

Getting you home
quicker and safer.

Kangaroo Point Pedestrian Bridge

Preliminary Business Case
Key Findings





A message from the Lord Mayor

As Lord Mayor, I am committed to making sure the Brisbane of tomorrow is even better than the Brisbane of today.

That's why my very first act as Lord Mayor was to announce a plan to build five new green bridges to provide better connectivity across the Brisbane River. These five green bridges are about getting people home quicker and creating a clean, green and more active city.

The Kangaroo Point Pedestrian Bridge is the first of these five green bridges, linking Kangaroo Point and the CBD. It will take traffic off our roads, making it easier for people to get around our city by bike or on foot so they can spend more time doing what's important.

The preliminary business case for the Kangaroo Point Pedestrian Bridge confirms the project is a feasible, value-for-money investment in our transport network. The bridge will provide significant benefits for Brisbane, including positive impacts to lifestyle, amenity and tourism, and economic benefits resulting from improved accessibility to the CBD, which continues to be the driving force of our region's economy.

The Kangaroo Point Pedestrian Bridge will make our city an even better place to live, work and relax for generations to come and I'm fully committed to getting on with the job of delivering this important project for Brisbane.

Lord Mayor
Cr Adrian Schrinner



A message from the Deputy Mayor

A connected, flexible and sustainable transport network is vital to our city. It helps us commute to work, access vibrant lifestyle and leisure opportunities, and visit family and friends.

The concept of a bridge connecting the Kangaroo Point peninsula to the city centre has been around since as early as the 1800s and I'm proud to be part of the team that is working hard to make this city-shaping project a reality.

The Kangaroo Point Pedestrian Bridge means more convenience, better access and more choice when it comes to travel, making active transport a more attractive option for both residents and visitors.

Like the Goodwill and Victoria bridges, the Kangaroo Point Pedestrian Bridge will connect to the city-wide pedestrian and cycle network, improving connectivity between the CBD and the eastern suburbs, including improved connections to public transport services on Main Street, Kangaroo Point.

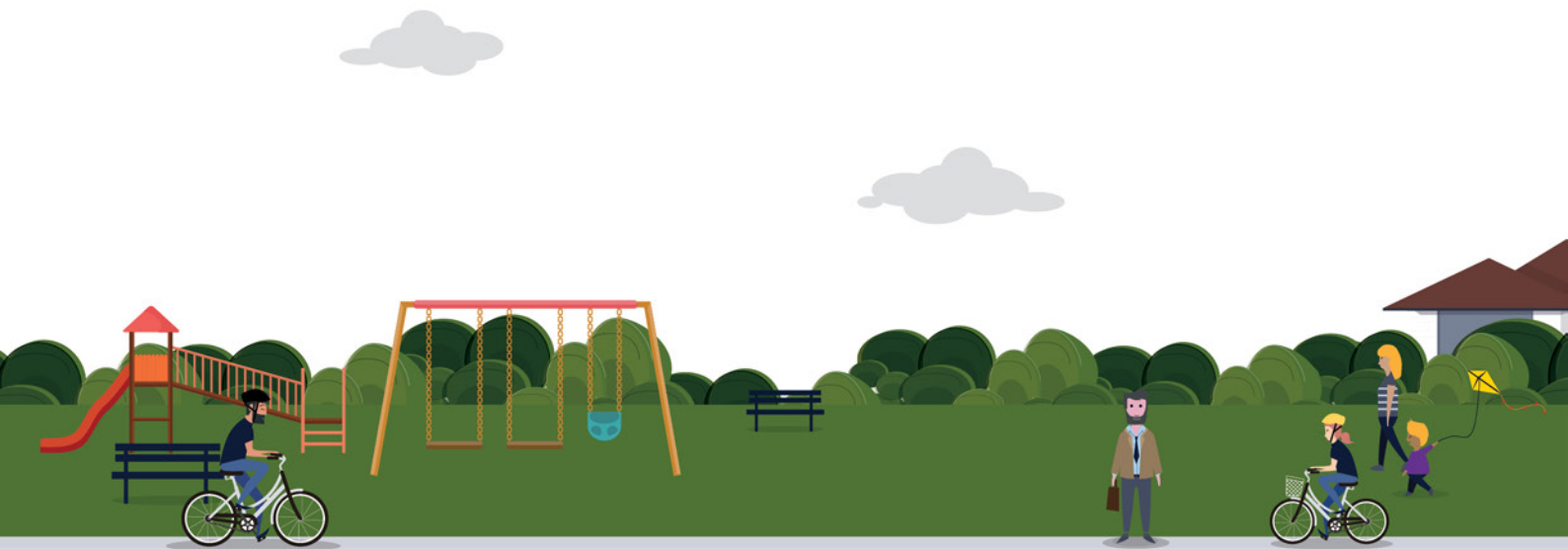
It will also create opportunities for new and vibrant spaces at the bridge's landing locations, activating the river's edge and accelerating potential development in both the CBD and Kangaroo Point.

I look forward to working with the community to deliver this project to help shape our city's future.

Deputy Mayor
Chair, Public and Active Transport, Economic
and Tourism Development Committee
Cr Krista Adams

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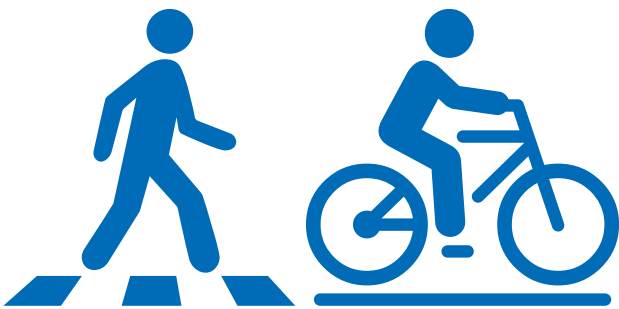
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The Kangaroo Point Pedestrian Bridge will cater for pedestrians and cyclists, connecting the city centre to Kangaroo Point.

In comparison to other bridges, the Kangaroo Point Pedestrian Bridge is forecast to carry more pedestrians and cyclists than the Kurilpa Bridge, with Kangaroo Point Pedestrian Bridge expected to carry 1800 more people each day after its opening.



Approximately **5300** trips on a typical weekday in 2021, rising to more than **6100** trips by 2036.

83,950 fewer car trips using river crossings per year.





Improved **connectivity** to **public transport** services and the city-wide **pedestrian and cycle network**.



Improved access to CBD expected to **increase property value** at Kangaroo Point and nearby eastern suburbs.



New and enhanced **open spaces** and **urban design opportunities**, maximising **river views**.



Supporting population, economic and jobs growth.



Improved access to the **river and amenities.**

Part of the plan

In March 2019, Lord Mayor Adrian Schrinner announced Brisbane City Council's plan to deliver five new green bridges for Brisbane, at a cost of up to \$550 million.

The bridges are planned at the following locations:

- Kangaroo Point to the CBD
- Toowong to West End
- St Lucia to West End
- Breakfast Creek
- Bellbowrie.

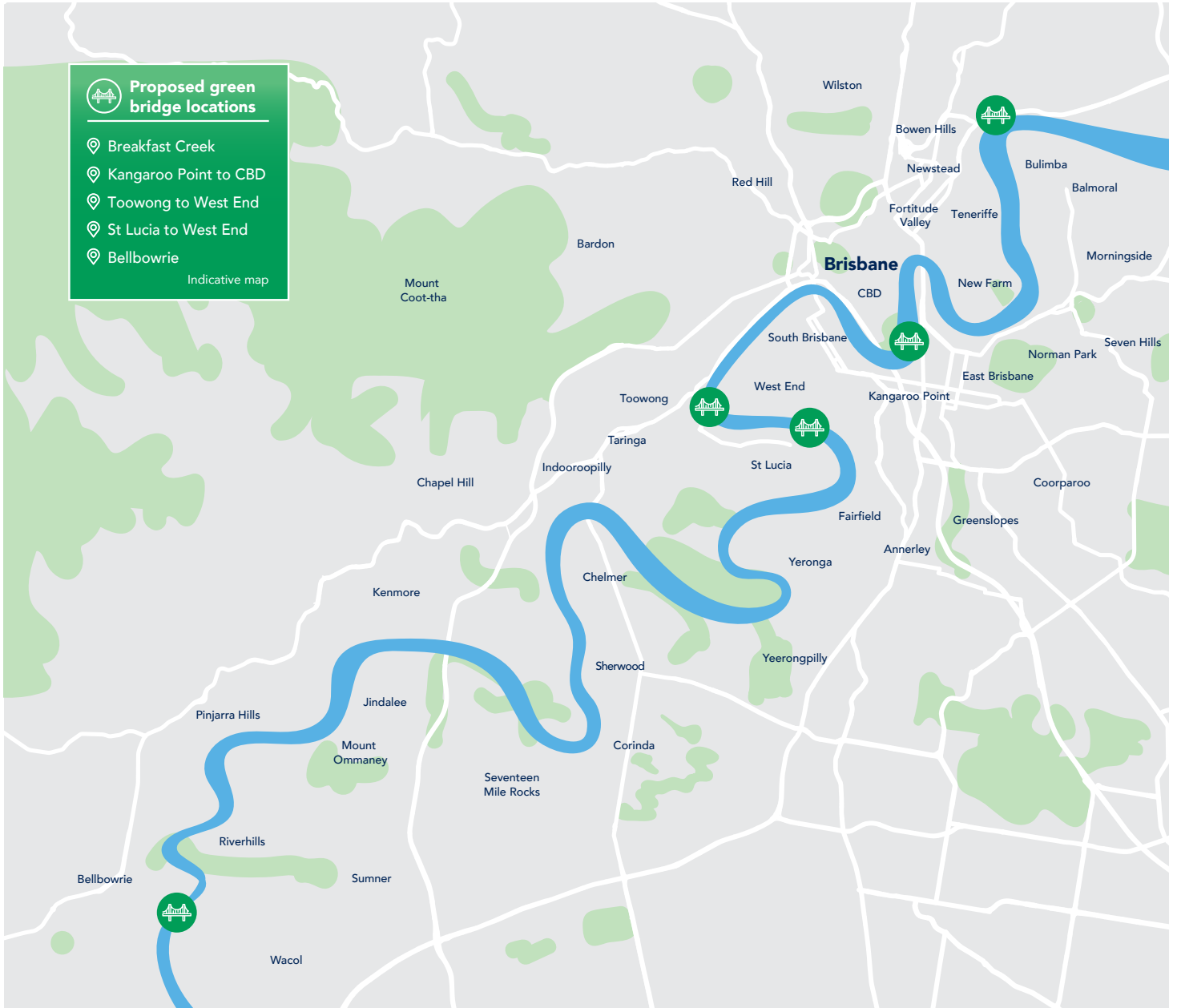
The new bridges are designed to take traffic off our roads, improve public and active transport and create a healthier, more active city. The creation of new green bridges is a key initiative of Council's *Transport Plan for Brisbane - Implementation Plan 2018*. Key Initiative 2 of the plan includes the following:

- investigate the feasibility and preferred alignment for new cross-river pedestrian, cycling and public transport bridges
- incorporate new bridge crossings in the active and public transport networks
- work with the Australian and Queensland Governments to develop the business case for investments in an expanded green bridge network.

The Queensland Government's support for the provision of more walking and cycling infrastructure, including new green bridges, is outlined in the *Shaping SEQ - South East Queensland Regional Plan 2017* and the draft *Regional Transport Plan for SEQ (2018)*. The Queensland Government funded 50% of the preliminary business case for the Kangaroo Point Pedestrian Bridge, with the key findings document released in September 2019.

The new Green Bridges for Brisbane program will complement the conversion of Victoria Bridge to a green bridge for Council's Brisbane Metro project in 2023, with space provided for Metro and bus services, pedestrians and cyclists. In addition, a new pedestrian bridge is being delivered by the Destination Brisbane Consortium to connect South Bank to the CBD, as part of Queen's Wharf Brisbane.

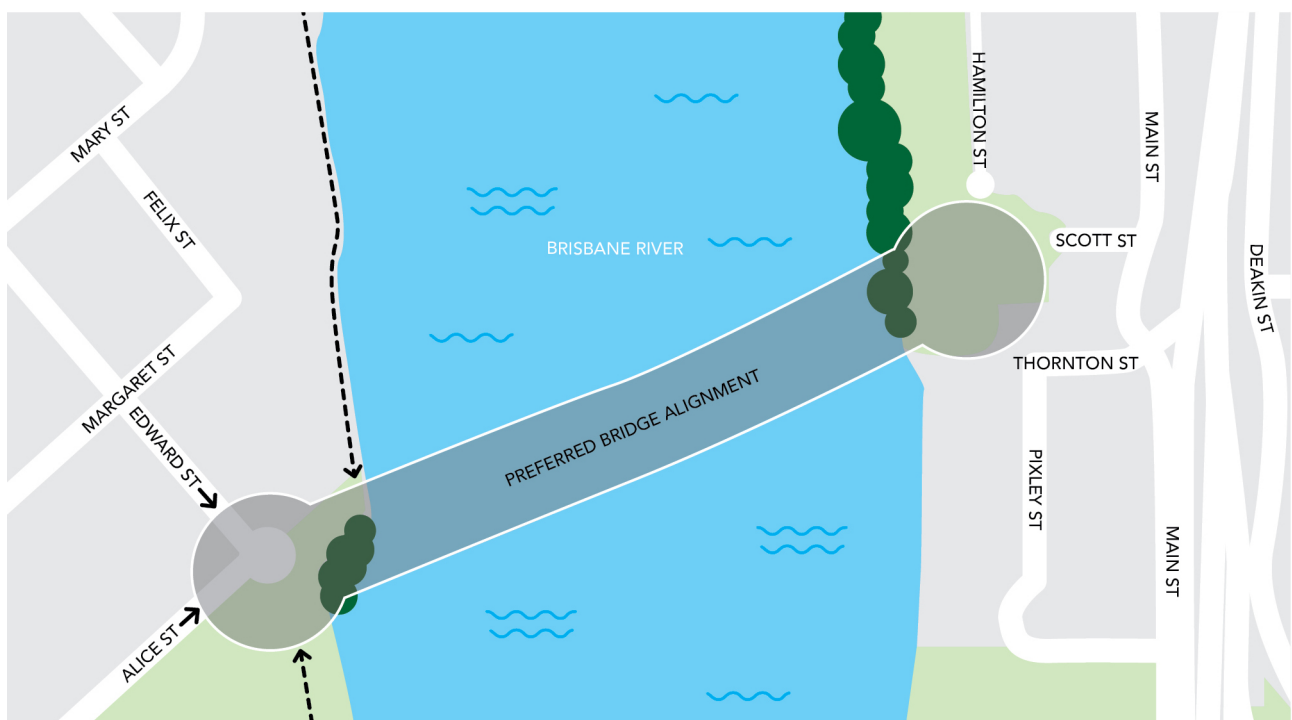




The project

The Kangaroo Point Pedestrian Bridge is the first of five bridges proposed to be delivered as part of Council's Green Bridges for Brisbane program. It will cater for pedestrians and cyclists, connecting the city centre to Kangaroo Point.

Following initial investigations, a preferred alignment has been identified extending from the Alice/Edward Street roundabout near the Brisbane Botanic Gardens to Scott Street near the southern abutment of the Story Bridge.



The proposed alignment is not final.

Community consultation will occur in late 2019 to assist with the development of the project's reference design, which will include confirming a proposed alignment and landing locations for further investigation and consultation.

Project benefits include:

- increased walking and cycling trips
- improved community health and lifestyle benefits
- improved pedestrian connections to public transport services in the CBD and on Main Street, Kangaroo Point
- increased growth in cycling trips between the city centre and eastern suburbs
- accelerated development and activation in both the CBD and Kangaroo Point, including new tourism opportunities.

The need for a Kangaroo Point Pedestrian Bridge

Providing an extensive network of safe, convenient and connected pathways and bikeways enables residents and visitors to easily move around the city. It helps to reduce traffic congestion and contributes to a healthier, sustainable and more accessible city.

Continuing to review and improve our active transport network will ensure the needs of our growing city are met. Without new investment in active transport infrastructure, there will be insufficient capacity to cater for increases in travel demand from future population and employment growth.

Walking and cycling to CBD destinations from the densely populated and growing Kangaroo Point peninsula currently requires travel along indirect routes which often sit alongside heavy traffic.

Ferry trips are short, bus services are subject to congestion at times, CityCats do not stop on the peninsula, and train and busway stations are beyond a comfortable walk for most people.

Improving access and connectivity

Improved access and connectivity to, and within, the inner-city will be critical in driving economic growth and maintaining Brisbane's status as a New World City.

Kangaroo Point, despite its proximity to other inner-city communities, is disconnected from many of its neighbours because:

- walking or cycling to destinations across the river from and through Kangaroo Point is inconvenient due to local topography and needing to travel along indirect routes, which are often heavily congested

- motorway and arterial road connections to the CBD from the east and south-east are congested during peak periods
- CityCats do not stop on the peninsula
- although ferry services between Kangaroo Point and the CBD are frequent and short, they include waiting times and future passenger growth will place increasing pressure on the ferry network
- Kangaroo Point bus connectivity is limited, particularly for residents in the central and northern parts of the peninsula
- railway stations and the busway network are beyond a comfortable walk from the centre of Kangaroo Point.

Promoting walking and cycling as the preferred mode for accessing Brisbane's CBD and inner-city from Kangaroo Point, especially during peak periods, will be essential to addressing these issues.

An effective, alternative transport option will enable workers, residents and visitors to move quickly and easily within and between these inner-city precincts, providing lifestyle choices for the community, and opportunities to reduce congestion and deliver economic, social and environmental benefits.

Evolution of the Kangaroo Point Pedestrian Bridge

A bridge linking Kangaroo Point and the CBD has long been considered essential for Brisbane. Originally proposed in the 1860s, with a design developed by 1890, the bridge was never built perhaps because of the severe economic recession of the 1890s along with the financial devastation from the 1893 floods.

Fast forward 150 years and a bridge linking Kangaroo Point and the CBD has re-emerged as a priority, with several recent Queensland Government and Brisbane City Council strategies and plans identifying the potential benefits of a new bridge linking Kangaroo Point and the CBD.

Completed phases of Kangaroo Point Pedestrian Bridge

Future phases of Kangaroo Point Pedestrian Bridge

2010

The Queensland Government released *Connecting SEQ - an Integrated Regional Transport Plan for South East Queensland*, which included a bridge connecting Kangaroo Point to the CBD.

2013

Council's *River's Edge Strategy* identified a pedestrian and cycle bridge investigation area between Kangaroo Point and the CBD.

2013 to 2014

Council completed the Phase 1 Study (Concept Development) for the project to identify objectives and a vision for the project, including consideration of numerous bridge options.

2014

Council's *City Centre Master Plan* identified a Kangaroo Point bridge as one of six priority projects.

2017

Council's *Kangaroo Point Draft Renewal Strategy* described a new bridge as a critical element of the overall strategy to allow peninsula residents to walk or cycle to popular cultural, entertainment and lifestyle precincts and to open up the peninsula to the city centre's workers.

2018

Council completed the Kangaroo Point Pedestrian Bridge Technical Report: Key Findings and Recommendations, in preparation for development of the project's business case.

Late 2018

The Queensland Government approved funding for Council to develop a business case for a proposed pedestrian and cycle bridge between the CBD and Kangaroo Point.

Late 2018 – mid 2019

Council undertook a planning study to develop the preliminary business case for the Kangaroo Point Pedestrian Bridge.

Late 2019

Council will start community consultation and develop a reference design for the bridge.

Mid 2020

Release the reference design for community consultation and update the business case.

Late 2020-2021*

Council will work with stakeholders to secure funding for the project, progress government approvals and finalise detailed planning in preparation for procurement.

Late 2022-2024*

Detailed design and construction of the Kangaroo Point Pedestrian Bridge, with ongoing community and stakeholder engagement.

2024*

Expected project completion.

*Subject to funding and government approvals.



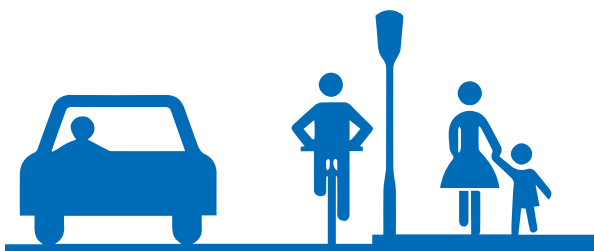


One in eight Kangaroo Point residents reported walking to their CBD jobs in the 2016 Australian Census, with many of these pedestrians completing their trips via ferry services. In contrast, one in two residents from Fortitude Valley and South Brisbane reported walking to work in the city centre despite both locations being a similar direct distance from the CBD as Kangaroo Point.



Reduced congestion
on the ferry, road,
bus and bike path
networks.

**Increased urban development,
employment and
productivity**
in and near Kangaroo Point.



**Faster and more convenient
walking and cycling access
to the CBD** from Kangaroo
Point and the eastern and
south eastern suburbs.



**Reduced harmful
vehicle emissions.**



**Increased physical
activity leading to
better health.**



**Increased tourism
and spending.**

Options development

Kangaroo Point Bridge: Phase 1 Concept Development Study

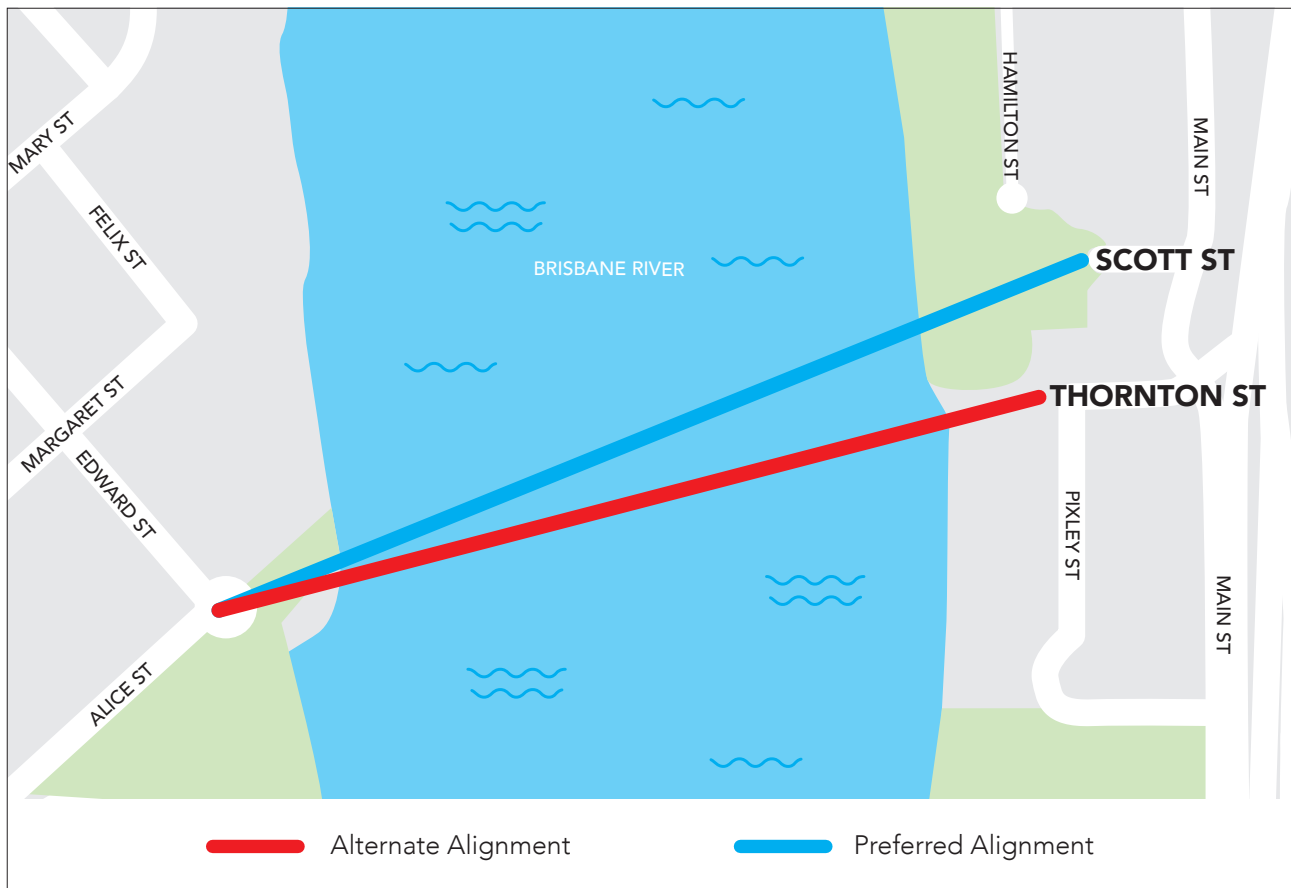
In 2014, Council carried out the Phase 1 Study to define the key parameters of the project to provide a framework for future assessments, design and construction phases. The primary objectives of this study were:

- define the overarching project vision and criteria against which bridge options should be assessed
- evaluate available bridge crossing zones and alignment options to determine a short-list of preferred crossing alignments for the bridge
- investigate landing point arrangements at either end of the bridge for the short-listed alignments to assist in identifying a single preferred alignment

- investigate the recommended structural forms for the bridge
- identify how the key variables of bridge superstructure, substructure and landings influence the project's total costs.

The Phase 1 Study recommendations included the following:

- the bridge should connect the north east corner of the Brisbane Botanic Gardens and Scott Street, although a connection between the north east corner of the Brisbane Botanic Gardens and Thornton Street was also recommended for further investigation
- the bridge structure has three potential forms – cable stay vs. suspension bridge; straight plan form vs curved plan form; in-river supports vs on-land supports.





Kangaroo Point Bridge Technical Report: Key Findings and Recommendations

In 2018, Council engaged technical consultants to prepare the Kangaroo Point Pedestrian Bridge Technical Report: Key Findings and Recommendations.

The report built on the 2014 Phase 1 Study, with the aim to make recommendations on the preferred alignment, bridge landings and bridge options for the purpose of providing an indicative cost estimate for the project.

The key findings and recommendations of this report heavily informed the development of the project's preliminary business case.

A multi criteria assessment approach was adopted to assess the preferred and alternate bridge alignment options connecting the Alice/Edward Street roundabout near the Brisbane Botanic Gardens to either Scott Street or Thornton Street at Kangaroo Point.

Key findings and recommendations included:

- an alignment connecting to Scott Street was confirmed as the preferred alignment as it allowed for much gentler grades on both the road and bridge, as well as compliance with the Disability Discrimination Act 1992, thus improving safety and accessibility to Main Street, Kangaroo Point
- the Scott Street alignment was also considered to be less visually intrusive to the Kangaroo Point cliffs, had less traffic demands within the

street itself and on Main Street. It also connected more directly to the Story Bridge pathway and a proposed at grade crossing through the existing Council depot at Kangaroo Point to connect to Main Street

- a cranked horizontal alignment was preferred as the increase to bridge length over the river helps avoid extensive overland ramping which would have been required due to constraints of navigational clearance, grade and height. In addition, the cranked horizontal alignment avoids the Stamford Plaza water lease and provides opportunities to utilise bridge nodes for viewing platforms or meeting points
- landing the bridge within the Alice Street roundabout presents an opportunity to repurpose the space to become an integral part of the city environment and avoids heritage impacts. This landing site presents options for users to travel onwards to Edward Street or up Alice Street, while being large enough to manage the potential conflict points
- a twin mast cable stayed bridge structure is the most favourable structure based on a multi-criteria analysis of alternative structures. The twin mast cable stayed design was selected to minimise visual impacts, with a large central span to minimise flood impact and span the navigation channel.

Note: artist's impressions (opposite) are indicative of a concept design for a future vision of the Kangaroo Point Pedestrian Bridge, subject to further engagement with stakeholders and approved funding.



*Indicative only



*Indicative only

Pending consideration of community feedback and reference design findings, Council will commence a procurement process seeking innovative design proposals and concepts from private industry.

A positive economic case

Together with the other Green Bridges for Brisbane initiatives, the Kangaroo Point Pedestrian Bridge presents an opportunity to improve the way people travel to and within the inner-city, creating a cleaner, greener and more active city, for generations to come.

Faster and more convenient access

The Kangaroo Point Pedestrian Bridge is forecast to carry approximately 5300 trips per day in 2021, increasing to more than 6100 trips by 2036.

As current modelling does not adequately quantify tourist or other purely recreational trips on the proposed bridge, these forecasted figures are conservative.

Greater access to jobs

By 2031, following the introduction of the Kangaroo Point Pedestrian Bridge:



Approximately **130,000** additional jobs will be within a 20-minute walk from Kangaroo Point.



Between **8000** and **20,000** additional jobs will be within a 20-minute bike ride of Kangaroo Point.



Approximately **100,000** additional jobs will be within a 20-minute bike ride from East Brisbane.

More lifestyle and leisure opportunities

By introducing a new accessible active transport link in the inner-city, the Kangaroo Point Pedestrian Bridge will provide better connections between residential, employment, entertainment and lifestyle precincts.

It will support the delivery of memorable places and spaces that are attractive and provide safe and convenient accessibility, promote walking and cycling, and contribute to the city's identity and reputation.

Improved CBD and inner-city amenity:

Reduced bus numbers and fewer cars on local roads will help improve the pedestrian environment, cyclist safety and provide more lifestyle and leisure opportunities for residents and visitors.



Activating the river's edge

Providing new and improved public spaces at the bridge's landings adjacent to the river will enhance lifestyle and leisure opportunities for local residents and encourage tourism by providing high quality vistas of the river's natural landscapes and iconic city structures.

The Kangaroo Point Pedestrian Bridge creates an opportunity for improved urban amenity, including a new entrance statement to the city within the intersecting axes of Alice and Edward streets and the Brisbane Botanic Gardens.

Improved urban amenity outcomes can also be achieved at Kangaroo Point, with new community facilities and enhanced open spaces including, for example, elevated picnic spots and recreational areas with river views.

A value-for-money investment

The preliminary business case for the Kangaroo Point Pedestrian Bridge assessed the benefits, impacts, and costs of delivering the city-shaping project.

It confirms the project is a feasible, value-for-money investment in our transport network that will provide lasting benefits for Brisbane, including positive impacts to lifestyle, amenity and tourism, and wider economic benefits resulting from improved accessibility to the CBD.

The economic appraisal of the project has been undertaken in alignment with nationally accepted approaches for transport project cost-benefit analysis, as provided in the Australian Transport Assessment and Planning guidelines.

The total capital cost of the Kangaroo Point Pedestrian Bridge is estimated at \$190 million.

This estimated cost is based on a twin mast cable stayed bridge design as determined through the project's 2018 Technical Report, which was prepared for the purpose of preparing a business case and providing an indicative cost estimate for the project. The proposed bridge design and subsequent cost estimate for the project may change following further design investigations and community consultation.

The expected acceleration of development in Kangaroo Point generated by the bridge results in a BCR of 1.0.

It is important to note that cost-benefit analysis only considers the costs and benefits that can be monetised. Some of the key wider economic benefits delivered by the Kangaroo Point Pedestrian Bridge have not been monetised and incorporated in the cost benefit analyses, including:

- improved accessibility to CBD jobs
- positive impacts to lifestyle, amenity and tourism.

Despite these key benefits not being included when calculating the BCR, Council is confident these outcomes serve to improve the benefits of the project and present a robust economic justification to proceed with the project.

Council is committed to working closely with the Queensland and Australian Governments, and other important stakeholders, to fully realise the benefits of the Kangaroo Point Pedestrian Bridge.





Where are we now

Following initial investigations and a comprehensive analysis of potential options for a Kangaroo Point Pedestrian Bridge, including detailed technical analysis, Council released the preliminary business case key findings document for the project in September 2019.

With the preliminary business case for the Kangaroo Point Pedestrian Bridge clearly demonstrating the benefits of the project and value-for-money for Brisbane’s ratepayers, Council is now proceeding to the next stages of project planning.

Council will fund at least two-thirds of the cost to deliver the Green Bridges for Brisbane program, including the Kangaroo Point Pedestrian Bridge,

and will seek contributions from the Queensland and Australian Governments for the balance of funding.

Subject to community feedback, funding and government approvals, construction of the Kangaroo Point Pedestrian Bridge could commence as early as 2021, with expected completion by 2024.





Next steps

Initial assessments of the benefits and impacts of the Kangaroo Point Pedestrian Bridge have identified a range of opportunities for Council to work with stakeholders and the community to deliver the project.

The next phase of activity will focus on further defining the project's benefits and impacts, and identifying opportunities to consult the community about the bridge's alignment, landing locations and design treatments.

Involving the community

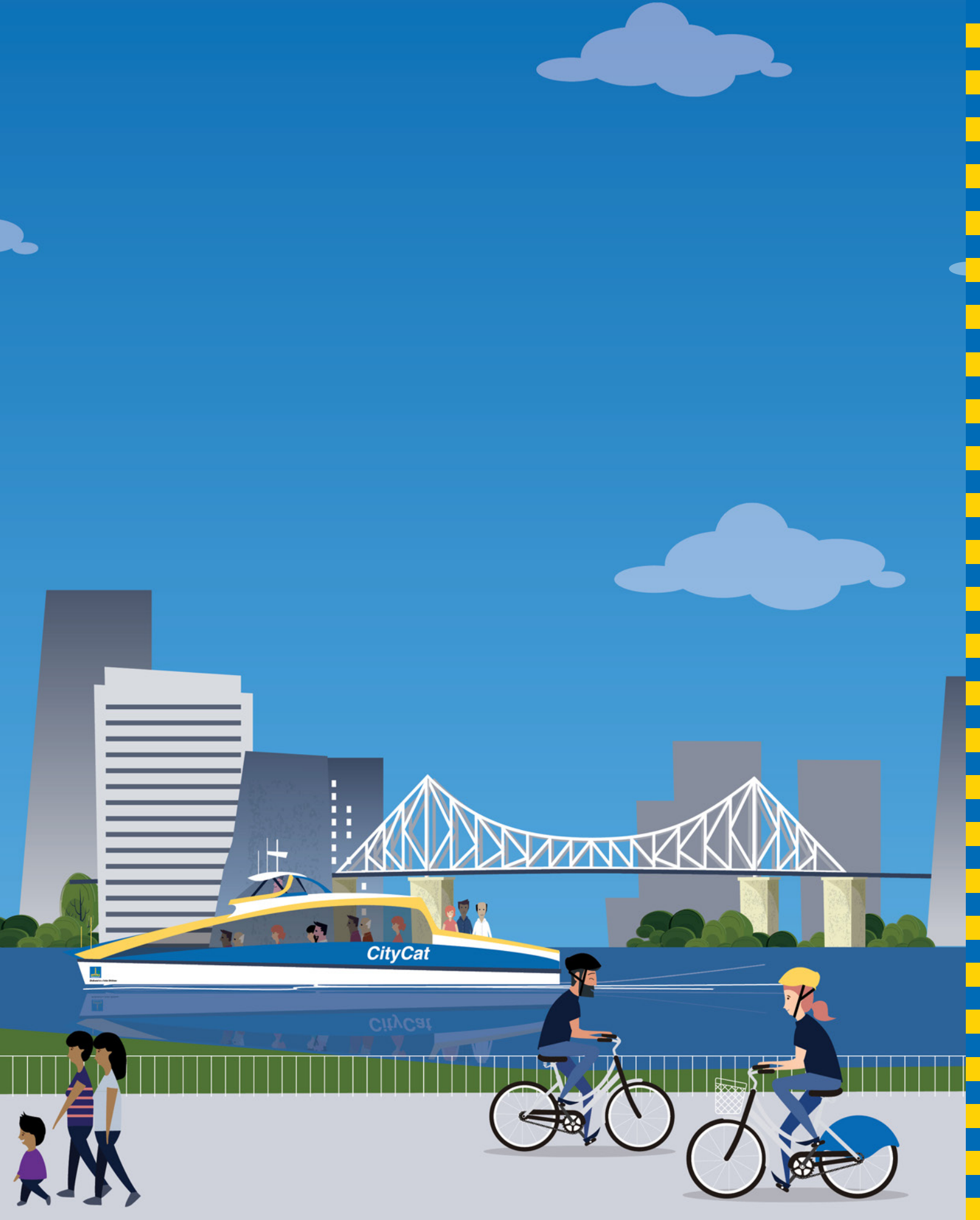
Feedback from the community will play a critical role in the development of the Kangaroo Point Pedestrian Bridge.

In late 2019, Council will provide a range of opportunities for the local community to learn more about the project and provide their input.

This will include community information sessions and briefings with individual stakeholders and stakeholder groups.

Feedback during this phase will assist with the development of the project's reference design, which will include identifying a proposed alignment and landing locations for further investigation and consultation.

Council will continue to keep the community informed about the Kangaroo Point Pedestrian Bridge and provide further opportunities for residents to have their say during future stages of project planning.



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