

BRISBANE METRO

Draft Design Report
Consultation Outcomes

SEPTEMBER 2018



Australian Government

BUILDING OUR FUTURE



Dedicated to a better Brisbane

Concept design for the
Cultural Centre precinct

Artist's impression only





A MESSAGE FROM THE LORD MAYOR

As Lord Mayor, I'm committed to getting residents home quicker and safer, with more travel options, less congestion and better public transport.

A key part of this is Brisbane Metro, a world-class public transport system which will cut travel times, reduce congestion and put more buses in the suburbs.

Delivering Brisbane Metro will mean a 21 kilometre, turn-up-and-go service with two dedicated lines, connecting 18 stations from Eight Mile Plains to Roma Street, and RBWH to UQ Lakes. With services every three minutes in peak hour and 24 hour services on weekends, it will get you home up to 50% quicker.

Earlier this year, the Australian Government announced a \$300 million funding commitment to Brisbane Metro. I was pleased to confirm Council will fund the remaining capital cost of Brisbane Metro in this year's budget.

With the construction of Brisbane Metro fully funded, main procurement activities for Brisbane Metro are now underway. Subject to government approvals, detailed design and construction will commence in 2019, with Metro services operating from 2023.

The release of the outcomes of consultation on the draft Design Report marks another exciting step in the development of Brisbane Metro.

I look forward to working closely with residents and stakeholders to deliver this important public transport project for Brisbane.

Lord Mayor
Councillor Graham Quirk



A MESSAGE FROM THE DEPUTY MAYOR

Brisbane Metro presents a once-in-a-generation opportunity to change the way people travel to and within Brisbane.

For public transport customers, it means quicker travel times, more reliable services and better connections to a range of destinations across the inner city and suburbs. Reducing the number of buses in the CBD will also mean more bus services for suburbs right across Brisbane.

By removing hundreds of buses from inner city streets, Brisbane Metro will help improve safety, amenity and connectivity for pedestrians and cyclists, particularly at the Cultural Centre and in the CBD.

Through consultation on the draft Design Report, residents and stakeholders have continued to help shape Brisbane Metro by identifying a number of important issues for Council to consider.

This feedback has helped inform changes to the project's design, including improved connections for cyclists and pedestrians across Victoria Bridge.

As Brisbane Metro moves ahead, I am committed to providing ongoing opportunities for the community to have their say on this city-changing project.

Deputy Mayor
Chairman, Public and Active Transport Committee
Councillor Adrian Schrinner

A public transport solution to get you home quicker and safer

Brisbane Metro is Brisbane City Council's high-frequency public transport system that will cut travel times, reduce CBD bus congestion and improve services to the suburbs.

By fixing critical bottlenecks in the inner city and introducing high-capacity metro services, Brisbane Metro is a key part of Council's plan to get people home quicker and safer with more travel options.

> A world-class public transport solution

With two Metro routes operating every three minutes in peak periods, Brisbane Metro will deliver a network of turn-up-and-go services linking the suburbs with the inner city using Brisbane's existing world-class busway infrastructure.

The alignment will feature two new dedicated Metro lines servicing 18 stations:

- **Metro 1** – Eight Mile Plains busway station to Roma Street busway station
- **Metro 2** – Royal Brisbane and Women's Hospital (RBWH) busway station to University of Queensland (UQ) Lakes busway station.

> High-capacity metro vehicles

The project will introduce a new fleet of 60 Metro vehicles, each with capacity for up to 150 people, that can use the existing busway.

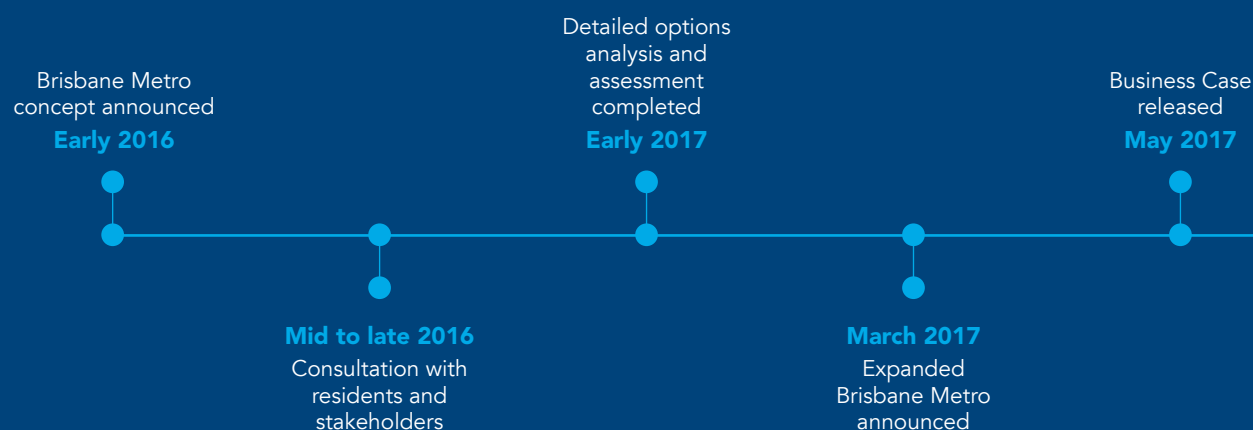
By reducing the number of buses entering the CBD, Brisbane Metro will free up buses to provide more services to the suburbs.

> New and upgraded infrastructure

As part of the project, Victoria Bridge will be converted to a 'green' bridge providing a dedicated connection for Metro and bus services, cyclists and pedestrians.

A new underground station for Metro and bus services will be delivered at the Cultural Centre in South Brisbane, and a new tunnel underneath Adelaide Street will provide a direct connection to the existing King George Square station in the CBD.

Key milestones in the development of Brisbane Metro





Concept design for Cultural Centre underground station

Artist's impression only



*subject to government approvals.

Concept design for the Cultural Centre station

Artist's impression only



› Community and stakeholder engagement

Stakeholder and community feedback has played a critical role in helping shape Brisbane Metro. Since 2016, Council has provided ongoing opportunities for residents, public transport customers and stakeholders to give feedback at key milestones in the development of the project.

Three rounds of communication and engagement activities were held between March 2016 and May 2017. Each round of engagement was based on specific project milestones, allowing for the outcomes of engagement to help inform future stages of project development.

As a result of specific feedback on the original Brisbane Metro concept, Council announced the revised Brisbane Metro solution in March 2017, which received strong support from the community and stakeholders.

In April 2018, Council released the Brisbane Metro draft Design Report, marking an important milestone in the development of Brisbane Metro. Community and stakeholder engagement supported the development of the draft Design Report by helping to identify and understand key stakeholder issues and plan appropriate mitigation measures.

› About the draft Design Report

The draft Design Report is a voluntary, non-statutory assessment of the Brisbane Metro concept design, the feasibility of the project, potential construction and operational impacts, approach to managing potential impacts, and required regulatory approvals.

The draft Design Report was released to provide residents and key stakeholders with information about the potential impacts and benefits of Brisbane Metro.

You can view a copy of the draft Design Report on Council's website at www.brisbane.qld.gov.au/brisbane-metro.

› Working with the Queensland Government

Council is working in close collaboration with the Queensland Government and the Cross River Rail Delivery Authority to meet the aspirations outlined in the *Connecting Brisbane* strategy, which was released in 2017. *Connecting Brisbane* outlines how Brisbane Metro and Cross River Rail will deliver a network of integrated, high-frequency turn-up-and-go public transport services.

The Queensland Government has provided detailed feedback on the draft Design Report and Council is working with representatives from government agencies and departments to respond to all feedback.



Having your say

Council released the draft Design Report on Monday 23 April 2018, marking the commencement of a five-week consultation period with residents and stakeholders. Consultation on the draft Design Report closed on Friday 25 May 2018.

› Involving the community

The draft Design Report was made available on Council's *Your Say* community engagement website, at community information sessions, and at briefings with key stakeholders. The consultation program was widely promoted through a citywide newsletter to all households and businesses, newspaper and online advertising, traditional and social media, Council's website and publications such as *Living in Brisbane*.

› Making a submission

Key stakeholders and the broader community were encouraged to provide formal submissions on the draft Design Report. Submissions could be provided via Council's *Your Say* website, by email or in writing. General feedback could also be provided at information sessions and by contacting the project team by phone or email.

› Analysing your feedback

Following the consultation period, Council undertook detailed analysis of the submissions to categorise, summarise and assess all feedback received. For a detailed summary of the consultation process and feedback received, please refer to the *Brisbane Metro draft Design Report – Consultation Report*.

By having your say on Council's high-frequency, high-capacity public transport solution, your feedback has helped shape Brisbane Metro.



Community information session in the Queen Street Mall

How you participated

During the consultation period more than 350 pieces of feedback were received through formal submissions, community information sessions, emails and phone calls to the project team.

> Information sessions

Eight community information sessions were held at venues within the Brisbane Metro corridor. Each session was staffed by members of the project team from a range of disciplines and also by staff from Council's Transport for Brisbane division.

Posters with information about the project were displayed at each venue, along with copies of the draft Design Report, concept design drawings and large aerial maps of the project corridor. In total, approximately 300 people attended the information sessions to provide feedback and ask questions about the project.

> Online engagement

In addition to hosting the complete draft Design Report, Council's *Your Say* community engagement website provided details of the community information sessions and an online form for submissions.

Across the five-week period, more than 10,000 people visited the Brisbane Metro page on Council's *Your Say* website and more than 3400 visitors accessed one or more parts of the draft Design Report.

> Stakeholder briefings

Council provided detailed briefings on the key findings of the draft Design Report to a range of stakeholders including:

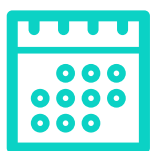
- Queensland Government departments and agencies
- Cultural Centre precinct stakeholders
- directly impacted private property owners along the project alignment
- key corridor stakeholders, including hospitals, universities, schools and business associations
- industry associations.

In total, more than 150 people attended the briefings, which included opportunities to ask questions and provide feedback to project team members.

> Formal submissions

Council received a total of 240 formal submissions from both organisations and members of the community. This included submissions from property owners along the project corridor, residents, advocacy groups, industry bodies and associations.

As referenced, Council has also received detailed feedback on the draft Design Report from the Queensland Government.



5
week
formal
consultation
period



10,000
people
visited the
website



350
people
provided
feedback



300
people
attended
information
sessions



240
formal
submissions
received

Consultation outcomes

Overall, feedback from the community and stakeholders indicated support for Brisbane Metro as a solution to Brisbane's bus congestion and capacity issues.

Feedback recognised that Council's significant investment in high-frequency public transport will help improve travel times and reliability, and help cater for future demand for travel between the inner city and suburbs.

Residents and stakeholders also raised a number of issues about the benefits and impacts of Brisbane Metro, and how these will be managed.

Consideration of these issues, along with further technical investigations and assessments undertaken by Council, has resulted in a number of changes to the project's concept design.

Other issues will be addressed during future stages of project development, such as the procurement process or detailed design phase. Some issues will be subject to future phases of community and stakeholder engagement.

Summary of key issues

The key issues raised during consultation related to:

- access for cyclists and pedestrians on Victoria Bridge, including the removal of existing on-road cycle access and the proposal for cyclists and pedestrians to use the shared upstream path
- proposed cycle access along Melbourne Street, including safety for cyclists and potential conflict between cyclists and pedestrians, and suggested solutions for addressing cycle access
- changes to general traffic access within the inner city, including the removal of general vehicle traffic from Victoria Bridge, impacts on cross-river connections (e.g. William Jolly Bridge) and measures for mitigating potential impacts
- the proposed Metro and bus network including the extent of the current Brisbane Metro alignment, changes to the bus network and future expansion of Metro services
- the proposed Metro vehicle fleet, including the fuel source, vehicle design and on-board features
- the new underground Cultural Centre station, including station design, access and connectivity to the surrounding precinct
- potential impacts during construction, including noise, dust and vibration, and impacts on public transport users and the road network
- environmental values, including impacts on existing trees and heritage places.

For a detailed list of the feedback received during consultation, please refer to the *Brisbane Metro draft Design Report – Consultation Report*.



Changes to
general traffic
access in the
inner city



Improving cyclist
and pedestrian
access to
Victoria Bridge



Delivering the
Metro vehicle
fleet



Planning the
Metro and
bus network



Managing
construction
impacts



Enhancing the
Cultural Centre
precinct



Station
design and
accessibility



Environmental
and social
considerations

Artist's impression only



Victoria Bridge cyclist and pedestrian access

As part of Brisbane Metro, Victoria Bridge is proposed to be converted to a 'green' bridge, providing a dedicated connection for Metro and bus services, cyclists and pedestrians. The draft Design Report proposed four lanes dedicated for Metro and bus services (two inbound and two outbound).

This required the existing on-road cycle access to be removed, with cyclists required to use the shared path on the upstream side of the bridge. The downstream footpath was proposed to be widened to increase the capacity for pedestrian movements.



What you told us

- › Victoria Bridge and Melbourne Street are important routes for cycling and walking between South Brisbane, West End and the CBD, and provide the most direct connection between these locations.
- › Concerns the proposed shared path arrangement on the upstream side of Victoria Bridge could increase conflicts between cyclists and pedestrians and create safety issues.
- › More people would use this route for cycling and walking if it was safer, more attractive and better connected.
- › Suggestions for alternative configurations for Victoria Bridge and Melbourne Street, including a separated two-way cycleway and separate cyclist and pedestrian paths on either side of the bridge.

- › Brisbane Metro provides an opportunity to deliver improvements for active transport users as well as public transport users.

“Victoria Bridge is a critical link for people walking and cycling between South Brisbane and the CBD”



Our response

Council recognises there is significant support for improved cycle and pedestrian connectivity across Victoria Bridge. In response to this, an additional options assessment process was undertaken to evaluate alternative options for the allocation of space for Metro and bus services, cyclists and pedestrians on Victoria Bridge.

Options to provide improved cycle access along Melbourne Street were also investigated. Key considerations included balancing improved connectivity for cyclists and pedestrians with the travel time and reliability benefits for Metro and bus customers.

Council has since developed a revised concept design for Victoria Bridge and Melbourne Street. It improves connectivity, safety and accessibility for cyclists and pedestrians without impacting on travel times or reliability for Metro services, and ability to meet future demand.

Key features include:

- › a separated two-way cycleway and pedestrian pathway on the upstream side of Victoria Bridge
- › maintaining a widened downstream pedestrian pathway on Victoria Bridge
- › three lanes for Metro and bus services, including the retention of direct access for bus services from Victoria Bridge to Queen Street bus station
- › on-road cycle lanes along both sides of Melbourne Street from Grey Street to Merivale Street.



Revised concept design for Victoria Bridge

Artist's impression only

➔ What we're doing

- Reconfiguring the number of Metro and bus lanes on Victoria Bridge from four to three, to provide more space for walking and cycling, without impacting on travel times or reliability for Metro customers.
- Introducing a separated two-way cycleway on the upstream side of Victoria Bridge and Melbourne Street, providing a safer and more direct connection between South Brisbane and the CBD.
- Working with stakeholders through the detailed design process to further enhance cyclist and pedestrian access and connectivity in the inner city.



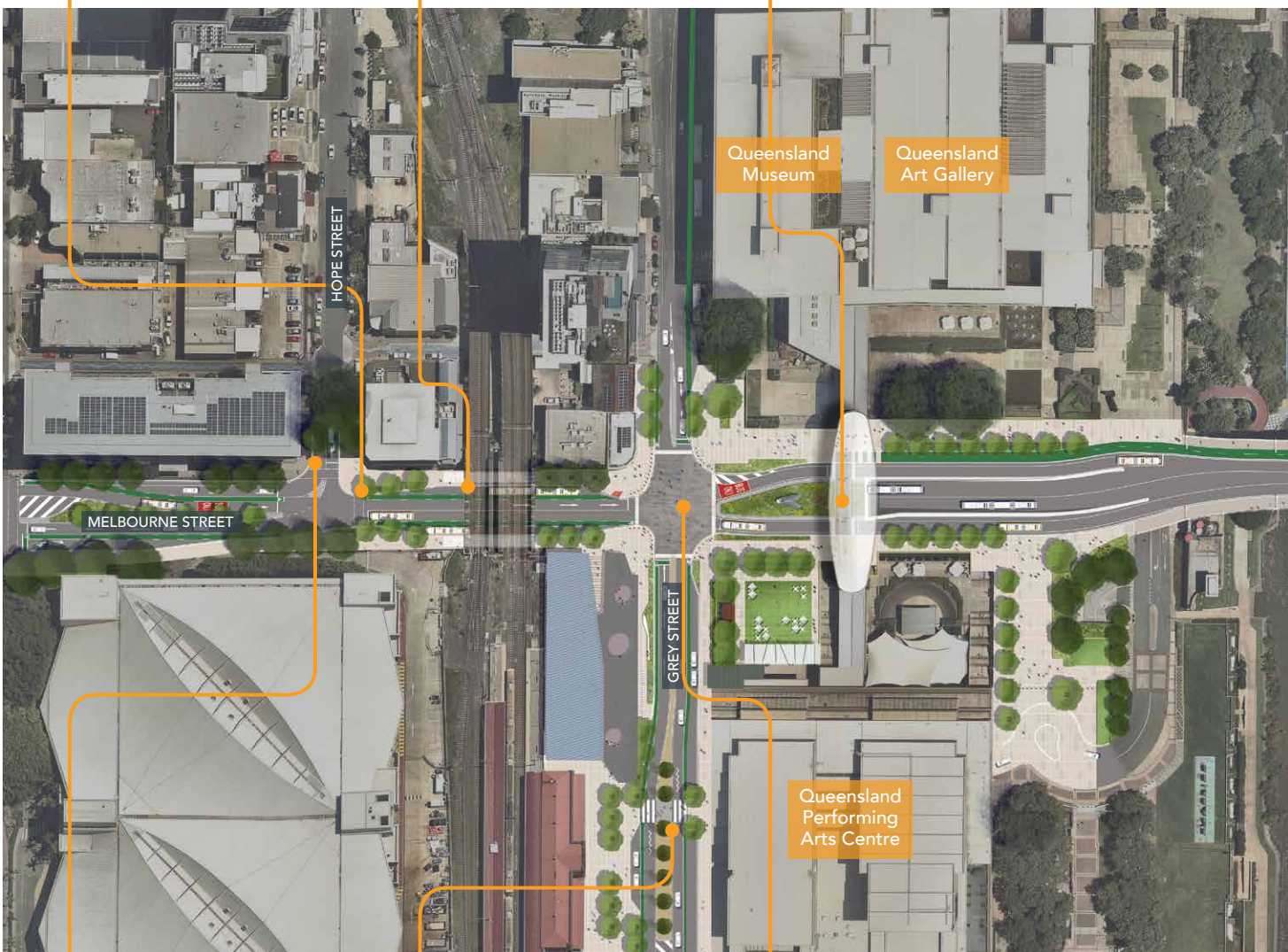
Improved connections for cyclists and pedestrians

Consultation on the draft Design Report has helped to further refine the concept design for Victoria Bridge, including improved connections for cyclists and pedestrians.

On-road cycle lanes on either side of Melbourne Street from Grey Street to Merivale Street, improving connections between West End and the CBD

Indented bus bays to provide access to bus services connecting West End, the CBD and Fortitude Valley, including CityGlider services

A surface level pedestrian crossing of Melbourne Street will be introduced at the existing Cultural Centre pedestrian bridge between the Queensland Performing Arts Centre (QPAC) and the Queensland Museum



Changes to this intersection to provide a new pedestrian crossing and right-turn from Hope Street into Melbourne Street

A safe and direct surface crossing for pedestrians between the new Cultural Centre underground station, South Brisbane railway station and QPAC

The intersection at Grey Street and Melbourne Street will be upgraded to a 'scramble' crossing to improve the capacity and convenience for pedestrians to cross this intersection

Artist's impression only. Subject to government approvals.

Inclusion of a separated two-way cycleway across Victoria Bridge, providing a safer, more attractive connection for pedestrians and cyclists

The existing upstream pathway will be dedicated to pedestrians, reducing potential conflicts with cyclists

A connection for cyclists to the Bicentennial Bikeway will be maintained, providing access to the broader cycle network



Three centre lanes for Metro and bus services, with altered signalling and lane configuration

The downstream pedestrian pathway will be widened within the existing bridge width, providing increased capacity for walking

The existing at-grade crossing to Reddacliff Place for pedestrians and cyclists on the upstream footpath of Victoria Bridge will be maintained

Artist's impression only. Subject to government approvals.



Changes to general traffic access in the inner city

As part of Brisbane Metro, a number of local road and access changes are proposed in South Brisbane and the CBD. This includes removing general vehicle traffic from Victoria Bridge and changes to general vehicle access at Melbourne Street and North Quay.

Removing general vehicle traffic will provide a dedicated river crossing for Metro and bus services segregated from general vehicle traffic. It will significantly increase capacity of this important link, helping to meet future growth in demand for public and active transport to the inner city and the CBD.



What you told us

- › There is support for providing increased public and active transport capacity by closing Victoria Bridge to general vehicle traffic.
- › Some residents and businesses in South Brisbane, West End and other inner southern suburbs are concerned about the impacts of closing Victoria Bridge to general vehicle traffic.
- › Convenient and easy access to the CBD by car is important to some residents and businesses, and alternative cross-river routes need to be attractive and affordable for motorists.
- › More information is needed to understand the impacts of traffic changes in the inner city, and alternative options to cross the river by car.
- › Changes at North Quay may potentially impact on access to the Queen's Wharf Brisbane development.

“Upgrades should ensure alternative routes minimise delays and offer suitable accessibility to the CBD”



Our response

Council recognises removing general vehicle traffic from Victoria Bridge will require changes for some road users, and careful planning and management will be needed to ensure the inner city road network continues to operate efficiently.

Assessments undertaken as part of the draft Design Report indicate that traffic from Victoria Bridge and North Quay will divert to alternative routes, with the William Jolly Bridge attracting the largest share of diverted traffic.

The assessments forecast that traffic changes proposed as part of Brisbane Metro would not result in an increase in average delay across the study area, with appropriate mitigations in place.

To assist in mitigating the potential for increased traffic volumes on William Jolly Bridge, Council has allocated \$5 million to undertake upgrades to intersections at the following locations in South Brisbane and the CBD:

- › Peel Street and Cordelia Street, South Brisbane
- › Peel Street and Merivale Street, South Brisbane
- › Grey Street and Peel Street, South Brisbane
- › Upper Roma Street and Skew Street, Brisbane CBD.

As part of the main construction works at South Brisbane, Council will also upgrade the intersection of Melbourne Street and Grey Street.

As outlined in the draft Design Report, local access is maintained through the intersection of North Quay, William Street and Queens Wharf Road. Council is undertaking further analysis to investigate other measures to manage inner city traffic following the introduction of Brisbane Metro.

Inner city intersection upgrades



➔ What we're doing

- Upgrading intersections at South Brisbane and in the CBD in 2019 to ensure other cross-river connections, especially William Jolly Bridge, are easy and convenient to access. This will include further consultation with the community and stakeholders.
- Investigating other measures to manage inner city traffic following the introduction of Brisbane Metro, as well as other major projects such as Cross River Rail and Queen's Wharf Brisbane.
- Undertaking a community education and awareness program around traffic changes resulting from Brisbane Metro well in advance of any changes being implemented.



Metro and bus network

The first stage of Brisbane Metro will introduce two new turn-up-and-go Metro lines from Eight Mile Plains to Roma Street and RBWH to UQ Lakes.

Many current BUZ (high-frequency) and Rocket (peak-only express) services to the CBD are proposed to continue to operate.

Other bus services will feed high-frequency 'trunk' Metro services on the busway.

Reducing the number of buses entering the CBD will allow more services to be provided to the suburbs, and provide capacity to accommodate future growth.



What you told us

- › There is strong support for using the existing busway to increase the capacity and reliability of the bus network, and support future growth in public transport demand.
- › Public transport users are interested in learning more about changes to the bus network, and how services will be improved across the suburbs.
- › Suggestions for extensions to Metro services further along the existing busway network (e.g. to Langlands Park busway station and Kedron Brook busway station).
- › Support for Brisbane Metro to service other parts of the region, including the northern suburbs (e.g. Chermside), eastern suburbs (e.g. Carindale and Redland) and western suburbs (e.g. Kenmore).
- › Maintaining high-frequency, direct connections to places like UQ, the CBD and southern suburbs is important to help people get to work and study.
- › Concerns that Brisbane Metro does not service the existing Dutton Park Place bus stop adjacent to Eleanor Schonell Bridge and potential impacts on users of this stop and residents in Dutton Park, Fairfield and Yeronga.
- › Connections between Brisbane Metro and other public transport, including the future Cross River Rail line, need to be convenient, safe and frequent.



Our response

Council recognises there is strong interest from public transport users across Brisbane in how they will benefit from Brisbane Metro, and what changes will be made to the broader bus network.

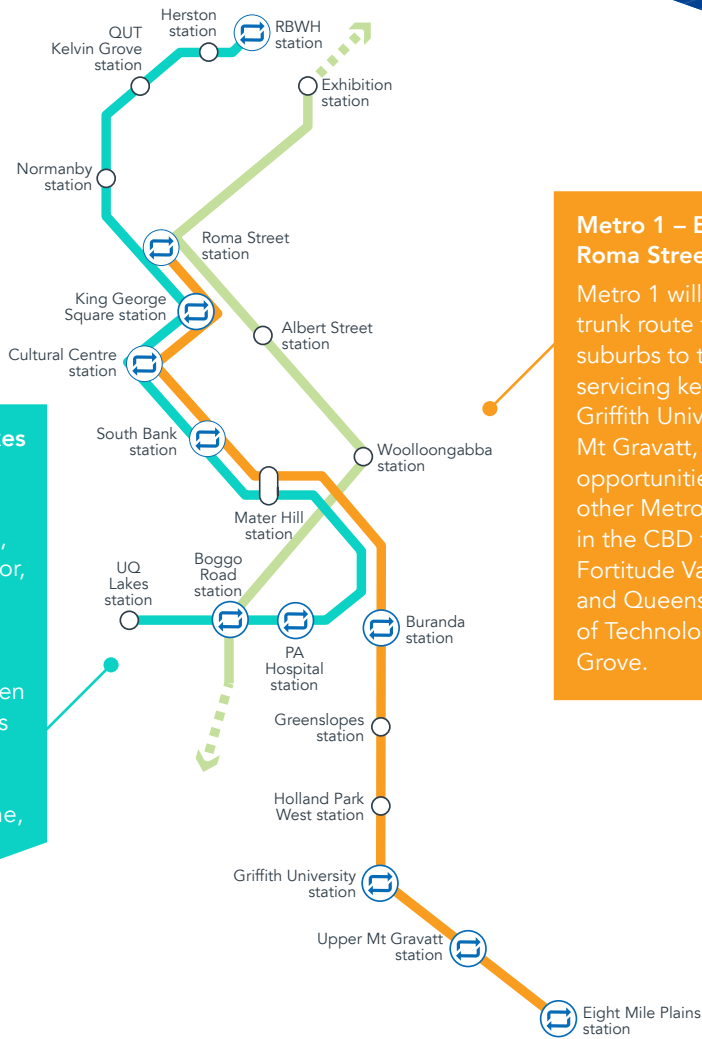
TransLink has overall responsibility for coordinating the public transport network in Brisbane. Starting in 2019, Council will work closely with TransLink to undertake a detailed staged review of the bus network. Opportunities will be provided for residents and key stakeholders to provide feedback on the changes throughout this process.

Council also recognises there is strong demand for Metro services to be expanded to other areas of Brisbane in the future. The alignment for Metro 1 and Metro 2 was determined through the development of the Brisbane Metro Business Case, and reflects the best use of existing busway infrastructure, current and future demand for public transport and opportunities for interchange with other modes of public transport.

Future expansions of Brisbane Metro will be reliant on a range of factors, including assessment of existing infrastructure and potential delivery of appropriate new segregated infrastructure by the Queensland Government.

This will ensure Metro services do not need to compete for road space with general traffic, allowing future services to achieve the ongoing aim of travel time reliability and cutting travel times for customers.

Metro 2 – RBWH to UQ Lakes
 Metro 2 will provide a strong inner city distribution function along the education, knowledge and health corridor, anchored by major trip generators at RBWH and UQ Lakes. It will also provide cross-city connectivity between the Boggo Road and Princess Alexandra (PA) Hospital precincts, with important destinations at South Brisbane, the CBD and inner north.



Metro 1 – Eight Mile Plains to Roma Street
 Metro 1 will provide a new trunk route from the southern suburbs to the inner city, servicing key destinations like Griffith University and Upper Mt Gravatt, and providing opportunities to transfer to other Metro, bus or rail services in the CBD to access areas like Fortitude Valley, Bowen Hills and Queensland University of Technology (QUT) Kelvin Grove.

➔ What we're doing

- Working in close partnership with TransLink to provide opportunities for residents and public transport users to provide feedback on changes to the bus network. This is planned to get underway in 2019, and take place across a number of years.
- Identifying areas for potential expansions of Metro services, including hubs like Chermside, Carindale and Springwood, in line with the delivery of new or upgraded infrastructure, as outlined in the *Future Metro and Glider strategy*.
- Working with the Cross River Rail Delivery Authority and TransLink to ensure Brisbane Metro and Cross River Rail together deliver an integrated network of high-frequency, turn-up-and-go services.



Metro vehicle fleet

As part of Brisbane Metro Council will introduce a new fleet of 60 high-capacity Metro vehicles, each with the capacity to carry up to 150 people.

The Metro vehicles are set to become a recognisable part of Brisbane's public transport network, and set new standards for customer comfort, safety and accessibility.

As outlined in the draft Design Report, each Metro vehicle will be approximately 25 metres in length, be bi-articulated (i.e. have two articulation or pivot points) and able to operate on the existing busway.

Internationally, similar vehicles operate on a range of fuel sources, including conventional and alternative fuels such as diesel, gas, fully-electric or hybrid options.



What you told us

- › There is strong interest in the Metro vehicle's fuel source, with a preference for a solution that is clean, green and sustainable.
- › The Metro vehicles should be suitable to operate on Brisbane's existing busway infrastructure, including during emergency situations, and should consider future technology changes (e.g. automated operation).
- › The Metro vehicles should be highly accessible for all public transport users, including mobility constrained groups and people with low vision.
- › Some people expressed concerns around potential costs associated with servicing, mobility, garaging and management of the new Metro vehicle fleet.
- › Suggestions for a variety of on-board features for the Metro vehicle fleet, including bicycle storage, Wi-Fi and enhanced passenger information, and the need for the Metro vehicles to have a distinctive, modern look and feel.



Our response

As outlined in the draft Design Report, Council will procure a new fleet of high-capacity bi-articulated Metro vehicles for Brisbane Metro. The vehicles will be a first for an Australian city, however, similar bi-articulated vehicles currently operate in a number of cities internationally.

This type of high-capacity vehicle is needed to provide sufficient capacity on the busway for customers transferring from feeder bus routes or rail services to Metro services. It will also provide capacity for future growth across the public transport network as demand increases.

In July 2018, Council commenced the procurement process for the Metro vehicle fleet. The successful tenderer will be responsible for the design and build of a pilot vehicle to be tested in Brisbane. Following a successful pilot, Council would order the balance of the fleet.

Potential fuel source options will continue to be assessed through the procurement process for the Metro vehicle fleet. Key considerations for Council going forward include the ability of the Metro vehicles to offer the required reliability to operate on Brisbane's busway infrastructure, and within our local subtropical conditions.

The Metro vehicle fleet will be designed to comply with the requirements of the *Disability Discrimination Act 1992 (DDA)* and the *Disability Standards for Accessible Public Transport 2002*.



Proposed Metro vehicle depot at Rochedale

Artist's impression only

➔ What we're doing

- Continuing to engage with vehicle manufacturers and suppliers through the procurement process to assess potential fuel source options. This includes diesel, bio-diesel, hybrid diesel, and fully-electric vehicles.
- Engaging with key stakeholders, including disability user groups, through the detailed design of the Metro vehicle fleet to ensure they meet the needs of all public transport users, including mobility constrained groups and people with low vision.
- Encouraging potential suppliers to suggest innovation in the driver, customer and operational features of Metro vehicles, and consider future changes in technology. This may include on-board features such as bicycle storage, enhanced signage and display systems, and driver and vehicle monitoring systems.



Cultural Centre precinct

As part of Brisbane Metro, the Cultural Centre precinct will be serviced by a new state-of-the-art underground station for Metro vehicles and buses.

The station will be located on a site at the intersection of Melbourne Street and Grey Street, beneath the existing South Brisbane railway corridor and the QPAC Green.

The concept design proposes two station entries at the corner of Melbourne Street and Grey Street.

The design includes surface level ticket gates and a ground-level concourse with a canopy structure. Access to the inbound and outbound platforms is provided via escalators, a stairway and lift.

New surface level bus stops will be established on either side of Melbourne Street for bus services, such as the Blue CityGlider, which connect to West End, the CBD and Fortitude Valley. The bus stops will be integrated with the surrounding public realm.

What you told us

- › Strong support for the new underground station, fixing existing bus congestion issues and removing the majority of buses from street level.
- › It is important for the new underground station to provide good connections to the other modes of public transport, including the adjacent South Brisbane railway station and new bus stops on Melbourne Street.
- › Suggestions for additional station entries connecting to the broader Cultural Centre precinct, and concerns around the removal of the existing underpass beneath Melbourne Street.
- › Improvements to the public realm at the Cultural Centre precinct will significantly enhance connectivity, safety and amenity for cyclists, pedestrians and visitors to the precinct.
- › Opportunities exist to improve wayfinding and integration between the station and other parts of the local area, including South Bank, Melbourne Street and Boundary Street.
- › It is important for car parks and drop-off/pick-up locations in the Cultural Centre precinct to remain easily accessible, particularly for visitors requiring assistance or persons with disability.

Our response

Council recognises the importance of maximising connectivity between the new underground station and the surrounding precinct. By reducing the number of buses at surface level at this location, pedestrian amenity and safety will be significantly improved.

Connectivity to the Cultural Centre precinct and South Bank will be provided at surface level via:

- › the new 'scramble' crossing at the intersection of Melbourne Street and Grey Street
- › a signalised crossing between QPAC and the Queensland Museum across Melbourne Street
- › a crossing between QPAC and South Brisbane railway station across Grey Street.

Multiple station entries were considered during the development of the station design. Due to a range of factors including geometric constraints, event crowd management, public safety, and heritage impacts, these were not progressed.

Access to Cultural Centre precinct car parks will be maintained via the existing Peel Street/Stanley Place entry/exit and through the Stanley Street tunnel under Victoria Bridge. Council is planning to upgrade the intersection of Peel Street and Stanley Place to improve the operation of the car park entry/exit. Local vehicle access to QPAC, including visitor and taxi drop-off/pick-up, will be maintained along Grey Street.



Concept design for the Cultural Centre precinct

Artist's impression only

➔ What we're doing

- Working with Cultural Centre precinct stakeholders to ensure the new underground station provides a world-class gateway to the city's premier arts and entertainment precinct and maximises opportunities for improved public realm.
- During the detailed design phase, investigating opportunities for improved connectivity between the new underground station and the existing South Brisbane railway station as well as the wider precinct.
- Investigating other opportunities in the Cultural Centre precinct including; potential for enhanced over station development, additional improvements to the public realm, and improved wayfinding and signage.



Station design and accessibility

In addition to the new Cultural Centre underground station, upgrades will be required at 17 existing busway stations as part of Brisbane Metro.

This will include new ticket readers or fare gates on the platforms to facilitate the proposed off-board ticketing arrangements, new passenger information display systems and new Brisbane Metro branding (e.g. wayfinding, signage).

Platform extensions will be required at some stations to accommodate increased station activity, with existing entrances and exits to current stations to be maintained.

Council also plans to introduce a new platform information and management system, including improved passenger information at platforms and on board Metro services. This system will boost the efficiency and reliability of busway operations and provide a better experience for customers.



What you told us

- › It is important for new and upgraded stations to be highly accessible by all public transport users, particularly those with mobility issues, and hearing and visual impairments.
- › Suggestions for improvements at new and existing busway stations, such as end-of-trip facilities for cyclists, improved passenger information and signage, and retail outlets.
- › Suggestions for improvements to individual busway stations to provide safe and accessible connections to the broader transport network.
- › Support for off-board ticketing and all door boarding to speed up boarding and reduce delays at busway stations.
- › Concerns about the capacity of some existing busway stations to accommodate higher numbers in public transport users.
- › Concerns existing park 'n' ride facilities at busway stations do not have sufficient capacity to accommodate future demand from public transport users.



Our response

Council is committed to providing safe, accessible and connected public transport options and ensuring Brisbane Metro is an attractive and convenient choice for all users. New and upgraded station infrastructure delivered as part of Brisbane Metro will be designed to comply with the requirements of the *DDA* and the *Disability Standards for Accessible Public Transport 2002*.

Council is continuing to investigate refinements to operational policies that will help improve the efficiency of the busway network and ensure travel time reliability.

These changes include facilitating multi-door boarding and alighting for customers on Metro vehicles and buses, providing off-board ticketing at busway stations and implementing a platform management and information system to inform customers of the stopping bay for approaching or departing Metro vehicles and buses.

Existing park 'n' ride facilities at busway stations are owned and managed by the Queensland Government's Department of Transport and Main Roads (TMR). Their preference is for customers to connect with busway stations via walking, bicycle or public transport, with private vehicles the least preferable way to access busway services.

Regular feeder services from the suburbs to busway stations will provide easy connections to high-frequency Metro services, reducing reliance on private vehicle journeys. Provision of park 'n' ride facilities is traditionally the responsibility of the Queensland Government.



Concept design for the Cultural Centre station

Artist's impression only

➔ What we're doing

- Engaging with key stakeholders, including disability user groups, through the detailed design of new and upgraded infrastructure to ensure they meet the needs of all public transport users, including mobility, visually or hearing impaired customers.
- Through the detailed design process, ensuring connections between busway stations and the broader transport network are safe, accessible, and can accommodate future growth.
- Providing regular feeder services from local suburbs to connect to high-frequency Metro and bus services at busway stations, to ensure journeys are fast, convenient and reliable for public transport users.



Managing construction impacts

The draft Design Report outlined the construction works proposed for Brisbane Metro. This includes the construction program, work sites and haulage routes, and the proposed construction methodology. It also assessed the impacts of construction and outlined proposed mitigation and management measures.

Main construction worksites for Brisbane Metro will be at the Metro depot site at Rochedale, Griffith University station, Buranda busway station, the Cultural Centre precinct and at North Quay/Adelaide Street in the CBD. Where Brisbane Metro uses the existing busway alignment, works will generally be minor in scale.

Construction of the main works for Brisbane Metro will generally occur over a period of approximately 2.5 years. Pre-construction works (or early works) will be undertaken in some locations such as the Cultural Centre precinct and Adelaide Street to allow major construction activities in these locations to be delivered as efficiently as possible.

What you told us

- › Concerns about the level of noise, vibration and dust at worksites, including the Cultural Centre, Adelaide Street, Mater Hill and Griffith University, and the need for this to be carefully managed to minimise impacts on residents, commuters, workers and visitors.
- › Impacts on the transport network during construction, particularly on public transport users and the inner city road network, should be minimised where possible and will require careful management.
- › Concerns about the impacts of additional haulage traffic through areas that already experience high levels of congestion, such as Stanley Street and Vulture Street at South Brisbane.
- › During construction, access for cyclists, pedestrians, service vehicles and visitor pick-up/drop-off should be maintained at key inner city locations, particularly at the Cultural Centre, Adelaide Street and North Quay.
- › More detail around construction and traffic management plans at key worksites is needed to better understand the potential impacts and proposed mitigation measures.



Our response

Council recognises the construction phase of Brisbane Metro will have some impacts on residents, businesses and commuters. These impacts will range in duration, and will mainly be localised to those areas with the most intensive construction activity, such as Buranda busway station, Cultural Centre precinct and Adelaide Street/North Quay.

An overarching traffic management plan will be developed and implemented to manage potential impacts of Brisbane Metro's construction on the transport network. This will be supported by construction traffic management plans for each worksite, outlining specific strategies to minimise any likely impact from construction activity, including restricting truck movements to outside peak times. The plans will be prepared in consultation with key stakeholders including transport operators, Queensland Government agencies, Cultural Centre precinct stakeholders, property owners, local residents and businesses.

A Construction and Environmental Management Plan (CEMP) will be developed to provide the framework for managing and controlling environmental aspects of Brisbane Metro's construction. The CEMP will be supported by a number of sub-plans that relate to specific environmental issues or particular construction activities, including the management of noise, vibration, air quality, water quality and contaminated land.

Ongoing engagement with local communities at these locations will ensure stakeholders are well informed of planned activities and timings. A range of communication channels will be provided for the community to contact the project team in the event concerns need to be raised. Council is committed to working closely with the community to reduce impacts where possible.



Cultural Centre precinct, South Brisbane

➔ What we're doing

- Investigating construction methodologies through the detailed design process that minimise the impact on the transport network, particularly public transport users, cyclists and pedestrians.
- Developing a comprehensive community and stakeholder management plan for the construction phase of the project, which will outline how changes to the public transport network and inner city road network will be managed, and ensure stakeholders understand the timings, impacts and proposed management of construction works.
- Through the procurement process, ensuring contractors work in partnership with Council to develop robust plans to manage impacts on residents, businesses and local communities, during construction including noise, vibration and dust.



Environmental and social considerations

Through the draft Design Report Council assessed the potential benefits and impacts of the construction and operation of Brisbane Metro across a range of environmental and social matters. This considered issues such as flora and fauna, Aboriginal and historic cultural heritage, land use and planning, visual amenity, socio-economic values, water resources and cumulative impacts.

Through the assessments, Council identified that most impacts during the construction phase can be appropriately managed with standard mitigation measures in place. Adverse environmental and social impacts will mainly be localised to those areas with the most intensive construction activity.

During operation, Brisbane Metro will have a range of long-term beneficial impacts including more reliable, frequent and efficient public transport, improved access to key centres, and improved local amenity due to a reduction in bus numbers at surface level.

Other environmental impacts from Brisbane Metro include the clearing of existing vegetation at some work sites, changes in visual amenity at the Cultural Centre and Adelaide Street, impacts on some existing heritage places, and changes in access for some users.

What you told us

- › Heritage listed places, including the Queensland Cultural Centre, South Brisbane railway station, and City Hall, must be monitored and protected during construction and enhanced by any new infrastructure or modifications.
- › Existing mature trees at places like QPAC and Adelaide Street are valued by the community and should be protected or reinstated with similar plantings where possible.
- › New and modified infrastructure, including the tunnel portal to the new underground station at the Cultural Centre, must be sensitively designed and deliver high-quality urban design outcomes.



Our response

Council is committed to ensuring the environmental impacts of Brisbane Metro are managed in line with Queensland and Australian Government legislation, in addition to Council strategies, policies and guidelines, through an environmental management framework.

Based on the construction methodology outlined in the draft Design Report, construction of Brisbane Metro requires the removal of existing trees and landscaping at the QPAC Green and in Adelaide Street. Following construction, new landscaping will be reinstated in consultation with relevant stakeholders.

Potential vibration impacts on nearby heritage buildings, such as South Brisbane railway station and City Hall, are expected to be appropriately managed through measures such as ongoing monitoring and building surveys prior to construction. Careful design of above ground infrastructure will also assist in conserving and enhancing the heritage values of heritage places.

Other potential environmental impacts such as air quality, contaminated land, soils, water quality and flooding, are expected to be managed with the implementation of standard management measures. These management measures will be outlined in the CEMP and developed with consideration of the outcomes of stakeholder and community consultation.



Adelaide Street, Brisbane CBD

➔ What we're doing

- Investigating construction methodologies through the detailed design process that minimise the impact on existing trees and heritage places, and other important community assets.
- Working with a range of stakeholders to ensure new infrastructure, particularly at the Cultural Centre and Adelaide Street, is appropriately designed and conserves and enhances existing heritage values.
- Ensuring the potential environmental impacts of Brisbane Metro are managed in line with the CEMP and relevant Queensland and Australian Government legislation.

Next steps

Brisbane Metro will mean quicker, more reliable public transport, with less time travelling and more time with family and friends.

Council is working closely with the Queensland Government and Australian Government to deliver Brisbane Metro. In May 2018, the Australian Government confirmed a \$300 million funding contribution to Brisbane Metro. Council has committed to funding the remaining capital cost, meaning the project is fully funded.

As the asset owner of the existing busway and manager of the public transport network in South East Queensland, the Queensland Government has an important role to play in delivering Brisbane Metro. Council is working closely with TMR, Cultural Centre precinct stakeholders and other government agencies to progress discussions on key aspects of the project.

This will assist in finalising detailed specifications for all aspects of Brisbane Metro's design, construction and operation. During the procurement process, tenderers will prepare proposals for the design and construction of Brisbane Metro in line with these specifications. Subject to government approvals, Council expects construction to commence in 2019, with Metro services to commence in 2023.



› Keeping you informed

Council will provide opportunities for residents and stakeholders to stay informed and have their say during future stages of the project. This includes:

- **Early works:** Targeted communication and engagement activities to support early works at key locations, including survey and geotechnical investigations, intersection upgrades, land acquisition, and relocation of services and utilities.
- **Bus network planning:** Broad-based community and stakeholder involvement in a staged review and planning of changes to the bus network. This will be led by TransLink, in partnership with Council and other public transport operators.
- **Detailed design and construction:** Residents, local communities, property owners and other key stakeholders will be kept well-informed about the timing, impacts and management of construction works. This will be outlined in a detailed Communications and Stakeholder Management Plan.

- **Operations:** Council will undertake a city-wide education program prior to Metro services commencing and changes to the bus network being introduced.

› Getting ready for construction

Council has commenced preliminary site investigations, including geotechnical investigations and survey of the key work sites. Planning for early works such as service relocations (e.g. sewer pump stations, storm water pipes, and electrical and telecommunications cables) and intersection upgrades is also underway.

Early works will be undertaken in locations such as South Brisbane and the CBD to allow major construction activities in these locations to take place as efficiently as possible. These works are expected to commence in late 2018 and be complete by mid-2020.

› Delivery timeframes

Current and future stages in Brisbane Metro's development are outlined below.

Phase	Timing	Key activities
Finalise concept design	Late 2018	<ul style="list-style-type: none"> Release outcomes of consultation on the draft Design Report Ongoing stakeholder and community engagement Finalise detailed specifications for design, construction and operation
Pre-construction works*	Mid 2018 to mid 2020	<ul style="list-style-type: none"> Complete site investigation works Relocation of some services and utilities Intersection upgrades in South Brisbane and the CBD, and closure of Victoria Bridge to general vehicle traffic Ongoing community and stakeholder engagement
Procurement of infrastructure, Metro vehicles and systems*	Mid 2018 to late 2019	<ul style="list-style-type: none"> Preparation of contract documentation and tender development Release of Expressions of Interest and Request for Proposals Award of contracts
Detailed design and construction*	2019 to 2022	<ul style="list-style-type: none"> Complete detailed design and construction methodology Staged construction of inner city and suburban infrastructure Design, testing and delivery of the Metro vehicle fleet Ongoing community and stakeholder engagement
Project completion*	2023	<ul style="list-style-type: none"> Operational testing and commissioning Commencement of Metro services

* Subject to government approvals.

› Approvals and agreements

A range of environmental approvals will be required under Queensland and Australian Government legislation for the construction and operation of Brisbane Metro. These generally relate to works on or near to a Queensland heritage place, clearing of native vegetation, and works involving waterways.

Approvals are also required from the Queensland Government to use and construct Brisbane Metro within a busway, railway or state-controlled road corridor. Permits are also required under Council's local laws relating to the clearing of Council protected vegetation.

Council will also develop agreements with directly impacted key stakeholders in relation to a range of issues, including property access, construction hours, traffic management, laydown areas and management of construction impacts such as noise, dust and vibration.

› Engaging with industry

Brisbane Metro presents an opportunity for industry to be involved in one of Queensland's most important infrastructure projects, with main procurement activities commencing in July 2018.

Council has commenced the process to establish a Collaborative Partnership consisting of Council, a contractor and a designer to deliver the main inner city infrastructure works, as well as manage the suburban infrastructure upgrades and new systems package.

An international search for suppliers with the required experience and capability to design and deliver the Metro vehicle fleet is also underway, with strong interest from both local and overseas suppliers. Future stages will involve suppliers providing detailed technical and commercial proposals to Council. Main procurement activities are expected to be complete by late 2019.



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