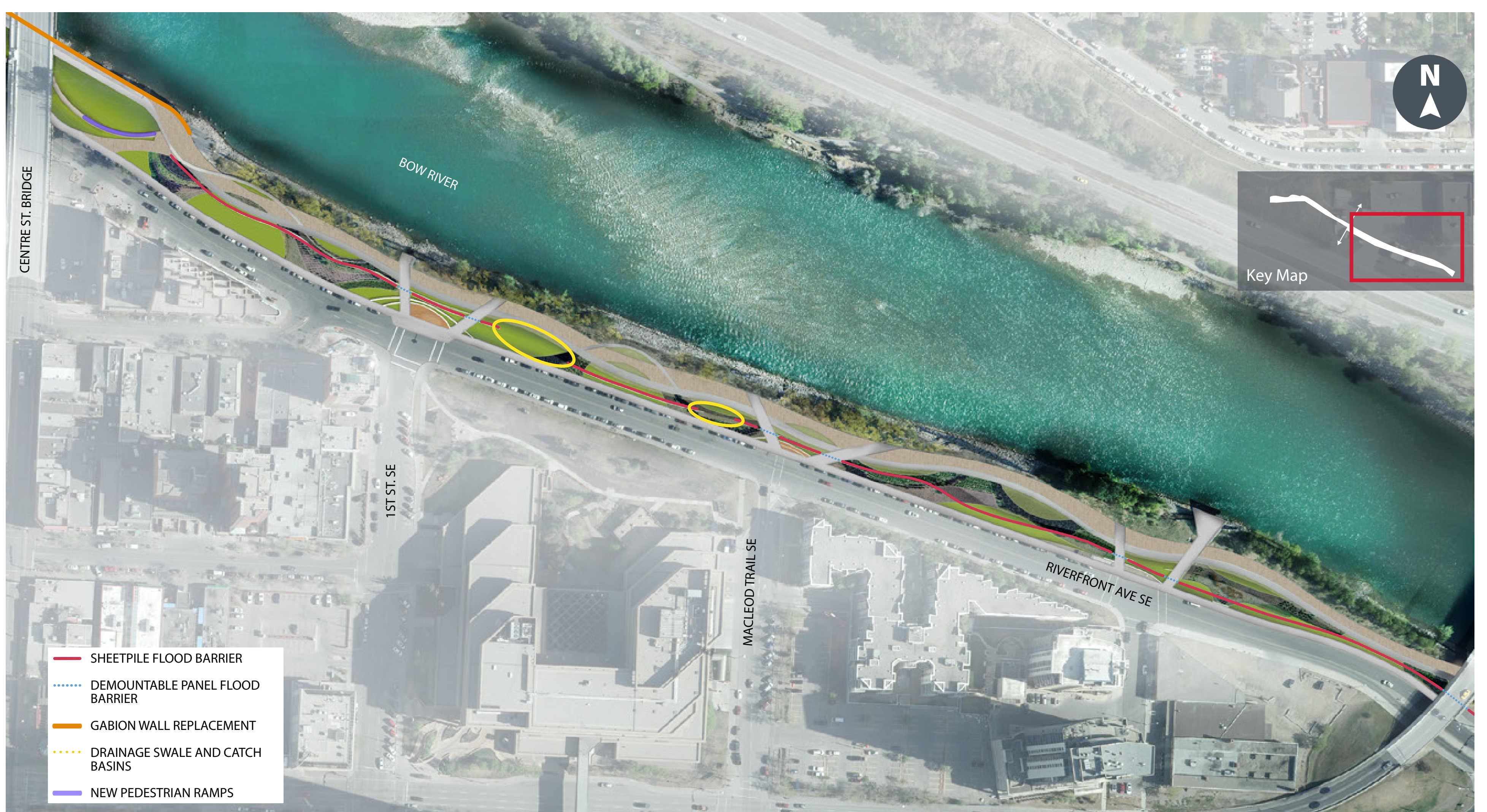
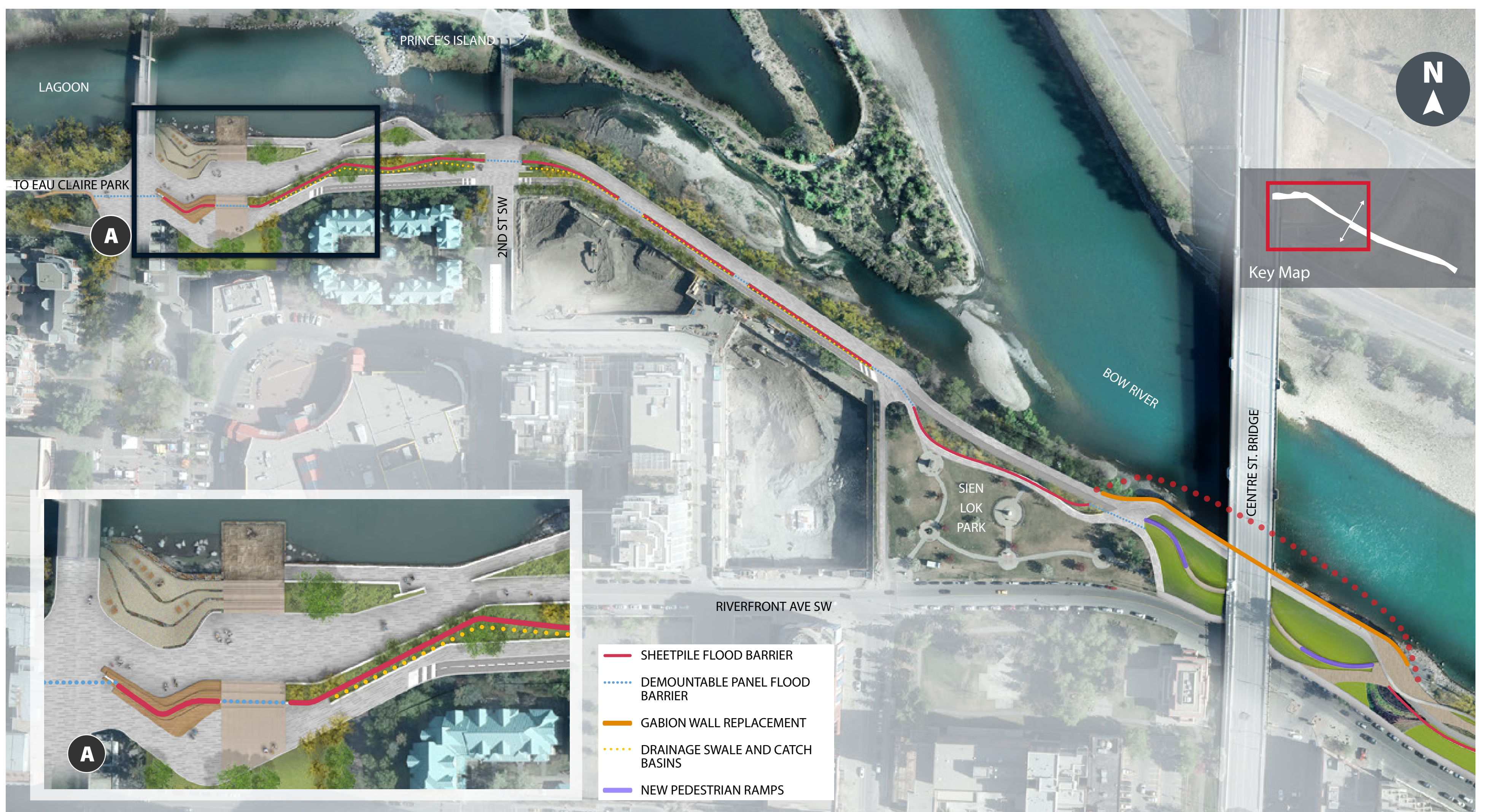
- Protect Downtown from a 2013-level flood, which can be further enhanced by current and future upstream reservoirs on the Bow River.
- Better protect critical services, public infrastructure and civic services.
- Reduce business and economic interruption resulting from river floods.
- Increases resiliency for residential and commercial properties and future infrastructure projects (e.g. Green Line LRT).
- Improve the public space adjacent to the Bow River.

Key flood protection design elements

- To keep people moving in and out of this highly used area, at key pedestrian entry points in the flood wall, temporary flood barrier panels will be used. A similar flood protection strategy was used in West Eau Claire.
- A sheet-pile flood barrier wall will be seamlessly integrated into the public realm design that all to achieve the 1 in 200-year flood protection.



Downtown Flood Barrier and Eau Claire Promenade



Eau Claire Promenade

The Eau Claire Promenade, including the Jack and Jean Leslie Riverwalk, extends from The Peace Bridge eastwards to the Reconciliation Bridge. Our goal is to extend the public space and flood protections that began at West Eau Claire Park in 2017 to create a safe, efficient and beautiful riverfront promenade and cycle network that integrates the Downtown Flood Barrier into a space that connects Calgary's downtown with the Bow River.

Our goals for the Promenade focus on:

- A space for Calgarians
 - Accommodate all users
 - Connect people to the Bow River
 - Build a vibrant downtown riverfront
 - Design a diversity of social spaces for mental well-being
- Promoting active, healthy lifestyles, incorporate strategies for year-round healthy, active lifestyles – a better space for walking, jogging, biking, etc.
- Provide a continuous, safe and accessible riverfront promenade
- Designate efficient pathways for safe alternate modes of transportation like scooters
- Integrate flood protection into public space improvements
- Increase resilience for Eau Claire, Downtown as a whole and Calgary's major economic drivers

Timeline

Construction for the enabling works expected to start in 2020 with the overall project completion in 2023. Construction will be phased to minimize impact and keep Prince's Island Park accessible at all times.



Eau Claire Plaza

The Eau Claire Plaza is being redesigned as part of the refresh of the Eau Claire area to allow for more flexible year around uses and improved accessibility for all residents and visitors. Its new design will embrace everyday community gatherings in addition to spaces for hosting larger events and festivals.

The design will be well integrated with the adjacent market redevelopment, downtown food barrier, Eau Claire Promenade, and Jaipur bridge replacement. As a place grounded in history, this space will be reimagined into a vibrant world class attraction for social and cultural gatherings.

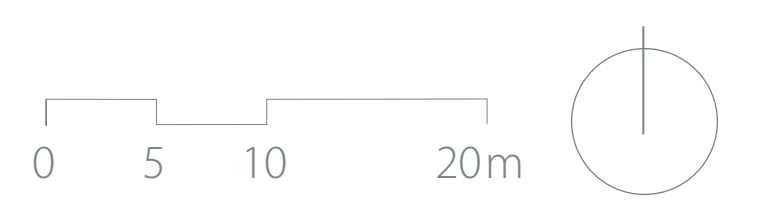
Once fully completed, the plaza will become an iconic gateway to the area and a vibrant destination that compliments the improvements occurring around it. This project is being launched and coordinated with the overarching Eau Claire Area Improvements.



Landscape Architecture

Character Area Plan

- 1 Urban Plaza**
Stage for the City
 The Urban Plaza is the formal gathering space of Eau Claire Plaza, an extension of the urban fabric that is specifically designed to be flexible and adaptable.
- 2 Central Green**
Flexible and Dynamic
 The Central Green is a large open lawn anchored by an overhead canopy structure on the north end of the character area. The canopy provides a sheltered gathering space and has been designed to accommodate several different groups or to function a single large gathering.
- 3 Riverside Terraces**
Playful Transition
 The Riverside Terraces extend the plaza to the Bow River Pathway, integrating the plaza with the Bow River and Prince's Island. Visitors have an opportunity to play in the water, lounge on the beach and picnic on the boardwalk.
- 4 Market Street**
Connection to the Past
 The Market Street is a multi-purpose "street" that is designed as a flexible space to integrate the Plaza with the adjacent Eau Claire Market Redevelopment and connect the downtown core with a lookout at the river's edge.
- 5 Promenade**
Connective Thread
 A multi-use pathway runs the length of the plaza on the west side. Located above a utility corridor, this area is focused on providing a clear, legible north-south connection through the site, while buffering the existing residential community from more active plaza uses.
- 6 Play**
Play for All Ages
 This space connects the Plaza with the YMCA; it serves as its front porch. Activated with urban and nature-inspired elements that encourage play and exploration for all ages, it supports exterior programming opportunities for the facility.



Calgary



Eau Claire Plaza Renderings



Eau Claire Plaza Renderings



Centre Street Ramps

To support accessible and safe travel, we're upgrading the Centre Street ramps that connect to the historic Centre Street Bridge.

Our work includes:

- Improving walking and wheeling access by widening the ramps to approximately 3 meters on each side.
- Enhancing the access points to Centre Street Bridge so that there is wider turning coverage for those who walk and wheel in the area.
- Upgrading the handrails which have deteriorated over time.
- Replacing the ramps and the connecting structures to the overarching bridge.

Timeline

Construction will be dependent on a number of factors, including the flood barrier and Eau Claire promenade. Work is expected to start in the spring of 2021 and open in the fall of the same year.

Detours

Pathway and Centre Street Bridge users will be detoured to 3 Avenue where east and west connections to the pathway and cycle network can be made.





Jaipur Bridge Replacement

The existing Jaipur Bridge was constructed in 1968 to provide a vital connection from Calgary's Centre City with Prince's Island Park. In 1994, the bridge was officially named the Jaipur Bridge. The bridge naming ceremony honoured the efforts of Maharaj Jai Singh, President of the Jaipur Calgary Foundation and Omkar Nath Channan, President of the Calgary-Jaipur Development Foundation, for their roles in being the links between the two cities.

In late 2019 it was determined that the current bridge is at the end of its lifespan, and a new bridge will extend the connection up to 100 years.

Project Considerations

The new bridge design was done in coordination and as part of the new Eau Claire Area Improvements to ensure alignment of construction timelines and avoid any unnecessary overlap of impacts to the area. Replacing the bridge means improving the flood resilience and incorporating safety and emergency response best practices.

The design team has been mindful to consider how to minimize the impact on the environment during construction and in its final design. We have looked to create a design that showcases the natural surroundings. Also, as part of this construction project, where possible on-site, we will be introducing more natural habitats for plants and animals to ensure the bridge is more harmonious with the environment.

There is a key focus on the aesthetic design of the bridge deck, where people will interact with the structure. There has also been a consideration to the detailing of the underside of the bridge as Calgarians often skate on the lagoon, and under the bridge, it in the winter.

The new Jaipur Bridge has been designed with the origins of its name in mind. Through consultation with members of the South Asian community, the design work to ensure we are honouring Jaipur and the Indian-Canadian Community respectfully. We are working to incorporate pattern, colour and light elements inspired by Jaipur using screens along the ledge. We are also drawing inspiration from a number of gifts that we have received from Jaipur over the decades.

Timeline

The construction for the replacement bridge is anticipated for 2021, and we expect completion in 2022.



3 Avenue Walking and Wheeling

In late 2019, it was identified by the Eau Claire Area Improvements Program team that extensive detours would be required during the multi-year construction and public realm improvements in the area.

What we learned from our West Eau Claire Park project was that constantly changing detours for pathway users was costly, unsafe and not well received by the pathway users. To support Calgarians in navigating the area throughout construction, it was determined that a consistent detour would best serve the community. 3 Avenue South was identified as the best option for this detour to support the connectivity and increase network capacity for people walking, cycling, riding scooters, and using mobility devices.

Project Scope

The upgrades being made for people who walk and wheel in the area include:

- Improvements at intersections that enhance safety and make it easier to cross the street
- The possible installation of signals (where appropriate) to enhance pedestrian safety and accessibility
- Wheelchair ramp reconstruction and accessibility improvements
- Traffic calming measures
- Changes to on-street parking, including curb extensions or concrete islands that will improve the visibility of people at intersections
- Creating angle parking stalls where appropriate on side streets to increase parking capacity
- Creating dedicated facilities for cycling and other mobility devices such as scooters, in-line skates, and skateboards.

Project timeline

Construction of the 3 Avenue South Walking and Wheeling upgrades is anticipated for Q2 and Q3 of 2021.

Project Engagement:

In August 2020, the project team and designs consultants presented preliminary designs to the community and public through online engagements. The team has worked hard to review the feedback and input from Calgarians, please see the complete what we heard report here: engage.calgary.ca/3Avenue.



Festivals and Events

The City of Calgary Arts and Culture is working closely with all project managers to ensure that annual festivals and events that take place in Eau Claire continue to take place during construction, when possible, or return when construction is completed.

The City's Festivals and Events team have contacted all annual festivals and events that occur in Eau Claire prior to construction planning and continue to meet with them.

For more information, visit

[Calgary.ca/festivalsandevents](https://calgary.ca/festivalsandevents)