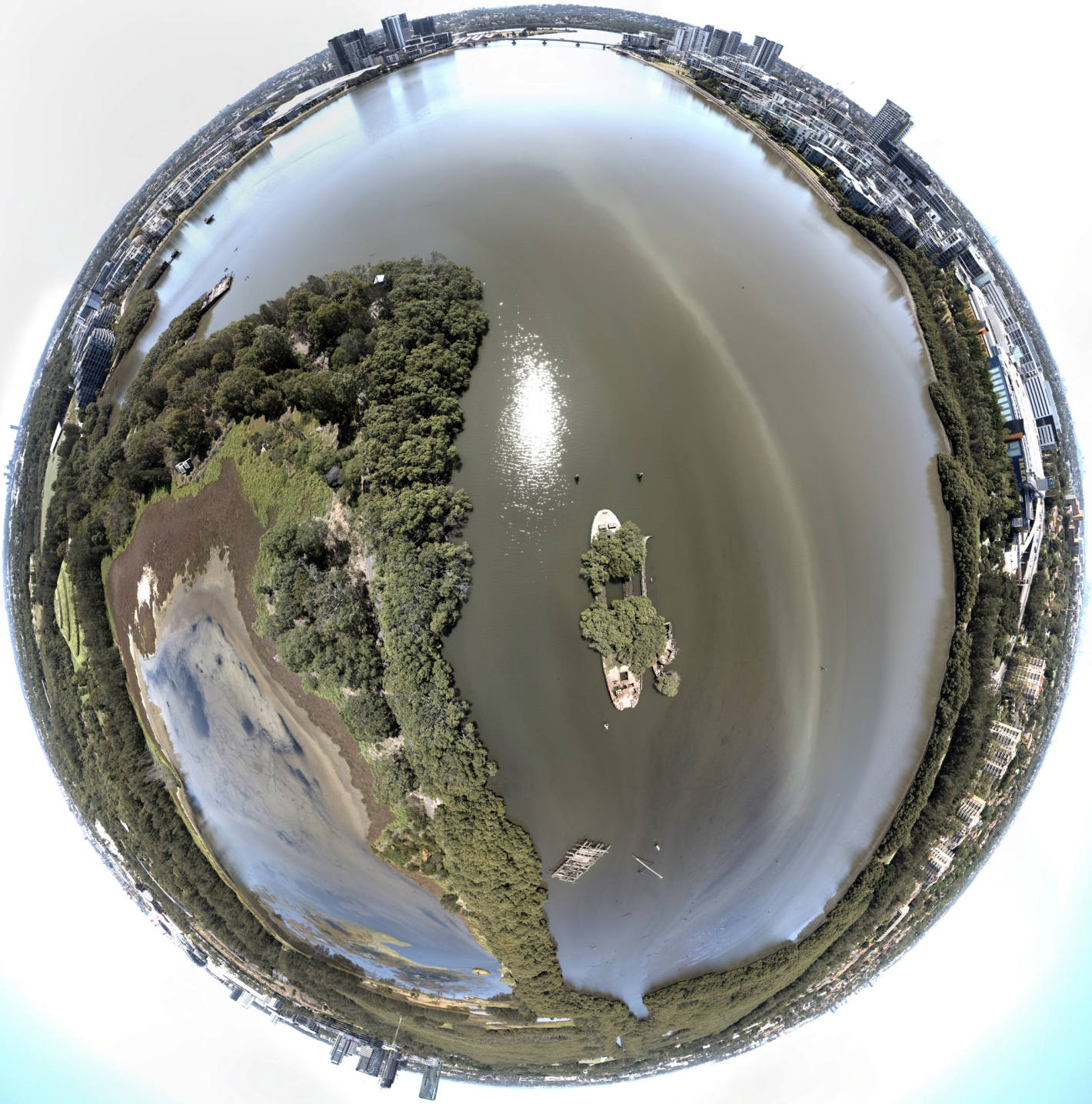

Homebush Bay Circuit Wayfinding Strategy and Master Plan

Final

May, 2019

Institute for Sensible Transport

Front cover image: Nathanael Hughes

Prepared by

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Glossary of terms

App – Application, a piece of software specially designed for smart devices such as smart phones or tablets.

Digital engine – A software backend that harmonises data across different digital wayfinding typologies.

Digital kiosk – A publicly accessible electronic device that gives users wayfinding and interpretative information.

Dockless bikeshare – A model of bikeshare operation where bikes may 'float' across the system without users having to lock them to fixed structures in set locations (as traditional bike share requires users to do).

Google Maps – a proprietary, popular, mapping system which is available on Apps and web browsers.

NFC tags – NFC (Near-field communication) tags are used to communicate data to mobile phones, tablets, or other smart devices. NFC technology is commonly used for contactless payment, but may also transmit data to activate Apps or open websites.

OpenStreetMap – an opensource mapping project where users can collaboratively add material.

QR codes – QR codes (Quick Response Code) are a type of machine readable barcode which can be used to activate Apps or open websites though smart devices camera. Some smart devices will need specialist software, while others will not.

Smart furniture – Public furniture such as benches or litter bins which are internet connected and have some digital or technical capabilities.

Strava – A fitness platform where users track activity using a smart device, with progress and statistics viewable via the App or website.

Transportation-as-a-Service (TaaS), also known as **Mobility-as-a-Service** (MaaS), describes a shift away from personally-owned modes of transport and towards mobility solutions that are consumed as a service.

Wayfinding signage – Signage such as maps or finger boards which help users navigate an area.

1. Introduction

The completion of the Bennelong Bridge in 2016, connecting Wentworth Point and Rhodes has created the opportunity to develop a world class walking and cycling circuit around Homebush Bay.

The Homebush Bay Circuit (HBC) will be a high quality, separated, active transport circuit designed to ensure this unique part of Sydney is enjoyed by as many people as possible. Using a combination of physical and digital wayfinding technology, this Wayfinding Strategy and Master Plan will help locals and visitors both navigate the Circuit, as well as interpret the area's rich history and natural beauty.

This Wayfinding Strategy and Master Plan provides a detailed, comprehensive plan to guide future investment to ensure the HBC becomes a well recognised and popular addition to the region's existing attractions. It is difficult to think of a better legacy from the site of the Sydney 2000 Olympics than a world class walking and cycling network that interfaces seamlessly with the waterfront and celebrates the area's unique history while embracing its future development as a residential and employment centre.

1.1 Vision

The HBC will be the playground for locals and visitors to enjoy the benefits of socialising, relaxing and exercising in a natural, vibrant environment.

1.2 The Future of Homebush Bay

The HBC is within an area known as the *Olympic Peninsula* and is identified as an area of intensified urban development over coming years. The Parramatta CBD, Sydney Olympic Park and Rhodes are all identified within the *Greater Sydney Regional Plan* as sites of substantial growth in the number of 'knowledge economy' jobs, and these jobs include sectors in which opportunities for active transport (especially in natural environments) are highly sought after.

As a place of increasing residential development, the HBC will offer a crucially important asset to enhance local liveability and amenity.

This project encompasses the jurisdictions of City of Canada Bay, City of Parramatta and Sydney Olympic Park Authority, as shown in Figure 1.

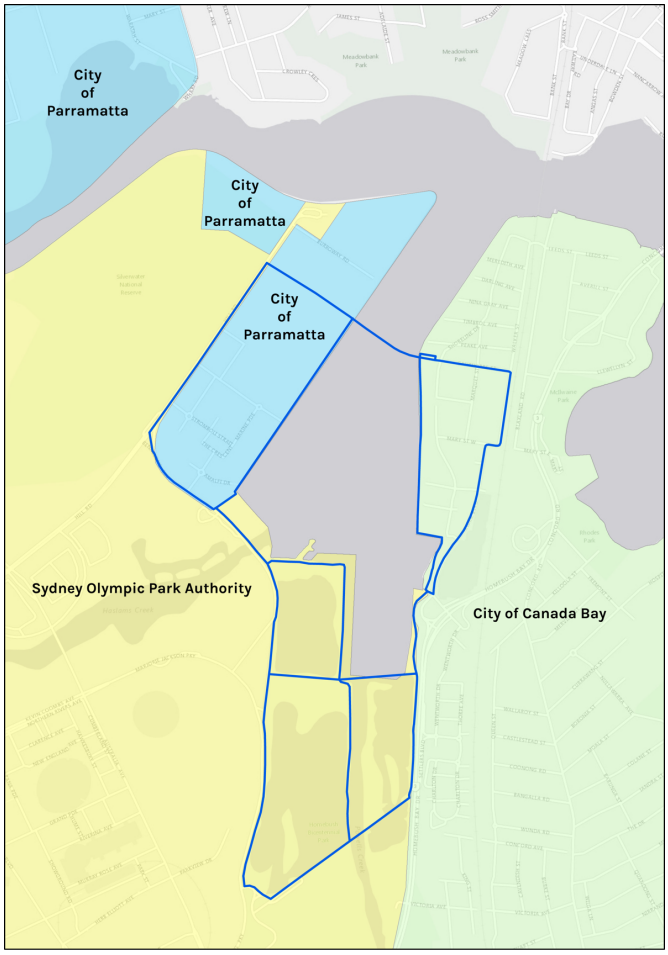


Figure 1 Jurisdictions involved in HBC

See Appendix 4 for City of Canada Bay and City of Parramatta documents in support of this Master Plan and Strategy following Exhibition (adopted March. 2019 and February, 2019 respectively).

2. Developing the Strategy and Master Plan: What we did

The following actions were taken in the development of this Wayfinding Strategy and Master Plan:

2.1 Desktop Review

A desktop review which assessed current policies, data and reports of relevance to walking and cycling in the region was undertaken as part of the development of this Wayfinding Strategy and Master Plan.

2.2 Existing infrastructure and usage assessment

A site audit of existing active transport infrastructure and observation of current usage was undertaken. Intercept surveys and an audit of existing wayfinding infrastructure provided an enhanced understanding of how people use the Circuit and existing infrastructure gaps.

2.3 Stakeholder consultation

An online survey and three days of drop in sessions, on the Circuit itself were undertaken to develop a comprehensive understanding of community views and preferences for both the current condition of the Circuit, and its future. Section 3 provides a synthesis of the community input regarding their preferences for the HBC and methods used in the consultation process to develop this Wayfinding Strategy and Master Plan.

2.4 Environmental assessment

ACS Environmental undertook an environmental assessment of the Circuit, with a particular interest in the environmentally sensitive Badu Mangrove area. This analysis of the environmental issues associated with the development of an upgraded HBC, informed this plan.

2.5 Digital and physical wayfinding

Using best practice, an overarching framework was developed to create a comprehensive wayfinding system that encompassed digital and physical elements. Interpretive elements were also blended into this Wayfinding Strategy and Master Plan, to highlight the rich history of the Homebush Bay area, from its indigenous history, through to its more recent post-industrial and Olympic past.

3. What the community told us

Community consultation was crucial to the development of this Wayfinding Strategy and Master Plan. The results of the online survey and direct engagement during drop in sessions played a central role in the design of the Circuit, the wayfinding techniques used, as well as smaller, but no less important aspects, like the provision of litter bins and water refill stations.

Community engagement was undertaken to provide a strong understanding of:

- How people currently use the paths that make up the HBC
- What's great about the Homebush Bay area now
- What people would like to see to make the HBC even better
- How people prefer to use wayfinding assistance tools.

Figure 2 Community drop in session on the Corso, Rhodes

3.1 Online survey

The results to the online survey provided important insights into how people use the area around the HBC now, and their preference for future usage. In total 901 people responded to the survey, with almost all (97.5% or 878 respondents) having visited the HBC area in the previous 12 months.

Almost 80% of those completing the survey lived within 4km of the circuit, and nearly half resided in a postcode that included the Circuit.

3.1.1 How do people use the Circuit?

Cycling was the most common main mode of transport people used to arrive at the Circuit (35% of respondents), closely followed by *car* (33%). Almost a quarter (24%) arrived by foot.

Over half of all respondents use the Circuit at least a couple times per week.

When asked what they like about the Circuit, 75% of respondents indicated that they enjoy the '*foreshore/waterfront*', with a further 65% identifying the 'cycling paths' and 60% saying 'walking paths' (multiple responses were permitted). Figure 3 provides an illustration of the results to the question of what people currently like about the HBC area.

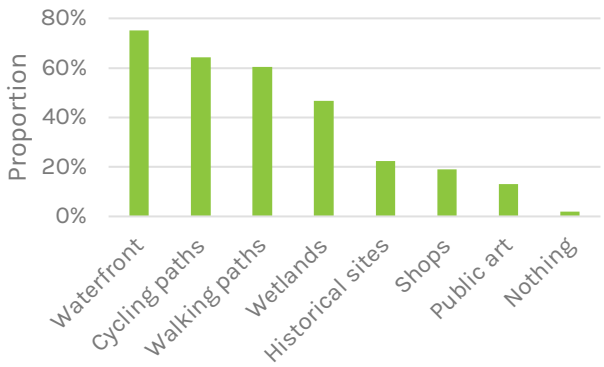


Figure 3 What do you like about the HBC area?

3.1.2 What do people want to see more of in the HBC area?

The most prominent, consistent suggestion to enhance the experience of visiting the HBC area include better lighting and street furniture (including water refill stations) and reduced interaction with motor vehicles. People also frequently mentioned a need to improve public transport and provide more bike parking opportunities. Respondents also made it clear they would like improved signage to assist in wayfinding, with a preference for physical signage.

3.1.3 How do people like to use digital technology for wayfinding?

Respondents were asked to nominate their preferred mapping applications when navigating in an unfamiliar area. Nationally, some 84% of Australians own a Smartphone, and 96% of the respondents to this online survey said they own a Smartphone.

Google Maps was clearly the preferred App, with 82% nominating it, compared to 9% for Apple Maps. A further 9% said they did not use their Smartphone to assist in navigation.

A crucial question to the development of the Wayfinding Strategy and Masterplan asked respondents what navigational aids they would like to use when in an unfamiliar environment. Figure 4 shows the strong preference people have for 'fingerboard' signage (see image in the top left hand corner of Figure 4). This is followed by Smartphone map navigation. Only a minority of people said they would use a digital kiosk (like that pictured on the top right hand side of Figure 4) to assist them navigating through a new area. These findings have obvious implications for the Wayfinding Strategy and Master Plan.

People prefer simple fingerboard signs to help them find their way when in a place they are unfamiliar, followed by Smartphone navigation.

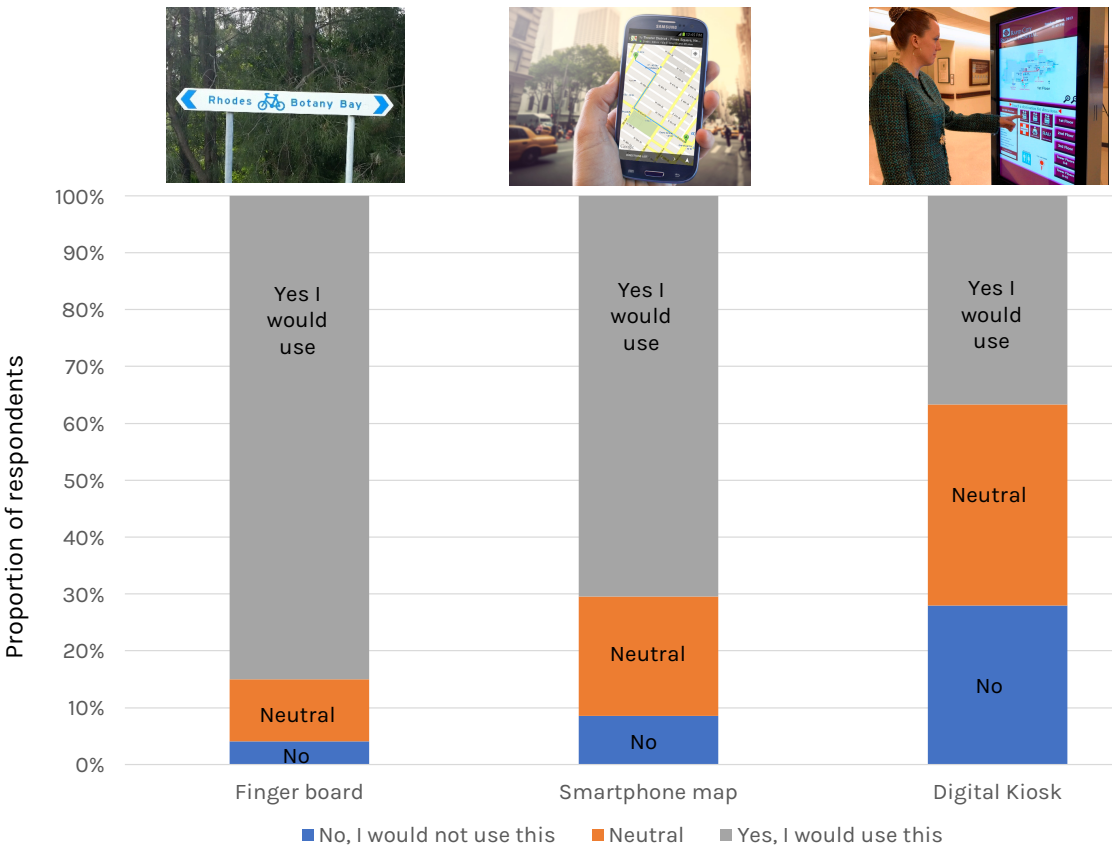


Figure 4 How do people like to navigate?

3.2 Drop in sessions

Across the three drop in sessions held from Friday through to Sunday, approximately 185 individual engagements were undertaken. The overwhelming majority of engagements took place during the weekend. A synthesis of the key issues expressed by the community is displayed in Figure 5.

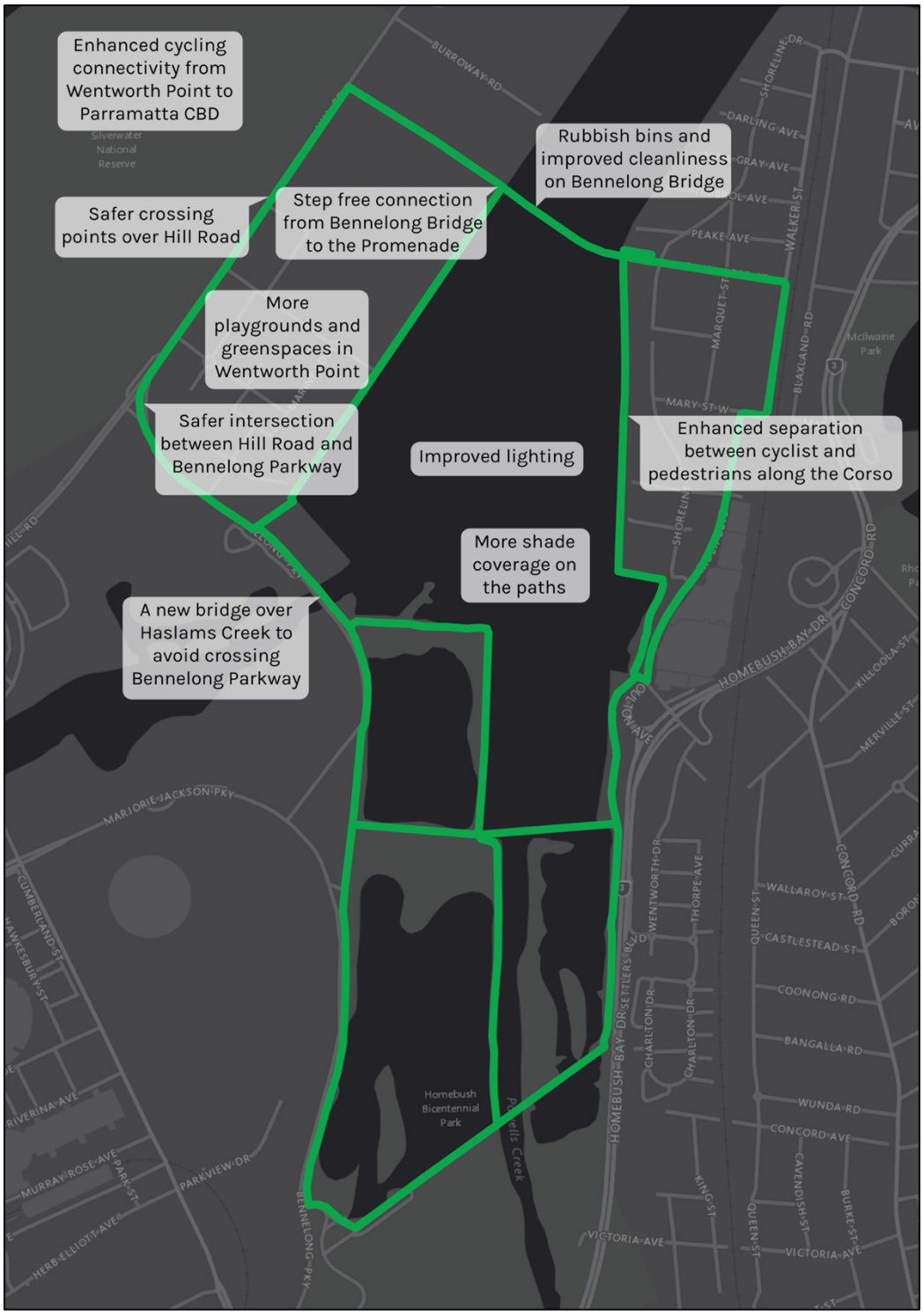


Figure 5 Synthesis of key issues and preferences

4. Homebush Bay Circuit

4.1 Description

Figure 6 provides an illustration of the HBC (green line) and its connections to the surrounding area.

The blue lines indicate suggested routes for faster cyclists, to avoid heavily pedestrianised areas.

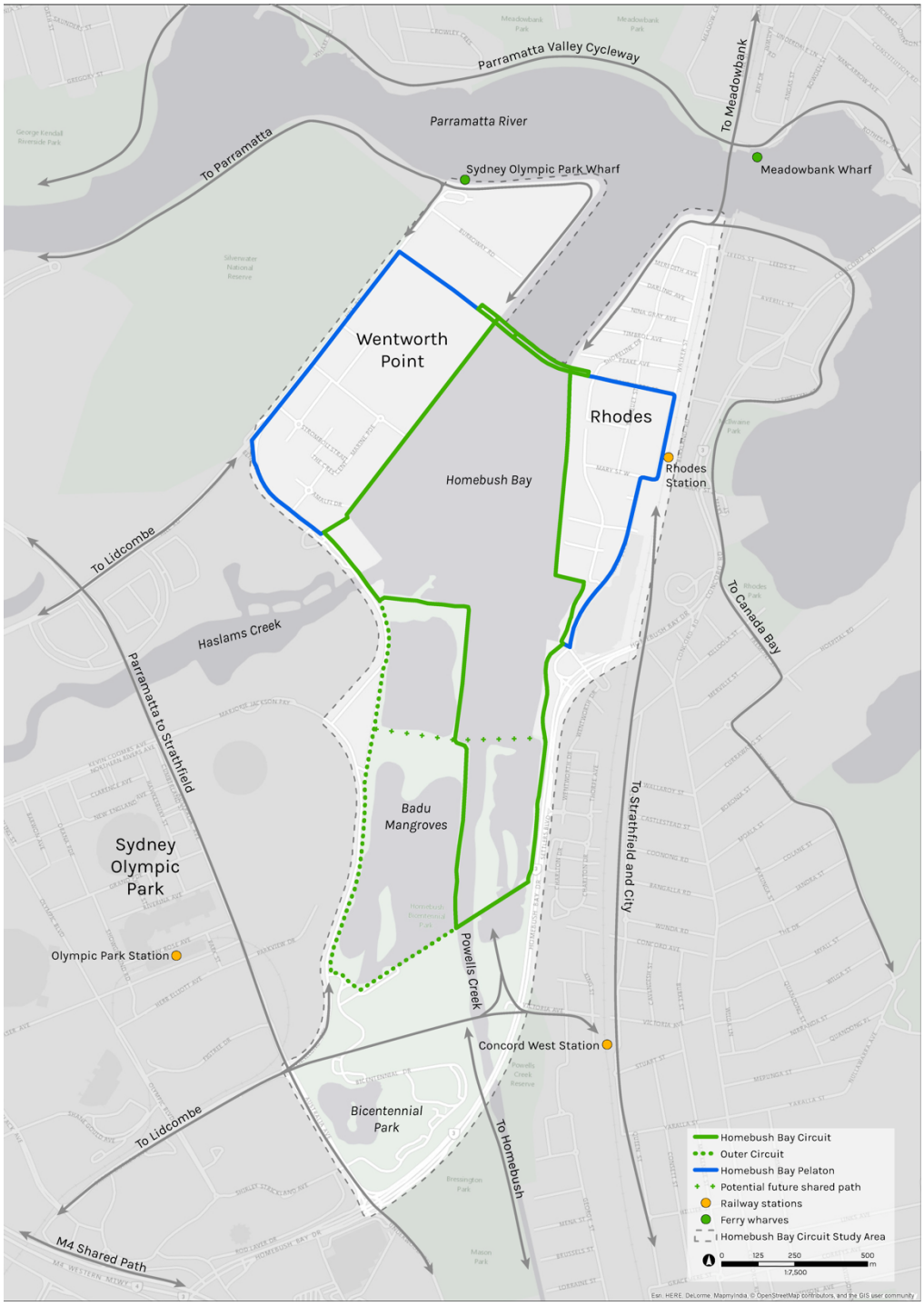


Figure 6 Homebush Bay Circuit and surrounding connections

5. Place making

Place making is a multi-faceted approach to the planning, design, promotion and management of places and spaces. The place making approach for Homebush Bay must capitalise on natural assets, with the intention of enhancing spaces that promote the waterfront environment and its rich pre and post colonial history.

Providing clear, intuitive navigation will encourage the broadest possible range of visitors, while maximising the quality of their experience.

5.1 Destination identity

Homebush Bay offers a rich set of experiences. It is a popular place to walk, run and cycle. It has a rich history, from the pre-colonial period, through to the post Olympic era. The completion of the Bennelong Bridge makes Homebush Bay an even more enticing destination, for the growing number of residents and workers, as well as visitors from across Sydney and other parts of the world.

The draw cards for the HBC are:

1. Continuous circuits to walk, run or cycle in a car free environment.[1]
2. Rich history: The Circuit enables people to gain an understanding of Homebush Bay's rich history. The Circuit will showcase the indigenous relationship to Homebush Bay, and the different roles it has played, in the colonial industrial period, as well as during the 2000 Olympics and beyond.
3. Natural environment: Homebush Bay has a number of very important natural assets, including Mangroves and migratory birds. The Circuit is an excellent vantage point to observe and learn about the ecology of the area, with boardwalks and bird watching hideouts.

5.1.1 Engagement with water

The HBC's interface with the water is central to its attractiveness as a destination. Recent development of Rhodes and Wentworth Point have introduced more opportunities for engagement with the waterfront.

Figure 7 Engagement with the water, Rhodes

5.1.2 Shaped by the industrial past

The land around the Bay has been shaped by multiple eras of industrial and post industrial uses. This has left a modified and intriguing landscape, much of which is visible from the high quality walking and cycling paths.

[1] The proposed improvements in this Plan eliminate interaction with motor vehicles, helping to increase the safety and appeal of the Circuit, from those aged 8 through to 80.

Figure 8 Shipwrecks provide a reminder of an industrial past

5.1.3 Sport

The 2000 Summer Olympics created a lasting legacy which includes the suburb name of Sydney Olympic Park and a large number of high quality sporting arenas and venues. Sport is now ingrained in the identity of the area. Visiting the area to attend a sporting event will often act as people's introduction to the HBC.

5.1.4 Natural

The area around Homebush Bay is rich in native flora and fauna, including mangroves, wetlands and bird life. The area also has extensive parkland for recreation (e.g. picnics, BBQs etc.).

Figure 9 Mangroves provide a unique opportunity to engage with the environment

5.2 Destination offer

The HBC provides a wealth of opportunities for relaxation, sport, learning about nature and Homebush Bay's rich past. As the area develops into a high density residential and commercial area, more people will use the area around Homebush Bay as an opportunity to connect with the natural environment.

At the southern end of the Circuit, Sydney Olympic Park offers stadiums and showgrounds, making it one of Sydney's premier event destinations.

5.2.1 Active mobility

Homebush Bay is already a very popular place to walk, cycle and run. A number of special events also take place for group based activities. Its shared running and cycling path along the shore provides a very high level of service for a wide range of abilities and age groups. The area is also a destination for recreational riders, much like Centennial Park and Parramatta Park.

5.2.2 Family

Family focused facilities and attractions around Homebush Bay and Bicentennial Park makes this area of Sydney a key destination for families. The Circuit includes a number of playgrounds and picnic areas and these are likely to be well used by both local families and those across the Greater Sydney area.

5.2.3 Nature and history

Homebush Bay has a rich indigenous history, home to the Wangal for over 6,000 years. During the early period of European occupation, the Wangal were displaced from their lands, with pastoral activities becoming established.

The late 19th Century saw a transition towards industry, which was accelerated through the early parts of the 20th Century. Recent history has seen the remediation of land, and the transformation of industrial wasteland to thriving communities, with a mix of residential and commercial uses.

5.2.4 Retail

A number of retail hubs are located in close proximity to the Circuit. The Rhodes Waterside Shopping Centre, and the emerging shopping precinct around Rhodes station are major trip generators. Sydney Olympic Park has a retail precinct surrounding the Train Station. Wentworth Point, as it continues its development, will become an increasingly important retail area, including around the Sydney Olympic Park Ferry Wharf. These retail hubs offer an important opportunity to promote the HBC, including the potential for a digital interface for people to learn more about the Circuit.

5.3 Strategic approach

To convey the identity and unique offer of Homebush Bay, this Wayfinding Strategy accounts all stages of the users journey from pre-journey planning to end point arrival. This holistic thinking defines the most effective and accessible information and presentation medium to promote the HBC and support seamless navigation throughout the whole journey. Figure 10 presents an illustration of how the wayfinding strategy needs to be customised based on the location of the prospective user, from pre-journey (digital), through to wayfinding to orientate users once they have arrived.

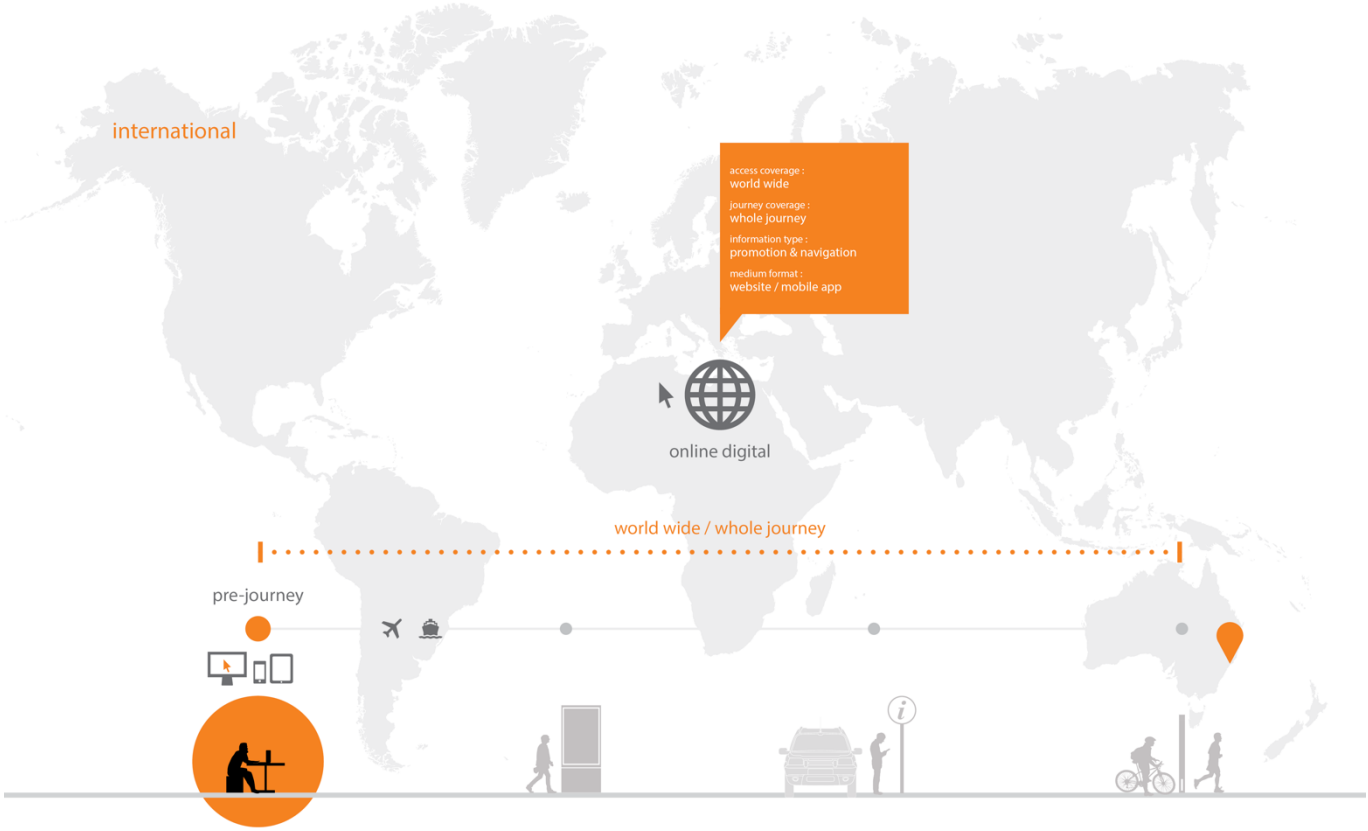


Figure 10 Progressive disclosure, from trip planning to arrival

Figure 11 extends the concept of *progressive disclosure* to the national level.

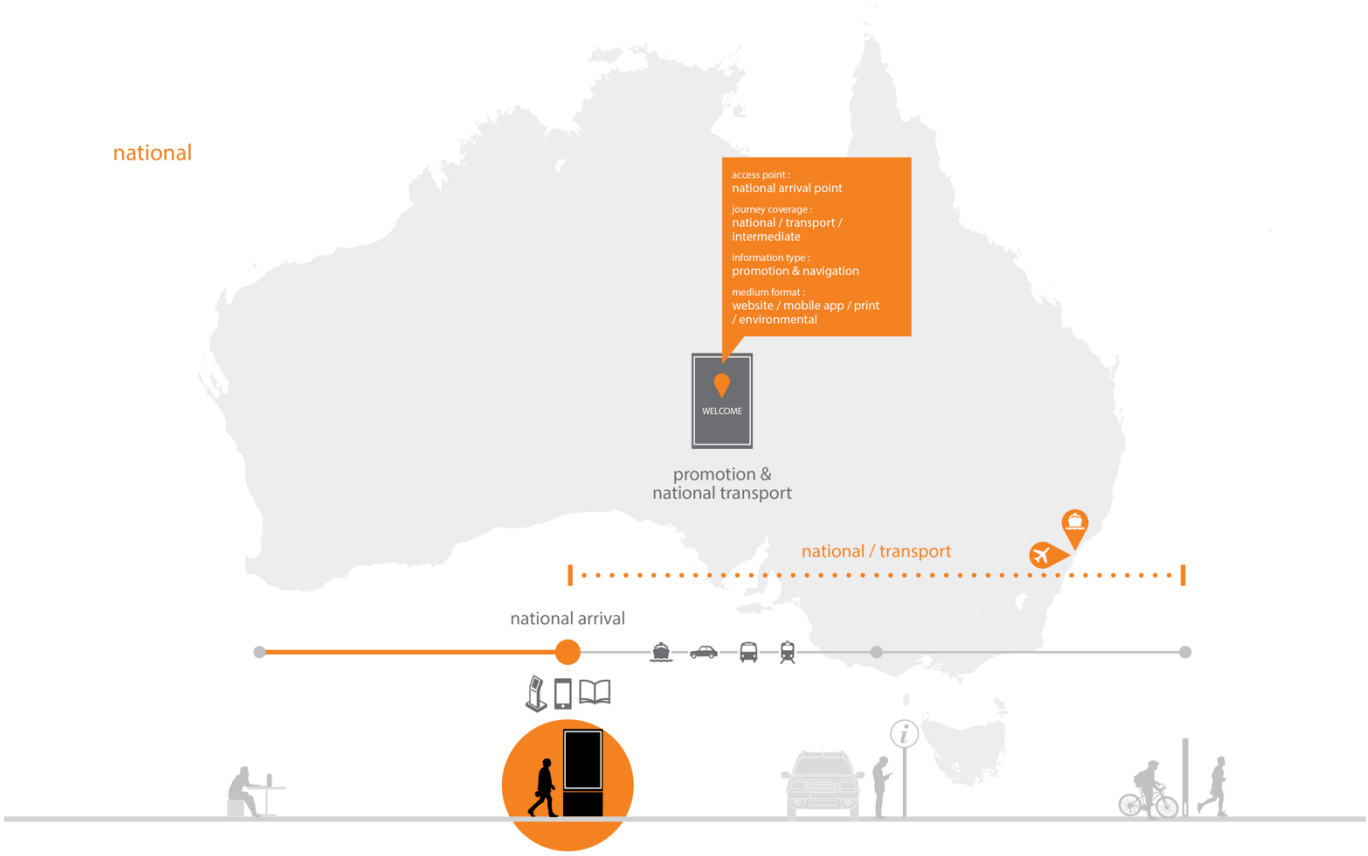


Figure 11 Progressive disclosure within Australia

Figure 12 illustrates the conceptual strategy for facilitating wayfinding based on the prospective user being within the Greater Sydney area.

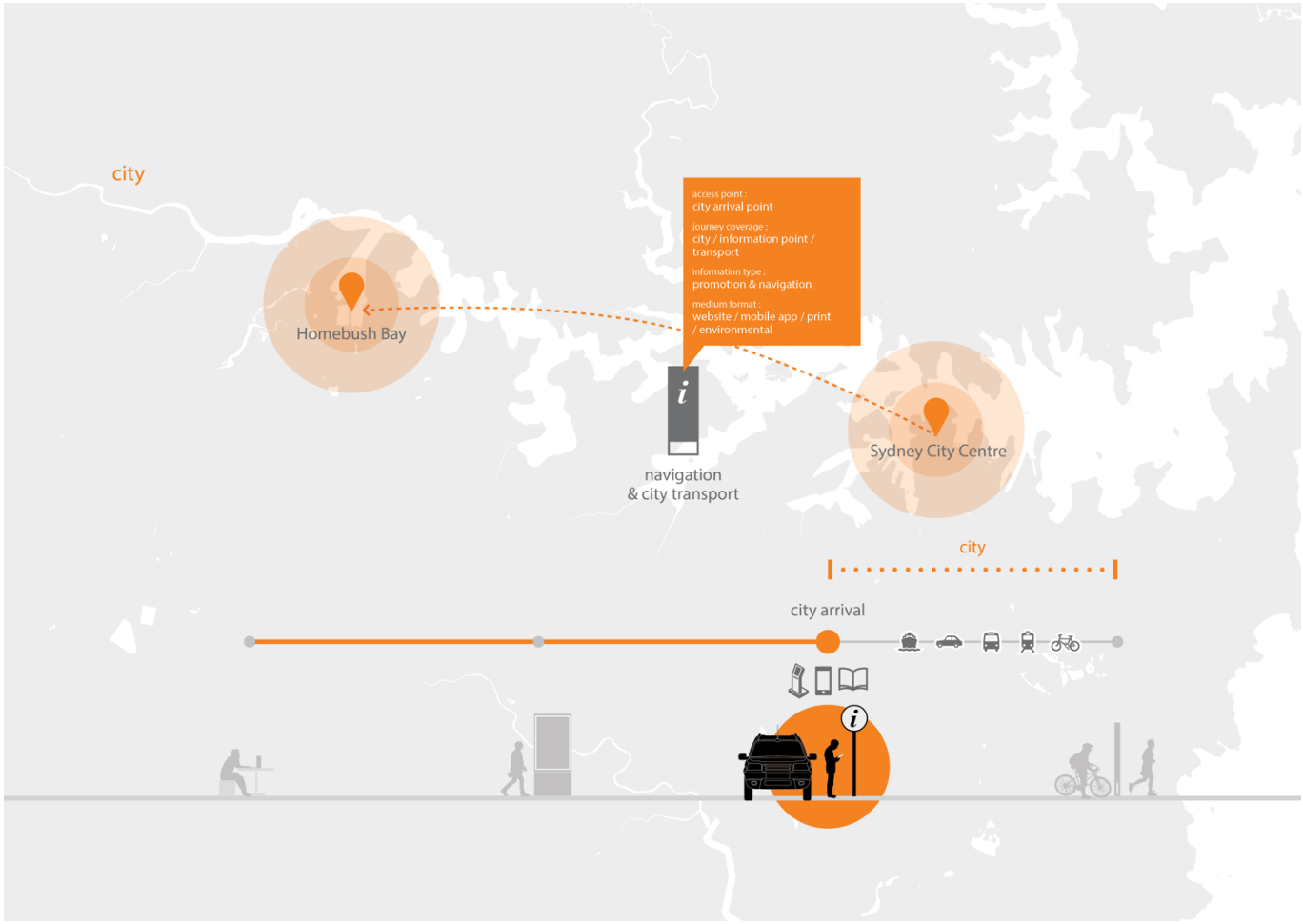


Figure 12 Wayfinding and awareness raising content, at the Greater Sydney level

Figure 13 identifies the wayfinding and interpretive approach for those who have arrived at the HBC once the user has arrived at the Circuit. The key difference is that *physical* wayfinding and interpretive techniques can be used, in addition to digital methods. Key entry points may provide an important opportunity to maximise the awareness raising, orientation and interpretative information.

Figure 13 Wayfinding at point of arrival

6. User groups

In defining the strategic approach to wayfinding and information provision for the Homebush Bay Circuit, it is important to consider the different user groups that may have an interest in using the area.

There are currently three main user groups who utilise the area of the HBC; Cyclists, Runners and Pedestrians. These groups have greater depth and sub categories, as will be described. This Strategy also identifies how other groups be better accommodated, to broaden the spectrum of user groups using the HBC.

User groups also differ within the same broad category. For instance, 'cyclists' might include competitive, recreational cyclists through to families riding with young children. Designing a Circuit that is able to cater for the different needs of these diverse groups is a key objective of this Wayfinding Strategy and Master Plan.

Many of the Circuit users will reside in the local area. The rapid residential development around the Circuit consists primarily of apartments. The Circuit will need to function as the communal 'backyard' for thousands of people, including young families.

The area's growth in knowledge economy jobs means the Circuit must perform an important role for exercise and relaxation for local workers.

The Homebush Bay area is culturally diverse, with a large number of new Australians, especially from China, Korea and India.

In addition to locals, the Circuit will attract visitors from across Sydney, other parts of Australia, as well as international visitors. In 2016 Sydney hosted 12.8 million overnight visitors, including 7 million in Western Sydney alone, who spent a total of $3.7 billion. The most popular activity for international visitors includes dining, and visiting sites of natural beauty.

The main tourist languages are Mandarin, Korean, Hindi and Japanese.

What is the breadth and depth of information provision required by these user groups? In addition to navigation and wayfinding, the interpretive elements need to link closely and engage accessibly with the identified groups. Key categories of information included in the Wayfinding Strategy and Master Plan include:

- Historical (Pre-colonial, Colonial, Industrial, Modern)
- Transport links (e.g. train stations, ferry wharfs)
- Shopping precincts
- Toilets
- Playgrounds
- Nature reserves and ecological sites (e.g. wetlands/bird watching)

This Wayfinding Strategy and Master Plan provides the content that will enable the implementation of a user centred approach to promote, orientate and explore the Homebush Bay Circuit.

6.1 Bike riding

Bike riding is the fourth most popular form of physical activity in Australia. In 2016, 12.5% of the NSW population rode in a typical week, with almost a third having ridden in the past year.

Cyclists are a diverse group but have some common preferences; smooth, wide paths and a safe environment. Leisure, transport and family cyclists have a stronger preference for car free areas. Competitive cyclists often seek a faster cycling environment, which can sometimes cause conflict with pedestrians.

6.1.1 Recreational cyclists

The area around Homebush Bay is popular with fast cyclists riding primarily for fitness. They typically complete multiple laps and regularly ride in groups. They are likely to track progress, route and time via activity tracker such as Strava. These cyclists may arrive by bike, car or public transport.

6.1.2 Transport cyclists

Transport cyclists are more likely to use the Circuit on weekdays, at peak hour (though not exclusively) and are more likely to cycle portions of the Circuit, rather than entire laps. They value directness and as well as separation from motor vehicle traffic.

6.1.3 Leisure cyclists

The leisure cyclist rides primarily for the enjoyment of the activity itself, social or health reasons. They value separation from motorised traffic, and are less concerned about the directness of a route, and more concerned with how pleasant the route is. They are more likely to complete a lap of the Circuit, but less likely to complete it multiple times within the same 'session'.

Some people seeking to cycle on the Circuit may not have a bike with them, and are likely to be interested in short term hire.

Bike hire and share

Bike Hire @ Sydney Olympic Park is a very popular place for people to hire bicycles for use around the Circuit.

In recent months, a number of 'dockless' bike share services have begun to establish themselves in the area surrounding the HBC.

Dockless bike share works through the use of a Bluetooth enabled lock, that can be unlocked through the use of a Smartphone. This allows operators to establish systems without the need for docking stations.

Riders typically pay ~$2 per 30 minute ride.

Given the numerous interfaces between the HBC and the waterfront, it is likely that some people may throw the dockless bikes into the water, and there is no obvious solution to such acts of vandalism without upgrades to the design of these dockless systems.

It is recommended:

- A bike share policy be developed
- No small scale systems be established
- An agreement be prepared that describes the responsibilities any commercial bike share provider must adhere to should they seek to operate in the area. This may include minimum standards regarding bicycle parking, geo fencing, bike hardware, customer interface, privacy, rebalancing responsibilities, fees, deployment practices and maintenance standards.

It is understood more than ten companies currently have plans to launch dockless bike share in Sydney. Cooperation with the State Government is encouraged to create guidelines that apply across Sydney.

Box 1 Bike hire and share

6.1.4 Family groups

Families desire a safe environment in which to ride, with a diversity of activities that can break up the journey. Cafes, parks, toilets as well as educational opportunities are all important

attractions for families looking to cycle together. Families will typically wish to ride two or even three abreast.

6.2 Runners and walkers

Runners and walkers are attracted to car free, natural environments. Runners are more likely to have a fitness motive, whereas walkers typically have a combination of health and leisure goals.

6.2.1 Competitive runners

Individual, pair or club runners focused on covering a specified distance, timing their performance while valuing the quality of the natural environment.

The 5km Park Run is held every Saturday morning at 8am. The event attracts an average of 167 runners each week. The completed HBC will allow for more events like Park Run to be held.

6.2.2 Joggers

The leisure runner is more focused on the social, as well as health benefits of running. They have a need to be able to identify route length and vary the length of their route part way though, depending on how they're feeling.

6.2.3 Families

All families will desire a safe environment in which to walk. Car free areas, and safe crossing points when needing to cross a road are essential. Parents with prams will have a preference for a step-free Circuit, interpretive/educational opportunities and change areas/toilets. Designing the HBC to be family friendly is likely to benefit all Circuit users.

Families with older children may have a greater desire for educational opportunities, especially in areas that engage directly with the natural environment (e.g. Mangroves).

6.2.4 Walkers

Pedestrians are the slowest moving user group and are more likely to explore and engage in interpretative information provided as part of the wayfinding infrastructure. This may include information relating to wildlife, historical, anecdotal and artistic / sculptural features of the area. Walkers are diverse, and can include individuals, through to school groups, organised walking groups, and casual/social outings.

An important additional user group is the *transport walker*. As either a resident or a worker, the Circuit is likely to help connect people walking between home, work and public transport links. These users are likely to only use select elements of the wider Circuit but may constitute a substantial user base.

Figure 14 Pedestrians on the Corso

6.3 Other groups

6.3.1 Special needs groups

Groups with specific access needs may have design requirements based on restrictions in their physical, visual or cognitive function. Physical restrictions to movement must be addressed through the provision of Disability Discrimination Act (DDA) compliant infrastructure. The use of digital content that forms part of the Wayfinding Strategy must also consider those with special needs. The provision of live location information and audible information should be considered, to maximise the user experience for as many members of the community as possible.

By designing with those that have special needs in mind, the user experience outcomes for all groups will be enhanced.

6.3.2 Children and school groups

The needs of children differ from adults. They require a fun, engaging user experience that promotes visual and interactive engagement. Their needs will also vary dependant on their focus of activity and the context of their visit. Both educational and entertainment should be intertwined.

The Olympic Park Education Centre, shown in Figure 15 is situated in Bicentennial Park and caters to a large number of school children.

Figure 15 School groups outside Education Centre

6.3.3 Tourists and non-English speakers

Sydney draws a high volume of international visitors and Sydney Olympic Park and Homebush Bay should be promoted as a tourist destination. Great opportunities exist to promote ferry and rail trips to Homebush Bay from Circular Quay.

Provision should be made for non-English speaking visitors and those with English as a second language. Considered design focused on the use of icons, illustration, images and well-designed maps are all forms of inclusive design and will help cater for their needs. This approach is also of great benefit to those with greater access needs.

The digital interface also provides the opportunity and the platform for users to view content in commonly used languages other than English.

6.3.4 Local residents and workers

It's possible that people who live or work around Homebush Bay are not aware of the Circuit. Promotional activities, and signage at key entry points to the Circuit will be important methods of increasing awareness. Those who live or work nearby are generally the most frequent users of the Circuit, but given how recently the Bennelong Bridge was completed, and the numbers of new residents to the area, ongoing promotion will be essential.

7. Place analysis

7.1 Overview

The HBC is connected to the wider Sydney transport network. This includes large arterial roads, a ferry service, train and bus links. In addition, the Circuit links in with walking and cycling routes.
As Councils implement their cycling network in coming years, active transport access to the Circuit is expected to improve considerably.

7.2 Areas of activity

The HBC has three main areas of activity, Bicentennial Park, Wentworth Point and Rhodes. These activity zones are where facilities, amenities, retail and food and beverage offers are available. Each area is supported with at least one direct link to public transport. These zones form natural areas in which to congregate and are a focused point of arrival.

The three areas are well connected and these connections are described below:

- Bicentennial Park to the South of Homebush Bay has the highest concentration of facilities. It is well serviced with car parking bays and is close to the Olympic Park station and major bus routes. Bicentennial Park also contains the bike hire centre, the Education Centre and combination of park, mangroves and waterways.
- Wentworth Point is serviced by the ferry terminal and connects with Rhodes via the Bennelong Bridge. Opportunities for retail, food/drinks, as well as a gym with a swimming pool are available.
- Rhodes is directly connected to the northern rail line with train services arriving at Rhodes station. This station also provides a crossing point over the rail line for pedestrians and cyclists. Rhodes Waterside Shopping Centre offers a concentrated area of retail, food & beverage, together with other facilities such as public toilets.

7.3 Arrival points

Recognising the key arrival points for the Circuit is vital for the design of wayfinding and orientation signage.

The key arrival points for those originating from the Greater Sydney area are expected to be the public transport nodes. These include:

- Sydney Olympic Park Ferry Wharf
- Rhodes Train Station
- Concord West Train Station
- Sydney Olympic Park Train Station
- Bus stops located on or near the Circuit.

Some of the large car parks located in Sydney Olympic Park/Bicentennial Park are likely to be used as key entry points for those arriving by car.

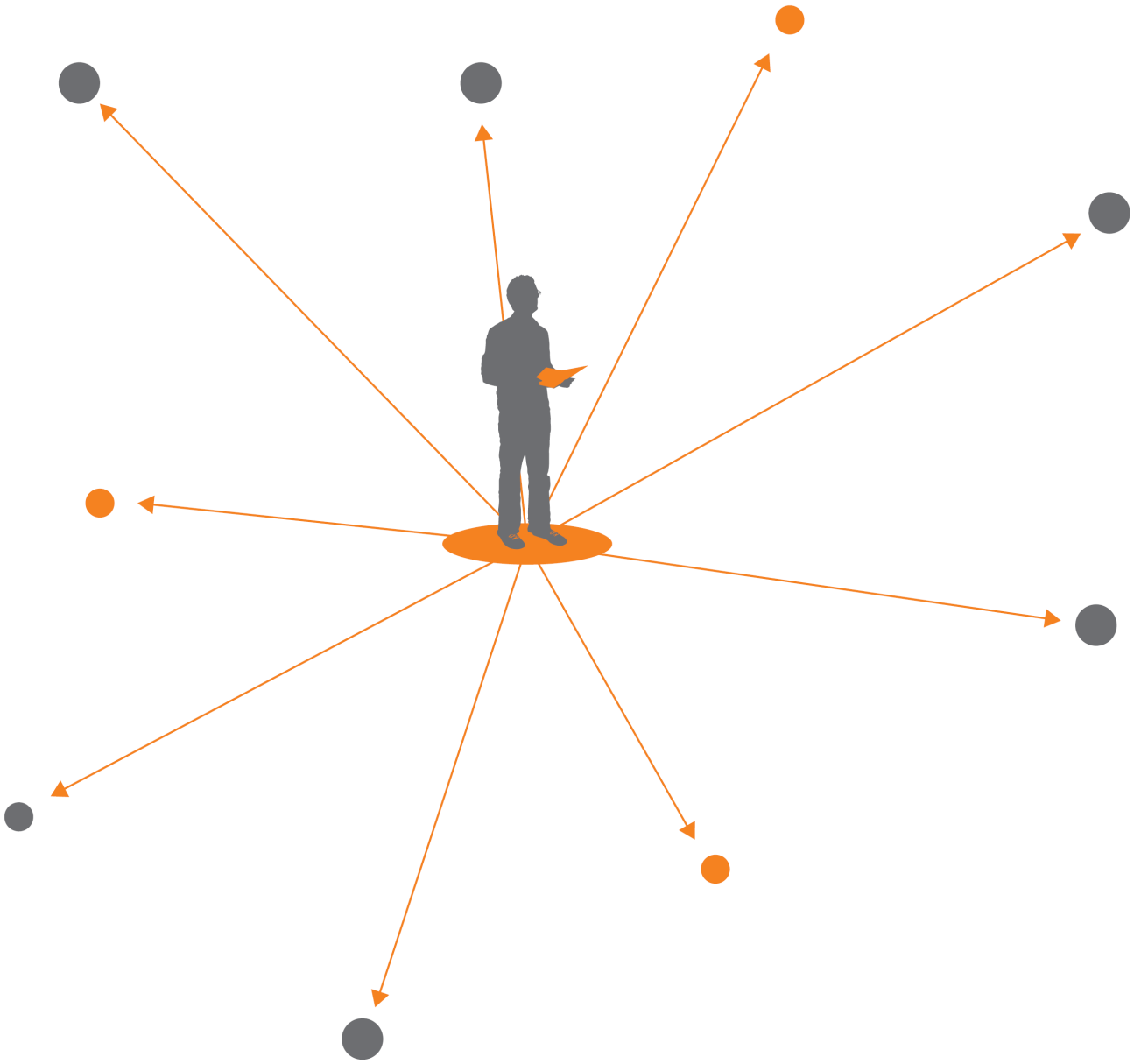
For those on foot or bicycle, key points along or near the Circuit that can be treated as arrival points include either side of Bennelong Bridge and Waterside Shopping Centre.

8. Wayfinding Strategy

8.1 User centred wayfinding

Visitors to the HBC need to be able to understand where they are, then assess and plan their onward journey. Users will be provided with information before and throughout their journey that will enable them to find their way with ease and confidence.

For users to gain the most out of their visit to the HBC, they must be able to understand what's on offer and how to get there. By understanding the relationship within and between destinations, and the routes that connect them, users begin to build a mental map. A well designed 'heads-up' map (see Figure 16) is more likely to assist with this process by establishing a user's understanding of the environment.



8.2 Heads up mapping

Historically, the standard cartographic approach is to orientate maps as North facing. However with on street products, unless a user has prior knowledge or an understanding of the place, very few people intuitively know where North is. Instead they rely on key landmarks to orientate themselves.

The recommended format for mapping on-street is to orientate the map to the users' view or 'heads-up'. This allows the user to immediately position themselves on the map and easily reference landmarks in their environment.

Any information system must be kept up to date. To manage the maintenance of this system we recommend that heads up mapping is set to 45 degree rotations. This will provide eight rotations.

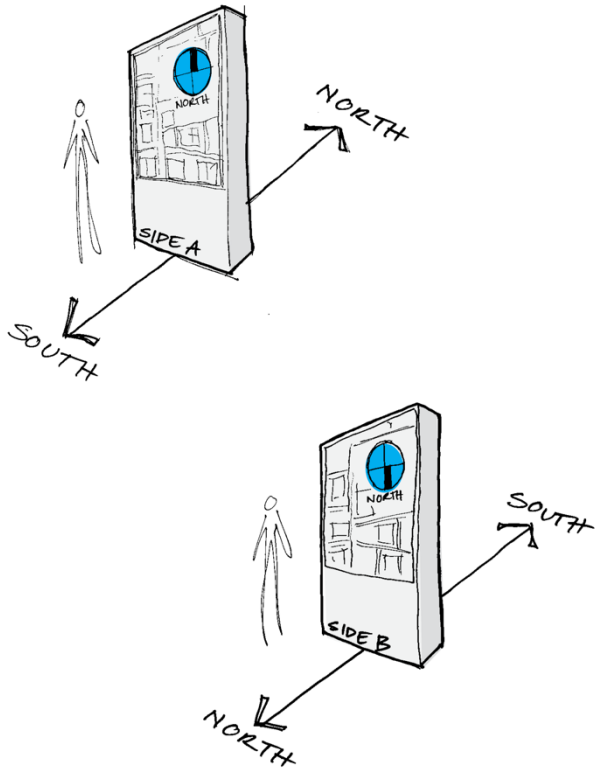


Figure 16 Heads up mapping

8.2.1 Off map destinations

Destinations that are likely to be of interest to users but are located outside of the map area, such as cycling trails, should still be signed by using off map pointers along the edge of the map.

8.2.2 Walking/cycling times

The use of 'You are Here' icons together with walking circles are a powerful tool in communicating to users the time taken to reach a given destination. This helps users in plan their journey.

8.2.3 Integration with public transport information

The integration of public transport information supports wider journey planning and promotes sustainable transport choices.

8.3 Whole journey

Visitors to the HBC will make use of various modes of travel, and come into contact with a number of information touch points and experiences throughout their journeys.

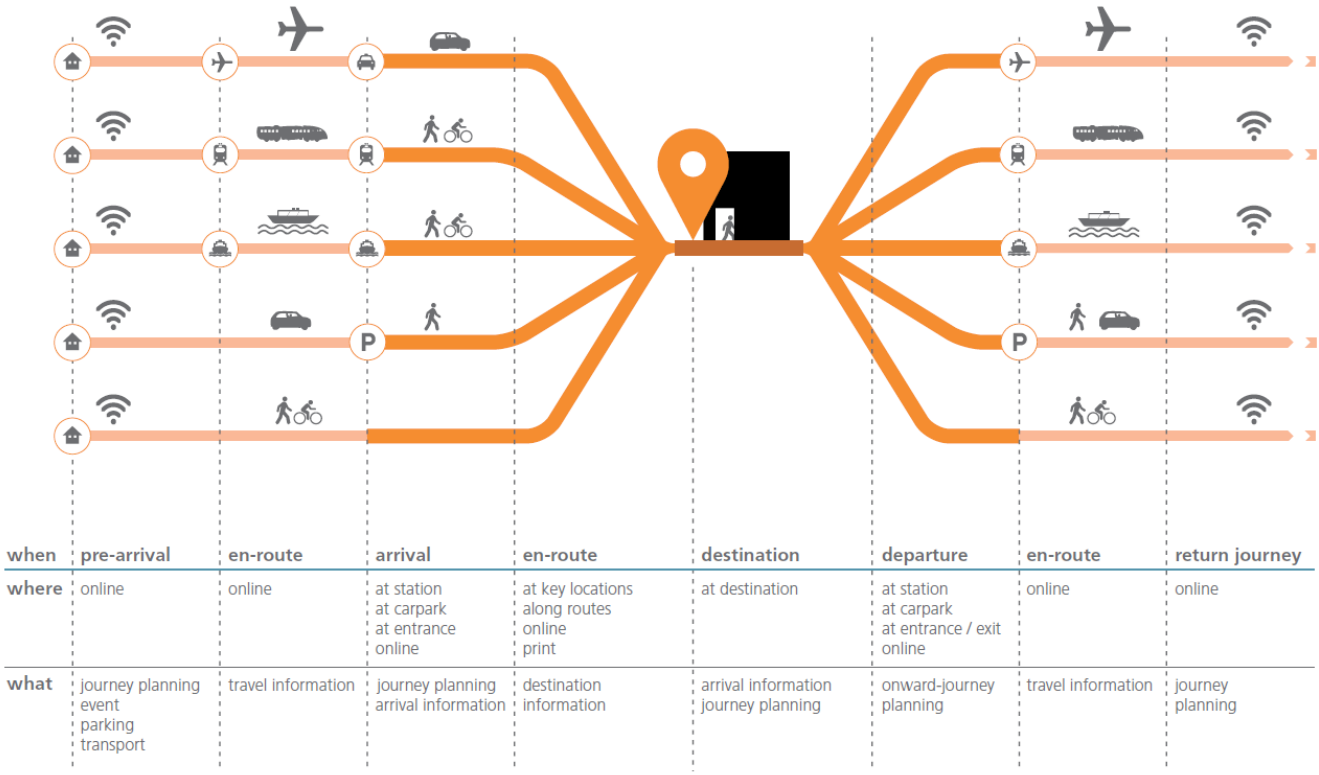
Information should be provided at key stages in a users' journey, from pre-journey planning at home via the Internet, to information provided en-route and upon arrival. A consistent approach to this information provision will build a positive brand experience and seamless navigation.

8.3.1 Touch points

Information provision play an important role in delivering the Homebush Bay brand, beyond its visual representation. Tone of language, information content and method of delivery will all say something about the HBC.

Information provided at each touch point must respond to its location whilst building a coherent narrative. The following questions have been asked when developing the wayfinding material:

- Where will people come into contact with the information?
- How will people access it?
- Is the information requirement immediate, or will the user spend time to engage and plan?



when	pre-arrival	en-route	arrival	en-route	destination	departure	en-route	return journey
where	online	online	at station at carpark at entrance online	at key locations along routes online print	at destination	at station at carpark at entrance / exit online	online	online
what	journey planning event parking transport	travel information	journey planning arrival information	destination information	arrival information journey planning	onward-journey planning	travel information	journey planning

Figure 17 Whole of journey wayfinding strategy

8.4 Progressive disclosure

An intuitive wayfinding system delivers only the required information at any one point of a users' journey. The application of this practice is known as *progressive disclosure*. Progressive disclosure eliminates superfluous information to enable users to quickly and accurately access the information that will take them to the next step on their journey. When a user reaches the next stage of their journey at that point the next tier of information is provided.

Examples of progressive disclosure are shown below:

- I am in Sydney and need to know where Homebush Bay is located.
- I arrive at Olympic Park Station and need to know onward directions.
- I arrive at one of the arriving points near the Circuit and can see this is clearly signed, confirming my correct destination.
- Upon reaching my arrival point, orientation information provides confidence as to the routes and destinations available.
- I arrive at a bike hire centre and see my cycle route options.
- I reach an area of interest and find engaging, accessible interpretive information.
- I arrive at Rhodes Waterside Shopping Centre and can see how to reach the Circuit and the attractions it offers.

Figure 18 Model of progressive disclosure of information

8.5 Digital engine

On site information will be complimented by a richer, deeper, broader digital engine providing both navigation and interpretive information. The digital engine provides web and app based information to a breadth of users. A digital engine supports both pre-arrival insight and navigation on the ground as well as interpretative content for key sites of interest.

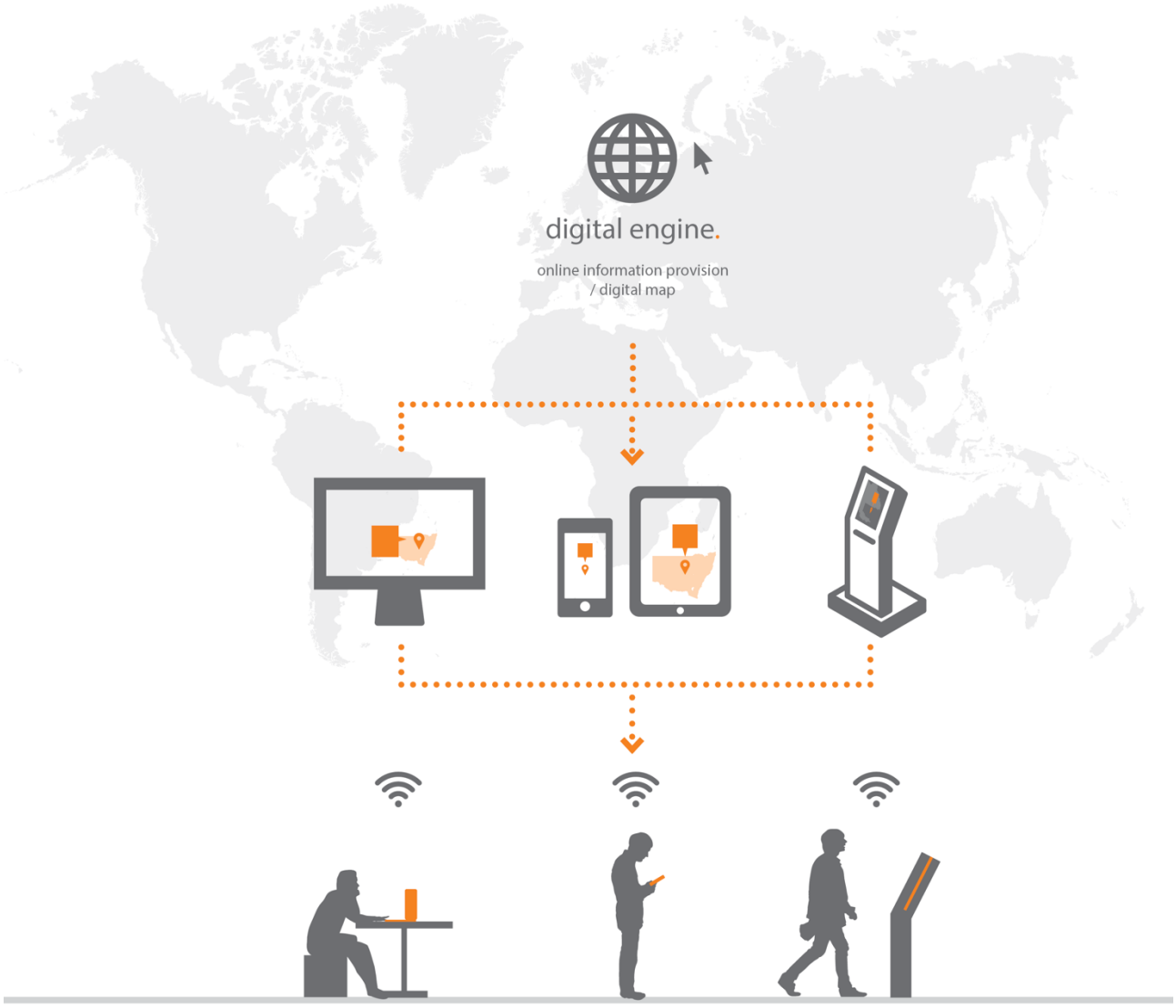


Figure 19 Digital engine concept

8.6 Digital applications

A variety of digital platforms are now available to allow uses to track and share their physical activities (walking, running, cycling). These platforms offer an excellent opportunity for users to understand and share their activity record. One important benefit from these platforms is the ability to promote the Circuit when users share their activity with their social network. This may serve to increase awareness of the Circuit.

It is however important to recognise that these platforms can encourage unsafe path usage, for instance when users 'race' to achieve personal bests or become the fastest person to complete a section. These opportunities to 'gamify' cycling in particular can provide a hazard to other uses and Councils are able to request the removal of certain sections of path from the platform administrator.

8.7 Wayfinding hierarchy

This Master Plan recommends the installation of three main wayfinding structures to be used in the HBC area; finger boards, map boards and digital kiosks (see Figure 20). The recommended location of the finger boards and map boards are shown in Figure 57.

8.7.1 Finger boards

This is the simplest form of physical wayfinding, consisting of a narrow directional sign attached to a pole. These will generally be used at junctions, to indicate the direction of destinations, and where appropriate, will also include distance and travel time.

8.7.2 Map boards

Map boards are a more substantive installation, that are used primarily at key entry points, to assist in orientating users. The maps offer a 'you are here' symbol, as well as key destinations within and around the HBC. It is common to include 5 minute, 10 minute and 15 minute walking catchment concentric circles. Applying QR Codes and NFC tags on key points of interest shown on the map will allow users to automatically load additional information through their Smartphone that can their aid interpretation.

8.7.3 Digital kiosks

Four digital kiosks are recommended to be installed, on the periphery of the HBC, to entice potential users and highlight the range of activities on offer. The locations in which digital kiosks will provide most value include; Olympic Park Ferry Wharf, main entrance of the Rhodes Waterside Shopping Centre, Sydney Olympic Park Train Station and Rhodes Train Station.

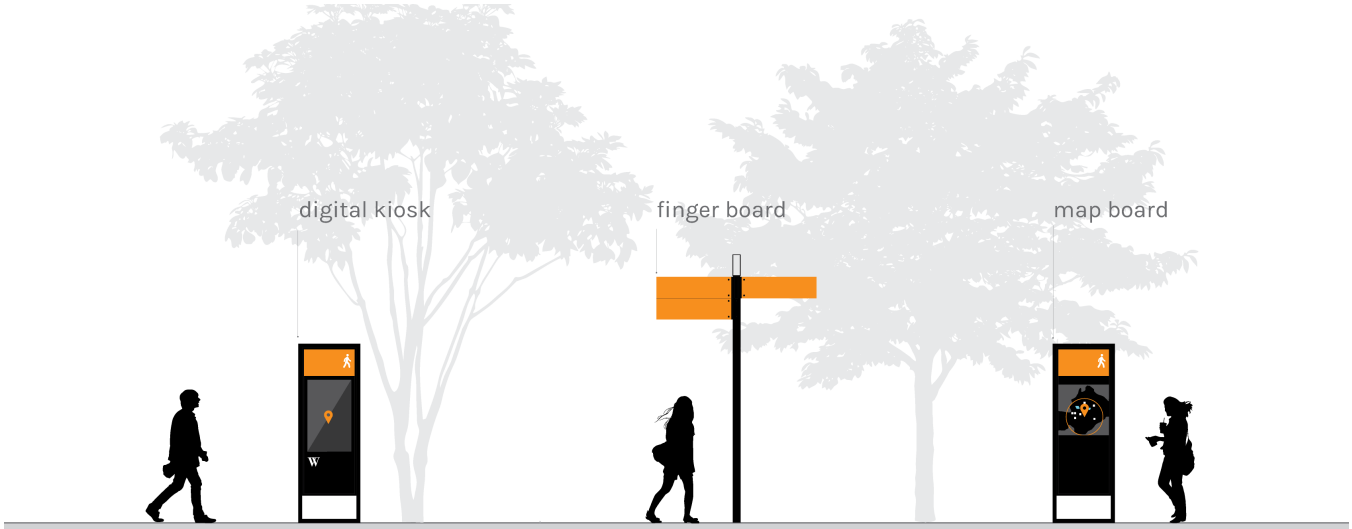


Figure 20 Wayfinding sign types

9. Mapping strategy

Maps are very effective communication devices that convey a wealth of diverse information in a visually attractive, easy to interpret and accessible manner. Based on international standards we recommend a bespoke map designed to convey the individual identity and unique attributes of the HBC. We advocate a consistent application of maps complemented with web, mobile and hand held versions as standard.

Maps encourage more walking and exploration. Community consultation during this project has highlighted the value physical maps provide in orientating HBC users. Maps provide the user with an opportunity to fully engage with their location. The HBC maps will:

- Communicate a large number of destinations and routes;
- Show the relationship and proximity of destinations;
- Allow for a wide use of internationally recognised symbols to communicate a diverse range of amenities;
- Communicate distances and walking times effectively;
- Show a richness of amenity and provision and encourage further exploration and discovery;
- Allow route planning that accommodates the user's individual requirements.

9.1 Digital master map

The design and seamless implementation of a digital mapping engine will provide a powerful delivery tool for the HBC wayfinding and interpretation provision. The source base map data will offer fully editable base maps with embedded GPS locator and deliver an authoritative map driven wayfinding framework.

Figure 21 A digital engine harmonises all forms of mapping

Onward journey wayfinding and richer levels of interpretive information can be streamed to users smart phones / mobile devices and downloaded as bespoke iOS and Android applications. Information content should be engaging and accessible, easily customised and presented in multi lingual options. On-site markers and physical interventions will complement the digital information provision.

Key features to be included in interactive, on screen map for digital dynamic use:

- Fully coded map with GIS for web / mobile use;
- Scalable and rotatable in flat / angled view;
- User location display;
- Interactive markers / over layer;
- Walk / cycle directions;
- Destination search.

Digital maps will be complemented with:

- Printed map
- On street map board

9.2 Map content and style

It is current best practise for destination to provide a suite of maps, customised and branded to promote the identity and present the range and breadth of offer.

Accessed at all key journey 'touch points' and delivered consistently across multiple platforms, information provision is content structured and progressively disclosed to provide the right information at the right point the user journey.

A digital placemaking and wayfinding engine supports centralised management of information content, controlled and updated seamlessly across multiple digital delivery devices.

9.3 Google Maps and Open Street Map

Google and Open Street Maps are the two biggest digital map engines available. Google Maps is the most popular digital map with up to date interactive features and a vast amount of local content. Open Street Map is the fastest growing user-contributed digital mapping platform with great potential for further applications.

Community consultation identified Google Maps as the most popular mapping app used on mobile devices. It has many features including street view, route directions, display of walking and cycling routes, 2D and 3D views, and can be logged into by users to save information. Further, it can be embedded on Internet and mobile applications, and additions or modifications to content can be submitted.

Data related to the HBC should be submitted to both Google Maps and Open Street Map, with regular updates made to ensure content is correct and up to date.

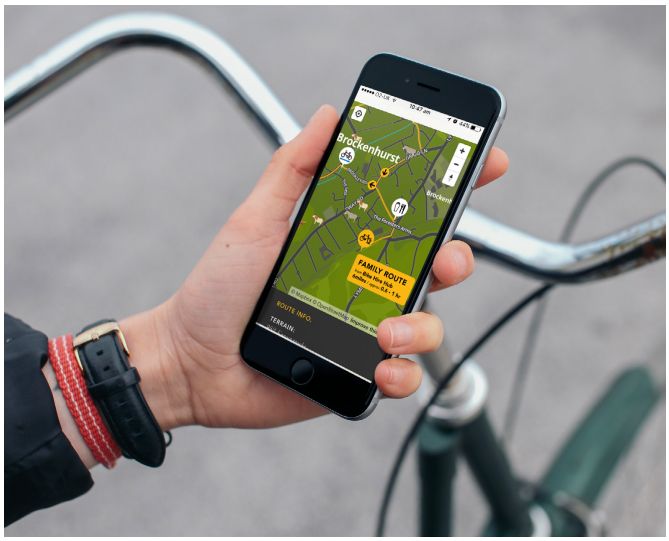


Figure 22 Mapping using the Open Street Map platform

Source: FWDesign

10. Information graphic strategy

The visual identity is the sum of all the visual elements used by the brand, the pictogram (symbols), the colours, the typeface and their applications.

The HBC brand will be a valuable asset in promoting and differentiating the destination from other local attractions.

10.1 Branding

Australia, New South Wales, Sydney, and local governments all have distinctive branding identities, to inform locals and visitors alike. Similarly, it is common for walking and cycling trails to have their own branding identity, the Parramatta Valley Cycleway being a prime local example, as shown in Figure 23.

Figure 23 Parramatta to Park River Trail branded signage

Visual identities work at varying levels, both attracting people to areas, and providing locational awareness and reassurance.

The HBC will require a clearly recognisable logo. This logo will appear on all digital and physical wayfinding information, becoming an easily recognised and integral part of the HBC's identity.

The logo will be give consideration to the following elements:

- Easily scalable, so it may be printed in variable sizes and easily identified at a distance;
- Able to be represented in different colours as well as monotone;
- Represent Homebush Bay's physical characteristics (similarly to how City of Canada Bay's logo is the council initials, hidden in a yacht sailing on a bay);
- To represent Homebush Bay's human heritage;
- To be unique to the HBC.

10.2 Colour

A palette of colours is an essential element of the tool kit that contributes to a unique brand and identity. The use of colour must maintain sufficient contrast to be legible in a variety of light conditions. Figure 24 provides an example of a colour palette that provides the necessary contrast to offer legibility to the user.

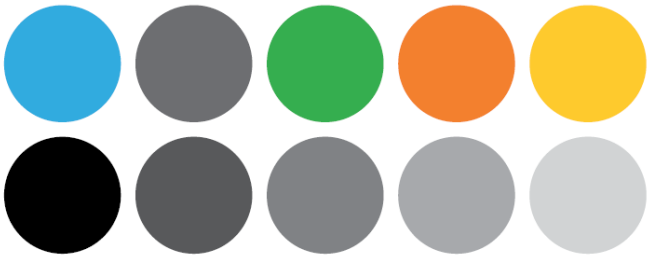


Figure 24 Colour palette example

10.3 Typeface

A comprehensive information system for the HBC should use a typeface that is prominent within the environment and embodies the spirit of the destination, giving authority, gravitas and distinctiveness.

A typeface is the all-encompassing voice of any message conveyed using written language and is the most frequently used design element in any visual identity.

Figure 25 Font family example

10.4 Pictograms

Pictograms provide instantly recognisable symbols that cross language barriers. The pictorial form is far quicker to identify than text based information and can also minimise visual clutter on signage.

Pictograms will be used consistently and wherever possible. A pictogram set that matches the visual aesthetic of Homebush Bay will be used and will be designed to complement the typeface. All pictograms must reflect international standards of recognition and legibility to ensure they are understandable by all nationalities and at all scales. It is recommended that a pictogram set is designed in conjunction with the typeface / the brand in order to aesthetically match the style and create a holistic graphic identity.

The core range shall include:

- Transport pictograms
  - Pedestrian, cycling, rail, bus, taxi, parking, cycle parking, disabled parking, transport information.
- Access pictograms
  - Directional arrows, escalator, lift, stairs/steps, ramp.
- Services and facility pictograms
  - Toilets, male toilet, female toilet, disabled toilet, baby changing, pharmacy, ATM, visitor/tourist information.
- Destination and activity pictograms
  - Restaurant, cafe, bar, retail/shopping, theatre, cinema, stadium (sport), leisure centre, recreation/green area, museum, civic building / gallery, library, education, hotel, hospital and emergency department.

Figure 26 Pictogram set example

10.5 Access compliance

Accessible information graphics involve careful selection of font type, letter case and text heights, combined with colour applications that ensure good visual contrast and overall legibility. In addition, the considered relationship of directional arrows, pictograms and a consistent application of information are of critical importance when creating information graphics that are legible and inclusive.

The graphic elements of the signs must be consistent throughout the sign family. The recommended height from the ground must consider ambulant users and the recommended accessible heights. Figure 27 illustrates information accessible zones for legibility.

10.5.1 Typography standards

A clear sans-serif font without pronounced variation in stroke width on a non-glossy surface is the minimum requirement for legibility.

10.5.2 Letter case

The use of all-upper-case text will be avoided. People read primarily by word shape. The use of upper-case and lower-case improves text legibility as the variable space formed above letters assists in defining the distinctive shape of each word.

10.5.3 Contrast

In exterior applications, light letters on a dark background are typically more readable than dark letters on a light background.

10.5.4 Density

Type used for signing should not be too condensed: a character width-to-height ratio should be between 3:5 and 1:1. Type used for signing should not appear too thin: a stroke width-to-height ratio should be between 1:5 and 1:10.

10.5.5 Letter size

Text size on signs is determined based on ideal viewing distance of each sign at each location.

10.5.6 cap X-height

For accuracy in layout of text on signs, the height of the capital letter X (Cap X-height) should be used instead of the point size of the font, which is a less accurate referencing method, particularly as fonts' indexed point sizes may not always be the same size in mm.

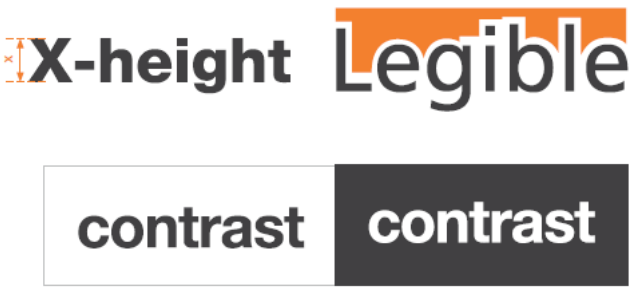


Figure 27 Access compliance

10.6 Information hierarchy

An effective wayfinding system prioritises information and provides only the most required content at the relevant points in the visitor journey. Providing too much information at any one location creates visual clutter and impairs legibility, confusing users and reducing overall system effectiveness. Therefore, to maintain functionality and system clarity, the information provision must be structured with a rational hierarchy.

Applying a hierarchy to each category of destinations provides a rationale for determining how destinations are to be represented in the information system.

10.6.1 System integrity and adaptability

A clear hierarchy ensures that different tiers of information are represented consistently across the system and with the appropriate emphasis. It also ensures that in the future, additional destinations can subsequently be updated into the system in a logical and coherent manner thus future proofing the wayfinding system.

10.6.2 Information database

Any wayfinding system is only as good at the information it carries. An information content database will be developed to ensure a clear record of information is easily accessible and adaptable to changing circumstances. The information database will list all of the destinations and information content that will appear on the wayfinding system.

The database organises the pool of destination content into straightforward categories of destination types.

The function of the information database is to provide a single, authoritative source file, to:

- Define the nomenclature and specific names of each destination.
- Act as a working tool to accommodate future information updates easily and clearly track ownership of edits made to the information it contains.
- Provide supporting information and track installation details about each of the sign products.

11. Getting to the Circuit

How will users arrive at the Homebush Bay Circuit? This Wayfinding Strategy and Master Plan takes a user oriented approach to make it as easy as possible for people to access the Circuit.

Understanding travel options, points of arrival and areas of activity are key to successful destination promotion and effective navigation. This breadth of information needs to be accessible and seamless, covering pre-arrival planning, onward journey navigation and on-site interventions, across all locations and travel modes.

A holistic approach utilising web based information, complemented with mobile application/s, physical signage and printed material will provide a powerful delivery system.

11.1 Pedestrians

Every trip begins and ends as a pedestrian. A substantial increase in residential development around the Circuit means that an increasing number of visitors will access the Circuit on foot.

The street network leading into the Circuit provides a comprehensive network of footpaths. Moreover, there are a number of shared paths and bridge links that connect the Circuit to the surrounding area.

Regional wayfinding on the shared path network is designed to address the needs of both pedestrians and cyclists.

11.2 Cyclists

The HBC has a number of links, and potential links, to the wider Sydney cycling network. Existing and proposed connections include:

- Parramatta Valley Cycleway via the John Whitton Bridge.
- Shared path along southern bank of Parramatta River from the Sydney Olympic Park Ferry Wharf.
- On road cycling facilities in Sydney Olympic Park.
- Hill Road and the Louise Sauvage Pathway, from Lidcombe and Newington, south and west of the Circuit.
- Powells Creek Path from Homebush and Strathfield in the south.
- Rider Boulevard, Gaulthorpe Street and Walker Street in Rhodes.
- Railway Route, adjacent to the railway line, from North Strathfield to Rhodes (Canada Bay MR6) and Ryde Bridge to Canada Bay (Canada Bay MR7).
- Sydney Olympic Park Link (Canada Bay SR15), connecting the park to Concord West Train Station.
- Concord Road Bridge over the Parramatta River, connecting to the northern bank the Parramatta River in Ryde.

Many of these routes require enhancement in order to attract new users and increased legibility. These suggested enhancements are documented in Section 12.1.

Figure 28 shows the existing and planned walking and cycling connections between the HBC and the surrounding area.

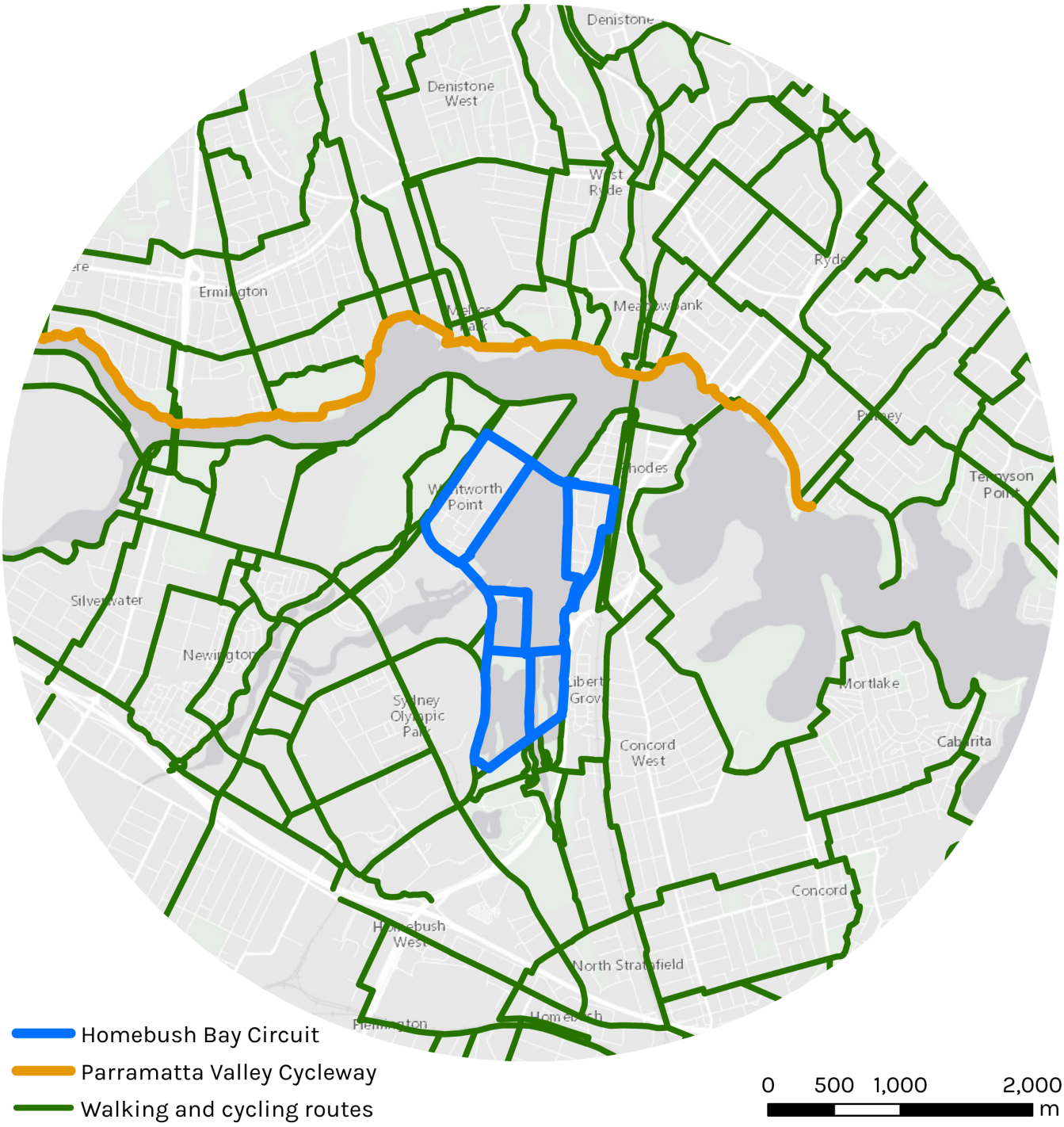


Figure 28 Active transport links to the Homebush Bay Circuit

NB: Routes shown are either constructed or planned.

11.3 Ferry

A ferry service runs from the Sydney CBD west up the Parramatta River, with 18 wharves along the way, terminating at Parramatta.

The ferry journey from Circular Quay to Sydney Olympic Park Wharf takes 46 minutes and runs approximately every half hour for most of the day throughout the week.

Travelling between Sydney Olympic Park wharf and the Parramatta terminus takes 30 minutes, with ferries operating every hour.

11.4 Rail

The HBC is served by three train stations. Concord West and Rhodes Train Stations are on the T1 line to Epping. These stations have a direct service from Central Station that runs appropriately every 30 minutes.

Sydney Olympic Park Train Station has a shuttle service connecting to Lidcombe, running every ten minutes throughout most of the day.

People arriving at the Circuit from Concord West and Rhodes Train Stations are more likely to be travelling from Sydney's south east through to north east, whereas those arriving from Sydney Olympic Park are more likely to originate from Western Sydney.

In the future, Sydney Olympic Park will be served by the Parramatta Light Rail (see Appendix 3 for a map of the stage one and two alignments) and Metro West. This will increase Sydney Olympic Park's connections with the wider area, and reinforce the need for strong links between Sydney Olympic Park and the HBC.

11.5 Bus

The Homebush Bay area is connected to surrounding suburbs via the following bus lines:

- 401: Lidcombe to Sydney Olympic Park
- 458: Ryde to Burwood
- 526: Burwood to Rhodes Shopping Centre
- 525: Parramatta to Burwood via Sydney Olympic Park
- 533: Sydney Olympic Park to Chatswood via Rhodes and North Ryde
- M41: Hurstville to Macquarie Park
- Buses 526 and 525 operate across Bennelong Bridge, connecting Wentworth Point to Rhodes.

Bus stops along the Circuit may provide important opportunities for information provision, helping to increase awareness of the HBC.

Figure 29 provides an illustration of the different public transport services that connect with the HBC.

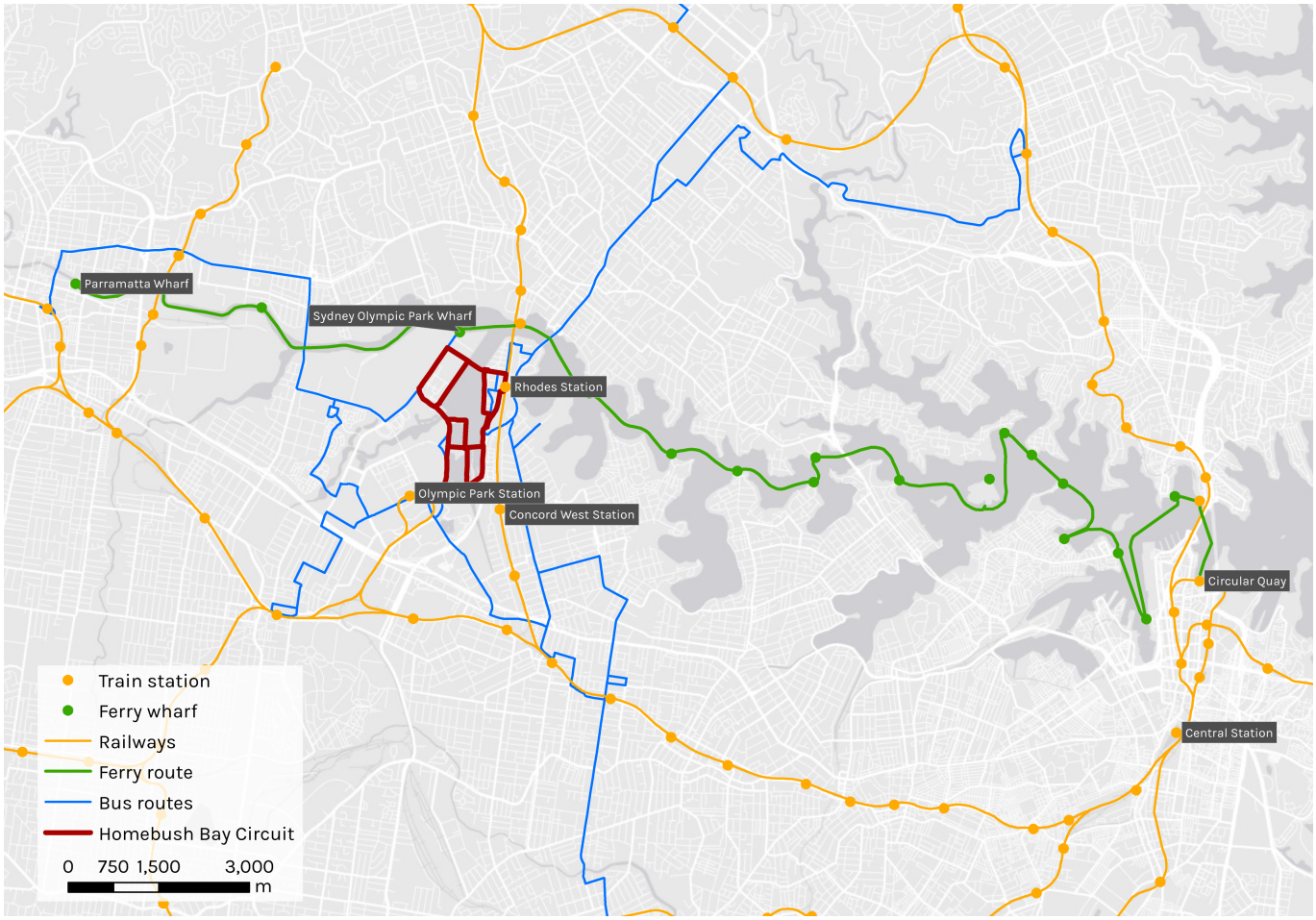


Figure 29 Public transport connections with the Homebush Bay Circuit

11.6 Car parking

A number of car parks are located in close proximity to the HBC. These are treated as entry points for those intending to use the Circuit, and an important opportunity to increase awareness of the Circuit's existence for those that may be using the car park for other purposes. Main car parks are shown in Figure 30.

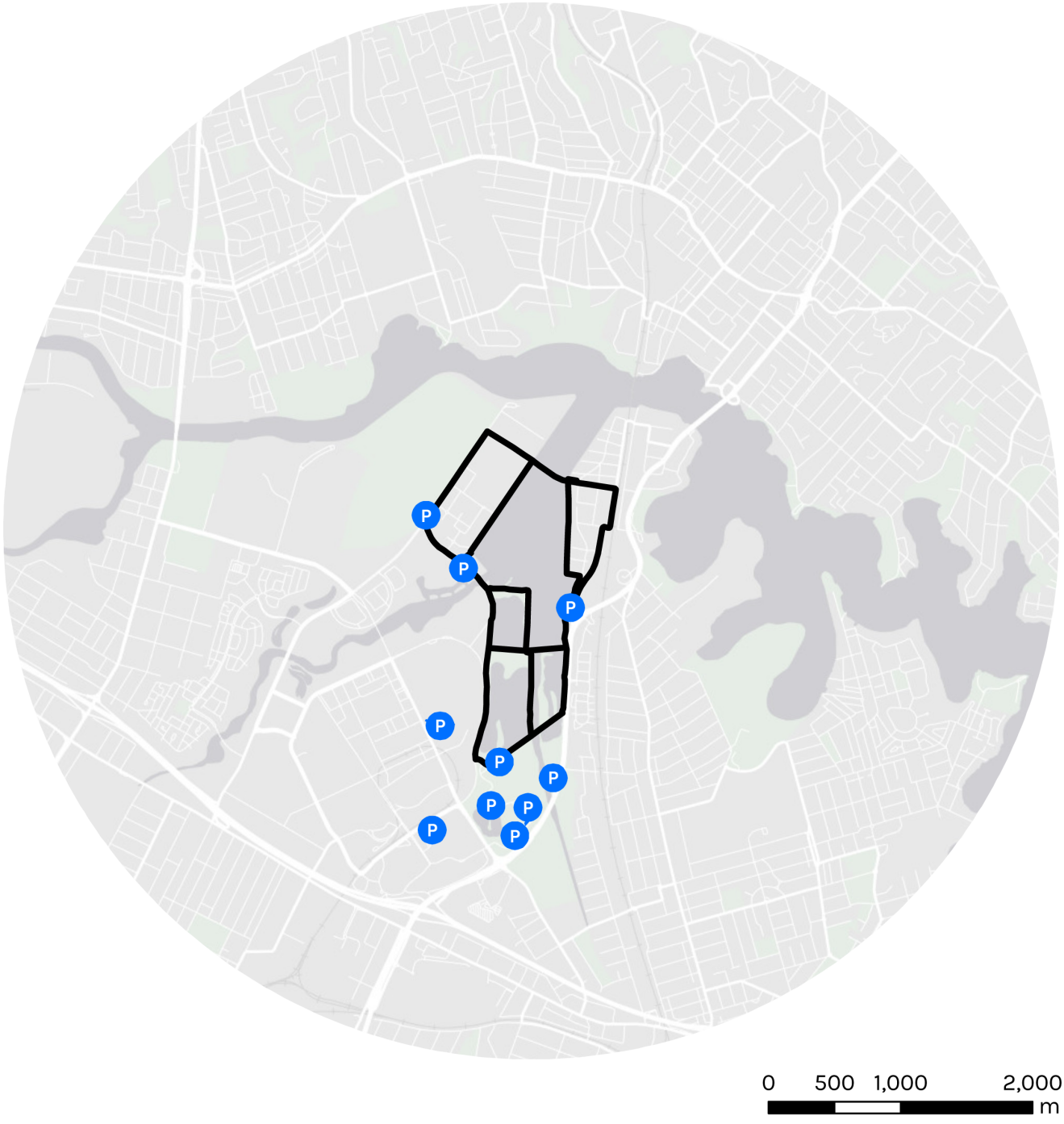


Figure 30 Main car parking locations near the Homebush Bay Circuit

12. Creating a world class circuit

For the Homebush Bay Circuit to reach its full potential, a number of infrastructure upgrades will need to be implemented.

The HBC will have a variety of different route options to suit the needs and preferences of different user groups. A series of upgrades to some roads will be required to better accommodate a diversified mix of transport modes and provide alternatives for users seeking to engage in higher intensity cycling.

12.1 The Circuit

12.1.1 Vision

For the HBC to have high quality and accessible paths. All paths on the HBC will offer safety and amenity to all users, with different designs used to meet the needs of different user groups.

12.1.2 Objectives

1. To meet the needs of all cyclists, from 8 to 80.
2. To provide a safe and comfortable walking environment for all users and user groups.
3. To provide path design options which accommodate various user groups' needs.
4. To have cyclist and pedestrians offered dedicated paths, where practical and safe.
5. For any shared paths to have design elements which encourage low speed cycling, where appropriate.
6. To have cyclist paths and pedestrian paths separated from general traffic and each other where practical and safe.
7. For path design to be appropriate to its surrounds and intended uses.
8. For path design in areas of rich natural beauty and biodiversity to be ecologically sensitive to flora and fauna.
9. For paths to be of appropriate width and be DDA accessible where possible.

12.1.3 Shared path upgrades

12.1.3.1 The Corso

The Corso in Rhodes is a foreshore park with two shared paths for most of its length, one approximately 3m wide adjacent to Homebush Bay and another approximately 2.5m wide slightly to the east (see Figure 31). Some street furniture is provided on the path, such as benches, lighting, bins and water refilling stations. It is very well used by a wide variety of groups. It can become very busy during the weekend and there can be tensions and occasional conflict between pedestrians and cyclists. Pedestrians can feel intimidated by faster moving cyclist, while cyclists can feel that pedestrians lack awareness and wander unpredictably across the paths. In order to manage these tensions, the two paths and Rider Boulevard should be designed and signposted to serve different needs, while both remaining shared paths.

Figure 31 The Corso's two paths

Note: Right path is the foreshore path fast cyclists will be discouraged from using, left is the path more suitable for faster users

The foreshore shared path is scenic, offering panoramic views across Homebush Bay of Wentworth Point and the Badu Mangroves, as such, this path should be treated as a low speed, meandering path, unsuitable for fast cycling. The following alterations should be considered:

- Install signage requesting cyclists to ride at a slow pace;
- Monitor Strava and other fitness apps, requesting speeds not be shown for trips along the Corso (directing the app developer to aforementioned speed limit where required);
- Install signage indicating pedestrian priority zone (slow cycling permitted) and the use of bells when passing pedestrians;
- Avoid the use of line markings on the pavement indicating direction of flow;
- Install pavers into the surface, making it uncomfortable to cycle at speed, while maintaining DDA compliance.

The path furthest from the waterfront is more suitable for faster users. Cyclists and runners wanting to move at moderate speeds, while enjoying the views of Homebush Bay will be encouraged to use this shared path. This shared path will offer a suitable environment for faster moving users, whilst not excluding pedestrians. The following alterations should be considered:

- Install signage requesting cyclists not to ride fast;
- Monitor Strava and other fitness apps, requesting speeds not be shown for trips along the Corso (directing the app developer to aforementioned speed limit where required);
- Ensure a suitable number of signs are installed indicating pedestrian priority and the use of bells when passing pedestrians;
- Ensure a suitable number of signs are installed directing to cyclists and pedestrians to keep left;
- Ensure the pavement has centre line markings with shared path markings and directional arrows. This will indicate direction of flow and acting as a reminder to keep left.

Cyclists wishing to cycle faster should be encouraged towards Rider Boulevard, Mary Street, Walker Street and Gauthorpe Street, which could offer a high quality, safe, separated alternative. This advice should be made through all forms of signage associated with the HBC, and through engagement with the local cycling community.

12.1.3.2 The Promenade

The Promenade in Wentworth Point is approximately 6m wide, running along the Homebush Bay foreshore. There are regular seats and bins, with ample lighting, making it an attractive destination during the day and at night. It offers excellent views of shipwrecks, the Badu Mangroves, and across the bay to Rhodes. The Promenade is well used by a wide number of groups, including cyclists, runners, families and locals walking their dogs.

The Promenade is managed under community title, and as such the following actions will need to be implemented in collaboration with relevant body corporates.

Figure 32 The Promenade in Wentworth Point

The Promenade is currently discontinuous, containing two gaps which prevent users walking or cycling the entire foreshore, forcing them onto the Wentworth Point street network. However, the path will eventually connect Sydney Olympic Park Ferry Wharf with Haslams Creek along the Parramatta River and Homebush Bay foreshore. It is critical to the success of the HBC that The Promenade offer a continuous foreshore path.

As with the Corso in Rhodes, managing interactions and expectations between pedestrians and cyclists is a challenge. In order to manage these tensions, The Promenade and Hill Road will be designed and signposted to serve different needs, managing these different expectations.

The Promenade offers scenic views across Homebush Bay or Rhodes, the Badu Mangroves and shipwrecks, as such, this path should be treated as a low speed, meandering path, unsuitable for fast cycling. The following alterations will be made:

- Install signage requesting cyclists to ride at a slow pace;
- Monitor Strava and other fitness apps, requesting speeds not be shown for trips along the Promenade (directing the app developer to aforementioned speed limit where required);
- Install signs indicating pedestrian priority and the user of bells when passing pedestrians;
- Ensure there are no line markings on the pavement indicating direction of flow;
- Install pavers into the surface, making it uncomfortable to cycle at speed.

Cyclists wishing to cycle faster will be encouraged towards Bennelong Parkway, Hill Road and Footbridge Boulevard, which will offer an upgraded, high quality, safe, separated alternative. This advice should be made through all forms of signage associated with the HBC, and through engagement with the local cycling community.

The Promenade connects to Bennelong Parkway via a narrow shared path (see Figure 33). Due to forecast population growth, this path may become insufficient to accommodate the volume of users and should be widened. The central garden bed should be removed, creating a path of at least 3m wide. In the short term, the poles in this section of path should also be removed, as they pose a hazard.

Figure 33 Path connecting The Promenade to Bennelong Parkway

12.1.3.3 Bennelong Bridge

The Bennelong Bridge was completed in 2016 and connects Wentworth Point to Rhodes and provides the impetus for the creation of the HBC. It is a 'green travel' bridge, with two-way T-Way bus lanes and a 3m wide shared path. The bridge is very well used by pedestrians and cyclists, but there are concerns about the interactions between these users. The community has expressed a desire for these interactions to be better managed through improved design of the bridge.

The shared path on Bennelong Bridge will struggle in the future with increased usage. The community's view is that the path is already too narrow for the number of cyclists and pedestrians currently using it. To rectify the limited space for active transport in the future. Consideration should be given to extensions to the northern edge of the bridge or a pedestrian only path on the southern edge of the bridge. In the short term consideration should be given to either:

- Allowing cyclists the option of using the busway by placing 'bicycles exempt' signs underneath the 'No Entry' signs at either end on the T-Way;
- Converting the 'T-Way' lanes to 'Bus Lanes' which would permit cyclist, motorcyclists, taxis, hire cars, and emergency services vehicles to also use the lanes; or
- Restrict the bus lanes to one lane, with traffic lights either side of the bridge ensuring only one direction can be in use at a time, freeing up the other lane for bi-directional cycling lanes.

Discussions should be entered into with RMS, relevant bus operators, and local cycling groups to determine the feasibility of various options to determine which one most closely aligns with the needs of all stakeholders.

There is also poor connectivity between the Bennelong Bridge and the Promenade (which is currently discontinuous). A step-less connection between the Bennelong Bridge from the northern edge, down to the Promenade is the best outcome, with strong community support for this connection design. The permeability of the area would be greatly increased by having a connection from the west, as this would give more options for local residents and those arriving at the HBC by bus.

Figure 34 Bennelong Bridge, looking towards Wentworth Point

Note: The shared path is one the right, with two-way T-Way on the left.

12.1.3.4 Badu Mangrove path

This path, shown in Figure 35, is approximately 3m wide, and runs through the Badu Mangroves, an area of high environmental significance. The path is bituminous, with well defined edges, and a centre white line. There are numerous vantage points along the path that allow viewing of birds (see Figure 36), panoramic views of the landscape, and the numerous shipwrecks. Some areas have obscured views of the shipwrecks from the intended vantage points, which has caused path users to walk into the mangroves to get a better view, deteriorating the landscape.

The path is unsuitable for fast moving cyclists, and widening the path would cause unacceptable environmental damage. As such, fast moving cyclists should be encouraged to use Bennelong Parkway as an alternative route.

Works have been undertaken recently to raise the shared path, minimising the likelihood of being inundated. In the future, consideration should be given to replacing the bituminous path with a raised boardwalk, similar to the boardwalk recently installed in Ermington Bay, shown in Figure 37. This would mitigate inundation, while allowing fauna to pass under the shared path, minimising interactions with humans. Further, the handrails would deter people from walking off the path, minimising damage. However, any boardwalk design should be assessed for environmental effects, including noise pollution (as City of Parramatta have achieved with new boardwalks), and built to comply with any requirements park rangers may have (including vehicle access).

Figure 35 The shared user path through Badu Mangroves

Figure 36 Water birds viewed from a 'bird hide' off the Badu Mangrove path

Figure 37 Boardwalk through Ermington Bay

12.1.3.5 Path from The Corso to Bicentennial Park

This path forms the sole connection between Rhodes and Bicentennial Park, and will be used by all users of the HBC. It is currently a shared path approximately 3.5m wide, with a bituminous surface which has some minor cracking in places. The path has a dashed centre white line (see Figure 38). The following actions should be considered:

- Monitor and maintain the bituminous surface, filling in cracks and pot holes, removing tripping hazards and ensuring DDA compliance.
- Ensure the pavement has centre line markings with shared path markings and directional arrows. Indicating direction of flow and reminding users to keep left;
- Install signs onto light posts reminding path users to keep left and for cyclists to use their bell before passing.

In the future, as path usage increases, widening or installing separated pedestrian and cyclist paths, may become necessary. The path should be monitored to gauge usage and tensions between pedestrians and cyclists. When appropriate, the path should be widened to 5m, while maintaining an appropriate buffer from the mangroves. The inner 2m (closest to Homebush Bay) should be designated as a two-way pedestrian path, and the outer 3m (closest to Homebush Bay Drive) designated as two-way cycling. This arrangement will keep pedestrians and cyclists separated, while maintaining high quality of amenity for both groups. Further, having the pedestrian section on the inner path will offer a better connection to the Corso, while cycling on the outer path will offer a better connection to Rider Boulevard. This will assist in reducing potential conflict further.

Where possible, consideration should be given to using a softer, permeable treatment for the pedestrian surface. Doing so will minimise tree roots cracking the pavement, provide a softer surface for runners which will increase safety and comfort, and increase ground permeability of storm water.

Figure 38 Shared path from Corso to Bicentennial Park.

12.1.3.6 Path from Homebush Bay Drive to Bennelong Parkway

This path, shown in Figure 39, forms the HBC's connections between the east of Bicentennial Park (near Homebush Bay Drive see: 12.1.3.5) and the west of Bicentennial Park (at Bennelong Parkway).

It is between 3.5m and 4m in width, with a bituminous surface with some minor cracking. It crosses Powells Creek on a 4m wide bridge with wooden decking. The path mostly has a dashed centre white line.

Figure 39 Shared path looking east

Note: The bridge over Powells Creek is in the background and the Badu Mangroves to the left.

Figure 40 Poles in the shared path

The path passes the Sydney Olympic Park Education Centre, which has multiple school groups visit each weekday, increasing pedestrian activity along the path. The path also runs along the northern edge of the Bicentennial Park car parking area (P10f), which has a bus parking area. Along this section of path there are multiple signs which are placed approximately 500mm from the kerb, which are a significant hazard, as shown in Figure 40. The following actions should be considered:

- Monitor and maintain the bituminous surface, filling in cracks and pot holes, removing tripping hazards and ensuring DDA compliance.

- Ensure the pavement has centre line markings with shared path symbols and directional arrows, indicating direction of flow and reminding users to keep left;
- Install signs onto light posts reminding path users to keep left, and for cyclists to use their bell before passing;
- Install traffic blisters at pedestrian crossings, and relocate the pedestrian crossing road signs from the shared paths to the blisters;
- Install reflective tape on all poles in the shared path, to be accompanied with pavement markings to offer advanced warning to oncoming path users;
- Work with bus operators, RMS, and relevant traffic authorities to determine options for removing traffic poles from the shared path and/or widening the shared path to minimise hazards;
- Widen the shared path between Bennelong Parkway and Bicentennial Park parking lot P10f, including modifications of the crossing with the access way south of Bicycle New South Wales to be a raised crossing (see Figure 41 and Figure 42);
- Implement measures to slow cyclists when travelling between Bicentennial Park parking lot P10f and Powells Creek. These may include paved surfaces which are uncomfortable to ride fast over and signage alerting cyclists to the presence of children.

Figure 41 The shared path crossing an access road

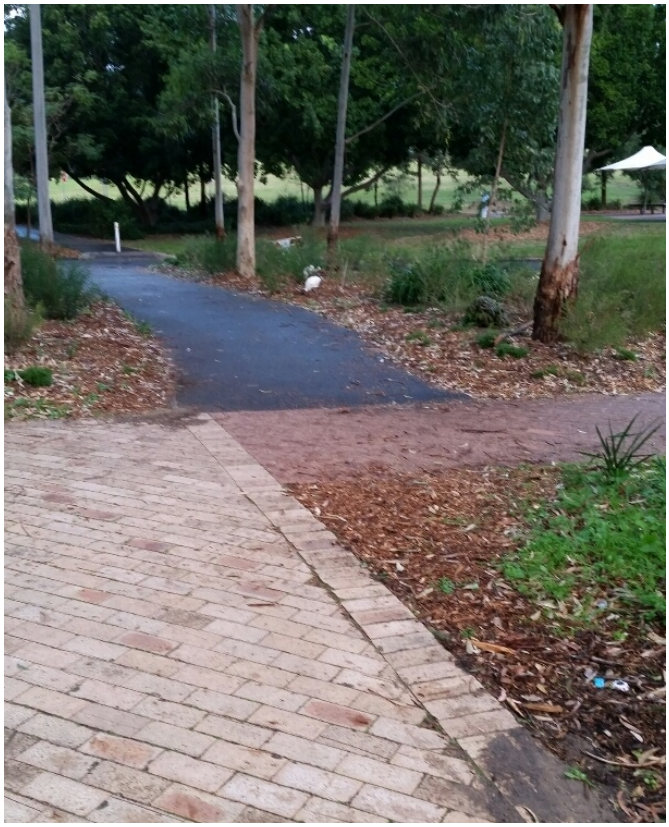


Figure 42 Undesirable dog-leg in the shared path

In the future, as usage increases, widening of this path may become necessary. The path should be monitored to gauge usage and tensions between pedestrians and cyclists. When appropriate, the path should be widened to 5m or separated paths provided, while maintaining an appropriate buffer from the mangroves. The inner 2m (closest to Homebush Bay) will be designated as two-way pedestrian path, and the outer 3m (to the south) designated as two-way cycling. This arrangement will keep pedestrians and cyclists separated, while maintaining high quality of amenity for both groups. Further, having the pedestrian section on the inner will offer a better connection to the path from Rhodes, further removing potential conflict points between pedestrians and cyclists.

Where possible, consideration should be given to using a softer, permeable treatment for the pedestrian surface. Doing so will minimise tree roots cracking the pavement, provide a softer surface for runners which will increase safety and comfort, and increase ground permeability of storm water.

12.1.4 Road cycling network upgrades

12.1.4.1 Rider Boulevard

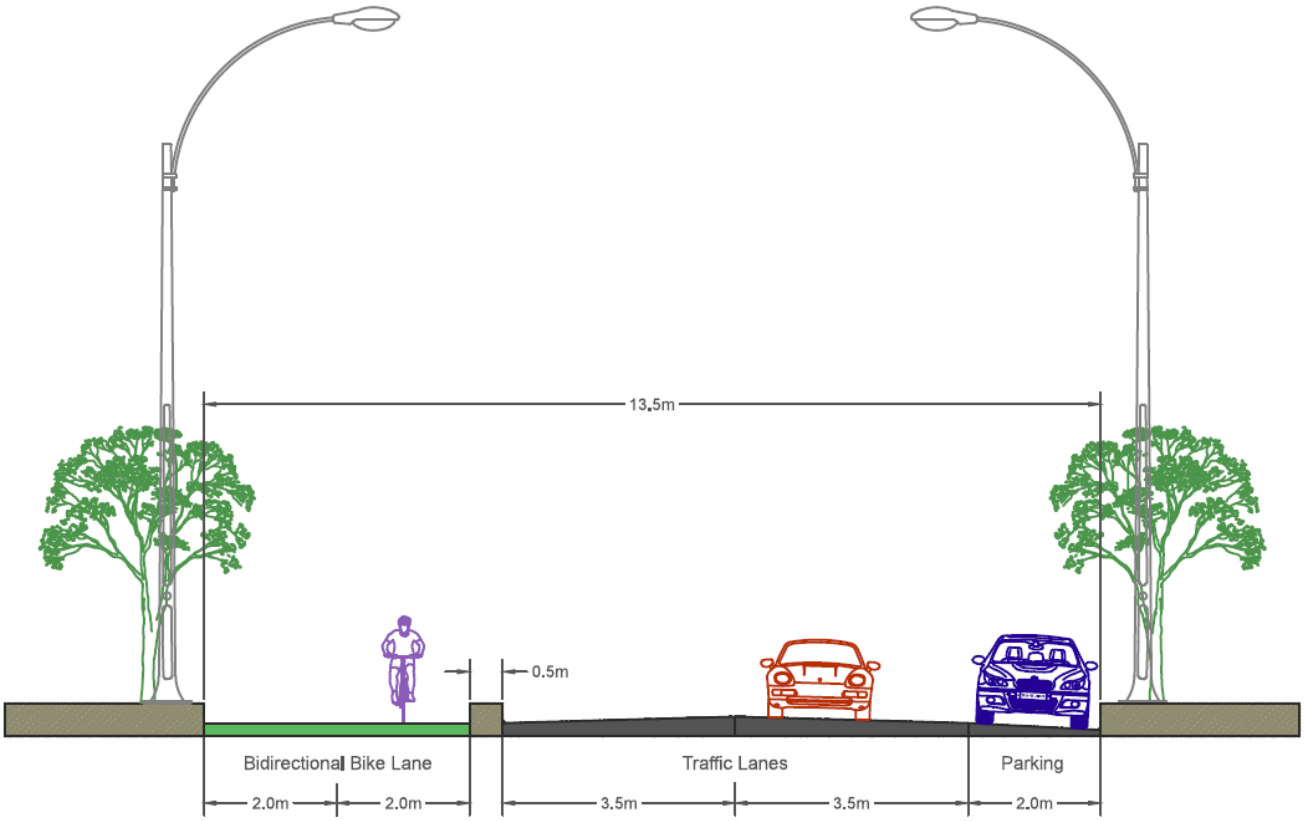
Rider Boulevard is approximately 13.5m wide, with two-way traffic and parking on both sides of the street. Rider Boulevard currently has a bicycle lane northbound and PS2 logos in a shared lane southbound. Bus route 458 operates northbound and bus routes 458 and 526 operates southbound. The presence of buses in both directions necessitates road space width of at least 3.5m per direction. The eastern side of the street has commercial frontage, while the eastern side is primarily residential. The parking bays have a generous width, and usable road space could be created by tightening parking bays to 2m in width. The high turnover of parking creates a high risk of dooring, which reduces the safety of the bike lanes directly adjacent to parking bays.

Improvements to the cycling environment have recently been made, following an investigation on methods to minimise conflict on The Corso. In the future, as development and population growth pressures increase, the current cycling environment may become less attractive, and more cyclists may return to using The Corso.

Over the next 12 to 18 years Mobility as a Service is anticipated to lower the demand for kerb side car parking opening up opportunities for repurposing street space.

In the long-term, the cycling environment could be brought to world class standards, an objective of the HBC, by installing bidirectional bicycle lanes on the western side of Rider Boulevard (as shown in the top portion of Figure 44). This would require removal of parking from the western side of the street. This solution would remove all risk of car dooring, and provide safe two-way cycling. The road width is sufficient to include generous cycling lane widths for two abreast riding and/or overtaking without impinging on cyclists travelling in the opposing direction. Protected bicycle lanes, on the western side of Rider Boulevard would also have the advantage of allowing cyclist to fully bypass the intersection of Rider Boulevard and Oulton Avenue. Bicycle lanes would need to be narrowed at bus stops, with parking restricted on both sides of Rider Boulevard and the installation a bus shelter between the bicycle lanes and general traffic lanes as shown in the lower portion of Figure 44.

Figure 43 Rider Boulevard



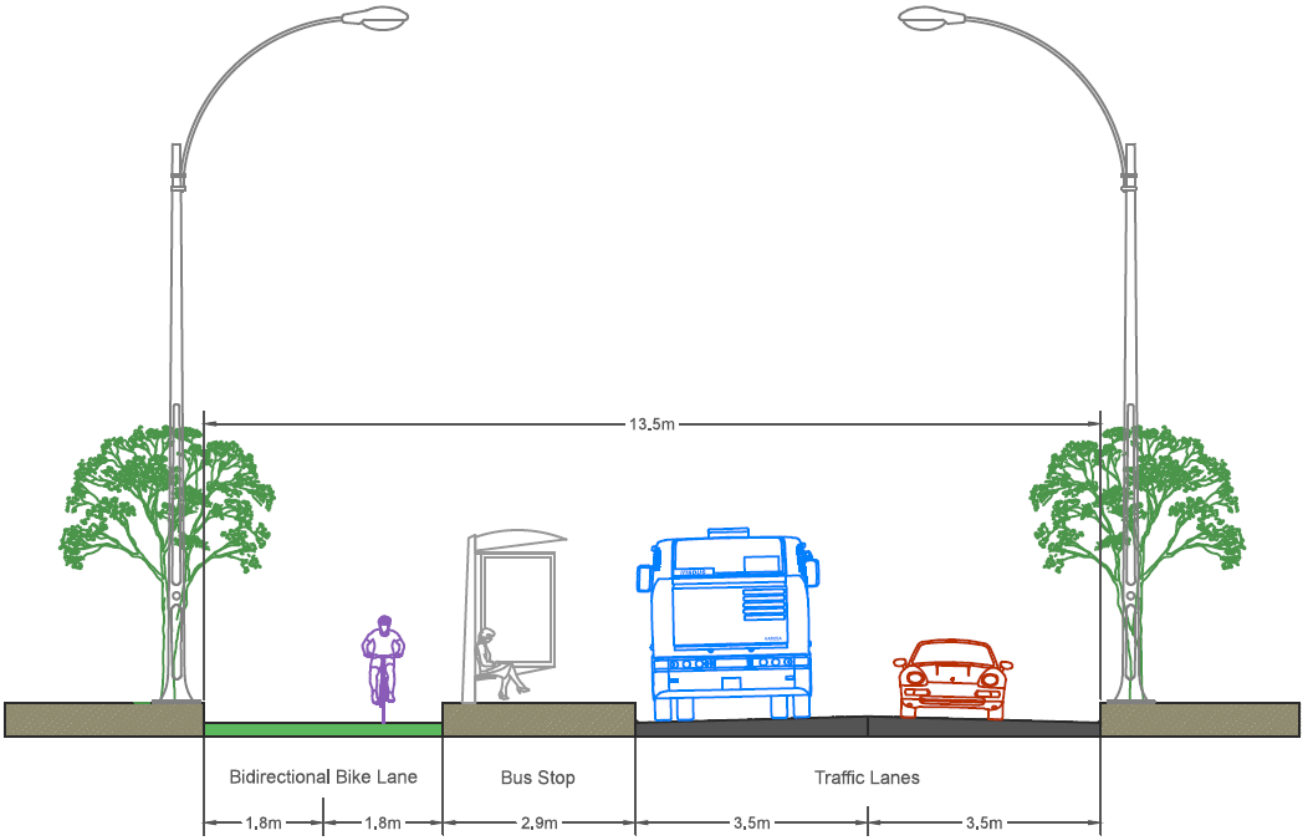


Figure 44 Potential bidirectional cycleway on Rider Boulevard, looking north.

12.1.4.2 Mary Street

Mary Street is approximately 11.5m wide, with two-way traffic and parking on both sides of the road. It forms a logical and pleasant route between Union Square or Rhodes Station to/from the Corso. It currently lacks cycling facilities, and is too narrow for fully separated, protected facilities *and* parking on both sides of the street.

As development and population growth pressures increase, there may be increased numbers of cyclists using Mary Street. Usage and safety should be monitored to ensures levels of service to cyclists are maintained.

In the long term, if demand warranted, bidirectional bicycle lanes could be installed on the south side of Mary Street, as shown in Figure 46, displacing the kerbside car parking. This reallocating of space would offer world-class cycling infrastructure and a seamless connection to Rider Boulevard. Further, the row of trees on the southern side of the road would offer cyclists some shade in summer.

Figure 45 Mary Street

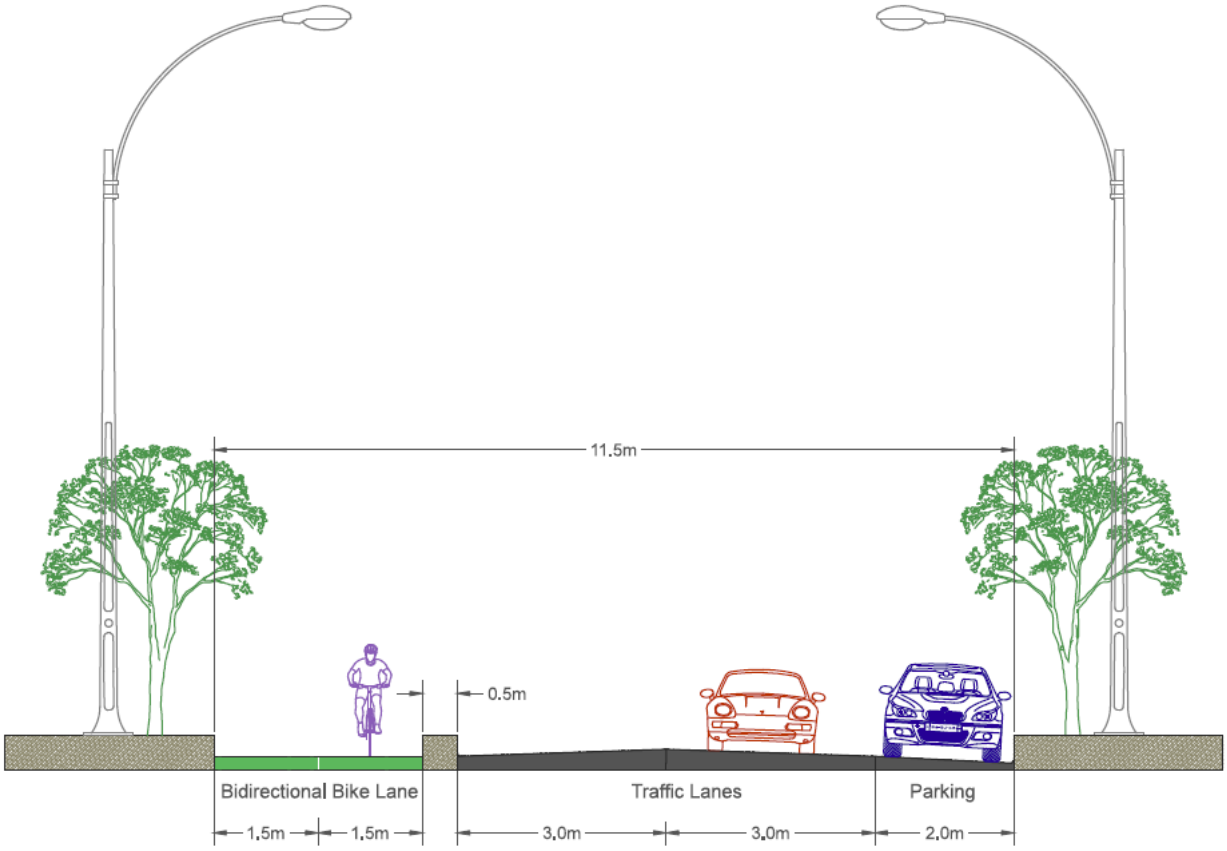


Figure 46 Potential bidirectional cycleway on Mary Street, looking west.

12.1.4.3 Walker Street

Walker Street is variable in width, with two-way traffic and some parking. There is parallel parking permitted on the western side of the road in parts, while the eastern side has some rows of indented angle parking and some parallel parking bays. Buses 458, 526, 533 operate northbound while buses 458, 526 operate southbound. Currently there are PS2 logos in the traffic lane, indicating motorists are to share the road space with cyclists. There is also a shared path running along the western edge of the railway line south of Rhodes Station. There is currently insufficient space for safe, dedicated cycling lanes to be installed in Walker Street without radical changes to the street layout.

In future, development in the 'Station Precinct' may alter include provisions for an upgraded bus interchange on Walker Street. All changes to bus operation and streetscape should consider cycling, and how changes my affect cyclist.

A shared path is also being considered along Walker Street. Installation of a shared path would increase cycling permeability of Rhodes and should be a short to medium term ambition.

In the longer term, as the character and road environment of Walker Street changes, there may be a need to improve cycling facilities. Bidirectional cycling lanes on the eastern side of Walker Street, as shown in Figure 47, would provide a world-class experience. Installation of a bidirectional cycleway is likely to replacing the angle parking, but would provide a dedicated, safe cycling facility connecting the existing shared path to Rhodes Station with Bennelong Bridge (via Gauthorpe Street).

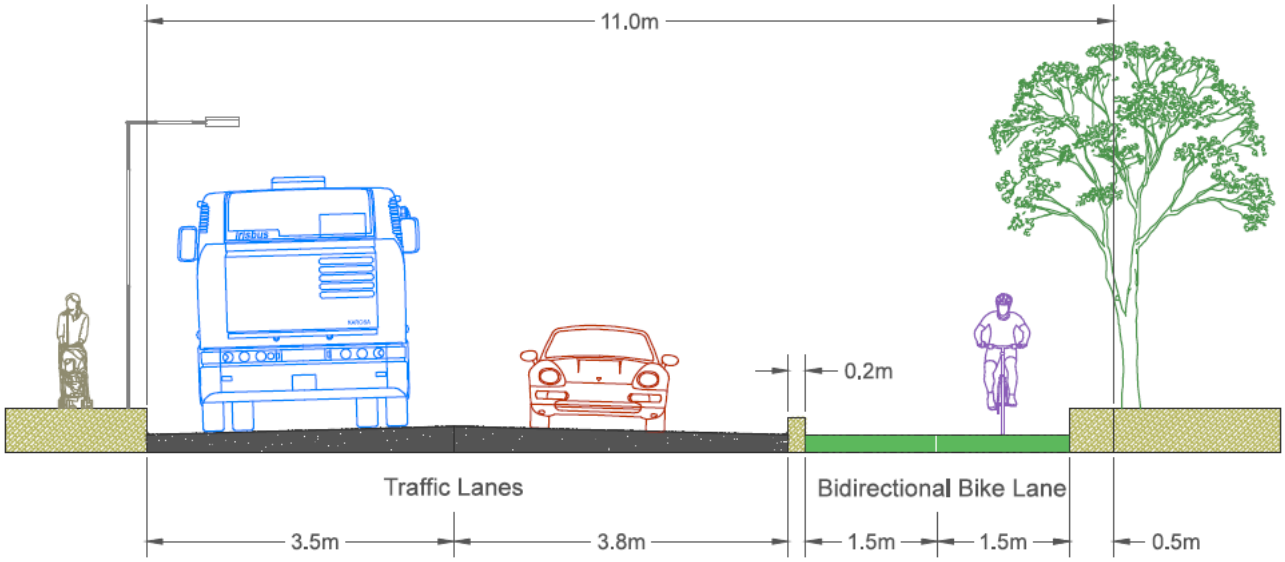


Figure 47 Proposed bidirectional cycleway on Walker Street, looking north.

12.1.4.4 Gauthorpe Street

Gauthorpe Street is approximately 12m wide, with two-way traffic and parking on both sides of the street. Buses 526 and 533 operate on Gauthorpe Street in both directions. Gauthorpe Street currently lacks cycling infrastructure, but acts as a critical link between Wentworth Point and Rhodes Station (via Bennelong Bridge).

It is proposed that the northern footpath be converted to a shared path. Although this may not cater for all cyclists, it will be a welcome improvement to cycling permeability and safety in Rhodes.

In the longer term, cycling participation, development and population growth may warrant improved or dedicated cycling infrastructure. Installation of bidirectional cycling lanes would provide world-class infrastructure. This would require the removal of parking from the northern side of the street, but could result in improved safety and attractiveness.

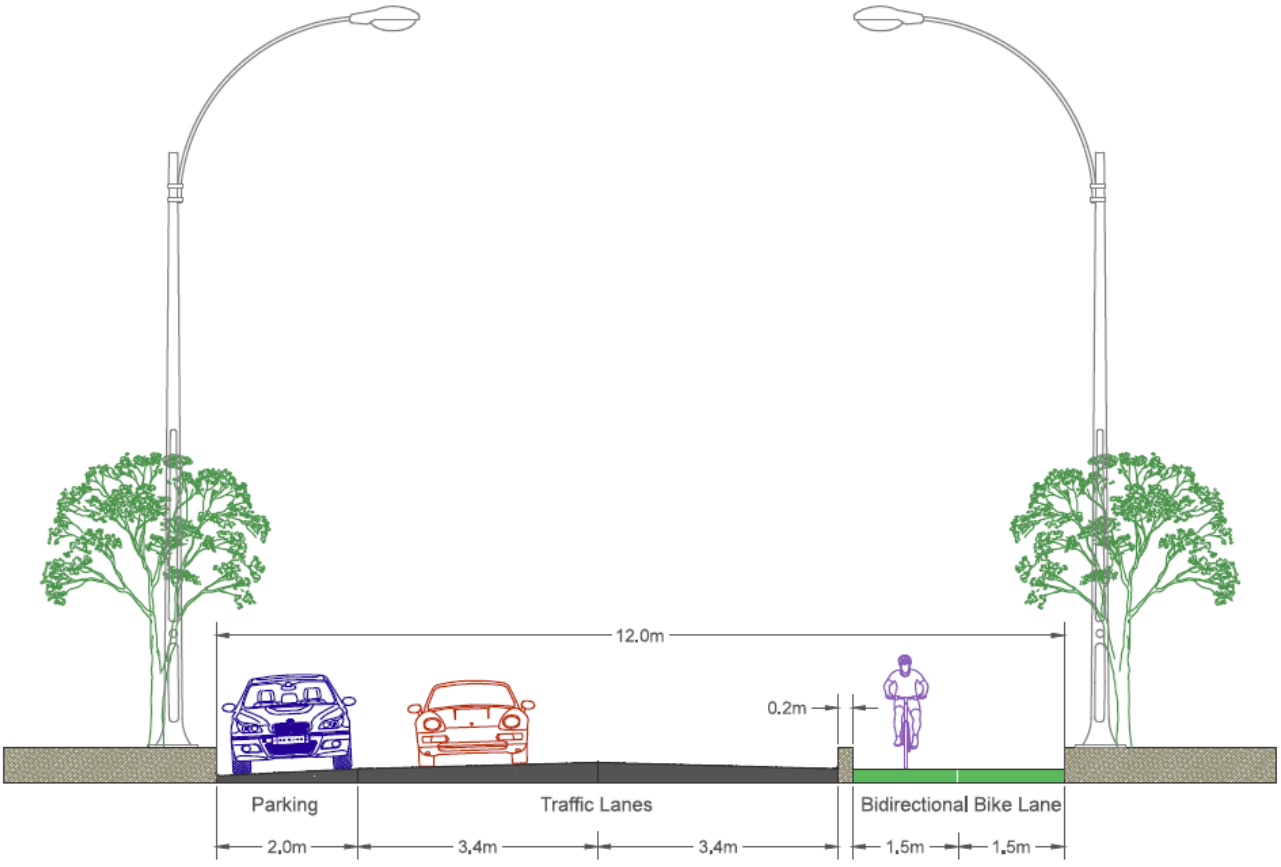


Figure 48 Proposed bidirectional cycleway on Gauthorpe Street, looking west.

12.1.4.5 Footbridge Boulevard

Footbridge Boulevard runs between Bennelong Bridge and Hill Road in Wentworth Point. It is a divided road, with one lane in each direction, separated by a median strip. Both sides have indented parking bays. Buses 526 and 533 operate on Footbridge Boulevard in both directions. The roadway is not sufficiently wide to accommodate dedicated bicycle lanes.

Footbridge Boulevard is not owned by Council, but is under Community Title. As such, the following proposals would be subject to approval by the relevant strata committee.

Consideration should be given to Footbridge Boulevard having the speed limit reduced to no more than 30km/h (subject to RMS consent), with PS2 logos placed prominently in the middle of the road surface. This would indicate to motorist that the street is a shared environment, and to expect cyclists to use the full width of the roadway. Operation of the road should be monitored, with potential alterations including paving of the road surface being considered in future. Additionally, consideration should be given to converting the northern footpath to a shared path.

Figure 49 Footbridge Boulevard

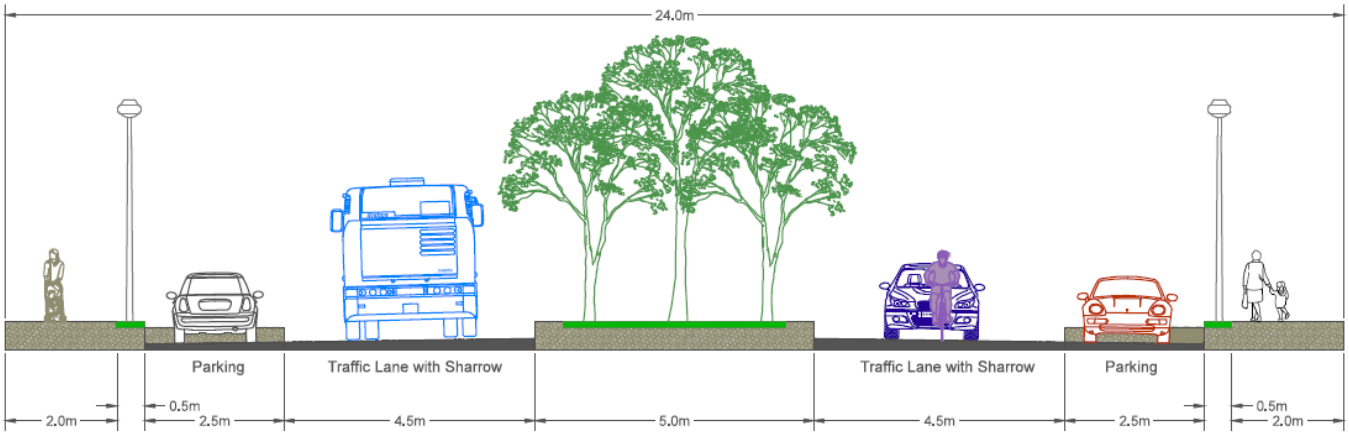


Figure 50 Footbridge Boulevard

12.1.4.6 Hill Road

Hill road is approximately 14m wide, with two-way traffic, parking on the eastern side, and a painted median strip. There are narrow painted bike lanes on both sides of Hill Road. Buses 526 and 533 operate on Hill Road in both directions. A shared path runs along the western side of Hill Road, connecting the Parramatta River foreshore and Sydney Olympic Park Ferry Wharf with Sydney Olympic Park and Newington. There is sufficient space on Hill Road to include separated bicycle lanes without affecting the current car parking rates or traffic movements. Dedicated bicycle lanes (shown in Figure 51) should be considered on Hill Road. This will maintain parking on one side of the street and complement the existing shared paths in Newington Reserve.

The current Parramatta Light Rail Stage 2 route alignment is along Hill Road. This will change the road environment and a reassessment of how best to accommodate cyclists will need to be made in the design process.

12.1.4.7 Hill Road and Bennelong Parkway intersection

The intersection between Hill Road and Bennelong Parkway will need to be reconfigured in the future, as it is not currently safe yet forms a critical part of the HBC. The current south to east slip lane could be converted into a dedicated bidirectional cycleway. The T-intersection would need to be signalised, to better accommodate active transport movements across the intersection (a 'scatter' sequence may be suitable).

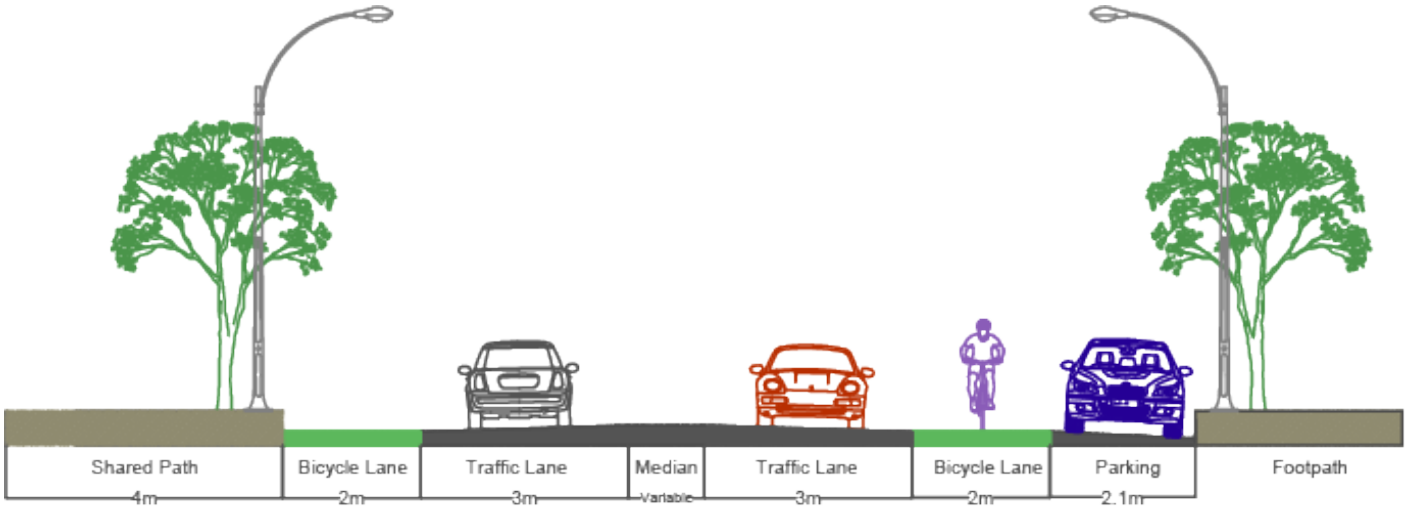


Figure 51 Proposed bidirectional cycleway on Hill Road, looking north.

12.1.4.8 Bennelong Parkway (Hill Road to Haslams Creek)

The road way of this section of Bennelong Parkway is approximately 14m wide, with two-way traffic, parking on the eastern side, and a median which is either physical or painted. There are painted bike lanes on both sides of Bennelong Parkway, and a shared path along the western footpath. There is sufficient space on Bennelong Parkway to include separated cycling facilities without affecting the current parking rates or traffic movements. A bidirectional, separated cycleway should be installed on the eastern side of Bennelong Parkway., with a north bound cycle lane retained on the western side of Bennelong Parkway. In addition, a shared path should be provided on the eastern side, running from 25 Bennelong Parkway to the new bridge across Haslams Creek (as illustrated in Figure 53).

Management of Bennelong Parkway is shared between City of Parramatta and Sydney Olympic Park Authority, who should collaborate to provide an environment that best supports the success of the HBC.

12.1.4.9 Haslams Creek Bridge

Currently cyclists and pedestrians wishing to travel between the Promenade and Badu Mangroves are required to cross Bennelong Parkway twice, as the footpath on the Bennelong Parkway Bridge across Haslams Creek is on the western side. This arrangement increases exposure to motor vehicles, which can travel at up to 60kmh, decreasing safety. Safety is further decreased by poor lighting and the narrowness of the footpath. A new walking and cycling bridge is proposed on the eastern side of the existing roadway. This will offer a direct path between the Promenade and Badu Mangroves without requiring any road crossings. The bridge should be a minimum of 5m, with quality lighting.

Figure 52 Bennelong Parkway bridge over Haslams Creek.

Note: Pedestrians and cyclists must cross Bennelong Parkway twice to cross at this bridge.

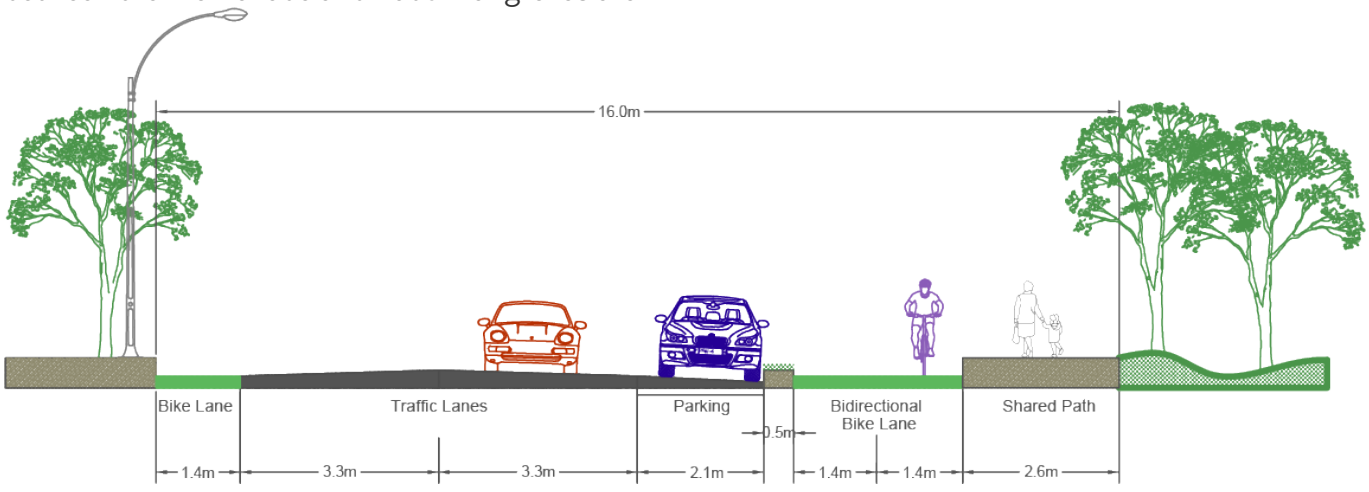


Figure 53 Proposed bidirectional cycleway on Bennelong Parkway

Note: Cross section is between 25 Bennelong Parkway and Haslams Creek, looking north.

12.1.4.10 Bennelong Parkway (Haslams Creek to Australia Avenue)

This section of Bennelong Parkway has two-way traffic lanes with adjacent wide bike lanes, and a 1.6m wide footpath on the western side of the street, separated by a stand of insignificant trees (from an ecological perspective). The road space has a width of 14m from the western edge of the footpath to the eastern shoulder of the road lanes. This section of Bennelong Parkway will form part of the main HBC, forming an alternative to those who do not want to pass through the Badu Mangroves, or for when the Badu Mangroves are closed (e.g. due to tidal inundation).

Currently, Bennelong Parkway does not offer a level of service that meets the expectations of family groups or less confident riders, who are forced to riding on the road with fast moving motor vehicles. Further, having the path on the western side of Bennelong Parkway requires users to cross the road to move between Bicentennial Park, the Badu Mangroves and the pathway.

A total reconfiguration of the road space, as shown in Figure 55, would significantly improve the attractiveness, safety, and perceived safety of Bennelong Parkway. The reconfigured road surface will provide walking path on both sides for pedestrians; bidirectional cycling lanes on the eastern side and a northbound cycle lane on the western side. This arrangement would cater for the needs of fast moving and slow-moving cyclists and pedestrians. At Bicentennial Drive, the shared path would intersect with the shared path from Bicentennial Park.

The currently unused section of Bennelong Parkway, shown in Figure 54, should be considered to have the cycleway and shared path run through it, offering a shorter, more scenic route. This space is large, and could also be used for community purposes, such as community gardens (in raised planters), should there be sufficient community interest.

Management of Bennelong Parkway is shared between City of Parramatta and Sydney Olympic Park Authority, who should collaborate to provide an environment that best supports the success of the HBC.

Figure 54 Disused section of Bennelong Parkway.

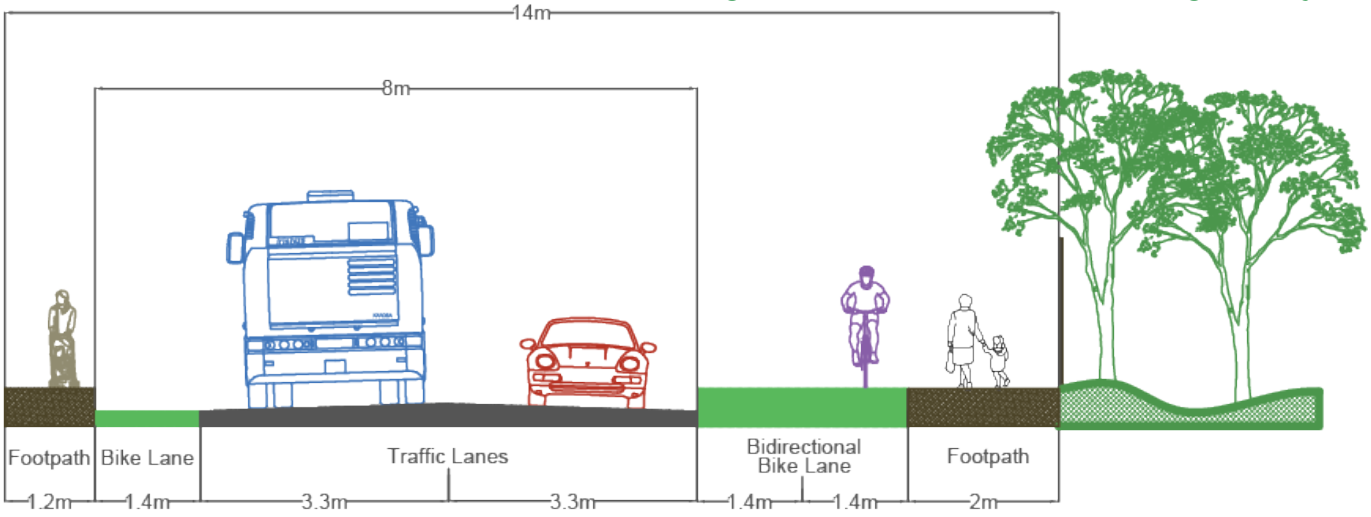


Figure 55 Proposed reconfiguration of Bennelong Parkway, looking north

12.2 Connections to the wider walking and cycling network

12.2.1 Vision

The HBC will be well integrated with the wider active and public transport network, making it inclusive and accessible for all users.

12.2.2 Objectives

1. For users to be able to access the HBC conveniently, safely and legibly from the wider region using active transport.
2. For wayfinding signage to actively promote visitation to the HBC from the wider walking and cycling network.
3. For the HBC to be easily accessible by public transport through signage and quality built form design.
4. For public transport stops and stations to have advanced wayfinding opportunities, which help users access the HBC.
5. For HBC users to be able to easily locate and access their nearest public transport options.

12.2.3 Actions

1. The following infrastructure projects would improve connections to the wider walking and cycling network:
    a. Improving the cycling environment at Victoria Avenue and King Street in Concord West, to better connect Concord West train station with the HBC;
    b. Implement a step-free crossing of the railway line adjacent to Rhodes Station to offer convenient cycling opportunities between the west and east of Rhodes;
    c. Complete the Promenade north of Bennelong Bridge around Wentworth Point to Sydney Olympic Park Ferry Wharf and on to Parramatta;
    d. Improved pedestrian crossings at: Shoreline Drive and Mary Street; Hill Road and Stromboli Strait; Hill Road and Nuvolari Place; Hill Road and Footbridge Boulevard. These crossings have been identified through site inspections and community consultation as potentially unsafe;
    e. Collaborate with relevant Strata to install a kerb ramp with a gentler grade at the eastern end of Amalfi Drive;
    f. Install a kerb ramp at the western end of Jean Wailes Avenue allowing cycling access to the Corso;
    g. Install a kerb ramp with a gentler grade at the western end of Nina Gray Avenue allowing cycling access to the Corso;
    h. Install a kerb ramp with a gentler grade at the western end of Sevier Avenue;
    i. Install troughing at the stairs south west of the intersection between Shoreline Drive and Rider Boulevard, allowing cyclists to avoid the ramps;
2. Improve connectivity between the HBC and the Parramatta Valley Cycleway (west) by upgrading the Silverwater Road Bridge shared path.
3. Improve connectivity between the HBC and the Parramatta Valley Cycleway through installation of wayfinding signs at:
    a. Bennelong Bridge and the Corso
    b. The northern and southern sides of the John Whitton Bridge
    c. The intersection of Hill Road and Footbridge Boulevard
    d. The junction between Bennelong Bridge and The Promenade
    e. Sydney Olympic Park Ferry Wharf
    f. The Silverwater Road Bridge shared path and the shared path on the southern side of the Parramatta River
    g. The Silverwater Road Bridge shared path and the Parramatta Valley Cycleway
4. To install material promoting the HBC at public transport points, as shown on Figure 56. These

points should have NFC and QR tags allowing users to engage digitally on their mobile device.

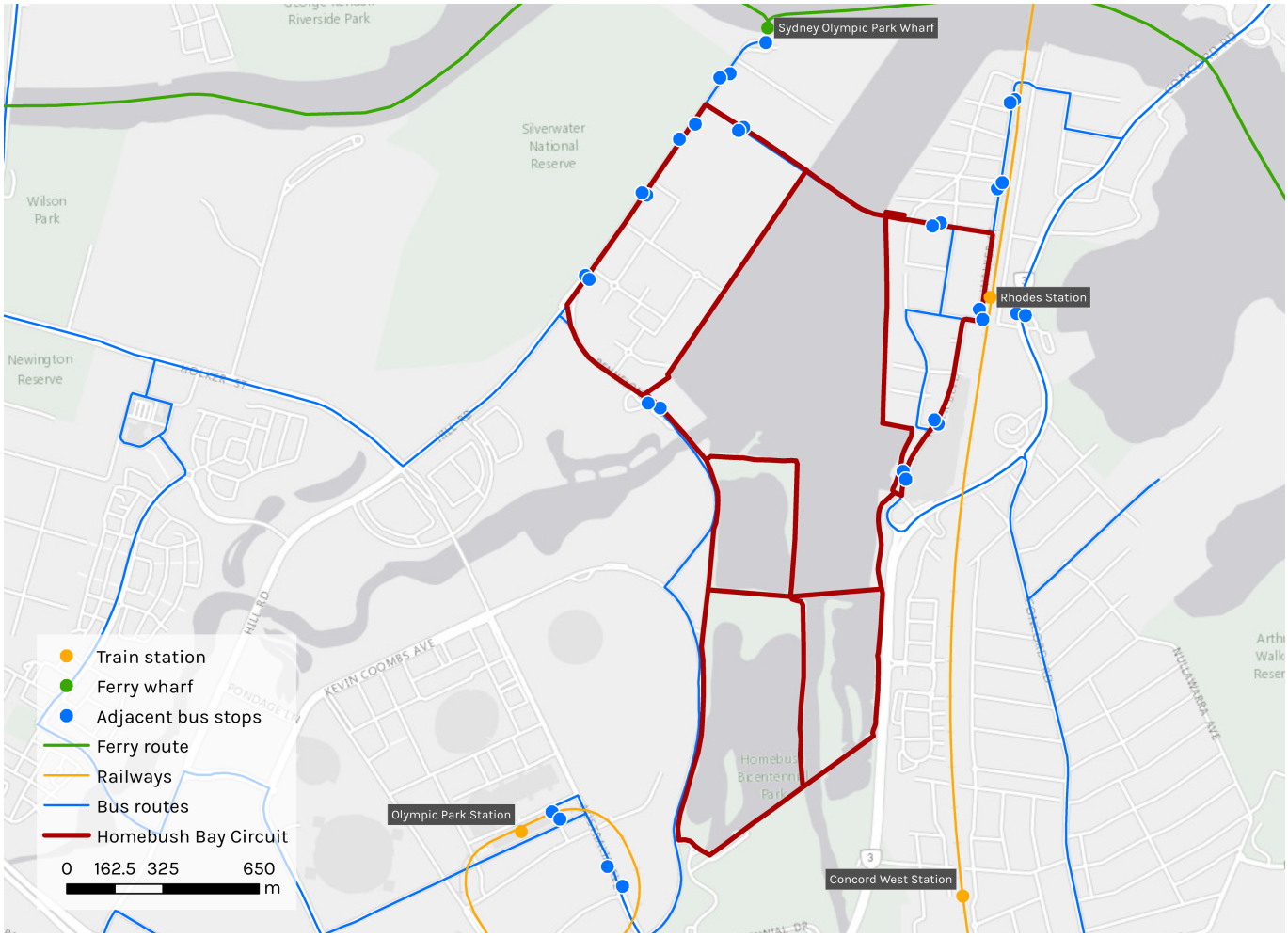


Figure 56 Select train stations, ferry wharf, and bus stops.

12.3 Wayfinding

12.3.1 Vision

The HBC will be legible and users will be able to easily orientate themselves and navigate around the Circuit, discovering key points of interest along the way.

12.3.2 Objectives

1. To create an enticing digital platform to encourage potential visitors to travel to the HBC, from anywhere they might be in the world
2. To apply best practice, innovative digital and physical wayfinding to create a seamless, high quality user experience
3. To provide an engaging interface to enable users to interpret the rich cultural and historic value of the HBC
4. To have a strong, unique brand that clearly identifies the HBC
5. For wayfinding to be accessible to all HBC users

12.3.3 Actions

The following actions will require a coordinated approach involving City of Canada Bay, City of Parramatta and Sydney Olympic Park Authority.

1. To engage a suitably qualified branding consultant to develop a brand identity and logo for the HBC with consideration of the following factors:
    a. The HBC logo should be easily recognisable at different scales and distances
    b. The HBC logo should be able to be represented in different colours as well as monotone
    c. The HBC logo should embody the physical and cultural characteristics of Homebush Bay
    d. Typeface used in HBC branding to be sans-serif font without pronounced variation in stroke width, to enhance legibility
    e. Typeface used in HBC branding to not be excessively thin, with an appropriate stroke width-to-height ratio (e.g. between 1:5 and 1:10)
    f. For text size on signs to be determined based on ideal viewing distance of each sign at each location
    g. For the height of the capital letter X (Cap X-height) to be used instead of the point size of the font
    h. Avoid all-upper-case text (reduces readability)
    i. For signage to contrast light letters on a dark background, or vice versa
    j. For legible pictograms to be included in the brand identity toolkit
2. To have a digital platform which is accessible from computers and mobile devices (both through a mobile website and application)
3. For the digital platform to follow the principles of progressive disclosure (see Section 8.4)
4. To apply the wayfinding strategy principles as outlined in Section 8 to the production and implementation of wayfinding
5. To install physical wayfinding as shown in Figure 57 and described in Appendix 2.
6. To develop and maintain a database of locations near the HBC, as shown in Figure 58, and Appendix 1 for the names of the numbers used in Figure 58.
7. For physical wayfinding signage to have NFC and QR tags attached, which allow users to digitally engage on their own mobile devise (either through a mobile website or app)
8. To locate NFC and QR tags adjacent to culturally or historically significant objects, allowing for digital engagement and interpretation
9. To install digital kiosks at Sydney Olympic Park Station, Sydney Olympic Park Ferry Wharf, Rhodes Station, Rhodes Waterside Shopping Centre, and in Bicentennial Park

10. To provide hard copy maps on location and distributed to shops and community services in the region

11. To investigate the potential for installing physical map production and dispensing machines (such as that shown in Figure 59).

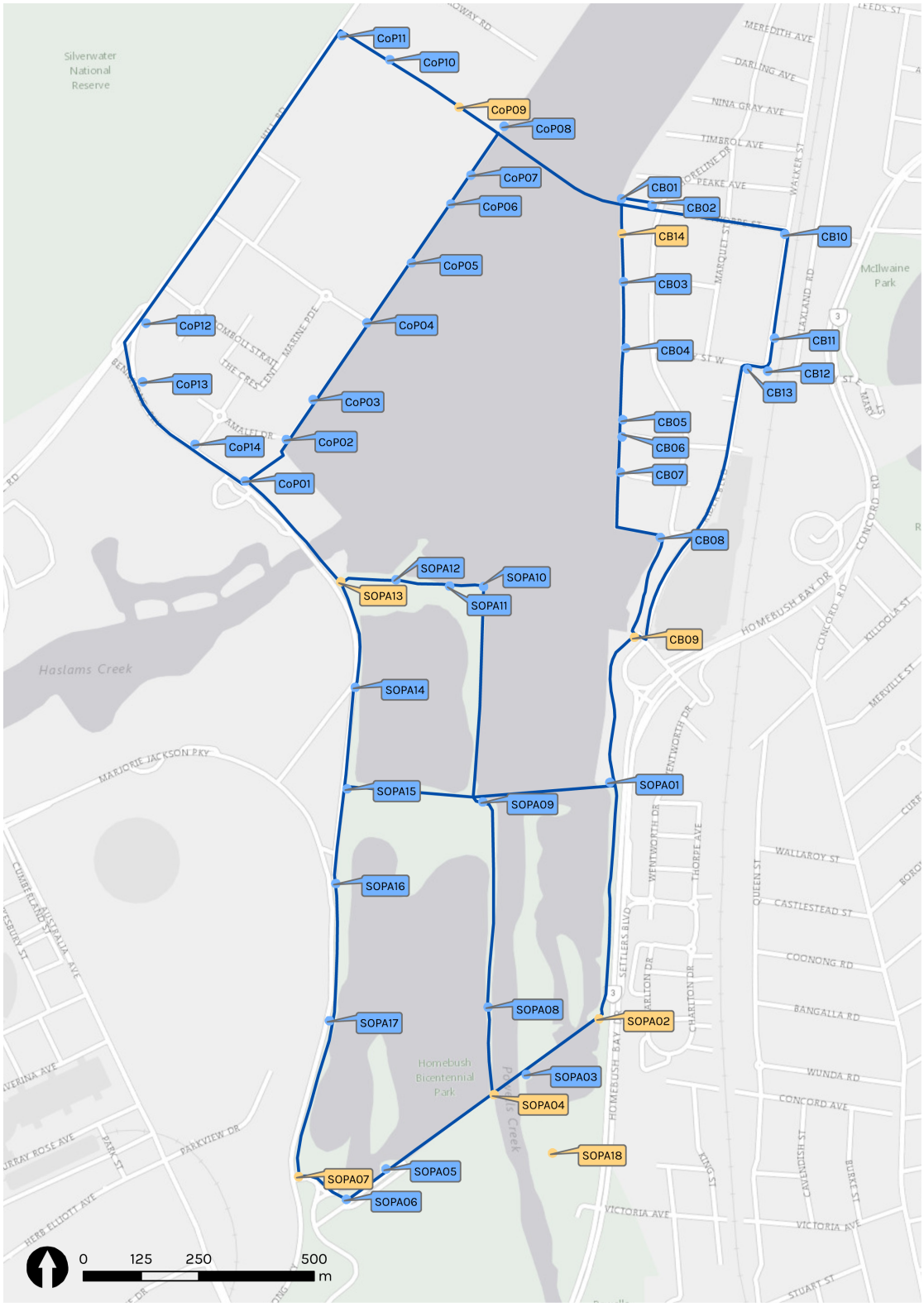


Figure 57 Physical wayfinding locations

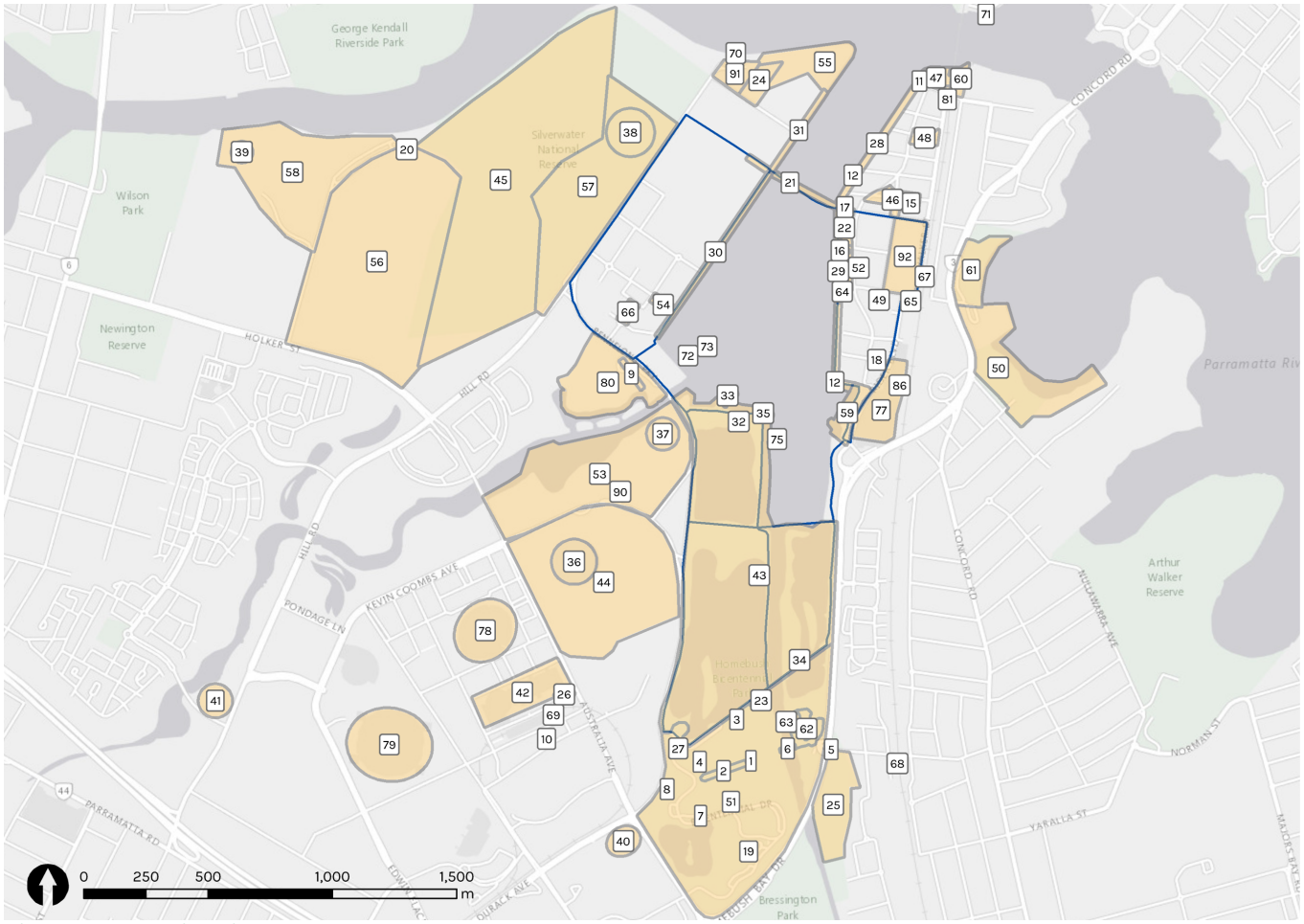


Figure 58 Destinations relevant to HBC users

NB: See Appendix 1 for names of numbers destinations.

Figure 59 Tourist map production and dispenser, The Netherlands.

12.4 Public Art

Public art describes art practice that is part of the public experience of built and natural environments. It can include sculpture, environmental art, the integration of art and architectural design, installations, lighting works, new media and outdoor performance. Where there is artist involvement, customised design is also included in the broader definition of public art and may include artist designed street furniture, decorative paving, lighting treatments, signage, and glasswork. Public artworks are usually site specific and may celebrate the distinctiveness of the environment, local heritage, cultural identity, the energy of urban spaces or other themes relevant to people and place. Artworks may be of a significant scale and define a locality or be intimately integrated into urban elements.

The HBC currently has numerous public artworks, as shown in Figure 60 and listed in Table 1. These artworks enhance the area, providing visual interest, linking to the cultural identity of the area, and providing spatial awareness that helps wayfinding. There is scope to add to this existing catalogue of public artwork, further enhancing Homebush Bay and the user experience.

12.4.1 Vision

For the HBC to have interesting and culturally significant public artworks which enhances the amenity; sense of place; and legibility of Homebush Bay.

12.4.2 Objectives

1. For public artworks to enhance the sense of space and place of Homebush Bay.
2. For public artworks to complement wayfinding by increase legibility and spatial awareness of the HBC.
3. For public artworks to reflect Homebush Bay's culture and heritage, including:
    - Indigenous heritage;
    - The Parramatta River, Homebush Bay and the natural environment;
    - Colonial heritage;
    - Industrial heritage;
    - Remediation and rebuilding of the land;
    - The emerging built form;
    - An intercultural community
4. For public art to engage with the waterfront where appropriate.
5. For public art to be responsive in place, space, and size to its context and surrounds.
6. Public art should be of high design quality, using sustainable materials where possible.
7. For the provision of public art to be consistent with relevant local government policies.
8. For public art to enhance the legibility of Homebush Bay by providing reference points.

12.4.3 Actions

1. To enhance the HBC through the provision for public art at key locations (suggested locations are shown in Figure 60).
2. To consult the local community, and communities, about potential locations and designs of public art in Homebush Bay.
3. To engage the Aboriginal community about the cultural appropriateness, and potential Aboriginal desire, to celebrate Homebush Bay's rich Aboriginal heritage through public art.
4. To engage local artists to produce public artworks responsive to Homebush Bay.

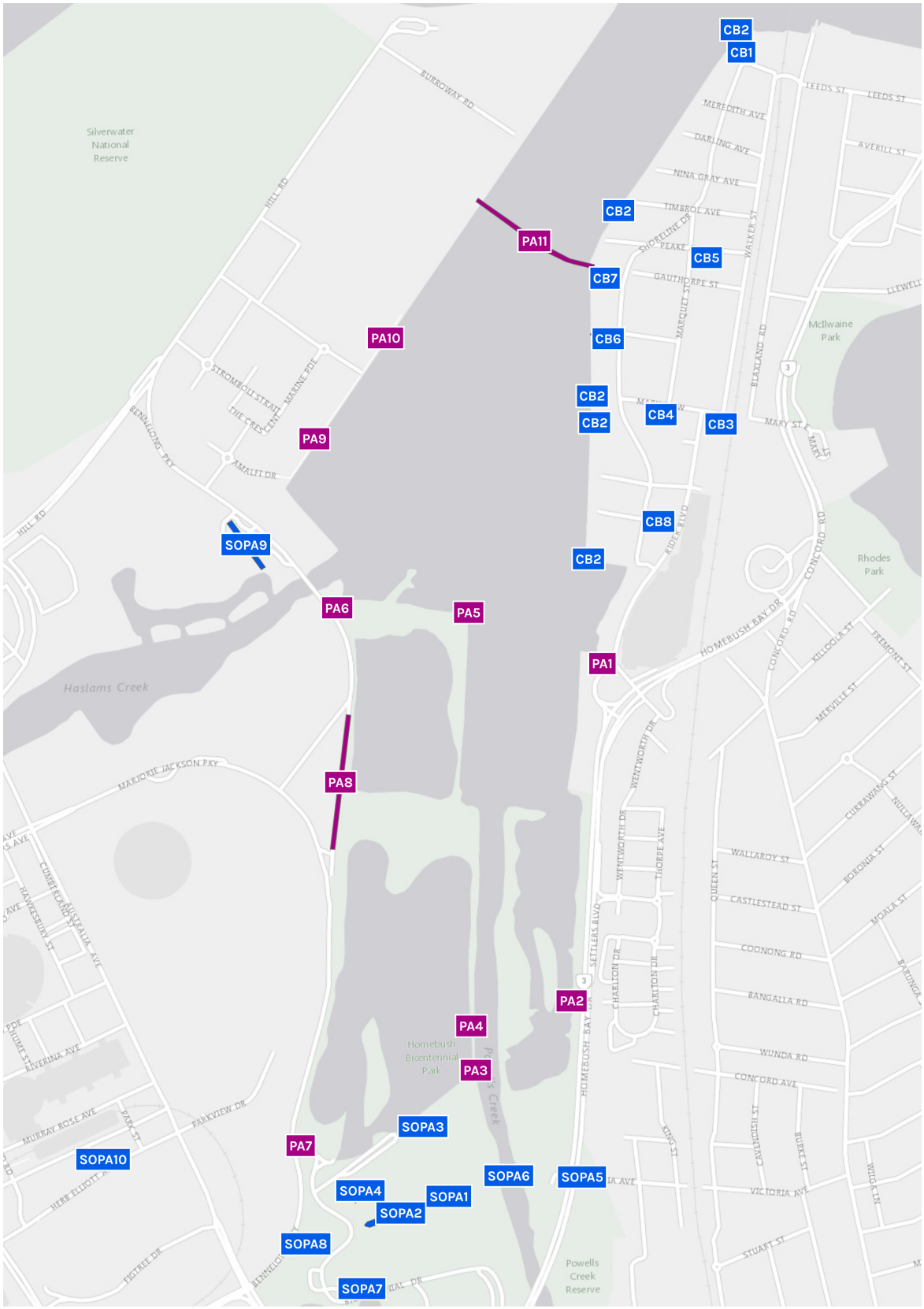


Figure 60 Existing public art surrounding Homebush Bay (blue)

Note: Potential suggested locations marked in purple.

Figure 60 reference	Artwork	Location
CB1	Mill Park Art - Jane Cavanaugh	Mill Park, Rhodes
CB2	Cartwheeling Youngsters - Caroline Rothwell	The Corso, Rhodes
CB2	Cartwheeling Youngsters - Caroline Rothwell	The Corso, Rhodes
CB2	Cartwheeling Youngsters - Caroline Rothwell	The Corso, Rhodes
CB2	Cartwheeling Youngsters - Caroline Rothwell	The Corso, Rhodes
CB2	Cartwheeling Youngsters - Caroline Rothwell	The Corso, Rhodes
CB2	Cartwheeling Youngsters - Caroline Rothwell	The Corso, Rhodes
CB3	Cumulus - Stuart Green	Union Square, Rhodes
CB4	POPP Table Tennis Table - Mulga the Artist	Peg Paterson Park, Rhodes
CB5	Mullet Feast and Wangal Wall - Jason Wing	Phoenix Park, Rhodes
CB6	Aqueous - Emma Anne	Shoreline Drive, Rhodes
CB7	In Motion - Brook Andrew	The Connection, Rhodes
CB8	Wonderwalk - Particle	Lewis Avenue, Rhodes
SOPA1	Treillage Tower	Bicentennial Park
SOPA2	Bicentennial Park Water Feature	Bicentennial Park
SOPA3	Sundial	Bicentennial Park
SOPA4	Peace Monument	Bicentennial Park
SOPA5	Obelisks	Bicentennial Park
SOPA6	Powell's Creek Bridge	Bicentennial Park
SOPA7	Migration	Bicentennial Park
SOPA8	Cyrus the Great	Bicentennial Park
SOPA9	Pole Forest	SOP Archers, Bennelong Parkway, Sydney Olympic Park
SOPA10	Discobolus	Herb Elliot Avenue, Sydney Olympic Park

Table 1 Current public artworks and locations

Figure 60 reference	Location for potential public art
PA1	Northern entrance to Bicentennial Park
PA2	Bicentennial Park junction
PA3	Entry to Badu Mangroves
PA4	Badu Mangroves, boardwalk
PA5	Badu Mangroves, lookout
PA6	Entry to Badu Mangroves
PA7	Intersection of Bennelong Parkway and Bicentennial Drive
PA8	Disused section of Bennelong Parkway
PA9	Strombol Square at The Promenade
PA10	Baywater Drive at The Promenade
PA11	Bennelong Bridge

Table 2 Potential public artwork locations

12.5 Lighting

Public lighting increases safety and opportunities for passive surveillance of public spaces. The number of people using the HBC will increase as residential populations around Homebush Bay grow. This will lead to more people using the HBC after dark. Community consultation showed there is a strong desire for the HBC to be lit at night. Further, a night time lighting assessment of the HBC area was undertaken. Owing to the environmentally sensitive nature of the wetland areas that will form part of the HBC, there may be instances in which no, or limited lighting will be appropriate.

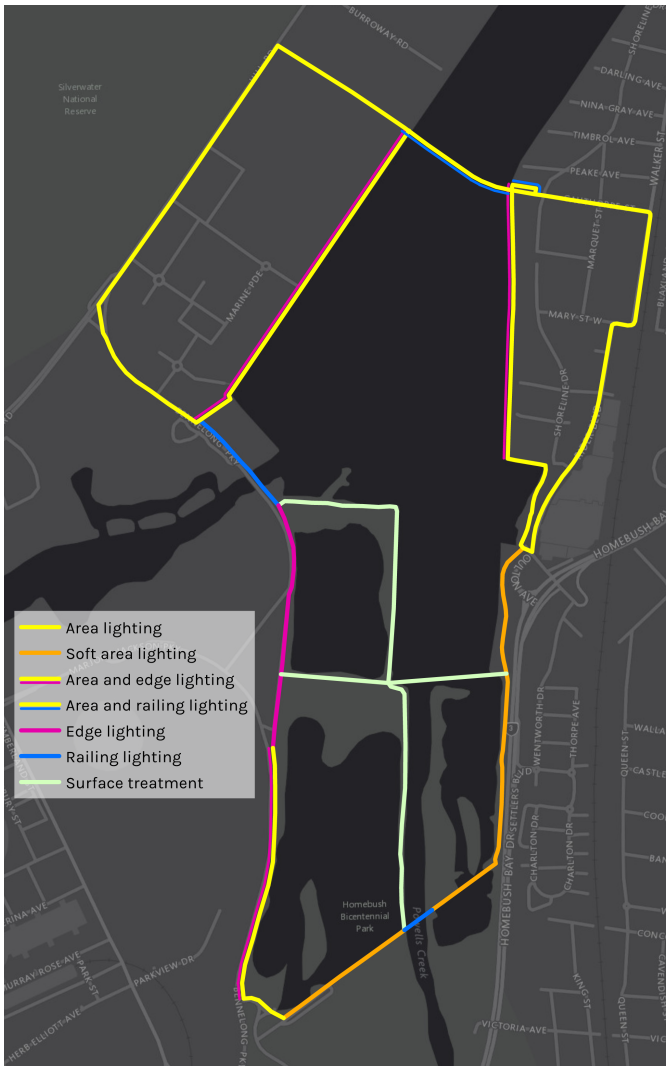


Figure 61 Desired lighting outcomes.

The map shown in Figure 61 identifies lighting outcomes required to achieve the lighting objectives and ensure the HBC can be enjoyed by a wide range of users after dark. As mentioned previously, the need to be sensitive to the ecology of the area is an important requirement and this has influenced the lighting recommendations illustrated in Figure 61.

A hierarchy of lighting levels ensures the lighting treatment is suitable for the context of the area in which it is located. Key lighting designs are briefly described below:

12.5.1.1 Area lighting

Figure 62 and Figure 63 provide an illustration of area lighting.

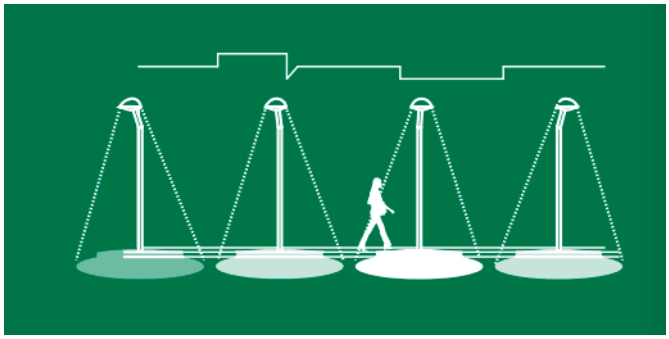


Figure 62 Area lighting

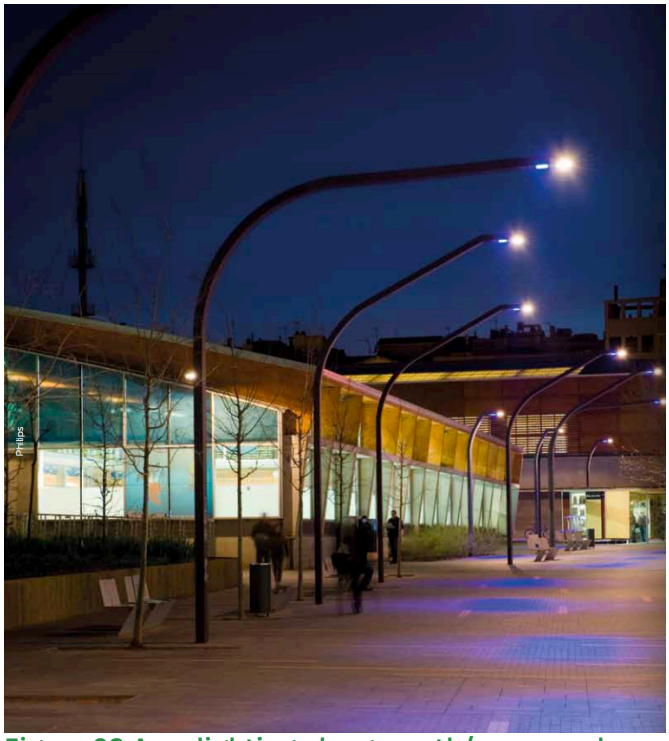


Figure 63 Area lighting along a path/promenade

12.5.1.2 Path edge lighting

The lighting shown in Figure 64 and Figure 65 provide good examples of how low-profile lighting can be used to identify the edge of a path, enhancing its legibility in a visually attractive manner that avoids 'over lighting'.

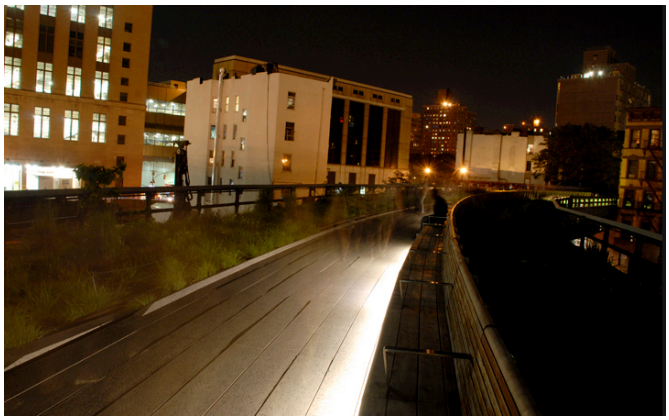


Figure 64 Under seat lighting

Figure 65 Low profile lighting on the underside of street furniture

Figure 66 Lighting on the perimetre of a path

Source: See http://www.coxarchitecture.com.au/project/jim-stynes-bridge/

12.5.1.3 Underside of railing lighting

LED lighting on the underside or railings is an effective way of lighting paths, while minimising infrastructure requirements such as lighting poles and avoiding 'over lighting' (see Figure 67).

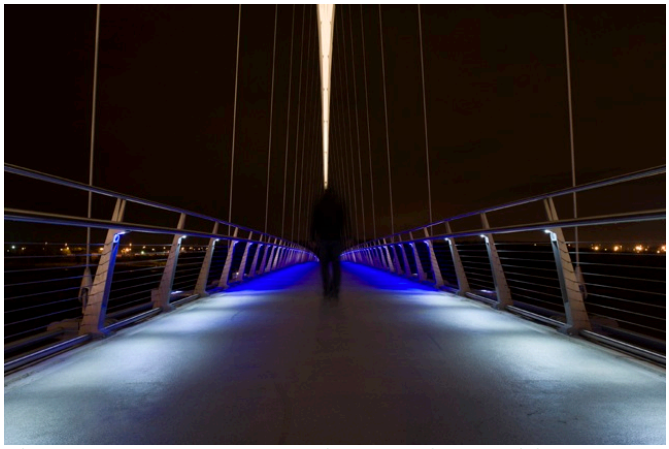


Figure 67 LEDs on underside of bridge railing

12.5.1.4 Path surface treatments

In recent years 'glow-in-the-dark' pavements have become commercially available, and these are considered particularly suitable for the HBC. A number of products can be applied to the surface of a path offering low-level illumination over an entire night. An example of this surface type is shown in Figure 68.

Figure 68 Glow in the dark surface treatment applied to a walking and cycling path

12.5.1.5 Landmark lighting

The lighting of landmarks can help to highlight key points of interest and act as a navigational aide.

12.5.2 Vision

To enhance people's experience of the HBC after dark and respect the ecologically sensitive areas that make up the Circuit.

12.5.3 Objectives

1. To encourage people to enjoy the HBC after dark.
2. To increase real and perceived safety for those using the HBC in the after dark/pre-dawn period.
3. To ensure paths remain legible after dark.
4. To be sensitive to the surrounding environment, to ensure wildlife is not unduly impacted by artificial illumination.
5. To avoid 'over-lighting' in an effort to minimise the impact of 'sky glow'.
6. To minimise energy use in the provision of lighting.
7. To provide a mix of lighting options, appropriate to the context of its position.

12.5.4 Actions

1. To illuminate the Corso with area lighting and edge line indicator lights to define the water front.
2. To illuminate The Promenade with area lighting edge line indicator lights to define the water front.
3. To illuminate Bennelong Bridge with area lighting and lighting on the underside of the railings.
4. To illuminate the bridge over Powells Creek with area lighting and lighting on the underside of the railings.
5. To illuminate the future bridge over Haslams Creek with area lighting and lighting on the underside of the railings.
6. To illuminate public artworks and landmarks at night, where appropriate.
7. To illuminate the following on-road bicycle lanes with area lighting provided by street lighting:
    a. Gauthorpe Street;
    b. Walker Street;
    c. Mary Street;
    d. Rider Boulevard;
    e. Bennelong Parkway (between Haslams Creek and Hill Road)
    f. Hill Road
    g. Footbridge Boulevard.
8. To illuminate Bennelong Parkway (south of Haslams Creek) with lighting on the underside of railings on the east of the shared path, directed west to avoid light spill into the Badu Mangroves.
9. To illuminate HBC paths through Bicentennial Park with soft area lighting.
10. To illuminate all HBC path junctions with area lighting.
11. To investigate for paths through the Badu Mangroves to be illuminated with treatments to the path surface.
12. To have all lighting designs assessed by environmental professionals prior to installation to ensure the design will not cause undue negative impacts on local flora or fauna.

12.6 Street furniture

Street furniture enhances the amenity and attractiveness of an area. Community consultation highlighted the appeal of street furniture, with the community indicating they desired more bins, playgrounds, and other leisure equipment. The need for more bins is especially apparent along the Corso and Bennelong Bridge.

'Smart furniture' is now commercially available, with companies developing internet connected, solar powered furniture that have multiple benefits. Innovations in bin technology now allow for solar powered, self compacting bins, that reduce the frequency of collection and the likelihood of overflow during high demand times. An example of such technology is shown in Figure 69, and discussions with other Local Government Areas have shown smart bins to be effective and reliable assets which lower collection costs.

Figure 69 Solar powered, connected bins

Photo: Big belly

Similar advances have been made in 'smart benches'. Companies are now producing benches that allow for the charging of mobile devices through integrated solar panels. More importantly, these benches can detect the MAC address from smartphones, to provide authorities with counts of the number of pedestrians passing through and whether they are new or returning visitors.

Figure 70 Smart bench

Photo: Soofa

12.6.1 Vision

For the HBC to have high quality street furniture and amenities at regular intervals along the route, enhancing the attractiveness, function, and desirability of the HBC.

12.6.2 Objectives

1. For comfortable seating to be provided, allowing all users a place to rest and relax, while not impacting on movement along paths.
2. For seating to be positioned to take advantage of foreshore views.
3. For litter bins to be provided, where appropriate, to reduce littering, protecting the environment.
4. For recycling and landfill bins to be provided, where appropriate, reducing waste streams to landfill.
5. For the HBC to have 'smart furniture', such as smart bins which can monitor and compact waste, and smart furniture which can count HBC users anonymously and allow users to charge their mobile devices.
6. For appropriate shade structures to be provided in areas of relaxation or congregation.

7. For toilet facilities to be close to all parts of the HBC, and well signed.
8. For water refill stations to be regularly provided, and well signed.

12.6.3 Actions

Some of the following actions may require a coordinated approach involving City of Canada Bay, City of Parramatta and Sydney Olympic Park Authority.

1. To provide recycling bins adjacent to rubbish bins
2. To ensure that there are rubbish bins every 500m (except in the Badu Mangroves)
3. Operate 'smart bins' at heavily used locations across the HBC.
4. To install litter bins at either end of Bennelong Bridge and monitor the Bennelong Bridge for cleanliness; if conditions do not improve, propose the installation of litter bins adjacent to seats on the Bennelong Bridge
5. To provide seating at regular intervals along the Corso and The Promenade (not more than 250m between seats)
6. To provide seating at regular intervals along paths in Bicentennial Park and the Badu mangroves (not more than 500m between seats)
7. To trial the operation of 'smart benches', at roughly every 1,000m, along the shared paths of the HBC.
8. To ensure drinking refill stations are available at the following locations:
    a. Near the Sydney Olympic Park Education Centre
    b. Near the intersection of Bennelong Parkway and Bicentennial Drive
    c. At the southern end of The Promenade
    d. Near the junction between The Promenade and Bennelong Bridge
9. For all new and replaced drinking water fountains to have the ability to fill water bottles and provide drinking water for companion animals.
10. To ensure that seating along Corso and The Promenade is place facing the waterfront, increasing attraction and desirability
11. To avoid placing seating along the Corso path furthest from the waterfront so as to maintain this path's function as a transport route
12. To collaborate with Strata in Wentworth Point to provide playgrounds near or on The Promenade
13. To consult with the community on the installation of outdoor exercise equipment at one or more points along the HBC.

12.7 Environment and sustainability

12.7.1 Vision

For the HBC to be environmentally sensitive and sustainable in development and operation.

12.7.2 Objectives

1. For the HBC to be sustainable
2. To ensure that native flora and fauna are not negatively impacted by the HBC

12.7.3 Actions

1. To control noxious weeds growing in the verges of paths adjacent to the Badu Mangroves
2. To perform an environmental investigation of potential sensitivities of increased human activity in the Badu Mangroves and wetlands, and how best to minimise negative effects.
3. To replace exotic grass such as African Veldt Grass in the Badu Mangroves with native grass species that may have occurred in the locality such as Kangaroo Grass and Basket Grass
4. To further formalise viewing areas at the Wetland Bird Sanctuary to allow bird watching activities away from the shared path
5. To install signage inside the Badu Mangroves alerting users to the presence of birds and recommending that users keep noise to a minimum
6. To use low-light LED sensor lights in environmentally sensitive areas
7. To install furniture and fixtures made from recycled and recyclable materials, wherever possible
8. To use renewable energy for the digital wayfinding platform, including digital kiosks, or offset emission using carbon credits
9. To operate lighting by renewable energy, or offset by carbon credits
10. To use permeable surfaces on pedestrian paths, reducing run off and creating a softer walking environment
11. To implement Water Sensitive Urban Design projects to manage stormwater runoff
12. To use recycled paper and biodegradable inks for all printed materials, including physical wayfinding maps.

12.8 Management

There are a variety of instances that require the implementation of management protocols for the HBC. The HBC may need to be closed during emergencies or natural events (e.g. floods). Similarly, major events may bring large crowds which will require a management plan.

12.8.1 Objectives

1. To ensure the safety of HBC users
3. For HBC users to be alerted of potential dangers
4. For a variety of platforms to be used to disseminate information in emergencies
5. For access to the Badu Mangroves to be restricted during floods/tidal inundation
6. For large crowds to be managed safely.

12.8.2 Actions

1. In the event of an emergency (e.g. inundation or storm surges), the following actions shall be taken:
    a. Council or SOPA rangers to restrict access to affected sections of path (e.g. boom gates at the Badu Mangroves).
    b. For path users to be alerted to alternative routes through signage.
    c. To use the HBC mobile website and/or mobile app to alert active path users to the emergency, path closures, potential dangers, and an advised course of action.
    d. To use the HBC website and social media platforms to alert prospective users to the

emergency, path closures, potential dangers, and an advised course of action.

e. For digital kiosks to alert active and prospective users to the emergency, path closures, potential dangers, and an advised course of action.

f. For links from QR/NFC tags along the HBC to be redirected to pages alerting active users to the emergency, path closures, potential dangers, and an advised course of action.

2. During major events the following actions shall be taken:

   a. For an event management plan to be developed with key stakeholders, including NSW Police, where applicable

   b. For road management procedures to be implemented, where applicable

   c. For event coordinators to be encouraged to have events utilise Bennelong Parkway over the Badu Mangroves (to limit potential environmental damage and make emergency response easier)

   d. For events to be advertised on Council/SOPA websites and social media platforms

   e. For the HBC digital engine to alert potential and active users of the event and possible disruptions

   f. To hold debrief sessions with involved parties following events (use smart furniture to assess pedestrian movement data to inform future crowd manage plans).

13. Implementation

13.1 Future use and development of Homebush Bay Circuit

13.1.1 Introduction

Future development of the Homebush Bay Circuit (HBC) will need to respond to changing community needs and expectations within the context of available resources. Consequently, it is not possible to forecast every activity of development that may occur along the course proposed to create the HBC. The circumstances under which facilities are developed and activities take place in the future will vary as funding becomes available, as management issues arise and as other opportunities emerge that cannot be foreseen during the preparation of the Wayfinding Strategy and Masterplan.

13.1.1.1 Legislative requirements

The land uses and facilities proposed to establish the HBC must be permissible under relevant legislation as the routes include Council owned, Crown land, SOPA land and private lands with covenants.

13.1.1.2 Council owned land

Under the Local Government Act 1993, uses and developments within land categorized as community land must be consistent with the guidelines for categorization and the core objectives of the relevant category.

Leases and licences over community land must follow the requirements of the Local Government Act 1993 for leases, licences and other estates.

Open space categorized as Operational Land also comes under the Local Government Act 1993.

13.1.1.3 Crown land

Crown land must be generally used and managed according to the principles of Crown land management under Section 11 of the Crown Lands Act 1989. Any proposed use, developments and management practices on Crown land must conform to the public purposes for the reserve or dedication of land.

At the time of writing this Wayfinding Strategy and Masterplan, the NSW Government was reviewing legislation that regulates Crown Land. New Crown Lands Legislation is anticipated in 2018.

13.2 Leases and Licences

Leases and licences formalist the use of public land by individuals, groups and organisations.

A lease is typically required where exclusive use or control of part of an open space area is desirable for effective use and management. A lease may also be required in response to the scale of investment in facilities, the necessity for security measures, or where the relationship between a major user and facilities in open space justify such security of tenure.

Licences allow multiple and non-exclusive use of an area. A licence may be required where intermittent or short-term use or control of part of open space is proposed.

13.3 Funding sources

All proposed works are dependent on the availability of funding. Councils and SOPA have limited funds, and as such will rely on external grants and funding from key stakeholder groups including New South Wales State and Australian Governments. It is envisaged that the HBC will be implemented progressively over a fifteen-year period as funds become available.

13.3.1 General

Implementation of the HBC is to be achieved by coordination between project stakeholders. Funding is integral to implementing the proposal and funding arrangements will need to address recurrent costs of management and maintenance, together with capital costs for new facilities or upgrading works. The project stakeholders currently fund management and maintenance costs through a variety of sources including annual budget allocations, capital funding and development contributions and grants.

Project funding for construction of new facilities is generally determined through an annual budgeting process, but special projects may be partly funding through government grant allocations, which may involve matching funding from project stakeholders.

13.3.2 Developer contributions

Project stakeholders currently enter into planning agreements, or levy contributions or works in kind from developers who receive approval for development projects. These funds are used to contribute to the cost of upgrading facilities to meet the increased demand for facilities created by the new development.

13.3.3 Environmental levy

Funds raised from environmental levies may be used for open space projects. A portion of these funds could be allocated to projects associated with the HBC.

13.3.4 Partnerships

Opportunities exist for the development of partnerships with residents and interested individuals in relation to improvements and ongoing management of open space.

13.3.5 Rental income

Income from open space is primarily generated by lease and licence fees, as well as application fees for approved functions and events.

13.3.6 Grants

A number of State and Commonwealth grants are available to assist capital works funding. While not exhaustive, the following list provides and an indication of the range of available grant programmes through which improvements that are consistent with this plan could be funded.

Grant	Organisation	Purpose
Public Reserves Management Fund	Crown Lands Division	Assists Crown Reserve Trusts in the management, planning and development of Crown reserves.
Metropolitan Greenspace Program	Department of Planning and Infrastructure	Planning and improvement of regionally significant open space in Sydney.
NSW Environmental Trust	Office of Environment and Heritage	Grant programs include: • Urban sustainability program – protect and restore the urban environment. • Environmental restoration and rehabilitation program.
Heritage Grants Program	NSW Heritage Branch	Grants are available for: • Historical research and local archive projects. • Aboriginal heritage projects. • Works Projects. • On-ground interpretation projects. • Conservation management documents. • Local government heritage management.
Smart Cities and Suburbs Program	Department of Prime Minister and Cabinet	To improve cities and assist in development through the innovative use of smart technologies.

13.4 Implementation

Implementation of the HBC is to be monitored annually through the preparation of annual

performance standards and capital works program reviews. Performance standards and works programs for administration, maintenance and upgrading works are to be revised each year to meet allocated budgets and works priorities determined in stakeholder's management plans.

Funding for establishment of the HBC will be sought from a range of government, council, corporate and community sources on an ongoing basis.

13.5 Review

The Wayfinding Strategy and Masterplan will require regular review to ensure that it continues to reflect current community expectations and changing circumstances. It is intended to be reviewed and updated within five years, and a major review carried out by 2025.

The Wayfinding Strategy and Masterplan is to be updated to reflect changing community, Council and SOPA priorities and issues, which taking account of changes in funding, legislation or Ministerial directions, and to recognise completed actions. Review of this Wayfinding Strategy and Masterplan should also take into account the outcomes of periodic reviews of Councils' and SOPA's strategic operational plans.

14. Appendix 1

The following table relates to Figure 58 and denotes the names of the destinations shown as numbers in Figure 58.

Id	Destination	Destination Type
1	Treillage Tower	Artwork
2	Bicentennial Park Water Feature	Artwork
3	Sundial	Artwork
4	Peace Monument	Artwork
5	Obelisks	Artwork
6	Powell's Creek Bridge	Artwork
7	Migration	Artwork
8	Cyrus the Great	Artwork
9	Pole Forest	Artwork
10	Discobolus	Artwork
11	Mill Park Art - Jane Cavanaugh	Artwork
12	Cartwheeling Youngsters - Caroline Rothwell	Artwork
13	Cumulus - Stuart Green	Artwork
14	POPP Table Tennis Table - Mulga the Artist	Artwork
15	Mullet Feast and Wangal Wall - Jason Wing	Artwork
16	Aqueous - Emma Anne	Artwork
17	In Motion - Brook Andrew	Artwork
18	Wonderwalk - Particle	Artwork
19	Bike Hire @ Sydney Olympic Park - Bicentennial	Bike hire
20	Bike Hire @ Sydney Olympic Park - Blaxland	Bike hire
21	Bennelong Bridge	Bridge
22	The Connection	Community centre
23	Sydney Olympic Park Education Centre	Education
24	Wentworth Point School	Education
25	Victoria Avenue Public School	Education
26	Western Sydney University - Sydney Olympic Park	Education
27	Sydney Olympic Park Outdoor Gym	Exercise equipment
28	Corso - non-HBC	Foreshore
29	Corso - HBC	Foreshore
30	The Promenade - HBC	Foreshore
31	The Promenade - non-HBC	Foreshore
32	Badu Mangroves - Bird Hide	Lookout
33	Badu Mangroves - Shipwreck look out	Lookout
34	Lookout	Lookout
35	Lookout	Lookout

Id	Destination	Destination Type
36	The Brickpit Ring Walk	Lookout
37	Bay Marker	Marker
38	Silverwater Marker	Marker
39	River Marker	Marker
40	Bicentennial Marker	Marker
41	Haslam's Marker	Marker
42	Sydney Showgrounds	Multipurpose facility
43	Badu Mangroves	Nature reserve
44	The Brickpit	Nature reserve
45	Newington Nature Reserve Forest	Nature reserve
46	Phoenix Park	Park
47	Mill Park	Park
48	Hoskins Reserve	Park
49	Peg Paterson Park	Park
50	Brays Bay Reserve	Park
51	Bicentennial Park	Park
52	Rhodes Foreshore Park	Park
53	Wentworth Common	Park
54	Strombol Square	Park
55	Peninsula Park	Park
56	Newington Armoury	Park
57	Woo-la-ra	Park
58	Blaxland Riverside Park	Park
59	Rhodes Waterside Park	Park
60	John Whitton Bridge Park	Park
61	McIlwaine Park	Park
62	Bicentennial Park - Picnic and Playground	Picnic area
63	Bicentennial Park Playground	Playground
64	Rhodes Foreshore Park playground	Playground
65	Union Square	Plaza
66	The Piazza	Plaza
67	Rhodes Railway Station	Public Transport
68	Concord West Railway Station	Public Transport
69	Olympic Park Railway Station	Public Transport
70	Sydney Olympic Park Ferry Wharf	Public Transport
71	Meadowbank Ferry Wharf	Public Transport
72	Shipwreck	Shipwreck
73	Shipwreck	Shipwreck

Id	Destination	Destination Type
74	Shipwreck	Shipwreck
75	Shipwreck	Shipwreck
76	Shipwreck	Shipwreck
77	Rhodes Waterside Shopping Centre	Shopping centre
78	Sydney Showground Stadium	Sport facility
79	Stadium Australia	Sport facility
80	Archery Centre	Sport facility
81	Mill Park toilet	Toilet
82	The Connection toilet	Toilet
83	Sydney Olympic Park Ferry Wharf toilet	Toilet
84	Bicentennial Park - Picnic area toilet	Toilet
85	Rhodes Railway Station toilet	Toilet
86	Rhodes Waterside Shopping Centre	Toilet
87	Concord West Railway Station toilet	Toilet
88	Olympic Park Railway Station toilet	Toilet
89	Bicentennial Park toilet	Toilet
90	Wentworth Common toilet (approximate location)	Toilet
91	Activity centre	Town centre
92	Station Precinct	Town centre

15. Appendix 2

The following tables provides a description of the numbers used to identify physical wayfinding signage shown in Figure 57.

Asset ID	Asset type	Location	Fingerboard direction	Design	Destination	Distance (m)	Walking time (at 4kmh)	Cycling time (at 16kmh)	Pictographs
CB01	Pole	Corso and Bennelong Bridge	12oclock	CB	Corso	N/A	N/A	N/A	Shared path
			12oclock	CB	Mill Park	700	11	3	Toilet; Playground
			12oclock	CB / Bike route	To Parramatta Valley Cycleway	1800	27	7	Shared path
			3oclock	HBC	Rhodes, Union Square	600	9	3	Food and drink
			3oclock	HBC	To Bennelong Bridge	100	2	1	Shared path
			3oclock	HBC	To Gauthorpe Street	70	2	1	Cycling route
			3oclock	HBC	Phoenix Park	230	4	1	Toilet; Playground
			3oclock	HBC	Rhodes Station	600	9	3	Train; Bus; Toilet
			6oclock	HBC	Corso	N/A	N/A	N/A	Shared path
CB02	Pole	Bennelong Bridge and Shoreline Drive	12oclock	CB	Shoreline Drive	N/A	N/A	N/A	Shared path
			3oclock	HBC	Gauthorpe Street	100	2	1	Cycling route
			3oclock	HBC	Rhodes, Union Square	520	8	2	Food and drink
			3oclock	HBC	Phoenix Park	170	3	1	Toilet; Playground
			3oclock	HBC	Rhodes Station	500	8	2	Train; Bus; Toilet
			9oclock (up)	HBC	Bennelong Bridge	N/A	N/A	N/A	Shared path
			9oclock (up)	HBC	Wentworth Point	400	6	2	
			9oclock (down)	HBC	To Corso	70	2	1	Shared path

Asset ID	Asset type	Location	Fingerboard direction	Design	Destination	Distance (m)	Walking time (at 4kmh)	Cycling time (at 16kmh)	Pictographs
			6oclock	HBC	The Connection	100	2	1	Toilet; Playground; Library; Food and drink; Water fountain
CB03	Pole	Corso and Annie Legget Promenade	12oclock	HBC	Corso	N/A	N/A	N/A	Shared path
			12oclock	HBC	The Connection	50	1	1	Toilet; Playground; Library; Food and drink; Water fountain
			3oclock	CB	Annie Leggett Promenade	N/A	N/A	N/A	Shared path
			6oclock	HBC	Corso	N/A	N/A	N/A	Shared path
CB04	Pole	Corso and Mary Street	12oclock	HBC	Corso	N/A	N/A	N/A	Shared path
			12oclock	HBC	The Connection	250	4	1	Toilet; Playground; Library; Food and drink; Water fountain
			3oclock	HBC	Mary Street	N/A	N/A	N/A	Walking route; Cycling route
			3oclock	HBC	Rhodes, Union Square	300	5	2	Food and drink
			3oclock	HBC	Rhodes Station	400	6	2	Train; Bus; Toilet
			3oclock	HBC	Peg Paterson Park	170	3	1	Playground
CB05	Pole	Corso and Sevier Avenue	12oclock	HBC	Corso	N/A	N/A	N/A	Shared path
			2oclock	CB	Sevier Avenue	N/A	N/A	N/A	
			6oclock	HBC	Corso	N/A	N/A	N/A	Shared path

Asset ID	Asset type	Location	Fingerboard direction	Design	Destination	Distance (m)	Walking time (at 4kmh)	Cycling time (at 16kmh)	Pictographs
CB06	Pole	Corso and Jean Wailes Avenue	12oclock	HBC	Corso	N/A	N/A	N/A	Shared path
			7oclock	CB	Jean Wailes Avenue	N/A	N/A	N/A	
			6oclock	HBC	Corso	N/A	N/A	N/A	Shared path
CB07	Pole	Corso and Lewis Avenue	12oclock	HBC	Corso	N/A	N/A	N/A	Shared path
			7oclock	CB	Lewis Avenue	N/A	N/A	N/A	
			6oclock	HBC	Corso	N/A	N/A	N/A	Shared path
CB08	Pole	Corso and Shoreline Drive	9oclock	HBC	Corso	N/A	N/A	N/A	Shared path
			3oclock	HBC	To Rider Boulevard	50	1	1	Cycling route
			3oclock	HBC	Rhodes, Union Square	450	7	2	Food and drink
			3oclock	HBC	Rhodes Station	600	9	3	Train; Bus; Toilet
			3oclock	HBC	Rhodes Waterside Shopping Centre	100	2	1	Toilets; Shoping/retail ; Food and drink
			3oclock	HBC	Rhodes Station (via Rider Boulevard)	600	9	3	Train; Bus; Toilet
			6oclock	HBC	Rhodes Waterside Park	N/A	N/A	N/A	Shared path
			6oclock	HBC	Sydney Olympic Park	N/A	N/A	N/A	Shared path
CB09	Map board	Oulton Avenue and Rider Boulevard		HBC					
CB10	Pole	Walker Street and Gauthorpe Street	10oclock	HBC	Gauthorpe Street	N/A	N/A	N/A	Cycling route
			10oclock	HBC	To Bennelong Bridge	300	5	2	Shared path
			10oclock	HBC	To Corso	380	6	2	Shared path

Asset ID	Asset type	Location	Fingerboard direction	Design	Destination	Distance (m)	Walking time (at 4kmh)	Cycling time (at 16kmh)	Pictographs
			10oclock	HBC	The Connection	350	6	2	Toilet; Playground; Library; Food and drink; Water fountain
			10oclock	HBC	Phoenix Park	130	2	1	Toilet; Playground
			1oclock	CB	Cycling route MR5 signage	N/A	N/A	N/A	
			1oclock	CB / Bike route	To Parramatta Valley Cycleway	1600	24	6	Shared path
			7oclock	HBC	Walker Street	N/A	N/A	N/A	Cycling route
			7oclock	HBC	Rhodes Station	230	4	1	Train; Bus; Toilet
			7oclock	HBC	Rhodes, Union Square	380	6	2	Food and drink
CB11	Pole	Rhodes Station	N/A	HBC	Rhodes Station	N/A	N/A	N/A	Train; Bus; Toilet
			1oclock	HBC	Walker Street	N/A	N/A	N/A	Cycling route
			4oclock	CB	McIlwaine Park	200	3	1	Toilets; BBQs; Picnic area; Playground
			4oclock	CB	Brays Bay Reserve	200	3	1	
			4oclock	CB	To Kokoda Track Memorial Walkway	200	3	1	Walking route
			7oclock	HBC	Rhodes, Union Square	150	3	1	Food and drink
CB12	Pole	Mary Street and Walker Street	1oclock	HBC	Walker Street	N/A	N/A	N/A	Cycling route
			1oclock	HBC	Rhodes Station	80	2	1	Train; Bus; Toilet
			7oclock	CB	Cycling route MR5 signage	N/A	N/A	N/A	Shared path

Asset ID	Asset type	Location	Fingerboard direction	Design	Destination	Distance (m)	Walking time (at 4kmh)	Cycling time (at 16kmh)	Pictographs
			10oclock	HBC	Mary Street	N/A	N/A	N/A	Walking route; Cycling route
CB13	Pole	Mary Street and Rider Boulevard	N/A	HBC	Rhodes, Union Square	N/A	N/A	N/A	Food and drink
			4oclock	HBC	Mary Street	N/A	N/A	N/A	Walking route; Cycling route
			4oclock	HBC	Rhodes Station	130	2	1	Train; Bus; Toilet
			7oclock	HBC	Rider Boulevard	N/A	N/A	N/A	Cycling route
			10oclock	HBC	Mary Street	N/A	N/A	N/A	Walking route; Cycling route
			10oclock	HBC	To Corso	270	5	2	Shared path
			10oclock	HBC	The Connection	500	8	2	Toilet; Playground; Library; Food and drink; Water fountain
			10oclock	HBC	Peg Paterson Park	100	2	1	Playground
							0	0	
CB14	Map board	The Connection		HBC					
SOPA01	Pole	Shared path and potential shared path	12oclock	HBC	Rhodes	N/A	N/A	N/A	Shared path
			6oclock	HBC	Sydney Olympic Park	N/A	N/A	N/A	Shared path
			6oclock	HBC	Bicentennial Park	900	14	4	Toilets; BBQs; Picnic area; Playground
			9oclock	HBC	Future east west link through Badu Mangroves	TBD	TBD	TBD	TBD
SOPA02	Map board	Shared path junction		HBC					

Asset ID	Asset type	Location	Fingerboard direction	Design	Destination	Distance (m)	Walking time (at 4kmh)	Cycling time (at 16kmh)	Pictographs
SOPA03	Pole	Shared path junction	1oclock	HBC	Rhodes	N/A	N/A	N/A	Shared path
			6oclock	SOPA	Picnic area	200	3	1	Toilets; BBQs; Picnic area; Playground
			6oclock	SOPA	Concord West Station	750	12	3	Train; Toilet
			8oclock	HBC	To Badu Mangroves	100	2	1	Shared path
			8oclock	HBC	Sydney Olympic Park	TBD	TBD	TBD	Train; Bus; Toilet; Shops (retail); Food and drink; Stadium
			8oclock	HBC	Sydney Olympic Park Education Centre	100	2	1	Toilets
SOPA04	Map board	Badu Mangrove entry south		HBC					
SOPA05	Pole	Badu Mangrove boardwalk south	12oclock	SOPA	Badu Mangroves Boardwalk	N/A	N/A	N/A	Walking route
			1oclock	HBC	To Badu Mangroves	380	6	2	Shared path
			1oclock	HBC	Sydney Olympic Park Education Centre	380	6	2	Toilets
			8oclock	HBC	Sydney Olympic Park	TBD	TBD	TBD	Train; Bus; Toilet; Shops (retail); Food and drink; Stadium
			8oclock	HBC	To Bennelong Parkway	250	4	1	Walking route; Cycling route
SOPA06	Pole	Shared path junction	1oclock	HBC	Rhodes	N/A	N/A	N/A	Shared path

Asset ID	Asset type	Location	Fingerboard direction	Design	Destination	Distance (m)	Walking time (at 4kmh)	Cycling time (at 16kmh)	Pictographs
			1oclock	HBC	Sydney Olympic Park Education Centre	250	4	1	Toilets
			10oclock	HBC	Sydney Olympic Park	TBD	TBD	TBD	Train; Bus; Toilet; Shops (retail); Food and drink; Stadium
			10oclock	HBC	To Bennelong Parkway	130	2	1	Walking route; Cycling route
SOPA07	Map board	Bicentennial Drive and Bennelong Parkway		HBC					
SOPA08	Pole	Badu Mangrove boardwalk east	12oclock	HBC	Badu Mangroves	N/A	N/A	N/A	Shared path
			6oclock	HBC	Badu Mangroves	N/A	N/A	N/A	Shared path
			9oclock	SOPA	Badu Mangroves Boardwalk	N/A	N/A	N/A	Walking route
SOPA09	Pole	Badu Mangrove midpoint	12oclock	HBC	Badu Mangroves	N/A	N/A	N/A	Shared path
			3oclock	HBC	Future east west link through Badu Mangroves	TBD	TBD	TBD	TBD
			6oclock	HBC	Badu Mangroves	N/A	N/A	N/A	Shared path
			9oclock	HBC	Future east west link through Badu Mangroves	TBD	TBD	TBD	TBD
SOPA10	Pole	Badu Mangrove northern lookout	N/A	HBC	Lookout over Homebush Bay	N/A	N/A	N/A	Lookout
			6oclock	HBC	Badu Mangroves	N/A	N/A	N/A	Shared path
			9oclock	HBC	Badu Mangroves	N/A	N/A	N/A	Shared path
			9oclock	HBC	Bird hide	100	2	1	Lookout
			9oclock	HBC	Shipwreck Lookout	250	4	1	Lookout

Asset ID	Asset type	Location	Fingerboard direction	Design	Destination	Distance (m)	Walking time (at 4kmh)	Cycling time (at 16kmh)	Pictographs
SOPA11	Pole	Badu Mangrove bird hide path	3oclock	HBC	Badu Mangroves	N/A	N/A	N/A	Shared path
			3oclock	HBC	Lookout over Homebush Bay	50	1	1	Lookout
			6oclock	HBC	Bird hide	N/A	N/A	N/A	Lookout
			9oclock	HBC	Badu Mangroves	N/A	N/A	N/A	Shared path
			9oclock	HBC	Shipwreck Lookout	200	3	1	Lookout
SOPA12	Pole	Badu Mangrove shipwreck lookout north	12oclock	HBC	Shipwreck Lookout	N/A	N/A	N/A	Lookout
			3oclock	HBC	Badu Mangroves	N/A	N/A	N/A	Shared path
			3oclock	HBC	Bird hide	200	3	1	Lookout
			3oclock	HBC	Lookout over Homebush Bay	200	3	1	Lookout
			9oclock	HBC	Badu Mangroves	N/A	N/A	N/A	Shared path
SOPA13	Map board	Badu Mangrove entry north		HBC					
SOPA14	Pole	Bennelong Parkway disused section northern	12oclock	HBC	Bennelong Parkway	N/A	N/A	N/A	Walking route; Cycling route
			12oclock	HBC	Wentworth Point	N/A	N/A	N/A	Ferry; Bus; Toilet; Shops (retail); Food and drink
			6oclock	HBC	Bennelong Parkway	N/A	N/A	N/A	Walking route; Cycling route
			6oclock	HBC	Sydney Olympic Park	1400	21	6	Train; Bus; Toilet; Shops (retail); Food and drink; Stadium
			8oclock	CoP / SOPA / Bike route	Bennelong Parkway	N/A	N/A	N/A	

Asset ID	Asset type	Location	Fingerboard direction	Design	Destination	Distance (m)	Walking time (at 4kmh)	Cycling time (at 16kmh)	Pictographs
SOPA15	Pole	Bennelong Parkway disused section middle	12oclock	HBC	Bennelong Parkway	N/A	N/A	N/A	Walking route; Cycling route
			12oclock	HBC	Wentworth Point	N/A	N/A	N/A	Ferry; Bus; Toilet; Shops (retail); Food and drink
			3oclock	HBC	Future east west link through Badu Mangroves	TBD	TBD	TBD	TBD
			6oclock	HBC	Bennelong Parkway	N/A	N/A	N/A	Walking route; Cycling route
			6oclock	HBC	Sydney Olympic Park	1200	18	5	Train; Bus; Toilet; Shops (retail); Food and drink; Stadium
SOPA16	Pole	Bennelong Parkway disused section southern	12oclock	HBC	Bennelong Parkway	N/A	N/A	N/A	Walking route; Cycling route
			12oclock	HBC	Wentworth Point	N/A	N/A	N/A	Ferry; Bus; Toilet; Shops (retail); Food and drink
			6oclock	HBC	Bennelong Parkway	N/A	N/A	N/A	Walking route; Cycling route
			6oclock	HBC	Sydney Olympic Park	1000	15	4	Train; Bus; Toilet; Shops (retail); Food and drink; Stadium
			10oclock	CoP / SOPA / Bike route	Bennelong Parkway	N/A	N/A	N/A	
SOPA17	Pole	Bennelong Parkway and	12oclock	HBC	Bennelong Parkway	N/A	N/A	N/A	Walking route; Cycling route

Asset ID	Asset type	Location	Fingerboard direction	Design	Destination	Distance (m)	Walking time (at 4kmh)	Cycling time (at 16kmh)	Pictographs
		Murray Rose Avenue							
			12oclock	HBC	Wentworth Point	N/A	N/A	N/A	Ferry; Bus; Toilet; Shops (retail); Food and drink
			6oclock	HBC	Bennelong Parkway	N/A	N/A	N/A	Walking route; Cycling route
			6oclock	HBC	Bicentennial Park	350	6	2	
			9oclock	SOPA	Sydney Olympic Park	650	10	3	Train; Bus; Toilet; Shops (retail); Food and drink; Stadium
SOPA18	Map board	Bicentennial Park picnic area		HBC			0	0	
CoP01	Pole	Promenade and Bennelong Boulevard	2oclock	HBC	To The Promenade	130	2	1	Shared path
			2oclock	HBC	Wentworth Point	2000	30	8	Ferry; Bus; Toilet; Shops (retail); Food and drink
			4oclock	HBC	Sydney Olympic Park	N/A	N/A	N/A	Train; Bus; Toilet; Shops (retail); Food and drink; Stadium
			4oclock	HBC	Badu Mangroves	300	5	2	Lookout
			8oclock	SOPA	Sydney Olympic Park Archers	N/A	N/A	N/A	
			10oclock	HBC	Bennelong Parkway	N/A	N/A	N/A	Cycling route
CoP02	Pole	Promenade and Amalfi Drive	1oclock	HBC	The Promenade	N/A	N/A	N/A	Shared path
			7oclock	HBC	To Bennelong Parkway	130	2	1	Walking route; Cycling route

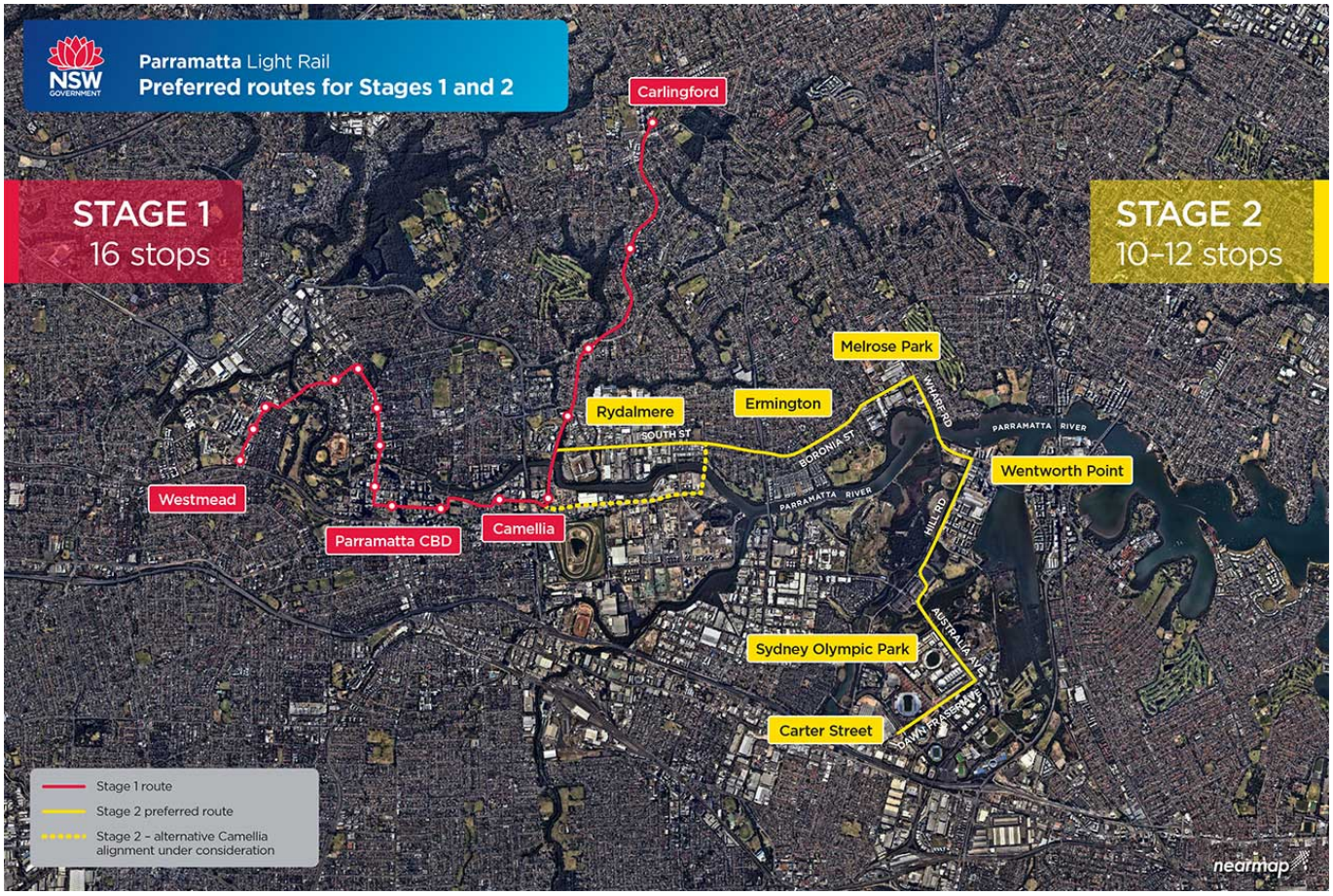
Asset ID	Asset type	Location	Fingerboard direction	Design	Destination	Distance (m)	Walking time (at 4kmh)	Cycling time (at 16kmh)	Pictographs
			7oclock	HBC	Sydney Olympic Park	N/A	N/A	N/A	
			9oclock	CoP	Amalfi Drive	N/A	N/A	N/A	
			9oclock	CoP	The Piazza	150	3	1	Food and drink
CoP03	Pole	Promeande and Strombol Square	1oclock	HBC	The Promenade	N/A	N/A	N/A	Shared path
			10oclock	CoP	Strombol Square	N/A	N/A	N/A	
			10oclock	CoP	The Piazza	200	3	1	Food and drink
			7oclock	HBC	The Promenade	N/A	N/A	N/A	Shared path
CoP04	Pole	Promenade and Baywater Drive	1oclock	HBC	The Promenade	N/A	N/A	N/A	Shared path
			10oclock	CoP	Baywater Drive	N/A	N/A	N/A	
			7oclock	HBC	The Promenade	N/A	N/A	N/A	Shared path
CoP05	Pole	Promenade and Nuvolari Place	1oclock	HBC	The Promenade	N/A	N/A	N/A	Shared path
			10oclock	CoP	Nuvolari Place	N/A	N/A	N/A	
			7oclock	HBC	The Promenade	N/A	N/A	N/A	Shared path
CoP06	Pole	Promenade and Verona Drive	1oclock	HBC	The Promenade	N/A	N/A	N/A	Shared path
			10oclock	CoP	Verona Drive	N/A	N/A	N/A	
			7oclock	HBC	The Promenade	N/A	N/A	N/A	Shared path
CoP07	Pole	Promenade and Half Street	1oclock	HBC	The Promenade	N/A	N/A	N/A	Shared path
			10oclock	CoP	Half Street	N/A	N/A	N/A	
			7oclock	HBC	The Promenade	N/A	N/A	N/A	Shared path
CoP08	Pole	Promenade and Bennelong Bridge	1oclock	CoP	The Promenade	N/A	N/A	N/A	Shared path
			1oclock	CoP	Wentworth Point	1000	15	4	Ferry; Bus; Toilet; Shops (retail); Food and drink

Asset ID	Asset type	Location	Fingerboard direction	Design	Destination	Distance (m)	Walking time (at 4kmh)	Cycling time (at 16kmh)	Pictographs
			TBD	HBC	Bennelong Bridge	TBD	TBD	TBD	TBD
			TBD	HBC	Footbridge Boulevard	TBD	TBD	TBD	Bus; Toilet; Shops (retail); Food and drink
			7oclock	HBC	The Promenade	N/A	N/A	N/A	Shared path
			7oclock	HBC	Sydney Olympic Park	N/A	N/A	N/A	
CoP09	Map board	Footbridge Boulevard and Bennelong Bridge		HBC					
CoP10	Pole	Footbridge Boulevard and Waterways Street	4oclock	HBC	The Promenade	TBD	TBD	TBD	Shared path
			4oclock	HBC	Bennelong Bridge	N/A	N/A	N/A	Shared path
			4oclock	HBC	Rhodes	N/A	N/A	N/A	Train; Bus; Toilet; Food and drink
			10oclock	HBC	Footbridge Boulevard	N/A	N/A	N/A	Walking route; Cycling route
			1oclock	HBC	Sydney Olympic Park Ferry Wharf	300	5	2	Ferry; Bus; Toilet; Shops (retail); Food and drink
			1oclock	HBC	Parramatta via Parramatta River Walk shared path	N/A	N/A	N/A	
			1oclock	HBC	Newington Armory via Parramatta River Walk shared path	1900	29	8	Toilets; BBQs; Picnic area; Playground; Food and drink
CoP11	Pole	Footbridge Boulevard and Hill Road	1oclock	CoP / Bike route	Hill Road		0	0	

Asset ID	Asset type	Location	Fingerboard direction	Design	Destination	Distance (m)	Walking time (at 4kmh)	Cycling time (at 16kmh)	Pictographs
			1oclock	CoP	Sydney Olympic Park Ferry Wharf	300	5	2	Ferry; Bus; Toilet; Shops (retail); Food and drink
			1oclock	CoP	Parramatta via Parramatta River Walk shared path	N/A	N/A	N/A	
			1oclock	CoP	Newington Armory via Parramatta River Walk shared path	1800	27	7	Toilets; BBQs; Picnic area; Playground; Food and drink
			4oclock	HBC	Footbridge Boulevard	N/A	N/A	N/A	Cycling route
			4oclock	HBC	The Promenade	TBD	TBD	TBD	Shared path
			4oclock	HBC	To Bennelong Bridge	300	5	2	Shared path
			4oclock	HBC	Rhodes	N/A	N/A	N/A	Train; Bus; Toilet; Food and drink
			7oclock	HBC	Hill Road	N/A	N/A	N/A	Cycling route
CoP12	Pole	Hill Road and Bennelong Parkway north	1oclock	HBC	Hill Road	N/A	N/A	N/A	Cycling route
			1oclock	HBC	Sydney Olympic Park Ferry Wharf	1200	18	5	Ferry; Bus; Toilet; Shops (retail); Food and drink
			6oclock	HBC	To Bennelong Parkway	N/A	N/A	N/A	Cycling route
			6oclock	HBC	Sydney Olympic Park	N/A	N/A	N/A	Train; Bus; Toilet; Shops (retail); Food and drink; Stadium
			8oclock	CoP / Bike route	Hill Road	N/A	N/A	N/A	

Asset ID	Asset type	Location	Fingerboard direction	Design	Destination	Distance (m)	Walking time (at 4kmh)	Cycling time (at 16kmh)	Pictographs
			10oclock	CoP / Bike route	To Louise Sauvage Pathway	N/A	N/A	N/A	
CoP13	Pole	Hill Road and Bennelong Parkway south	12oclock	HBC	To Hill Road	N/A	N/A	N/A	Cycling route
			12oclock	HBC	Sydney Olympic Park Ferry Wharf	1000	15	4	Ferry; Bus; Toilet; Shops (retail); Food and drink
			5oclock	HBC	Bennelong Parkway	N/A	N/A	N/A	Cycling route
			5oclock	HBC	Sydney Olympic Park	N/A	N/A	N/A	Train; Bus; Toilet; Shops (retail); Food and drink; Stadium
			11oclock	CoP / Bike route	Hill Road	N/A	N/A	N/A	
CoP14	Pole	Bennelong Parkway and The Piazza	10oclock	HBC	Bennelong Parkway	N/A	N/A	N/A	
			1oclock	CoP	The Piazza	100	2	1	Food and drink
			4oclock	HBC	Bennelong Parkway	N/A	N/A	N/A	

16. Appendix 3



17. Appendix 4

Please see following pages for City of Canada Bay and City of Parramatta supporting documentating following Exhibition.

Draft for Exhibition
Homebush Bay Circuit Wayfinding Strategy and Master Plan

Exhibition Draft

March, 2018

Institute for Sensible Transport

Prepared by

Institute for Sensible Transport, in partnership
with FWDESIGN, and ACS Environmental

Institute for Sensible Transport

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Glossary of terms

App – Application, a piece of software specially designed for smart devices such as smart phones or tablets.

Digital engine – A software backend that harmonises data across different digital wayfinding typologies.

Digital kiosk – A publicly accessible electronic device that gives users wayfinding and interpretative information.

Dockless bikeshare – A model of bikeshare operation where bikes may 'float' across the system without users having to lock them to fixed structures in set locations (as traditional bike share requires users to do).

Google Maps – a proprietary, popular, mapping system which is available on Apps and web browsers.

NFC tags – NFC (Near-field communication) tags are used to communicate data to mobile phones, tablets, or other smart devices. NFC technology is commonly used for contactless payment, but may also transmit data to activate Apps or open websites.

OpenStreetMap – an opensource mapping project where users can collaboratively add material.

QR codes – QR codes (Quick Response Code) are a type of machine readable barcode which can be used to activate Apps or open websites though smart devices camera. Some smart devices will need specialist software, while others will not.

Smart furniture – Public furniture such as benches or litter bins which are internet connected and have some digital or technical capabilities.

Strava – A fitness platform where users track activity using a smart device, with progress and statistics viewable via the App or website.

Transportation-as-a-Service (TaaS), also known as **Mobility-as-a-Service** (MaaS), describes a shift away from personally-owned modes of transport and towards mobility solutions that are consumed as a service.

Wayfinding signage – Signage such as maps or finger boards which help users navigate an area.

1. Introduction

The completion of the Bennelong Bridge in 2016, connecting Wentworth Point and Rhodes has created the opportunity to develop a world class walking and cycling circuit around Homebush Bay.

The Homebush Bay Circuit (HBC) will be a high quality, separated, active transport circuit designed to ensure this unique part of Sydney is enjoyed by as many people as possible. Using a combination of physical and digital wayfinding technology, this Wayfinding Strategy and Master Plan will help locals and visitors both navigate the Circuit, as well as interpret the area's rich history and natural beauty.

This Wayfinding Strategy and Master Plan provides a detailed, comprehensive plan to guide future investment to ensure the HBC becomes a well recognised and popular addition to the region's existing attractions. It is difficult to think of a better legacy from the site of the Sydney 2000 Olympics than a world class walking and cycling network that interfaces seamlessly with the waterfront and celebrates the area's unique history while embracing its future development as a residential and employment centre.

1.1 Vision

The HBC will be the playground for locals and visitors to enjoy the benefits of socialising, relaxing and exercising in a natural, vibrant environment.

1.2 The Future of Homebush Bay

The HBC is within an area known as the *Olympic Peninsula* and is identified as an area of intensified urban development over coming years. The Parramatta CBD, Sydney Olympic Park and Rhodes are all identified within the *Greater Sydney Regional Plan* as sites of substantial growth in the number of 'knowledge economy' jobs, and these jobs include sectors in which opportunities for active transport (especially in natural environments) are highly sought after.

As a place of increasing residential development, the HBC will offer a crucially important asset to enhance local liveability and amenity.

This project encompasses the jurisdictions of City of Canada Bay, City of Parramatta and Sydney Olympic Park Authority, as shown in Figure 1.

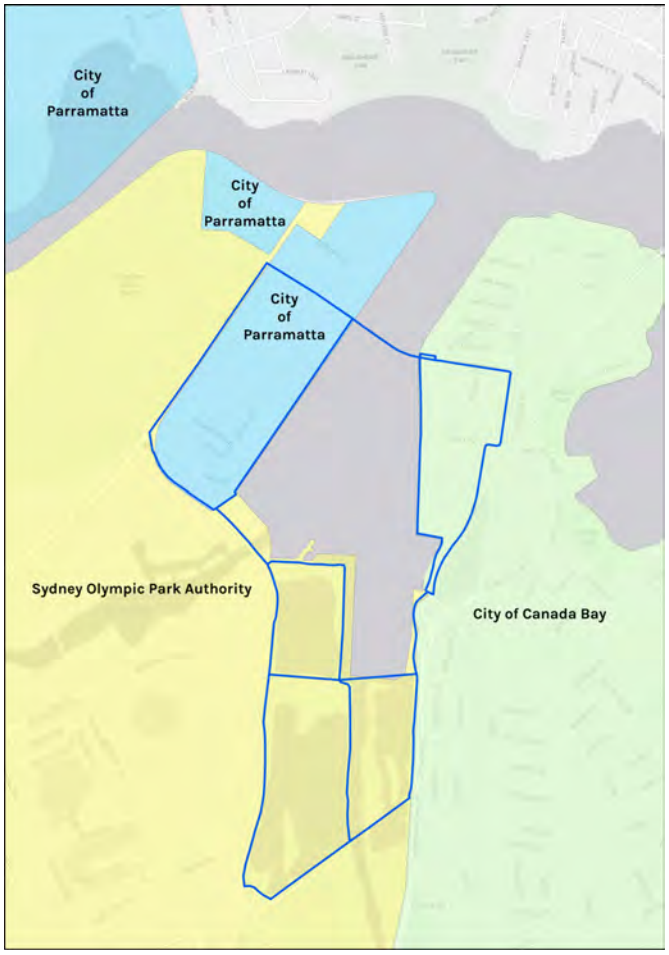


Figure 1 Jurisdictions involved in HBC

2. Developing the Strategy and Master Plan: What we did

The following actions were taken in the development of this Wayfinding Strategy and Master Plan:

2.1 Desktop Review

A desktop review which assessed current policies, data and reports of relevance to walking and cycling in the region was undertaken as part of the development of this Wayfinding Strategy and Master Plan.

2.2 Existing infrastructure and usage assessment

A site audit of existing active transport infrastructure and observation of current usage was undertaken. Intercept surveys and an audit of existing wayfinding infrastructure provided an enhanced understanding of how people use the Circuit and existing infrastructure gaps.

2.3 Stakeholder consultation

An online survey and three days of drop in sessions, on the Circuit itself were undertaken to develop a comprehensive understanding of community views and preferences for both the current condition of the Circuit, and its future. Section 3 provides a synthesis of the community input regarding their preferences for the HBC and methods used in the consultation process to develop this Wayfinding Strategy and Master Plan.

2.4 Environmental assessment

ACS Environmental undertook an environmental assessment of the Circuit, with a particular interest in the environmentally sensitive Badu Mangrove area. This analysis of the environmental issues associated with the development of an upgraded HBC, informed this plan.

2.5 Digital and physical wayfinding

Using best practice, an overarching framework was developed to create a comprehensive wayfinding system that encompassed digital and physical elements. Interpretive elements were also blended into this Wayfinding Strategy and Master Plan, to highlight the rich history of the Homebush Bay area, from its indigenous history, through to its more recent post-industrial and Olympic past.

3. What the community told us

Community consultation was crucial to the development of this Wayfinding Strategy and Master Plan. The results of the online survey and direct engagement during drop in sessions played a central role in the design of the Circuit, the wayfinding techniques used, as well as smaller, but no less important aspects, like the provision of litter bins and water refill stations.

Community engagement was undertaken to provide a strong understanding of:

- How people currently use the paths that make up the HBC
- What's great about the Homebush Bay area now
- What people would like to see to make the HBC even better
- How people prefer to use wayfinding assistance tools.

Figure 2 Community drop in session on the Corso, Rhodes

3.1 Online survey

The results to the online survey provided important insights into how people use the area around the HBC now, and their preference for future usage. In total 901 people responded to the survey, with almost all (97.5% or 878 respondents) having visited the HBC area in the previous 12 months.

Almost 80% of those completing the survey lived within 4km of the circuit, and nearly half resided in a postcode that included the Circuit.

3.1.1 How do people use the Circuit?

Cycling was the most common main mode of transport people used to arrive at the Circuit (35% of respondents), closely followed by *car* (33%). Almost a quarter (24%) arrived by foot.

Over half of all respondents use the Circuit at least a couple times per week.

When asked what they like about the Circuit, 75% of respondents indicated that they enjoy the '*foreshore/waterfront*', with a further 65% identifying the 'cycling paths' and 60% saying 'walking paths' (multiple responses were permitted). Figure 3 provides an illustration of the results to the question of what people currently like about the HBC area.

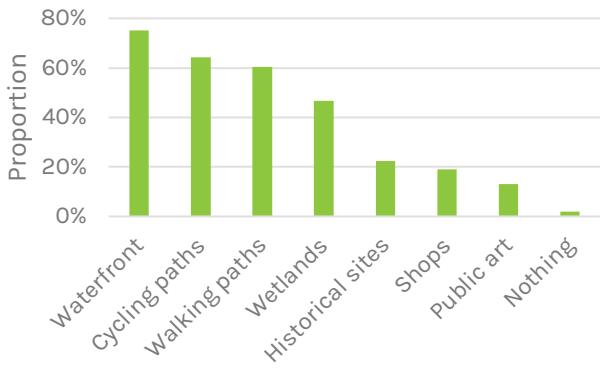


Figure 3 What do you like about the HBC area?

3.1.2 What do people want to see more of in the HBC area?

The most prominent, consistent suggestion to enhance the experience of visiting the HBC area include better lighting and street furniture (including water refill stations) and reduced interaction with motor vehicles. People also frequently mentioned a need to improve public transport and provide more bike parking opportunities. Respondents also made it clear they would like improved signage to assist in wayfinding, with a preference for physical signage.

3.1.3 How do people like to use digital technology for wayfinding?

Respondents were asked to nominate their preferred mapping applications when navigating in an unfamiliar area. Nationally, some 84% of Australians own a Smartphone, and 96% of the respondents to this online survey said they own a Smartphone.

Google Maps was clearly the preferred App, with 82% nominating it, compared to 9% for Apple Maps. A further 9% said they did not use their Smartphone to assist in navigation.

A crucial question to the development of the Wayfinding Strategy and Masterplan asked respondents what navigational aids they would like to use when in an unfamiliar environment. Figure 4 shows the strong preference people have for 'fingerboard' signage (see image in the top left hand corner of Figure 4). This is followed by Smartphone map navigation. Only a minority of people said they would use a digital kiosk (like that pictured on the top right hand side of Figure 4) to assist them navigating through a new area. These findings have obvious implications for the Wayfinding Strategy and Master Plan.

People prefer simple fingerboard signs to help them find their way when in a place they are unfamiliar, followed by Smartphone navigation.

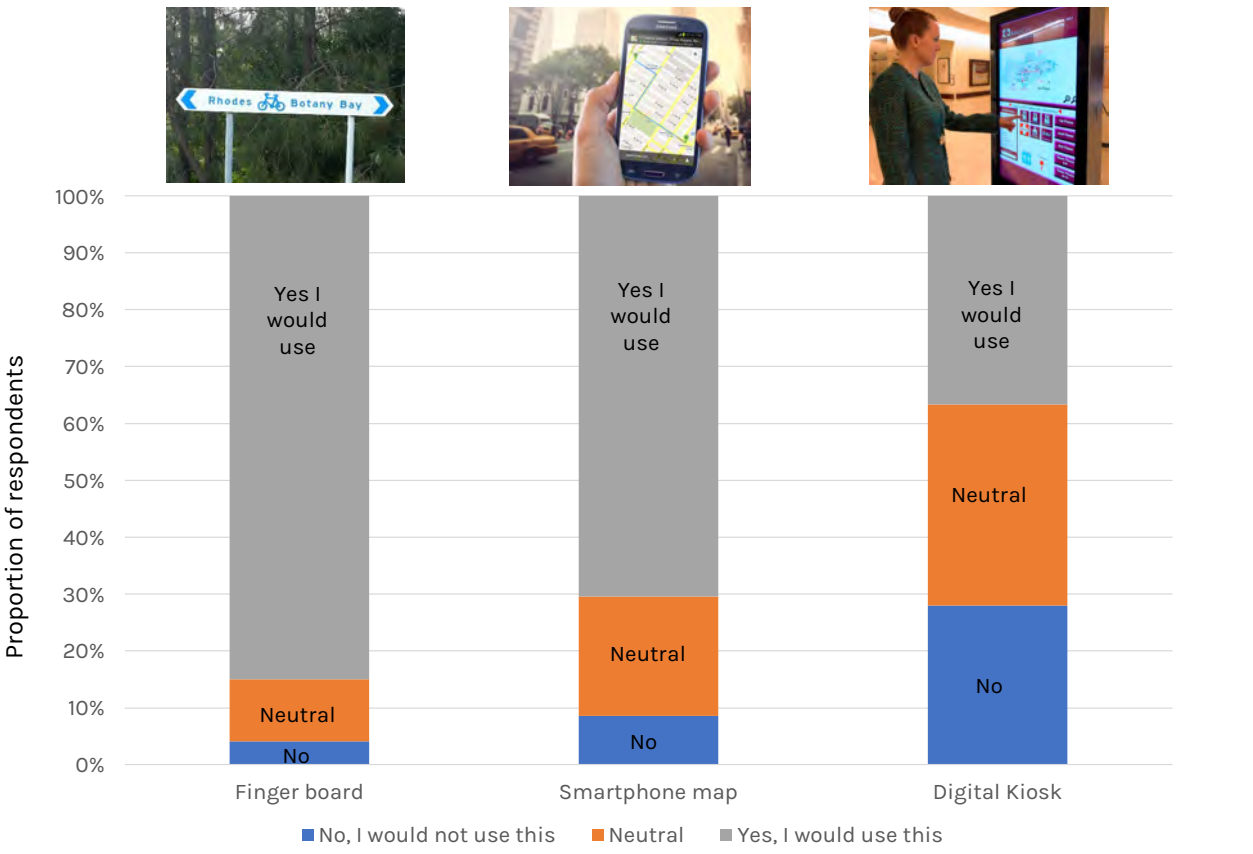


Figure 4 How do people like to navigate?

3.2 Drop in sessions

Across the three drop in sessions held from Friday through to Sunday, approximately 185 individual engagements were undertaken. The overwhelming majority of engagements took place during the weekend. A synthesis of the key issues expressed by the community is displayed in Figure 5.

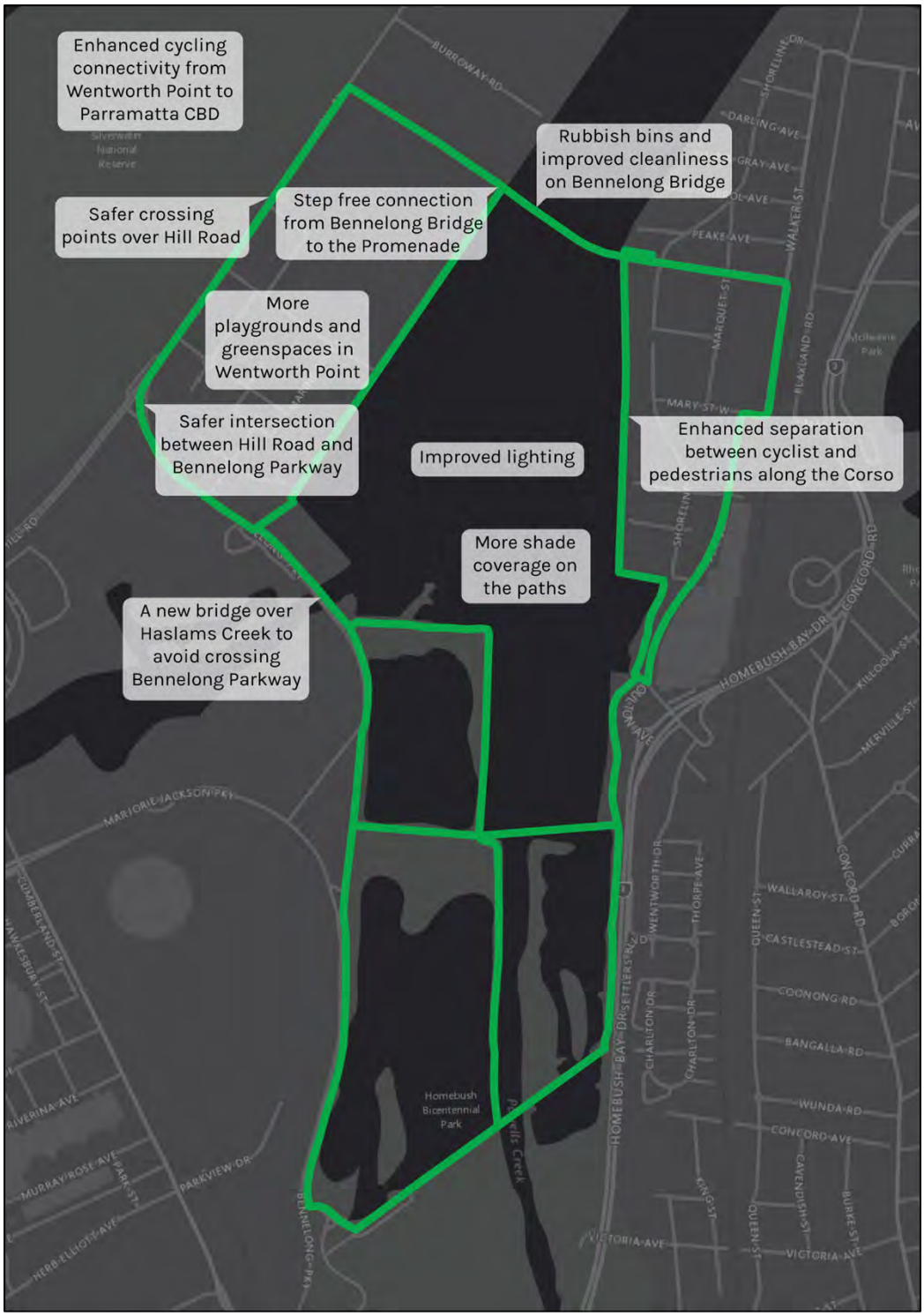


Figure 5 Synthesis of key issues and preferences

4. Homebush Bay Circuit

4.1 Description

Figure 6 provides an illustration of the HBC (green line) and its connections to the surrounding area.

The blue lines indicate suggested routes for faster cyclists, to avoid heavily pedestrianised areas.

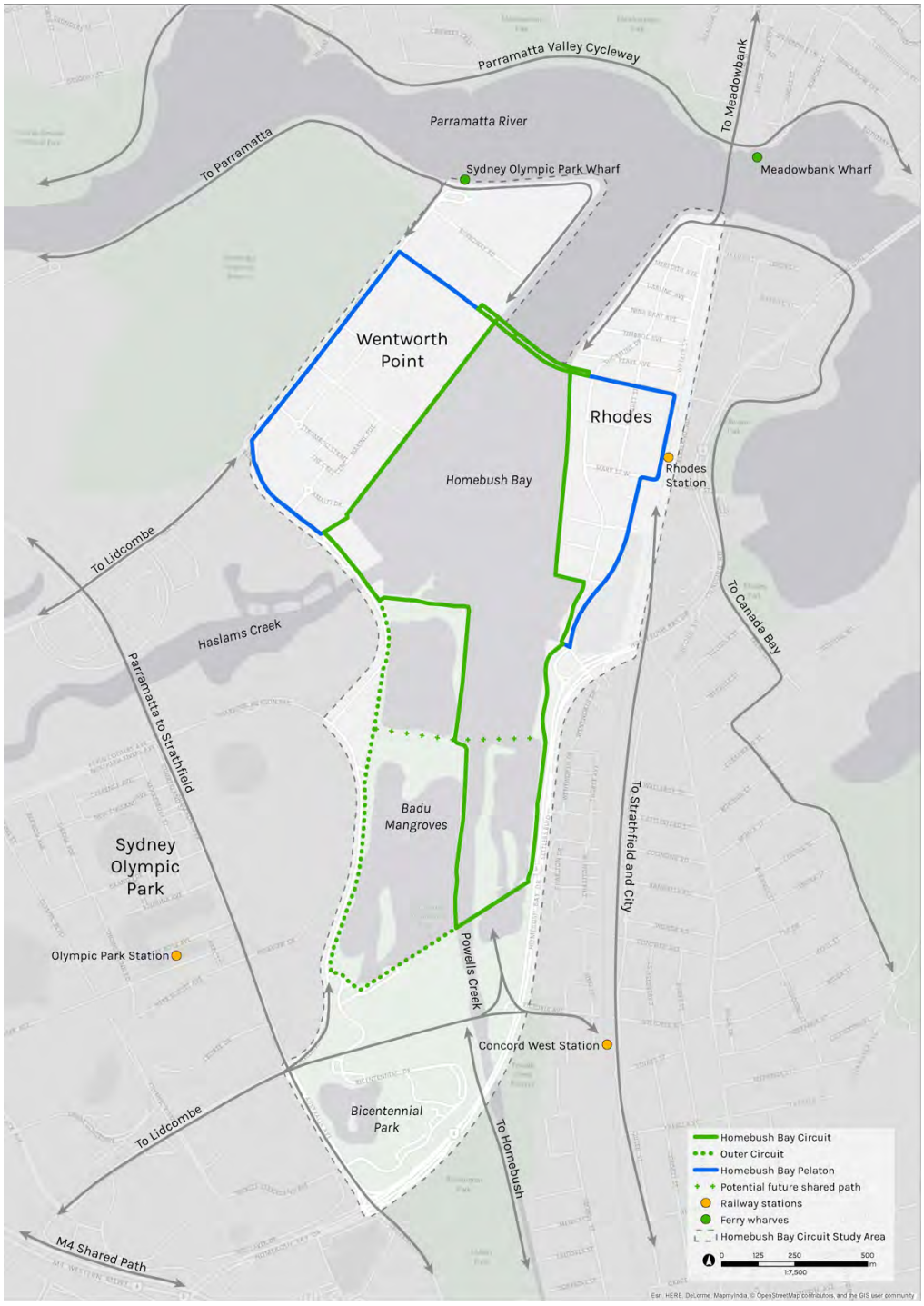


Figure 6 Homebush Bay Circuit and surrounding connections

5. Place making

Place making is a multi-faceted approach to the planning, design, promotion and management of places and spaces. The place making approach for Homebush Bay must capitalise on natural assets, with the intention of enhancing spaces that promote the waterfront environment and its rich pre and post colonial history.

Providing clear, intuitive navigation will encourage the broadest possible range of visitors, while maximising the quality of their experience.

5.1 Destination identity

Homebush Bay offers a rich set of experiences. It is a popular place to walk, run and cycle. It has a rich history, from the pre-colonial period, through to the post Olympic era. The completion of the Bennelong Bridge makes Homebush Bay an even more enticing destination, for the growing number of residents and workers, as well as visitors from across Sydney and other parts of the world.

The draw cards for the HBC are:

1. Continuous circuits to walk, run or cycle in a car free environment.[1]
2. Rich history: The Circuit enables people to gain an understanding of Homebush Bay's rich history. The Circuit will showcase the indigenous relationship to Homebush Bay, and the different roles it has played, in the colonial industrial period, as well as during the 2000 Olympics and beyond.
3. Natural environment: Homebush Bay has a number of very important natural assets, including Mangroves and migratory birds. The Circuit is an excellent vantage point to observe and learn about the ecology of the area, with boardwalks and bird watching hideouts.

5.1.1 Engagement with water

The HBC's interface with the water is central to its attractiveness as a destination. Recent development of Rhodes and Wentworth Point have introduced more opportunities for engagement with the waterfront.

Figure 7 Engagement with the water, Rhodes

5.1.2 Shaped by the industrial past

The land around the Bay has been shaped by multiple eras of industrial and post industrial uses. This has left a modified and intriguing landscape, much of which is visible from the high quality walking and cycling paths.

[1] The proposed improvements in this Plan eliminate interaction with motor vehicles, helping to increase the safety and appeal of the Circuit, from those aged 8 through to 80.

Figure 8 Shipwrecks provide a reminder of an industrial past

5.1.3 Sport

The 2000 Summer Olympics created a lasting legacy which includes the suburb name of Sydney Olympic Park and a large number of high quality sporting arenas and venues. Sport is now ingrained in the identity of the area. Visiting the area to attend a sporting event will often act as people's introduction to the HBC.

5.1.4 Natural

The area around Homebush Bay is rich in native flora and fauna, including mangroves, wetlands and bird life. The area also has extensive parkland for recreation (e.g. picnics, BBQs etc.).

Figure 9 Mangroves provide a unique opportunity to engage with the environment

5.2 Destination offer

The HBC provides a wealth of opportunities for relaxation, sport, learning about nature and Homebush Bay's rich past. As the area develops into a high density residential and commercial area, more people will use the area around Homebush Bay as an opportunity to connect with the natural environment.

At the southern end of the Circuit, Sydney Olympic Park offers stadiums and showgrounds, making it one of Sydney's premier event destinations.

5.2.1 Active mobility

Homebush Bay is already a very popular place to walk, cycle and run. A number of special events also take place for group based activities. Its shared running and cycling path along the shore provides a very high level of service for a wide range of abilities and age groups. The area is also a destination for recreational riders, much like Centennial Park and Parramatta Park.

5.2.2 Family

Family focused facilities and attractions around Homebush Bay and Bicentennial Park makes this area of Sydney a key destination for families. The Circuit includes a number of playgrounds and picnic areas and these are likely to be well used by both local families and those across the Greater Sydney area.

5.2.3 Nature and history

Homebush Bay has a rich indigenous history, home to the Wangal for over 6,000 years. During the early period of European occupation, the Wangal were displaced from their lands, with pastoral activities becoming established.

The late 19th Century saw a transition towards industry, which was accelerated through the early parts of the 20th Century. Recent history has seen the remediation of land, and the transformation of industrial wasteland to thriving communities, with a mix of residential and commercial uses.

5.2.4 Retail

A number of retail hubs are located in close proximity to the Circuit. The Rhodes Waterside Shopping Centre, and the emerging shopping precinct around Rhodes station are major trip generators. Sydney Olympic Park has a retail precinct surrounding the Train Station. Wentworth Point, as it continues its development, will become an increasingly important retail area, including around the Sydney Olympic Park Ferry Wharf. These retail hubs offer an important opportunity to promote the HBC, including the potential for a digital interface for people to learn more about the Circuit.

5.3 Strategic approach

To convey the identity and unique offer of Homebush Bay, this Wayfinding Strategy accounts all stages of the users journey from pre-journey planning to end point arrival. This holistic thinking defines the most effective and accessible information and presentation medium to promote the HBC and support seamless navigation throughout the whole journey. Figure 10 presents an illustration of how the wayfinding strategy needs to be customised based on the location of the prospective user, from pre-journey (digital), through to wayfinding to orientate users once they have arrived.

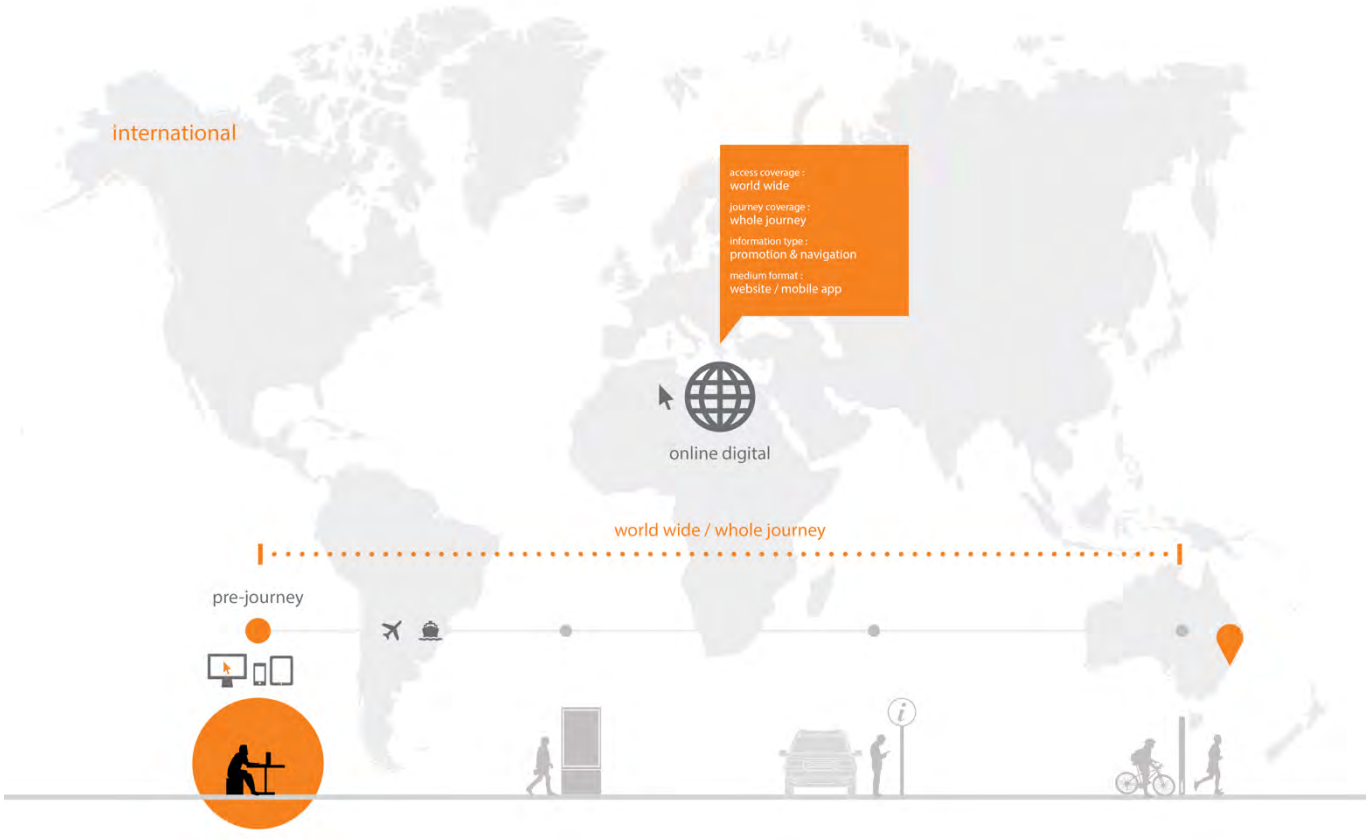


Figure 10 Progressive disclosure, from trip planning to arrival

Figure 11 extends the concept of *progressive disclosure* to the national level.

Figure 11 Progressive disclosure within Australia

Figure 12 illustrates the conceptual strategy for facilitating wayfinding based on the prospective user being within the Greater Sydney area.

Figure 12 Wayfinding and awareness raising content, at the Greater Sydney level

Figure 13 identifies the wayfinding and interpretive approach for those who have arrived at the HBC once the user has arrived at the Circuit. The key difference is that *physical* wayfinding and interpretive techniques can be used, in addition to digital methods. Key entry points may provide an important opportunity to maximise the awareness raising, orientation and interpretative information.

Figure 13 Wayfinding at point of arrival

6. User groups

In defining the strategic approach to wayfinding and information provision for the Homebush Bay Circuit, it is important to consider the different user groups that may have an interest in using the area.

There are currently three main user groups who utilise the area of the HBC; Cyclists, Runners and Pedestrians. These groups have greater depth and sub categories, as will be described. This Strategy also identifies how other groups be better accommodated, to broaden the spectrum of user groups using the HBC.

User groups also differ within the same broad category. For instance, 'cyclists' might include competitive, recreational cyclists through to families riding with young children. Designing a Circuit that is able to cater for the different needs of these diverse groups is a key objective of this Wayfinding Strategy and Master Plan.

Many of the Circuit users will reside in the local area. The rapid residential development around the Circuit consists primarily of apartments. The Circuit will need to function as the communal 'backyard' for thousands of people, including young families.

The area's growth in knowledge economy jobs means the Circuit must perform an important role for exercise and relaxation for local workers.

The Homebush Bay area is culturally diverse, with a large number of new Australians, especially from China, Korea and India.

In addition to locals, the Circuit will attract visitors from across Sydney, other parts of Australia, as well as international visitors. In 2016 Sydney hosted 12.8 million overnight visitors, including 7 million in Western Sydney alone, who spent a total of $3.7 billion. The most popular activity for international visitors includes dining, and visiting sites of natural beauty.

The main tourist languages are Mandarin, Korean, Hindi and Japanese.

What is the breadth and depth of information provision required by these user groups? In addition to navigation and wayfinding, the interpretive elements need to link closely and engage accessibly with the identified groups. Key categories of information included in the Wayfinding Strategy and Master Plan include:

- Historical (Pre-colonial, Colonial, Industrial, Modern)
- Transport links (e.g. train stations, ferry wharfs)
- Shopping precincts
- Toilets
- Playgrounds
- Nature reserves and ecological sites (e.g. wetlands/bird watching)

This Wayfinding Strategy and Master Plan provides the content that will enable the implementation of a user centred approach to promote, orientate and explore the Homebush Bay Circuit.

6.1 Bike riding

Bike riding is the fourth most popular form of physical activity in Australia. In 2016, 12.5% of the NSW population rode in a typical week, with almost a third having ridden in the past year.

Cyclists are a diverse group but have some common preferences; smooth, wide paths and a safe environment. Leisure, transport and family cyclists have a stronger preference for car free areas. Competitive cyclists often seek a faster cycling environment, which can sometimes cause conflict with pedestrians.

6.1.1 Recreational cyclists

The area around Homebush Bay is popular with fast cyclists riding primarily for fitness. They typically complete multiple laps and regularly ride in groups. They are likely to track progress, route and time via activity tracker such as Strava. These cyclists may arrive by bike, car or public transport.

6.1.2 Transport cyclists

Transport cyclists are more likely to use the Circuit on weekdays, at peak hour (though not exclusively) and are more likely to cycle portions of the Circuit, rather than entire laps. They value directness and as well as separation from motor vehicle traffic.

6.1.3 Leisure cyclists

The leisure cyclist rides primarily for the enjoyment of the activity itself, social or health reasons. They value separation from motorised traffic, and are less concerned about the directness of a route, and more concerned with how pleasant the route is. They are more likely to complete a lap of the Circuit, but less likely to complete it multiple times within the same 'session'.

Some people seeking to cycle on the Circuit may not have a bike with them, and are likely to be interested in short term hire.

Bike hire and share

Bike Hire @ Sydney Olympic Park is a very popular place for people to hire bicycles for use around the Circuit.

In recent months, a number of 'dockless' bike share services have begun to establish themselves in the area surrounding the HBC.

Dockless bike share works through the use of a Bluetooth enabled lock, that can be unlocked through the use of a Smartphone. This allows operators to establish systems without the need for docking stations.

Riders typically pay ~$2 per 30 minute ride.

Given the numerous interfaces between the HBC and the waterfront, it is likely that some people may throw the dockless bikes into the water, and there is no obvious solution to such acts of vandalism without upgrades to the design of these dockless systems.

It is recommended:

- A bike share policy be developed
- No small scale systems be established
- An agreement be prepared that describes the responsibilities any commercial bike share provider must adhere to should they seek to operate in the area. This may include minimum standards regarding bicycle parking, geo fencing, bike hardware, customer interface, privacy, rebalancing responsibilities, fees, deployment practices and maintenance standards.

It is understood more than ten companies currently have plans to launch dockless bike share in Sydney. Cooperation with the State Government is encouraged to create guidelines that apply across Sydney.

Box 1 Bike hire and share

6.1.4 Family groups

Families desire a safe environment in which to ride, with a diversity of activities that can break up the journey. Cafes, parks, toilets as well as educational opportunities are all important

attractions for families looking to cycle together. Families will typically wish to ride two or even three abreast.

6.2 Runners and walkers

Runners and walkers are attracted to car free, natural environments. Runners are more likely to have a fitness motive, whereas walkers typically have a combination of health and leisure goals.

6.2.1 Competitive runners

Individual, pair or club runners focused on covering a specified distance, timing their performance while valuing the quality of the natural environment.

The 5km Park Run is held every Saturday morning at 8am. The event attracts an average of 167 runners each week. The completed HBC will allow for more events like Park Run to be held.

6.2.2 Joggers

The leisure runner is more focused on the social, as well as health benefits of running. They have a need to be able to identify route length and vary the length of their route part way though, depending on how they're feeling.

6.2.3 Families

All families will desire a safe environment in which to walk. Car free areas, and safe crossing points when needing to cross a road are essential. Parents with prams will have a preference for a step-free Circuit, interpretive/educational opportunities and change areas/toilets. Designing the HBC to be family friendly is likely to benefit all Circuit users.

Families with older children may have a greater desire for educational opportunities, especially in areas that engage directly with the natural environment (e.g. Mangroves).

6.2.4 Walkers

Pedestrians are the slowest moving user group and are more likely to explore and engage in interpretative information provided as part of the wayfinding infrastructure. This may include information relating to wildlife, historical, anecdotal and artistic / sculptural features of the area. Walkers are diverse, and can include individuals, through to school groups, organised walking groups, and casual/social outings.

An important additional user group is the *transport walker*. As either a resident or a worker, the Circuit is likely to help connect people walking between home, work and public transport links. These users are likely to only use select elements of the wider Circuit but may constitute a substantial user base.

Figure 14 Pedestrians on the Corso

6.3 Other groups

6.3.1 Special needs groups

Groups with specific access needs may have design requirements based on restrictions in their physical, visual or cognitive function. Physical restrictions to movement must be addressed through the provision of Disability Discrimination Act (DDA) compliant infrastructure. The use of digital content that forms part of the Wayfinding Strategy must also consider those with special needs. The provision of live location information and audible information should be considered, to maximise the user experience for as many members of the community as possible.

By designing with those that have special needs in mind, the user experience outcomes for all groups will be enhanced.

6.3.2 Children and school groups

The needs of children differ from adults. They require a fun, engaging user experience that promotes visual and interactive engagement. Their needs will also vary dependant on their focus of activity and the context of their visit. Both educational and entertainment should be intertwined.

The Olympic Park Education Centre, shown in Figure 15 is situated in Bicentennial Park and caters to a large number of school children.

Figure 15 School groups outside Education Centre

6.3.3 Tourists and non-English speakers

Sydney draws a high volume of international visitors and Sydney Olympic Park and Homebush Bay should be promoted as a tourist destination. Great opportunities exist to promote ferry and rail trips to Homebush Bay from Circular Quay.

Provision should be made for non-English speaking visitors and those with English as a second language. Considered design focused on the use of icons, illustration, images and well-designed maps are all forms of inclusive design and will help cater for their needs. This approach is also of great benefit to those with greater access needs.

The digital interface also provides the opportunity and the platform for users to view content in commonly used languages other than English.

6.3.4 Local residents and workers

It's possible that people who live or work around Homebush Bay are not aware of the Circuit. Promotional activities, and signage at key entry points to the Circuit will be important methods of increasing awareness. Those who live or work nearby are generally the most frequent users of the Circuit, but given how recently the Bennelong Bridge was completed, and the numbers of new residents to the area, ongoing promotion will be essential.

7. Place analysis

7.1 Overview

The HBC is connected to the wider Sydney transport network. This includes large arterial roads, a ferry service, train and bus links. In addition, the Circuit links in with walking and cycling routes.
As Councils implement their cycling network in coming years, active transport access to the Circuit is expected to improve considerably.

7.2 Areas of activity

The HBC has three main areas of activity, Bicentennial Park, Wentworth Point and Rhodes. These activity zones are where facilities, amenities, retail and food and beverage offers are available. Each area is supported with at least one direct link to public transport. These zones form natural areas in which to congregate and are a focused point of arrival.

The three areas are well connected and these connections are described below:

- Bicentennial Park to the South of Homebush Bay has the highest concentration of facilities. It is well serviced with car parking bays and is close to the Olympic Park station and major bus routes. Bicentennial Park also contains the bike hire centre, the Education Centre and combination of park, mangroves and waterways.
- Wentworth Point is serviced by the ferry terminal and connects with Rhodes via the Bennelong Bridge. Opportunities for retail, food/drinks, as well as a gym with a swimming pool are available.
- Rhodes is directly connected to the northern rail line with train services arriving at Rhodes station. This station also provides a crossing point over the rail line for pedestrians and cyclists. Rhodes Waterside Shopping Centre offers a concentrated area of retail, food & beverage, together with other facilities such as public toilets.

7.3 Arrival points

Recognising the key arrival points for the Circuit is vital for the design of wayfinding and orientation signage.

The key arrival points for those originating from the Greater Sydney area are expected to be the public transport nodes. These include:

- Sydney Olympic Park Ferry Wharf
- Rhodes Train Station
- Concord West Train Station
- Sydney Olympic Park Train Station
- Bus stops located on or near the Circuit.

Some of the large car parks located in Sydney Olympic Park/Bicentennial Park are likely to be used as key entry points for those arriving by car.

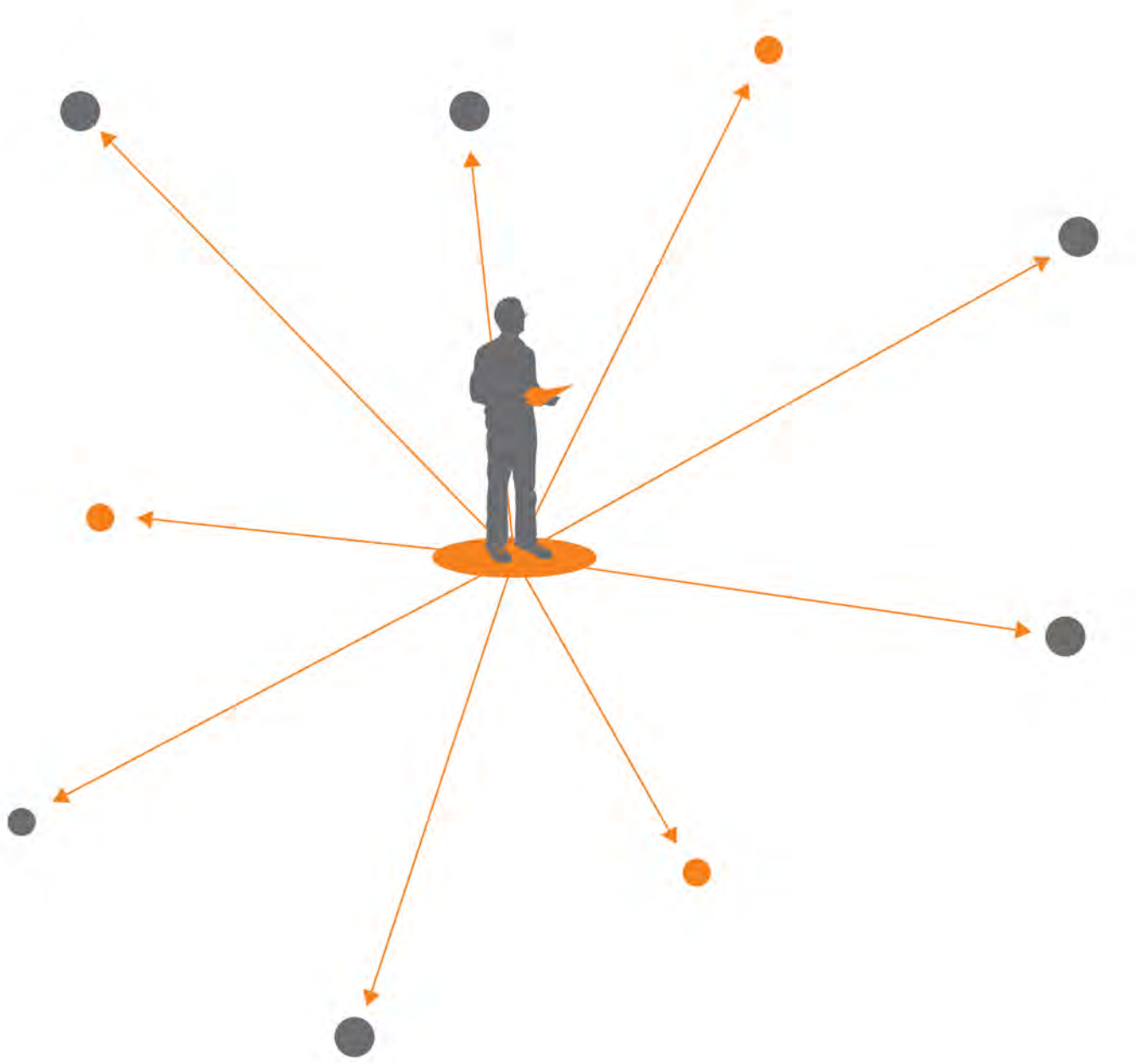
For those on foot or bicycle, key points along or near the Circuit that can be treated as arrival points include either side of Bennelong Bridge and Waterside Shopping Centre.

8. Wayfinding Strategy

8.1 User centred wayfinding

Visitors to the HBC need to be able to understand where they are, then assess and plan their onward journey. Users will be provided with information before and throughout their journey that will enable them to find their way with ease and confidence.

For users to gain the most out of their visit to the HBC, they must be able to understand what's on offer and how to get there. By understanding the relationship within and between destinations, and the routes that connect them, users begin to build a mental map. A well designed 'heads-up' map (see Figure 16) is more likely to assist with this process by establishing a user's understanding of the environment.



8.2 Heads up mapping

Historically, the standard cartographic approach is to orientate maps as North facing. However with on street products, unless a user has prior knowledge or an understanding of the place, very few people intuitively know where North is. Instead they rely on key landmarks to orientate themselves.

The recommended format for mapping on-street is to orientate the map to the users' view or 'heads-up'. This allows the user to immediately position themselves on the map and easily reference landmarks in their environment.

Any information system must be kept up to date. To manage the maintenance of this system we recommend that heads up mapping is set to 45 degree rotations. This will provide eight rotations.

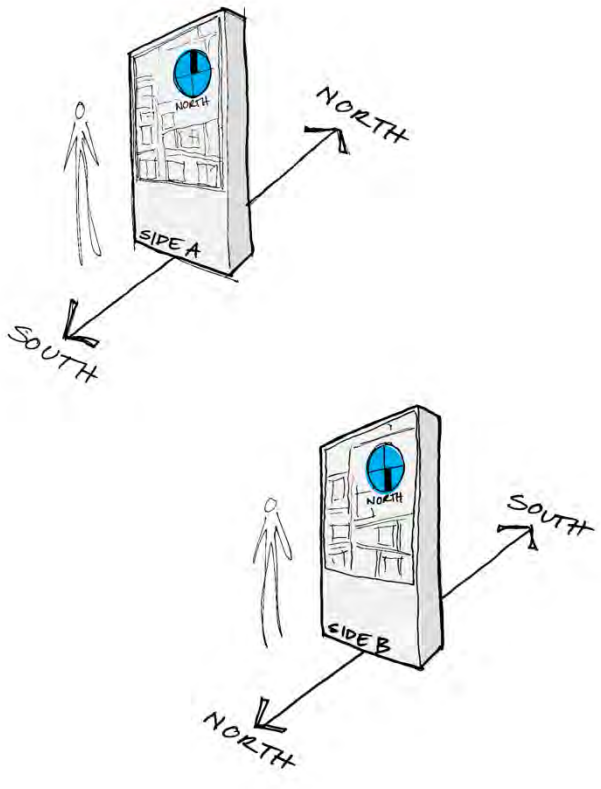


Figure 16 Heads up mapping

8.2.1 Off map destinations

Destinations that are likely to be of interest to users but are located outside of the map area, such as cycling trails, should still be signed by using off map pointers along the edge of the map.

8.2.2 Walking/cycling times

The use of 'You are Here' icons together with walking circles are a powerful tool in communicating to users the time taken to reach a given destination. This helps users in plan their journey.

8.2.3 Integration with public transport information

The integration of public transport information supports wider journey planning and promotes sustainable transport choices.

8.3 Whole journey

Visitors to the HBC will make use of various modes of travel, and come into contact with a number of information touch points and experiences throughout their journeys.

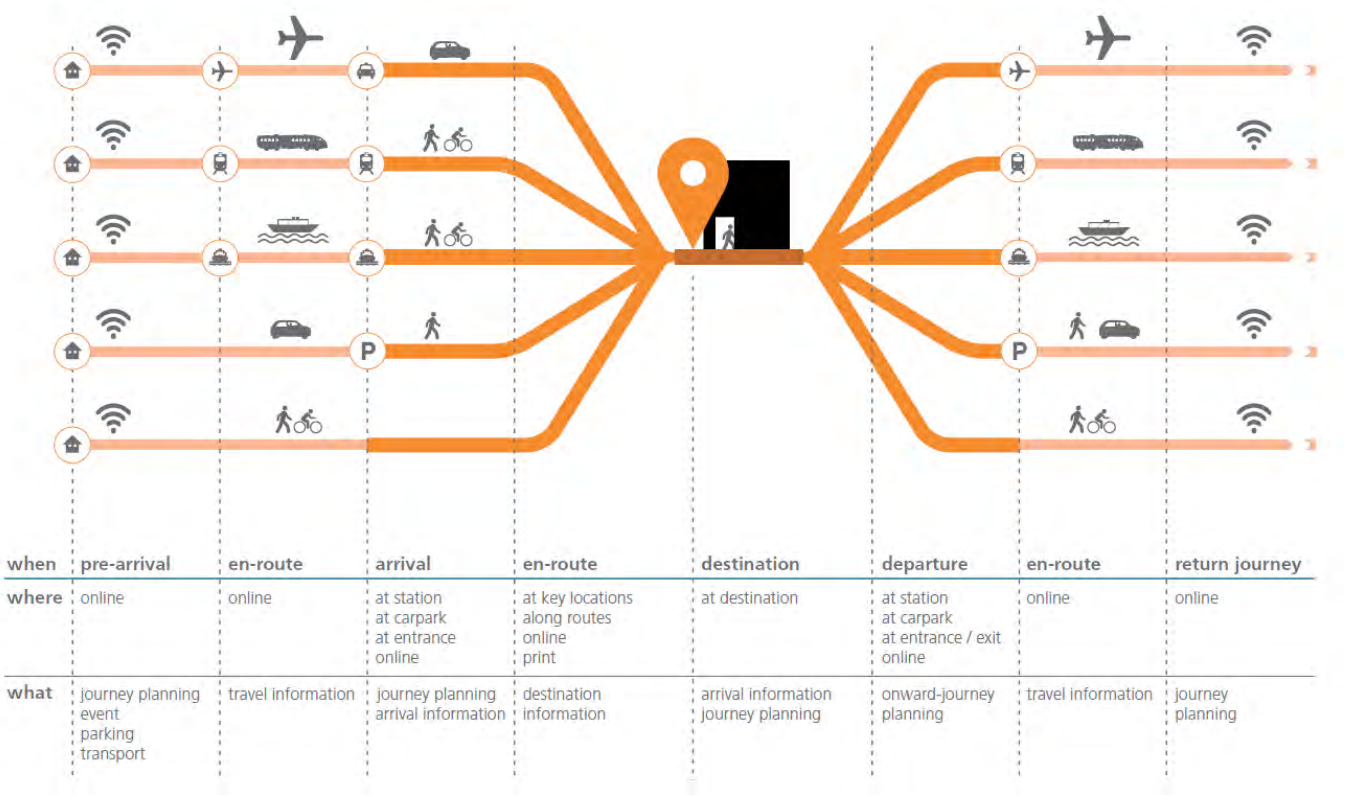
Information should be provided at key stages in a users' journey, from pre-journey planning at home via the Internet, to information provided en-route and upon arrival. A consistent approach to this information provision will build a positive brand experience and seamless navigation.

8.3.1 Touch points

Information provision play an important role in delivering the Homebush Bay brand, beyond its visual representation. Tone of language, information content and method of delivery will all say something about the HBC.

Information provided at each touch point must respond to its location whilst building a coherent narrative. The following questions have been asked when developing the wayfinding material:

- Where will people come into contact with the information?
- How will people access it?
- Is the information requirement immediate, or will the user spend time to engage and plan?



when	pre-arrival	en-route	arrival	en-route	destination	departure	en-route	return journey
where	online	online	at station at carpark at entrance online	at key locations along routes online print	at destination	at station at carpark at entrance / exit online	online	online
what	journey planning event parking transport	travel information	journey planning arrival information	destination information	arrival information journey planning	onward-journey planning	travel information	journey planning

Figure 17 Whole of journey wayfinding strategy

8.4 Progressive disclosure

An intuitive wayfinding system delivers only the required information at any one point of a users' journey. The application of this practice is known as *progressive disclosure*. Progressive disclosure eliminates superfluous information to enable users to quickly and accurately access the information that will take them to the next step on their journey. When a user reaches the next stage of their journey at that point the next tier of information is provided.

Examples of progressive disclosure are shown below:

- I am in Sydney and need to know where Homebush Bay is located.
- I arrive at Olympic Park Station and need to know onward directions.
- I arrive at one of the arriving points near the Circuit and can see this is clearly signed, confirming my correct destination.
- Upon reaching my arrival point, orientation information provides confidence as to the routes and destinations available.
- I arrive at a bike hire centre and see my cycle route options.
- I reach an area of interest and find engaging, accessible interpretive information.
- I arrive at Rhodes Waterside Shopping Centre and can see how to reach the Circuit and the attractions it offers.

Figure 18 Model of progressive disclosure of information

8.5 Digital engine

On site information will be complimented by a richer, deeper, broader digital engine providing both navigation and interpretive information. The digital engine provides web and app based information to a breadth of users. A digital engine supports both pre-arrival insight and navigation on the ground as well as interpretative content for key sites of interest.

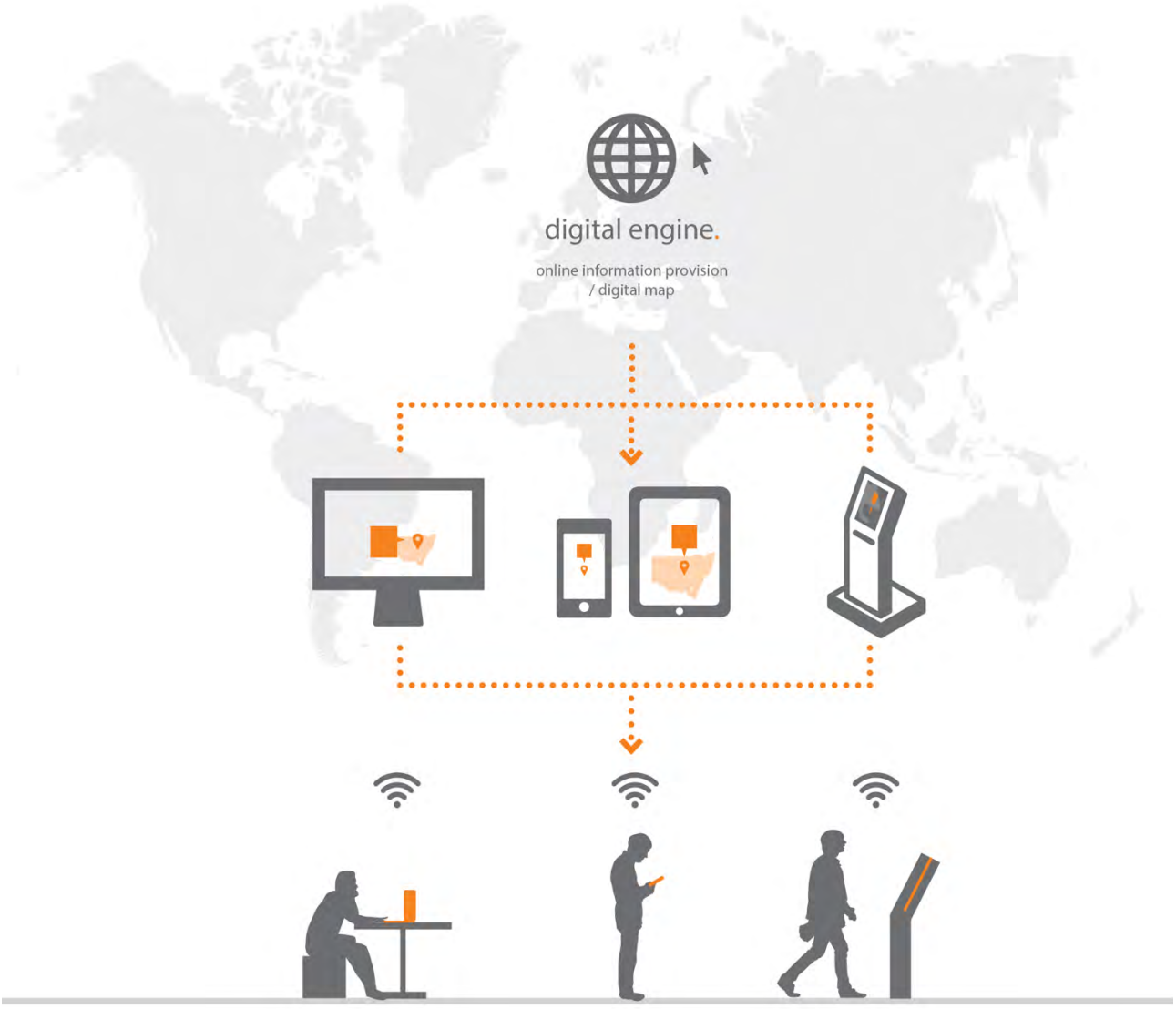


Figure 19 Digital engine concept

8.6 Digital applications

A variety of digital platforms are now available to allow uses to track and share their physical activities (walking, running, cycling). These platforms offer an excellent opportunity for users to understand and share their activity record. One important benefit from these platforms is the ability to promote the Circuit when users share their activity with their social network. This may serve to increase awareness of the Circuit.

It is however important to recognise that these platforms can encourage unsafe path usage, for instance when users 'race' to achieve personal bests or become the fastest person to complete a section. These opportunities to 'gamify' cycling in particular can provide a hazard to other uses and Councils are able to request the removal of certain sections of path from the platform administrator.

8.7 Wayfinding hierarchy

This Master Plan recommends the installation of three main wayfinding structures to be used in the HBC area; finger boards, map boards and digital kiosks (see Figure 20). The recommended location of the finger boards and map boards are shown in Figure 57.

8.7.1 Finger boards

This is the simplest form of physical wayfinding, consisting of a narrow directional sign attached to a pole. These will generally be used at junctions, to indicate the direction of destinations, and where appropriate, will also include distance and travel time.

8.7.2 Map boards

Map boards are a more substantive installation, that are used primarily at key entry points, to assist in orientating users. The maps offer a 'you are here' symbol, as well as key destinations within and around the HBC. It is common to include 5 minute, 10 minute and 15 minute walking catchment concentric circles. Applying QR Codes and NFC tags on key points of interest shown on the map will allow users to automatically load additional information through their Smartphone that can their aid interpretation.

8.7.3 Digital kiosks

Four digital kiosks are recommended to be installed, on the periphery of the HBC, to entice potential users and highlight the range of activities on offer. The locations in which digital kiosks will provide most value include; Olympic Park Ferry Wharf, main entrance of the Rhodes Waterside Shopping Centre, Sydney Olympic Park Train Station and Rhodes Train Station.

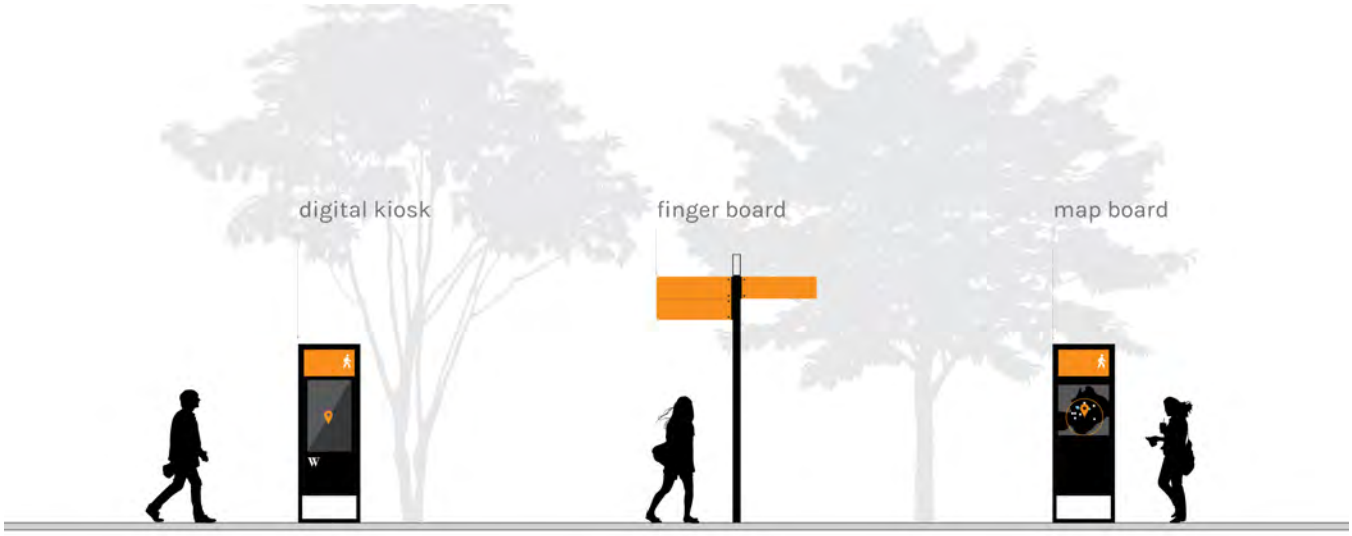


Figure 20 Wayfinding sign types

9. Mapping strategy

Maps are very effective communication devices that convey a wealth of diverse information in a visually attractive, easy to interpret and accessible manner. Based on international standards we recommend a bespoke map designed to convey the individual identity and unique attributes of the HBC. We advocate a consistent application of maps complemented with web, mobile and hand held versions as standard.

Maps encourage more walking and exploration. Community consultation during this project has highlighted the value physical maps provide in orientating HBC users. Maps provide the user with an opportunity to fully engage with their location. The HBC maps will:

- Communicate a large number of destinations and routes;
- Show the relationship and proximity of destinations;
- Allow for a wide use of internationally recognised symbols to communicate a diverse range of amenities;
- Communicate distances and walking times effectively;
- Show a richness of amenity and provision and encourage further exploration and discovery;
- Allow route planning that accommodates the user's individual requirements.

9.1 Digital master map

The design and seamless implementation of a digital mapping engine will provide a powerful delivery tool for the HBC wayfinding and interpretation provision. The source base map data will offer fully editable base maps with embedded GPS locator and deliver an authoritative map driven wayfinding framework.

Figure 21 A digital engine harmonises all forms of mapping

Onward journey wayfinding and richer levels of interpretive information can be streamed to users smart phones / mobile devices and downloaded as bespoke iOS and Android applications. Information content should be engaging and accessible, easily customised and presented in multi lingual options. On-site markers and physical interventions will complement the digital information provision.

Key features to be included in interactive, on screen map for digital dynamic use:

- Fully coded map with GIS for web / mobile use;
- Scalable and rotatable in flat / angled view;
- User location display;
- Interactive markers / over layer;
- Walk / cycle directions;
- Destination search.

Digital maps will be complemented with:

- Printed map
- On street map board

9.2 Map content and style

It is current best practise for destination to provide a suite of maps, customised and branded to promote the identity and present the range and breadth of offer.

Accessed at all key journey 'touch points' and delivered consistently across multiple platforms, information provision is content structured and progressively disclosed to provide the right information at the right point the user journey.

A digital placemaking and wayfinding engine supports centralised management of information content, controlled and updated seamlessly across multiple digital delivery devices.

9.3 Google Maps and Open Street Map

Google and Open Street Maps are the two biggest digital map engines available. Google Maps is the most popular digital map with up to date interactive features and a vast amount of local content. Open Street Map is the fastest growing user-contributed digital mapping platform with great potential for further applications.

Community consultation identified Google Maps as the most popular mapping app used on mobile devices. It has many features including street view, route directions, display of walking and cycling routes, 2D and 3D views, and can be logged into by users to save information. Further, it can be embedded on Internet and mobile applications, and additions or modifications to content can be submitted.

Data related to the HBC should be submitted to both Google Maps and Open Street Map, with regular updates made to ensure content is correct and up to date.

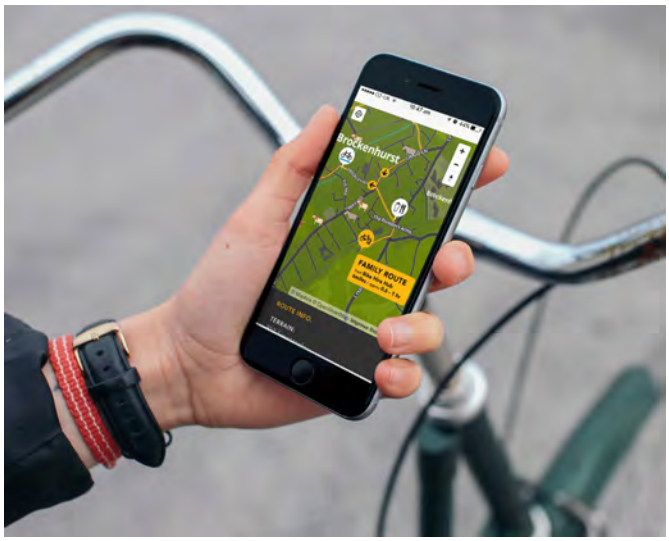


Figure 22 Mapping using the Open Street Map platform

Source: FWDesign

10. Information graphic strategy

The visual identity is the sum of all the visual elements used by the brand, the pictogram (symbols), the colours, the typeface and their applications.

The HBC brand will be a valuable asset in promoting and differentiating the destination from other local attractions.

10.1 Branding

Australia, New South Wales, Sydney, and local governments all have distinctive branding identities, to inform locals and visitors alike. Similarly, it is common for walking and cycling trails to have their own branding identity, the Parramatta Valley Cycleway being a prime local example, as shown in Figure 23.

Figure 23 Parramatta to Park River Trail branded signage

Visual identities work at varying levels, both attracting people to areas, and providing locational awareness and reassurance.

The HBC will require a clearly recognisable logo. This logo will appear on all digital and physical wayfinding information, becoming an easily recognised and integral part of the HBC's identity.

The logo will be give consideration to the following elements:

- Easily scalable, so it may be printed in variable sizes and easily identified at a distance;
- Able to be represented in different colours as well as monotone;
- Represent Homebush Bay's physical characteristics (similarly to how City of Canada Bay's logo is the council initials, hidden in a yacht sailing on a bay);
- To represent Homebush Bay's human heritage;
- To be unique to the HBC.

10.2 Colour

A palette of colours is an essential element of the tool kit that contributes to a unqiue brand and identity. The use of colour must maintain sufficient contrast to be legible in a variety of light conditions. Figure 24 provides an example of a colour palette that provides the necessary contrast to offer legibility to the user.

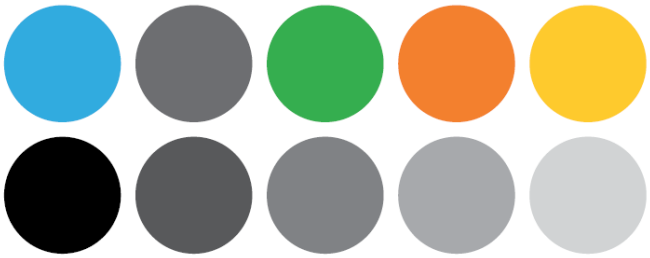


Figure 24 Colour palette example

10.3 Typeface

A comprehensive information system for the HBC should use a typeface that is prominent within the environment and embodies the spirit of the destination, giving authority, gravitas and distinctiveness.

A typeface is the all-encompassing voice of any message conveyed using written language and is the most frequently used design element in any visual identity.

Figure 25 Font family example

10.4 Pictograms

Pictograms provide instantly recognisable symbols that cross language barriers. The pictorial form is far quicker to identify than text based information and can also minimise visual clutter on signage.

Pictograms will be used consistently and wherever possible. A pictogram set that matches the visual aesthetic of Homebush Bay will be used and will be designed to complement the typeface. All pictograms must reflect international standards of recognition and legibility to ensure they are understandable by all nationalities and at all scales. It is recommended that a pictogram set is designed in conjunction with the typeface / the brand in order to aesthetically match the style and create a holistic graphic identity.

The core range shall include:

- Transport pictograms
  - Pedestrian, cycling, rail, bus, taxi, parking, cycle parking, disabled parking, transport information.
- Access pictograms
  - Directional arrows, escalator, lift, stairs/steps, ramp.
- Services and facility pictograms
  - Toilets, male toilet, female toilet, disabled toilet, baby changing, pharmacy, ATM, visitor/tourist information.
- Destination and activity pictograms
  - Restaurant, cafe, bar, retail/shopping, theatre, cinema, stadium (sport), leisure centre, recreation/green area, museum, civic building / gallery, library, education, hotel, hospital and emergency department.

Figure 26 Pictogram set example

10.5 Access compliance

Accessible information graphics involve careful selection of font type, letter case and text heights, combined with colour applications that ensure good visual contrast and overall legibility. In addition, the considered relationship of directional arrows, pictograms and a consistent application of information are of critical importance when creating information graphics that are legible and inclusive.

The graphic elements of the signs must be consistent throughout the sign family. The recommended height from the ground must consider ambulant users and the recommended accessible heights. Figure 27 illustrates information accessible zones for legibility.

10.5.1 Typography standards

A clear sans-serif font without pronounced variation in stroke width on a non-glossy surface is the minimum requirement for legibility.

10.5.2 Letter case

The use of all-upper-case text will be avoided. People read primarily by word shape. The use of upper-case and lower-case improves text legibility as the variable space formed above letters assists in defining the distinctive shape of each word.

10.5.3 Contrast

In exterior applications, light letters on a dark background are typically more readable than dark letters on a light background.

10.5.4 Density

Type used for signing should not be too condensed: a character width-to-height ratio should be between 3:5 and 1:1. Type used for signing should not appear too thin: a stroke width-to-height ratio should be between 1:5 and 1:10.

10.5.5 Letter size

Text size on signs is determined based on ideal viewing distance of each sign at each location.

10.5.6 cap X-height

For accuracy in layout of text on signs, the height of the capital letter X (Cap X-height) should be used instead of the point size of the font, which is a less accurate referencing method, particularly as fonts' indexed point sizes may not always be the same size in mm.

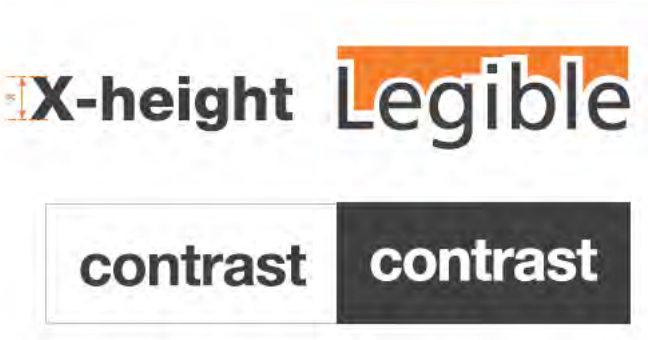


Figure 27 Access compliance

10.6 Information hierarchy

An effective wayfinding system prioritises information and provides only the most required content at the relevant points in the visitor journey. Providing too much information at any one location creates visual clutter and impairs legibility, confusing users and reducing overall system effectiveness. Therefore, to maintain functionality and system clarity, the information provision must be structured with a rational hierarchy.

Applying a hierarchy to each category of destinations provides a rationale for determining how destinations are to be represented in the information system.

10.6.1 System integrity and adaptability

A clear hierarchy ensures that different tiers of information are represented consistently across the system and with the appropriate emphasis. It also ensures that in the future, additional destinations can subsequently be updated into the system in a logical and coherent manner thus future proofing the wayfinding system.

10.6.2 Information database

Any wayfinding system is only as good at the information it carries. An information content database will be developed to ensure a clear record of information is easily accessible and adaptable to changing circumstances. The information database will list all of the destinations and information content that will appear on the wayfinding system.

The database organises the pool of destination content into straightforward categories of destination types.

The function of the information database is to provide a single, authoritative source file, to:

- Define the nomenclature and specific names of each destination.
- Act as a working tool to accommodate future information updates easily and clearly track ownership of edits made to the information it contains.
- Provide supporting information and track installation details about each of the sign products.

11. Getting to the Circuit

How will users arrive at the Homebush Bay Circuit? This Wayfinding Strategy and Master Plan takes a user oriented approach to make it as easy as possible for people to access the Circuit.

Understanding travel options, points of arrival and areas of activity are key to successful destination promotion and effective navigation. This breadth of information needs to be accessible and seamless, covering pre-arrival planning, onward journey navigation and on-site interventions, across all locations and travel modes.

A holistic approach utilising web based information, complemented with mobile application/s, physical signage and printed material will provide a powerful delivery system.

11.1 Pedestrians

Every trip begins and ends as a pedestrian. A substantial increase in residential development around the Circuit means that an increasing number of visitors will access the Circuit on foot.

The street network leading into the Circuit provides a comprehensive network of footpaths. Moreover, there are a number of shared paths and bridge links that connect the Circuit to the surrounding area.

Regional wayfinding on the shared path network is designed to address the needs of both pedestrians and cyclists.

11.2 Cyclists

The HBC has a number of links, and potential links, to the wider Sydney cycling network. Existing and proposed connections include:

- Parramatta Valley Cycleway via the John Whitton Bridge.
- Shared path along southern bank of Parramatta River from the Sydney Olympic Park Ferry Wharf.
- On road cycling facilities in Sydney Olympic Park.
- Hill Road and the Louise Sauvage Pathway, from Lidcombe and Newington, south and west of the Circuit.
- Powells Creek Path from Homebush and Strathfield in the south.
- Rider Boulevard, Gaulthorpe Street and Walker Street in Rhodes.
- Railway Route, adjacent to the railway line, from North Strathfield to Rhodes (Canada Bay MR6) and Ryde Bridge to Canada Bay (Canada Bay MR7).
- Sydney Olympic Park Link (Canada Bay SR15), connecting the park to Concord West Train Station.
- Concord Road Bridge over the Parramatta River, connecting to the northern bank the Parramatta River in Ryde.

Many of these routes require enhancement in order to attract new users and increased legibility. These suggested enhancements are documented in Section 12.1.

Figure 28 shows the existing and planned walking and cycling connections between the HBC and the surrounding area.

Figure 28 Active transport links to the Homebush Bay Circuit

NB: Routes shown are either constructed or planned.

11.3 Ferry

A ferry service runs from the Sydney CBD west up the Parramatta River, with 18 wharves along the way, terminating at Parramatta.

The ferry journey from Circular Quay to Sydney Olympic Park Wharf takes 46 minutes and runs approximately every half hour for most of the day throughout the week.

Travelling between Sydney Olympic Park wharf and the Parramatta terminus takes 30 minutes, with ferries operating every hour.

11.4 Rail

The HBC is served by three train stations. Concord West and Rhodes Train Stations are on the T1 line to Epping. These stations have a direct service from Central Station that runs appropriately every 30 minutes.

Sydney Olympic Park Train Station has a shuttle service connecting to Lidcombe, running every ten minutes throughout most of the day.

People arriving at the Circuit from Concord West and Rhodes Train Stations are more likely to be travelling from Sydney's south east through to north east, whereas those arriving from Sydney Olympic Park are more likely to originate from Western Sydney.

In the future, Sydney Olympic Park will be served by the Parramatta Light Rail (see Appendix 3 for a map of the stage one and two alignments) and Metro West. This will increase Sydney Olympic Park's connections with the wider area, and reinforce the need for strong links between Sydney Olympic Park and the HBC.

11.5 Bus

The Homebush Bay area is connected to surrounding suburbs via the following bus lines:

- 401: Lidcombe to Sydney Olympic Park
- 458: Ryde to Burwood
- 526: Burwood to Rhodes Shopping Centre
- 525: Parramatta to Burwood via Sydney Olympic Park
- 533: Sydney Olympic Park to Chatswood via Rhodes and North Ryde
- M41: Hurstville to Macquarie Park
- Buses 526 and 525 operate across Bennelong Bridge, connecting Wentworth Point to Rhodes.

Bus stops along the Circuit may provide important opportunities for information provision, helping to increase awareness of the HBC.

Figure 29 provides an illustration of the different public transport services that connect with the HBC.

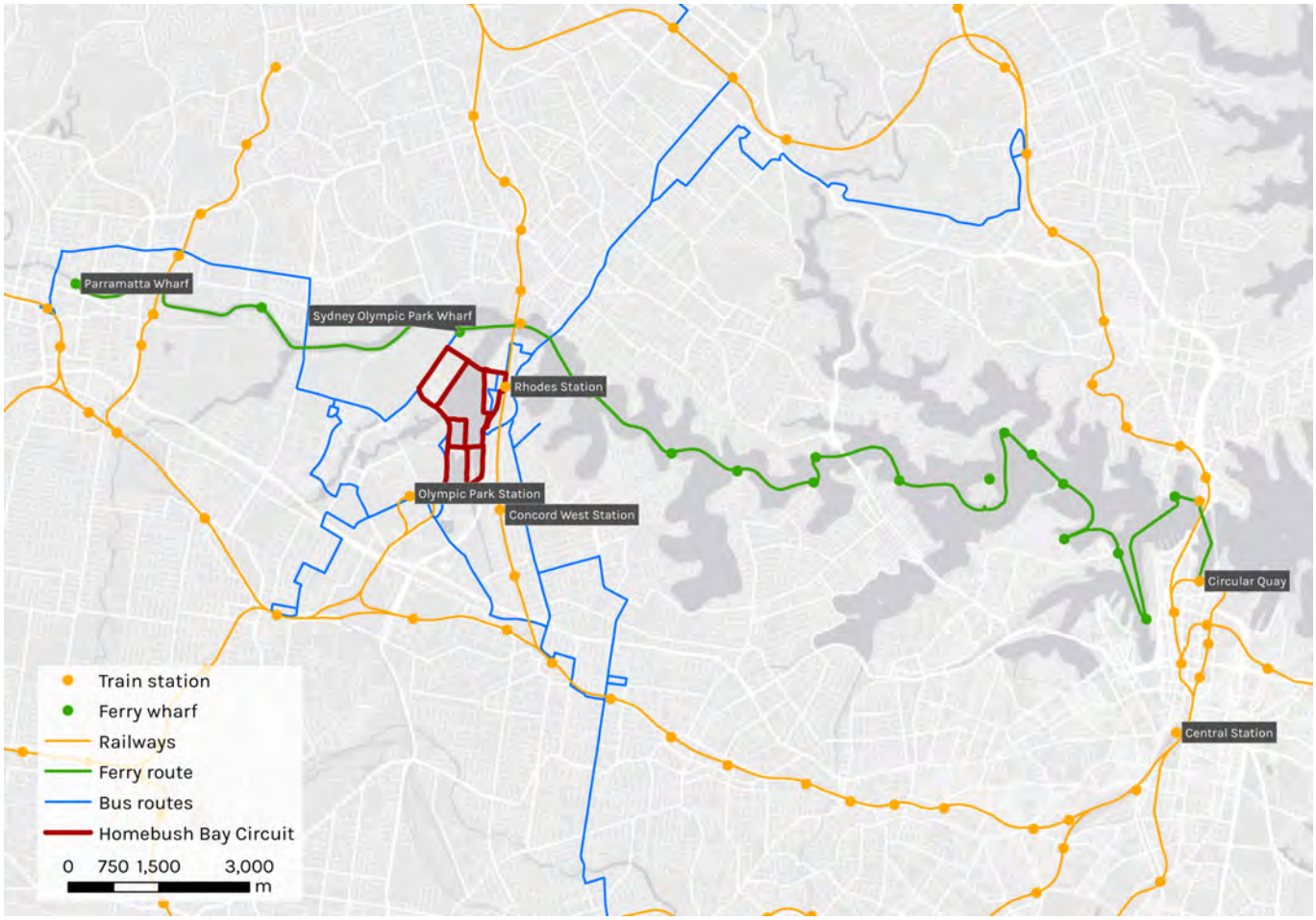


Figure 29 Public transport connections with the Homebush Bay Circuit

11.6 Car parking

A number of car parks are located in close proximity to the HBC. These are treated as entry points for those intending to use the Circuit, and an important opportunity to increase awareness of the Circuit's existence for those that may be using the car park for other purposes. Main car parks are shown in Figure 30.

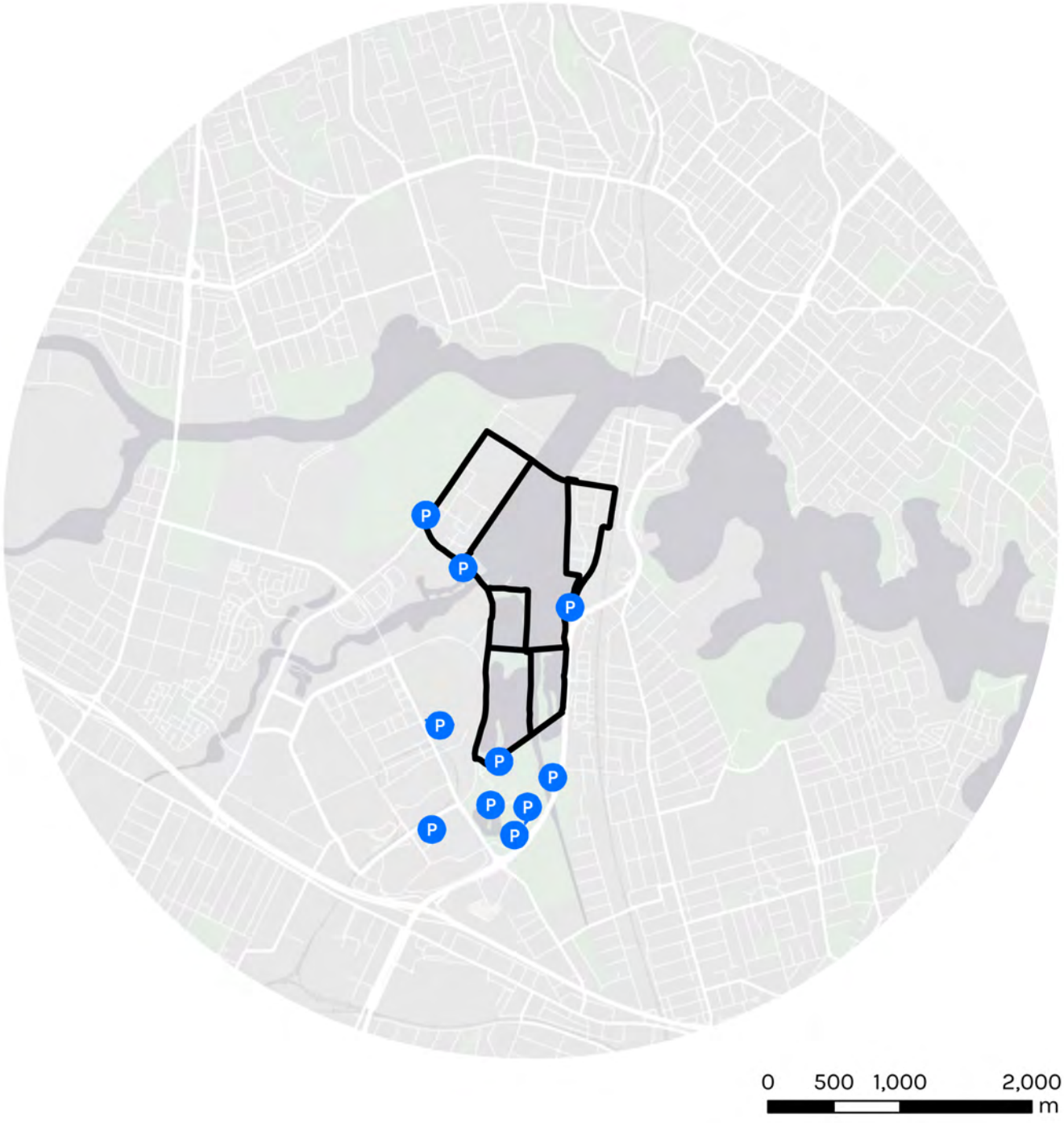


Figure 30 Main car parking locations near the Homebush Bay Circuit

12. Creating a world class circuit

For the Homebush Bay Circuit to reach its full potential, a number of infrastructure upgrades will need to be implemented.

The HBC will have a variety of different route options to suit the needs and preferences of different user groups. A series of upgrades to some roads will be required to better accommodate a diversified mix of transport modes and provide alternatives for users seeking to engage in higher intensity cycling.

12.1 The Circuit

12.1.1 Vision

For the HBC to have high quality and accessible paths. All paths on the HBC will offer safety and amenity to all users, with different designs used to meet the needs of different user groups.

12.1.2 Objectives

1. To meet the needs of all cyclists, from 8 to 80.
2. To provide a safe and comfortable walking environment for all users and user groups.
3. To provide path design options which accommodate various user groups' needs.
4. To have cyclist and pedestrians offered dedicated paths, where practical and safe.
5. For any shared paths to have design elements which encourage low speed cycling, where appropriate.
6. To have cyclist paths and pedestrian paths separated from general traffic and each other where practical and safe.
7. For path design to be appropriate to its surrounds and intended uses.
8. For path design in areas of rich natural beauty and biodiversity to be ecologically sensitive to flora and fauna.
9. For paths to be of appropriate width and be DDA accessible where possible.

12.1.3 Shared path upgrades

12.1.3.1 The Corso

The Corso in Rhodes is a foreshore park with two shared paths for most of its length, one approximately 3m wide adjacent to Homebush Bay and another approximately 2.5m wide slightly to the east (see Figure 31). Some street furniture is provided on the path, such as benches, lighting, bins and water refilling stations. It is very well used by a wide variety of groups. It can become very busy during the weekend and there can be tensions and occasional conflict between pedestrians and cyclists. Pedestrians can feel intimidated by faster moving cyclist, while cyclists can feel that pedestrians lack awareness and wander unpredictably across the paths. In order to manage these tensions, the two paths and Rider Boulevard should be designed and signposted to serve different needs, while both remaining shared paths.

Figure 31 The Corso's two paths

Note: Right path is the foreshore path fast cyclists will be discouraged from using, left is the path more suitable for faster users

The foreshore shared path is scenic, offering panoramic views across Homebush Bay of Wentworth Point and the Badu Mangroves, as such, this path should be treated as a low speed, meandering path, unsuitable for fast cycling. The following alterations should be considered:

- Install signage requesting cyclists to ride at a slow pace;
- Monitor Strava and other fitness apps, requesting speeds not be shown for trips along the Corso (directing the app developer to aforementioned speed limit where required);
- Install signage indicating pedestrian priority zone (slow cycling permitted) and the use of bells when passing pedestrians;
- Avoid the use of line markings on the pavement indicating direction of flow;
- Install pavers into the surface, making it uncomfortable to cycle at speed, while maintaining DDA compliance.

The path furthest from the waterfront is more suitable for faster users. Cyclists and runners wanting to move at moderate speeds, while enjoying the views of Homebush Bay will be encouraged to use this shared path. This shared path will offer a suitable environment for faster moving users, whilst not excluding pedestrians. The following alterations should be considered:

- Install signage requesting cyclists not to ride fast;
- Monitor Strava and other fitness apps, requesting speeds not be shown for trips along the Corso (directing the app developer to aforementioned speed limit where required);
- Ensure a suitable number of signs are installed indicating pedestrian priority and the use of bells when passing pedestrians;
- Ensure a suitable number of signs are installed directing to cyclists and pedestrians to keep left;
- Ensure the pavement has centre line markings with shared path markings and directional arrows. This will indicate direction of flow and acting as a reminder to keep left.

Cyclists wishing to cycle faster should be encouraged towards Rider Boulevard, Mary Street, Walker Street and Gauthorpe Street, which could offer a high quality, safe, separated alternative. This advice should be made through all forms of signage associated with the HBC, and through engagement with the local cycling community.

12.1.3.2 The Promenade

The Promenade in Wentworth Point is approximately 6m wide, running along the Homebush Bay foreshore. There are regular seats and bins, with ample lighting, making it an attractive destination during the day and at night. It offers excellent views of shipwrecks, the Badu Mangroves, and across the bay to Rhodes. The Promenade is well used by a wide number of groups, including cyclists, runners, families and locals walking their dogs.

The Promenade is managed under community title, and as such the following actions will need to be implemented in collaboration with relevant body corporates.

Figure 32 The Promenade in Wentworth Point

The Promenade is currently discontinuous, containing two gaps which prevent users walking or cycling the entire foreshore, forcing them onto the Wentworth Point street network. However, the path will eventually connect Sydney Olympic Park Ferry Wharf with Haslams Creek along the Parramatta River and Homebush Bay foreshore. It is critical to the success of the HBC that The Promenade offer a continuous foreshore path.

As with the Corso in Rhodes, managing interactions and expectations between pedestrians and cyclists is a challenge. In order to manage these tensions, The Promenade and Hill Road will be designed and signposted to serve different needs, managing these different expectations.

The Promenade offers scenic views across Homebush Bay or Rhodes, the Badu Mangroves and shipwrecks, as such, this path should be treated as a low speed, meandering path, unsuitable for fast cycling. The following alterations will be made:

- Install signage requesting cyclists to ride at a slow pace;
- Monitor Strava and other fitness apps, requesting speeds not be shown for trips along the Promenade (directing the app developer to aforementioned speed limit where required);
- Install signs indicating pedestrian priority and the user of bells when passing pedestrians;
- Ensure there are no line markings on the pavement indicating direction of flow;
- Install pavers into the surface, making it uncomfortable to cycle at speed.

Cyclists wishing to cycle faster will be encouraged towards Bennelong Parkway, Hill Road and Footbridge Boulevard, which will offer an upgraded, high quality, safe, separated alternative. This advice should be made through all forms of signage associated with the HBC, and through engagement with the local cycling community.

The Promenade connects to Bennelong Parkway via a narrow shared path (see Figure 33). Due to forecast population growth, this path may become insufficient to accommodate the volume of users and should be widened. The central garden bed should be removed, creating a path of at least 3m wide. In the short term, the poles in this section of path should also be removed, as they pose a hazard.

Figure 33 Path connecting The Promenade to Bennelong Parkway

12.1.3.3 Bennelong Bridge

The Bennelong Bridge was completed in 2016 and connects Wentworth Point to Rhodes and provides the impetus for the creation of the HBC. It is a 'green travel' bridge, with two-way T-Way bus lanes and a 3m wide shared path. The bridge is very well used by pedestrians and cyclists, but there are concerns about the interactions between these users. The community has expressed a desire for these interactions to be better managed through improved design of the bridge.

The shared path on Bennelong Bridge will struggle in the future with increased usage. The community's view is that the path is already too narrow for the number of cyclists and pedestrians currently using it. To rectify the limited space for active transport in the future. Consideration should be given to extensions to the northern edge of the bridge or a pedestrian only path on the southern edge of the bridge. In the short term consideration should be given to either:

- Allowing cyclists the option of using the busway by placing 'bicycles exempt' signs underneath the 'No Entry' signs at either end on the T-Way;
- Converting the 'T-Way' lanes to 'Bus Lanes' which would permit cyclist, motorcyclists, taxis, hire cars, and emergency services vehicles to also use the lanes; or
- Restrict the bus lanes to one lane, with traffic lights either side of the bridge ensuring only one direction can be in use at a time, freeing up the other lane for bi-directional cycling lanes.

Discussions should be entered into with RMS, relevant bus operators, and local cycling groups to determine the feasibility of various options to determine which one most closely aligns with the needs of all stakeholders.

There is also poor connectivity between the Bennelong Bridge and the Promenade (which is currently discontinuous). A step-less connection between the Bennelong Bridge from the northern edge, down to the Promenade is the best outcome, with strong community support for this connection design. The permeability of the area would be greatly increased by having a connection from the west, as this would give more options for local residents and those arriving at the HBC by bus.

Figure 34 Bennelong Bridge, looking towards Wentworth Point

Note: The shared path is one the right, with two-way T-Way on the left.

12.1.3.4 Badu Mangrove path

This path, shown in Figure 35, is approximately 3m wide, and runs through the Badu Mangroves, an area of high environmental significance. The path is bituminous, with well defined edges, and a centre white line. There are numerous vantage points along the path that allow viewing of birds (see Figure 36), panoramic views of the landscape, and the numerous shipwrecks. Some areas have obscured views of the shipwrecks from the intended vantage points, which has caused path users to walk into the mangroves to get a better view, deteriorating the landscape.

The path is unsuitable for fast moving cyclists, and widening the path would cause unacceptable environmental damage. As such, fast moving cyclists should be encouraged to use Bennelong Parkway as an alternative route.

Works have been undertaken recently to raise the shared path, minimising the likelihood of being inundated. In the future, consideration should be given to replacing the bituminous path with a raised boardwalk, similar to the boardwalk recently installed in Ermington Bay, shown in Figure 37. This would mitigate inundation, while allowing fauna to pass under the shared path, minimising interactions with humans. Further, the handrails would deter people from walking off the path, minimising damage. However, any boardwalk design should be assessed for environmental effects, including noise pollution (as City of Parramatta have achieved with new boardwalks), and built to comply with any requirements park rangers may have (including vehicle access).

Figure 35 The shared user path through Badu Mangroves

Figure 36 Water birds viewed from a 'bird hide' off the Badu Mangrove path

Figure 37 Boardwalk through Ermington Bay

12.1.3.5 Path from The Corso to Bicentennial Park

This path forms the sole connection between Rhodes and Bicentennial Park, and will be used by all users of the HBC. It is currently a shared path approximately 3.5m wide, with a bituminous surface which has some minor cracking in places. The path has a dashed centre white line (see Figure 38). The following actions should be considered:

- Monitor and maintain the bituminous surface, filling in cracks and pot holes, removing tripping hazards and ensuring DDA compliance.
- Ensure the pavement has centre line markings with shared path markings and directional arrows. Indicating direction of flow and reminding users to keep left;
- Install signs onto light posts reminding path users to keep left and for cyclists to use their bell before passing.

In the future, as path usage increases, widening or installing separated pedestrian and cyclist paths, may become necessary. The path should be monitored to gauge usage and tensions between pedestrians and cyclists. When appropriate, the path should be widened to 5m, while maintaining an appropriate buffer from the mangroves. The inner 2m (closest to Homebush Bay) should be designated as a two-way pedestrian path, and the outer 3m (closest to Homebush Bay Drive) designated as two-way cycling. This arrangement will keep pedestrians and cyclists separated, while maintaining high quality of amenity for both groups. Further, having the pedestrian section on the inner path will offer a better connection to the Corso, while cycling on the outer path will offer a better connection to Rider Boulevard. This will assist in reducing potential conflict further.

Where possible, consideration should be given to using a softer, permeable treatment for the pedestrian surface. Doing so will minimise tree roots cracking the pavement, provide a softer surface for runners which will increase safety and comfort, and increase ground permeability of storm water.

Figure 38 Shared path from Corso to Bicentennial Park.

12.1.3.6 Path from Homebush Bay Drive to Bennelong Parkway

This path, shown in Figure 39, forms the HBC's connections between the east of Bicentennial Park (near Homebush Bay Drive see: 12.1.3.5) and the west of Bicentennial Park (at Bennelong Parkway).

It is between 3.5m and 4m in width, with a bituminous surface with some minor cracking. It crosses Powells Creek on a 4m wide bridge with wooden decking. The path mostly has a dashed centre white line.

Figure 39 Shared path looking east

Note: The bridge over Powells Creek is in the background and the Badu Mangroves to the left.

Figure 40 Poles in the shared path

The path passes the Sydney Olympic Park Education Centre, which has multiple school groups visit each weekday, increasing pedestrian activity along the path. The path also runs along the northern edge of the Bicentennial Park car parking area (P10f), which has a bus parking area. Along this section of path there are multiple signs which are placed approximately 500mm from the kerb, which are a significant hazard, as shown in Figure 40. The following actions should be considered:

- Monitor and maintain the bituminous surface, filling in cracks and pot holes, removing tripping hazards and ensuring DDA compliance.

- Ensure the pavement has centre line markings with shared path symbols and directional arrows, indicating direction of flow and reminding users to keep left;
- Install signs onto light posts reminding path users to keep left, and for cyclists to use their bell before passing;
- Install traffic blisters at pedestrian crossings, and relocate the pedestrian crossing road signs from the shared paths to the blisters;
- Install reflective tape on all poles in the shared path, to be accompanied with pavement markings to offer advanced warning to oncoming path users;
- Work with bus operators, RMS, and relevant traffic authorities to determine options for removing traffic poles from the shared path and/or widening the shared path to minimise hazards;
- Widen the shared path between Bennelong Parkway and Bicentennial Park parking lot P10f, including modifications of the crossing with the access way south of Bicycle New South Wales to be a raised crossing (see Figure 41 and Figure 42);
- Implement measures to slow cyclists when travelling between Bicentennial Park parking lot P10f and Powells Creek. These may include paved surfaces which are uncomfortable to ride fast over and signage alerting cyclists to the presence of children.

Figure 41 The shared path crossing an access road

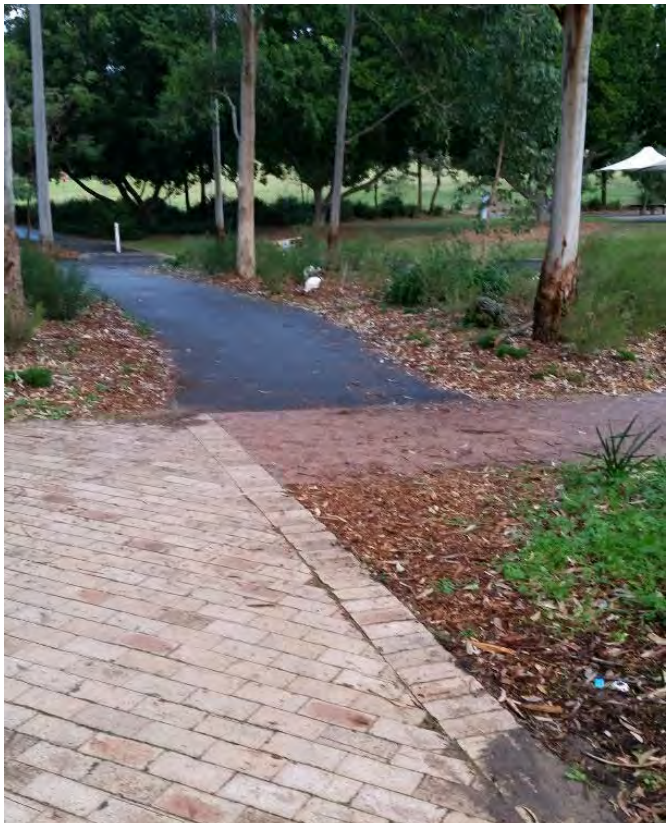


Figure 42 Undesirable dog-leg in the shared path

In the future, as usage increases, widening of this path may become necessary. The path should be monitored to gauge usage and tensions between pedestrians and cyclists. When appropriate, the path should be widened to 5m or separated paths provided, while maintaining an appropriate buffer from the mangroves. The inner 2m (closest to Homebush Bay) will be designated as two-way pedestrian path, and the outer 3m (to the south) designated as two-way cycling. This arrangement will keep pedestrians and cyclists separated, while maintaining high quality of amenity for both groups. Further, having the pedestrian section on the inner will offer a better connection to the path from Rhodes, further removing potential conflict points between pedestrians and cyclists.

Where possible, consideration should be given to using a softer, permeable treatment for the pedestrian surface. Doing so will minimise tree roots cracking the pavement, provide a softer surface for runners which will increase safety and comfort, and increase ground permeability of storm water.

12.1.4 Road cycling network upgrades

12.1.4.1 Rider Boulevard

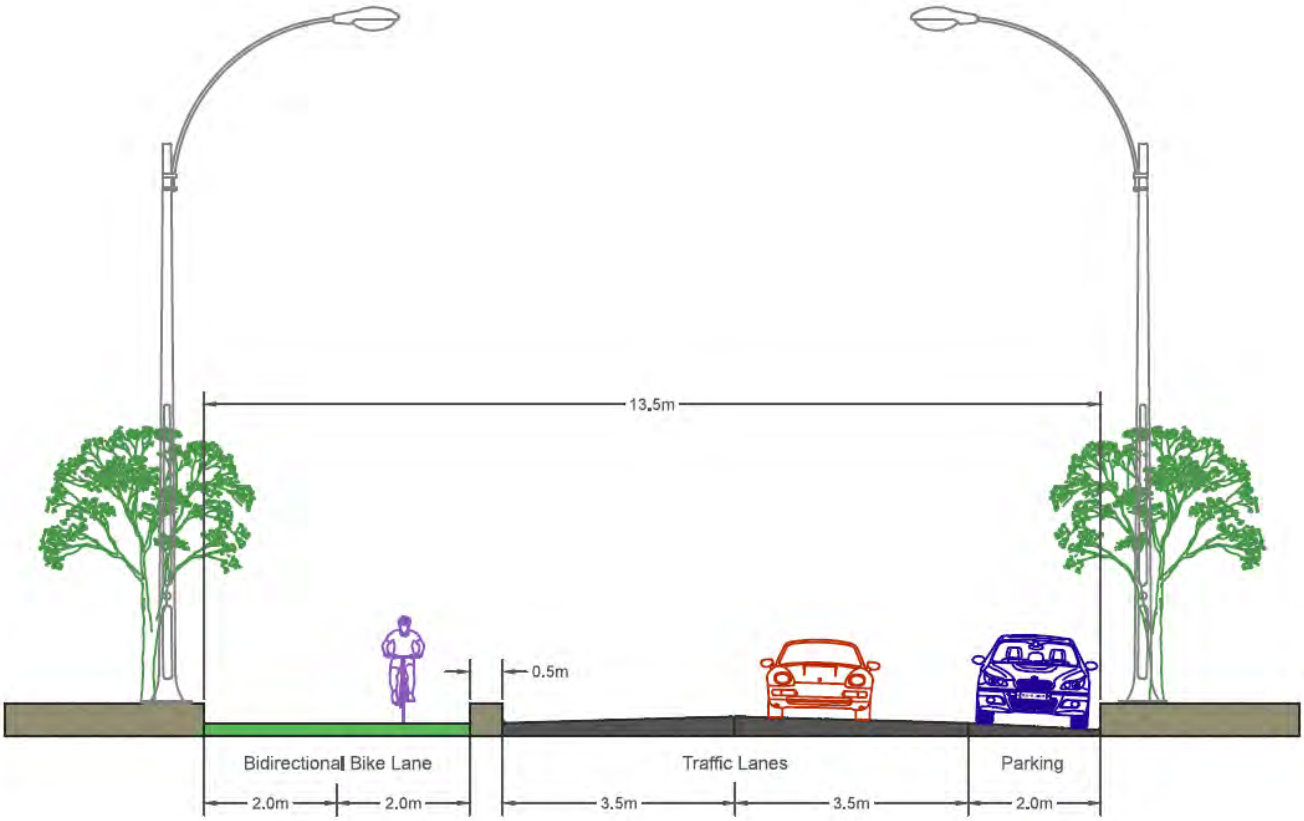
Rider Boulevard is approximately 13.5m wide, with two-way traffic and parking on both sides of the street. Rider Boulevard currently has a bicycle lane northbound and PS2 logos in a shared lane southbound. Bus route 458 operates northbound and bus routes 458 and 526 operates southbound. The presence of buses in both directions necessitates road space width of at least 3.5m per direction. The eastern side of the street has commercial frontage, while the eastern side is primarily residential. The parking bays have a generous width, and usable road space could be created by tightening parking bays to 2m in width. The high turnover of parking creates a high risk of dooring, which reduces the safety of the bike lanes directly adjacent to parking bays.

Improvements to the cycling environment have recently been made, following an investigation on methods to minimise conflict on The Corso. In the future, as development and population growth pressures increase, the current cycling environment may become less attractive, and more cyclists may return to using The Corso.

Over the next 12 to 18 years Mobility as a Service is anticipated to lower the demand for kerb side car parking opening up opportunities for repurposing street space.

In the long-term, the cycling environment could be brought to world class standards, an objective of the HBC, by installing bidirectional bicycle lanes on the western side of Rider Boulevard (as shown in the top portion of Figure 44). This would require removal of parking from the western side of the street. This solution would remove all risk of car dooring, and provide safe two-way cycling. The road width is sufficient to include generous cycling lane widths for two abreast riding and/or overtaking without impinging on cyclists travelling in the opposing direction. Protected bicycle lanes, on the western side of Rider Boulevard would also have the advantage of allowing cyclist to fully bypass the intersection of Rider Boulevard and Oulton Avenue. Bicycle lanes would need to be narrowed at bus stops, with parking restricted on both sides of Rider Boulevard and the installation a bus shelter between the bicycle lanes and general traffic lanes as shown in the lower portion of Figure 44.

Figure 43 Rider Boulevard



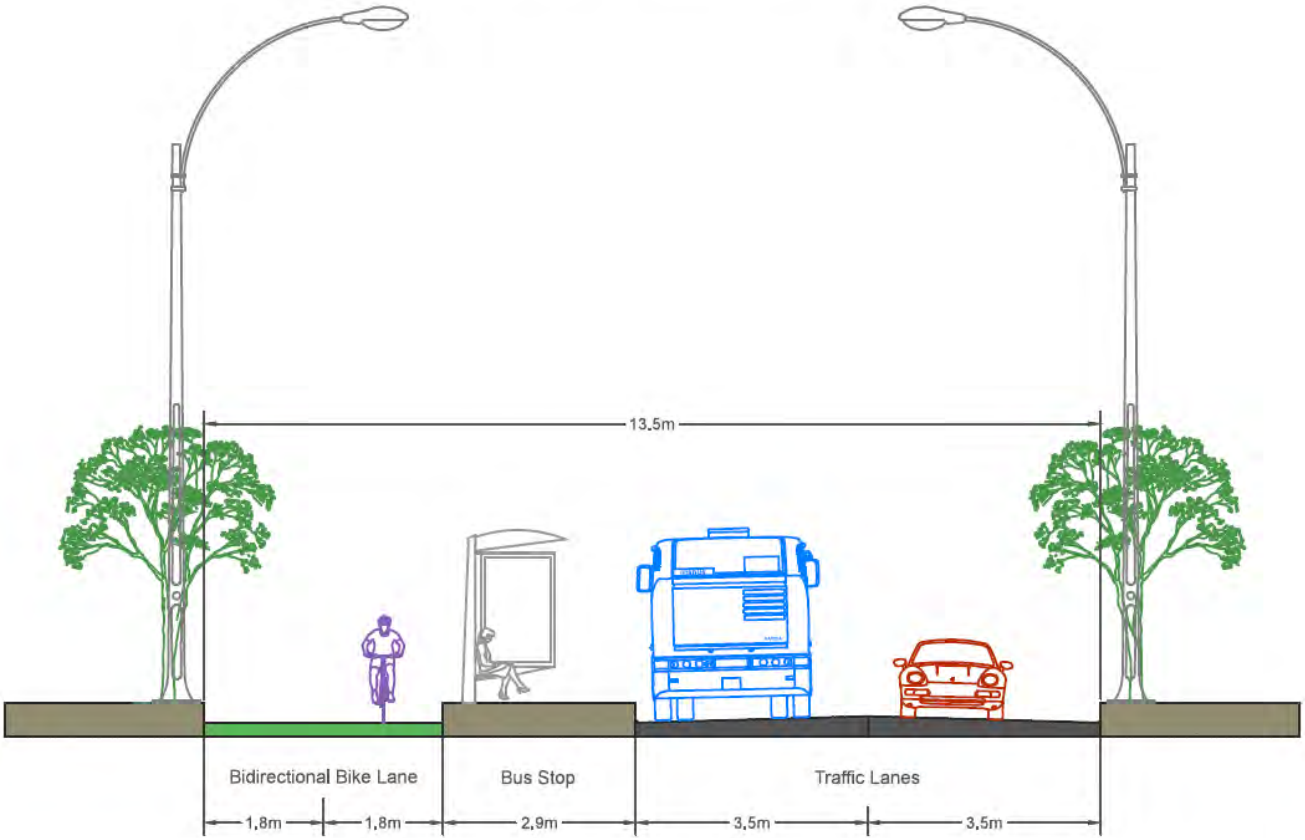


Figure 44 Potential bidirectional cycleway on Rider Boulevard, looking north.

12.1.4.2 Mary Street

Mary Street is approximately 11.5m wide, with two-way traffic and parking on both sides of the road. It forms a logical and pleasant route between Union Square or Rhodes Station to/from the Corso. It currently lacks cycling facilities, and is too narrow for fully separated, protected facilities *and* parking on both sides of the street.

As development and population growth pressures increase, there may be increased numbers of cyclists using Mary Street. Usage and safety should be monitored to ensures levels of service to cyclists are maintained.

In the long term, if demand warranted, bidirectional bicycle lanes could be installed on the south side of Mary Street, as shown in Figure 46, displacing the kerbside car parking. This reallocating of space would offer world-class cycling infrastructure and a seamless connection to Rider Boulevard. Further, the row of trees on the southern side of the road would offer cyclists some shade in summer.

Figure 45 Mary Street

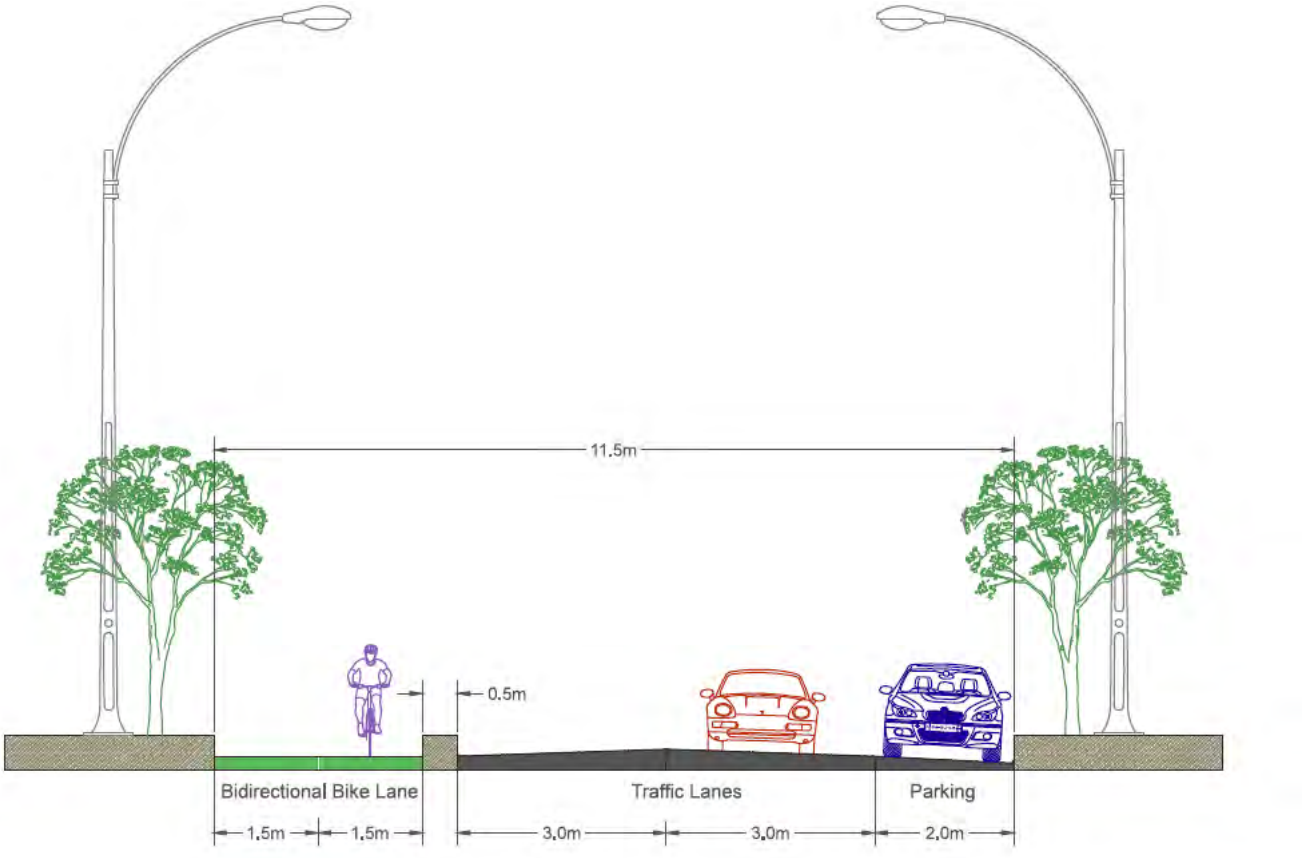


Figure 46 Potential bidirectional cycleway on Mary Street, looking west.

12.1.4.3 Walker Street

Walker Street is variable in width, with two-way traffic and some parking. There is parallel parking permitted on the western side of the road in parts, while the eastern side has some rows of indented angle parking and some parallel parking bays. Buses 458, 526, 533 operate northbound while buses 458, 526 operate southbound. Currently there are PS2 logos in the traffic lane, indicating motorists are to share the road space with cyclists. There is also a shared path running along the western edge of the railway line south of Rhodes Station. There is currently insufficient space for safe, dedicated cycling lanes to be installed in Walker Street without radical changes to the street layout.

In future, development in the 'Station Precinct' may alter include provisions for an upgraded bus interchange on Walker Street. All changes to bus operation and streetscape should consider cycling, and how changes my affect cyclist.

A shared path is also being considered along Walker Street. Installation of a shared path would increase cycling permeability of Rhodes and should be a short to medium term ambition.

In the longer term, as the character and road environment of Walker Street changes, there may be a need to improve cycling facilities. Bidirectional cycling lanes on the eastern side of Walker Street, as shown in Figure 47, would provide a world-class experience. Installation of a bidirectional cycleway is likely to replacing the angle parking, but would provide a dedicated, safe cycling facility connecting the existing shared path to Rhodes Station with Bennelong Bridge (via Gauthorpe Street).

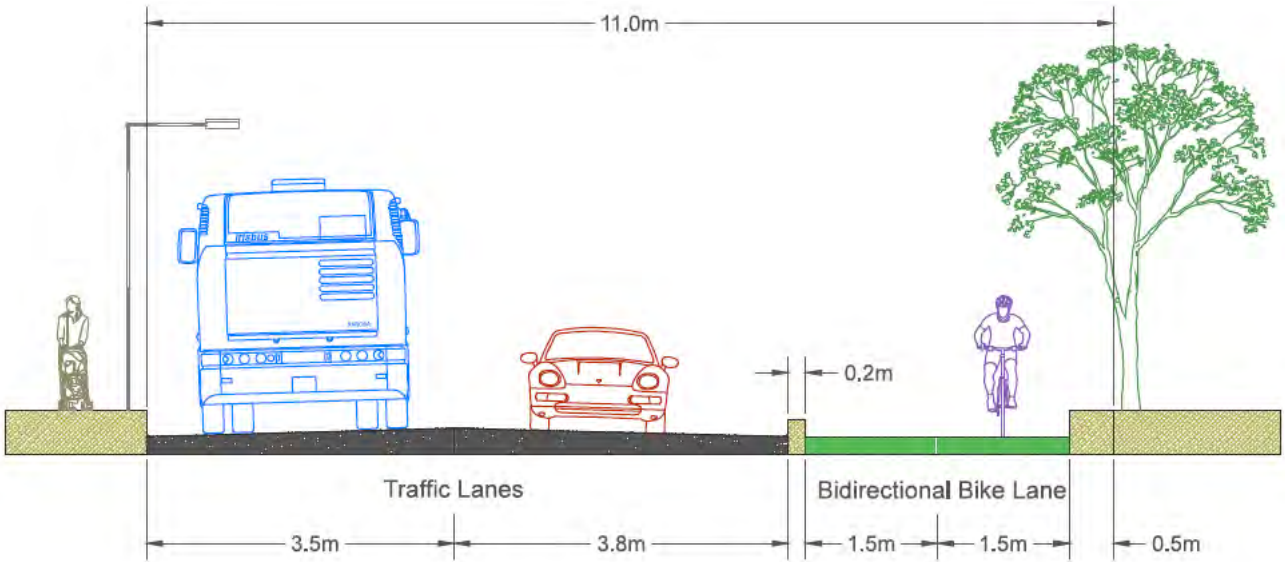


Figure 47 Proposed bidirectional cycleway on Walker Street, looking north.

12.1.4.4 Gauthorpe Street

Gauthorpe Street is approximately 12m wide, with two-way traffic and parking on both sides of the street. Buses 526 and 533 operate on Gauthorpe Street in both directions. Gauthorpe Street currently lacks cycling infrastructure, but acts as a critical link between Wentworth Point and Rhodes Station (via Bennelong Bridge).

It is proposed that the northern footpath be converted to a shared path. Although this may not cater for all cyclists, it will be a welcome improvement to cycling permeability and safety in Rhodes.

In the longer term, cycling participation, development and population growth may warrant improved or dedicated cycling infrastructure. Installation of bidirectional cycling lanes would provide world-class infrastructure. This would require the removal of parking from the northern side of the street, but could result in improved safety and attractiveness.

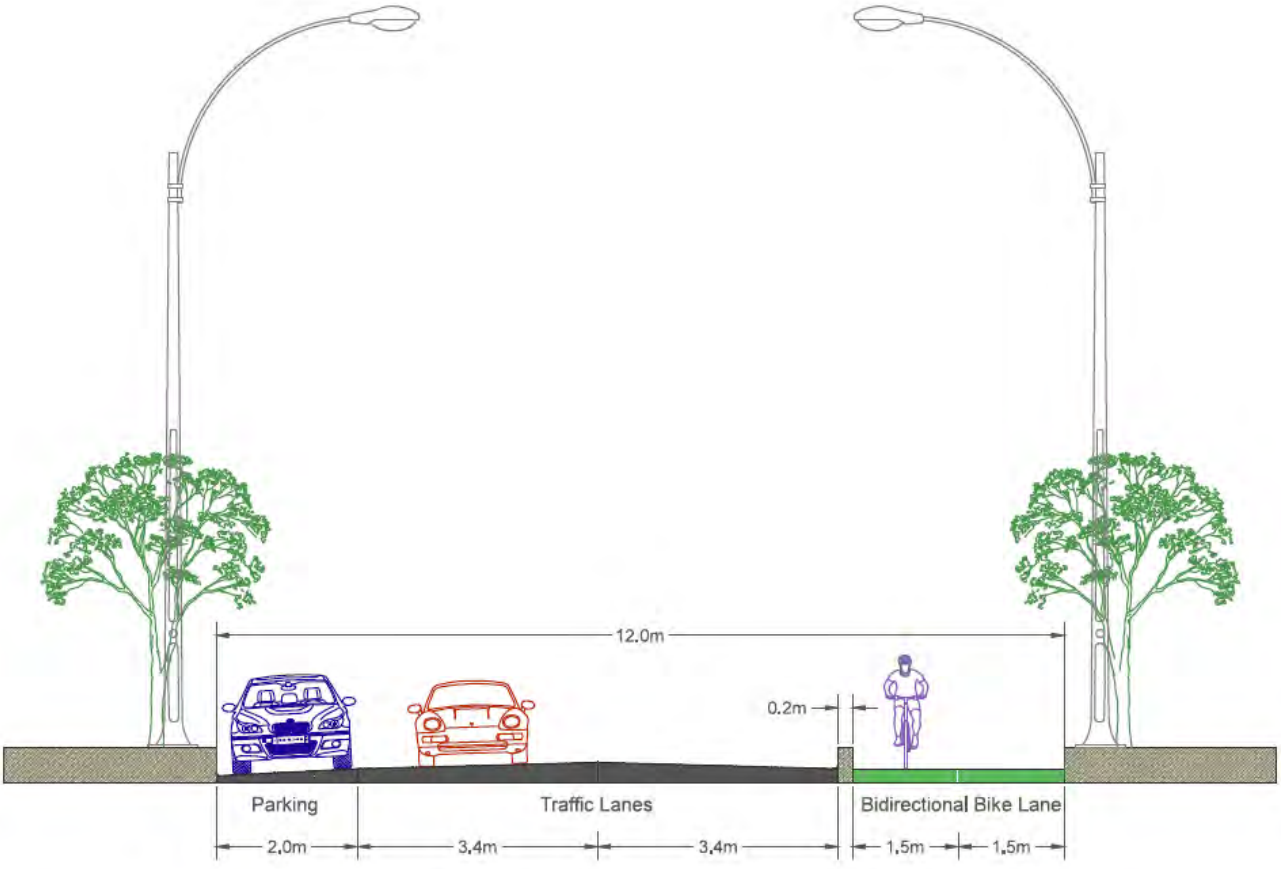


Figure 48 Proposed bidirectional cycleway on Gauthorpe Street, looking west.

12.1.4.5 Footbridge Boulevard

Footbridge Boulevard runs between Bennelong Bridge and Hill Road in Wentworth Point. It is a divided road, with one lane in each direction, separated by a median strip. Both sides have indented parking bays. Buses 526 and 533 operate on Footbridge Boulevard in both directions. The roadway is not sufficiently wide to accommodate dedicated bicycle lanes.

Footbridge Boulevard is not owned by Council, but is under Community Title. As such, the following proposals would be subject to approval by the relevant strata committee.

Consideration should be given to Footbridge Boulevard having the speed limit reduced to no more than 30km/h (subject to RMS consent), with PS2 logos placed prominently in the middle of the road surface. This would indicate to motorist that the street is a shared environment, and to expect cyclists to use the full width of the roadway. Operation of the road should be monitored, with potential alterations including paving of the road surface being considered in future. Additionally, consideration should be given to converting the northern footpath to a shared path.

Figure 49 Footbridge Boulevard

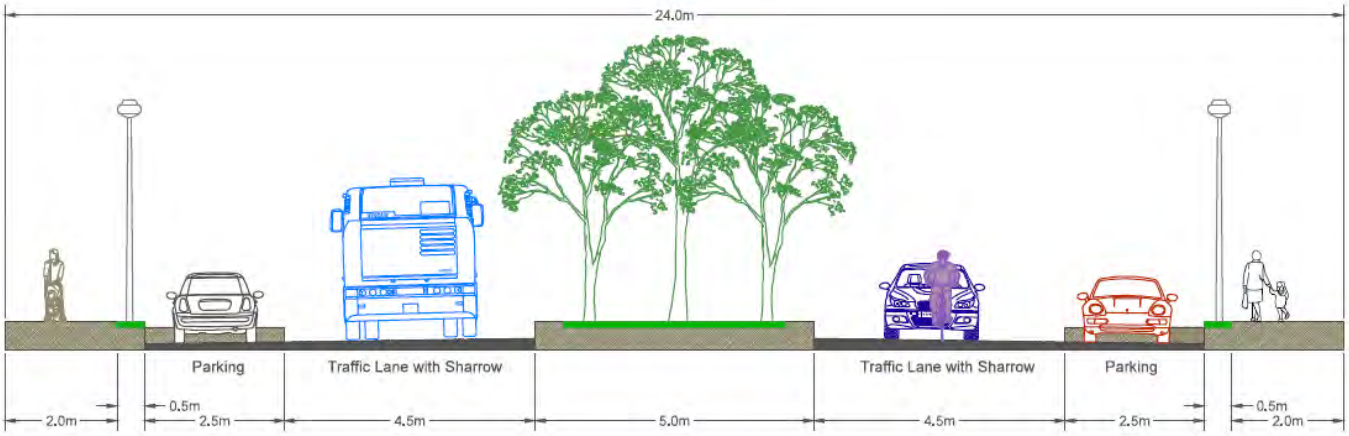


Figure 50 Footbridge Boulevard

12.1.4.6 Hill Road

Hill road is approximately 14m wide, with two-way traffic, parking on the eastern side, and a painted median strip. There are narrow painted bike lanes on both sides of Hill Road. Buses 526 and 533 operate on Hill Road in both directions. A shared path runs along the western side of Hill Road, connecting the Parramatta River foreshore and Sydney Olympic Park Ferry Wharf with Sydney Olympic Park and Newington. There is sufficient space on Hill Road to include separated bicycle lanes without affecting the current car parking rates or traffic movements. Dedicated bicycle lanes (shown in Figure 51) should be considered on Hill Road. This will maintain parking on one side of the street and complement the existing shared paths in Newington Reserve.

The current Parramatta Light Rail Stage 2 route alignment is along Hill Road. This will change the road environment and a reassessment of how best to accommodate cyclists will need to be made in the design process.

12.1.4.7 Hill Road and Bennelong Parkway intersection

The intersection between Hill Road and Bennelong Parkway will need to be reconfigured in the future, as it is not currently safe yet forms a critical part of the HBC. The current south to east slip lane could be converted into a dedicated bidirectional cycleway. The T-intersection would need to be signalised, to better accommodate active transport movements across the intersection (a 'scatter' sequence may be suitable).

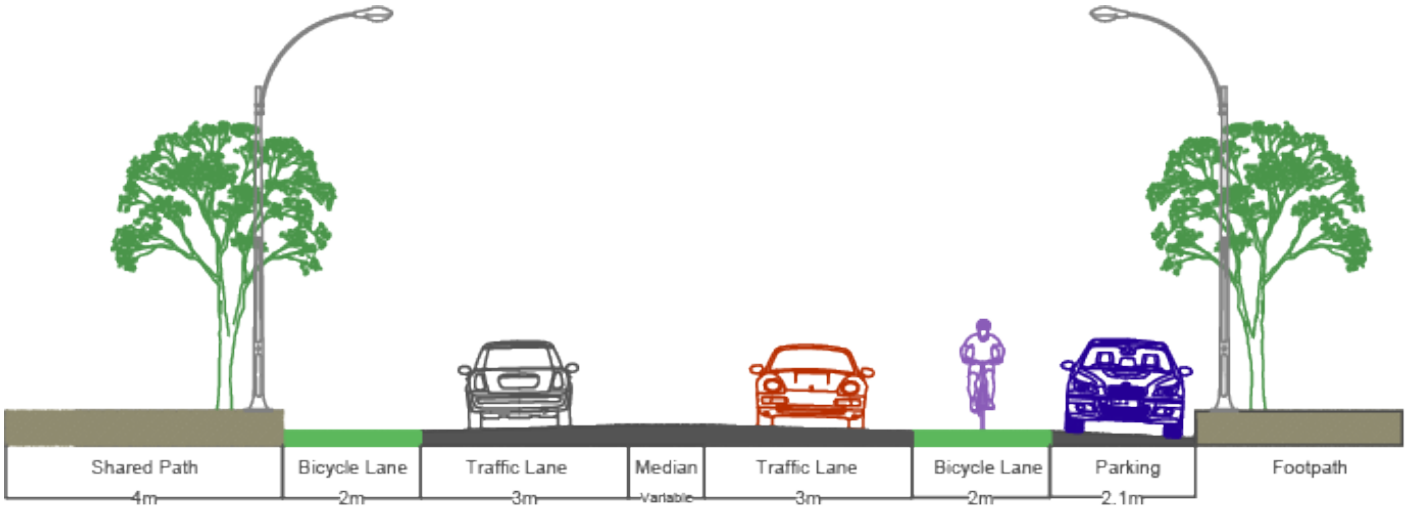


Figure 51 Proposed bidirectional cycleway on Hill Road, looking north.

12.1.4.8 Bennelong Parkway (Hill Road to Haslams Creek)

The road way of this section of Bennelong Parkway is approximately 14m wide, with two-way traffic, parking on the eastern side, and a median which is either physical or painted. There are painted bike lanes on both sides of Bennelong Parkway, and a shared path along the western footpath. There is sufficient space on Bennelong Parkway to include separated cycling facilities without affecting the current parking rates or traffic movements. A bidirectional, separated cycleway should be installed on the eastern side of Bennelong Parkway., with a north bound cycle lane retained on the western side of Bennelong Parkway. In addition, a shared path should be provided on the eastern side, running from 25 Bennelong Parkway to the new bridge across Haslams Creek (as illustrated in Figure 53).

Management of Bennelong Parkway is shared between City of Parramatta and Sydney Olympic Park Authority, who should collaborate to provide an environment that best supports the success of the HBC.

12.1.4.9 Haslams Creek Bridge

Currently cyclists and pedestrians wishing to travel between the Promenade and Badu Mangroves are required to cross Bennelong Parkway twice, as the footpath on the Bennelong Parkway Bridge across Haslams Creek is on the western side. This arrangement increases exposure to motor vehicles, which can travel at up to 60kmh, decreasing safety. Safety is further decreased by poor lighting and the narrowness of the footpath. A new walking and cycling bridge is proposed on the eastern side of the existing roadway. This will offer a direct path between the Promenade and Badu Mangroves without requiring any road crossings. The bridge should be a minimum of 5m, with quality lighting.

Figure 52 Bennelong Parkway bridge over Haslams Creek.

Note: Pedestrians and cyclists must cross Bennelong Parkway twice to cross at this bridge.

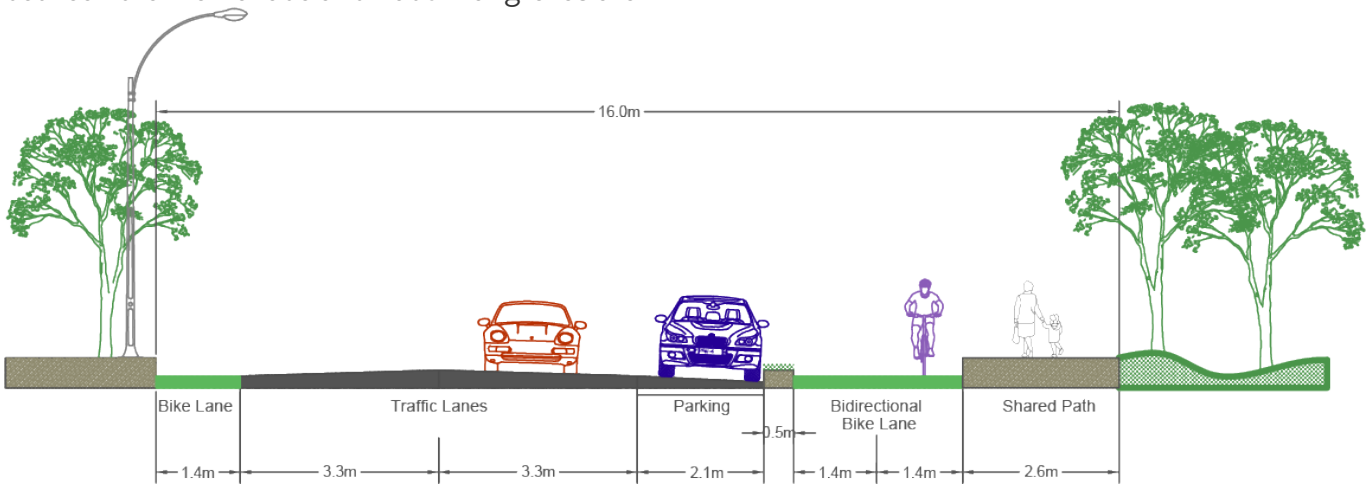


Figure 53 Proposed bidirectional cycleway on Bennelong Parkway

Note: Cross section is between 25 Bennelong Parkway and Haslams Creek, looking north.

12.1.4.10 Bennelong Parkway (Haslams Creek to Australia Avenue)

This section of Bennelong Parkway has two-way traffic lanes with adjacent wide bike lanes, and a 1.6m wide footpath on the western side of the street, separated by a stand of insignificant trees (from an ecological perspective). The road space has a width of 14m from the western edge of the footpath to the eastern shoulder of the road lanes. This section of Bennelong Parkway will form part of the main HBC, forming an alternative to those who do not want to pass through the Badu Mangroves, or for when the Badu Mangroves are closed (e.g. due to tidal inundation).

Currently, Bennelong Parkway does not offer a level of service that meets the expectations of family groups or less confident riders, who are forced to riding on the road with fast moving motor vehicles. Further, having the path on the western side of Bennelong Parkway requires users to cross the road to move between Bicentennial Park, the Badu Mangroves and the pathway.

A total reconfiguration of the road space, as shown in Figure 55, would significantly improve the attractiveness, safety, and perceived safety of Bennelong Parkway. The reconfigured road surface will provide walking path on both sides for pedestrians; bidirectional cycling lanes on the eastern side and a northbound cycle lane on the western side. This arrangement would cater for the needs of fast moving and slow-moving cyclists and pedestrians. At Bicentennial Drive, the shared path would intersect with the shared path from Bicentennial Park.

The currently unused section of Bennelong Parkway, shown in Figure 54, should be considered to have the cycleway and shared path run through it, offering a shorter, more scenic route. This space is large, and could also be used for community purposes, such as community gardens (in raised planters), should there be sufficient community interest.

Management of Bennelong Parkway is shared between City of Parramatta and Sydney Olympic Park Authority, who should collaborate to provide an environment that best supports the success of the HBC.

Figure 54 Disused section of Bennelong Parkway.

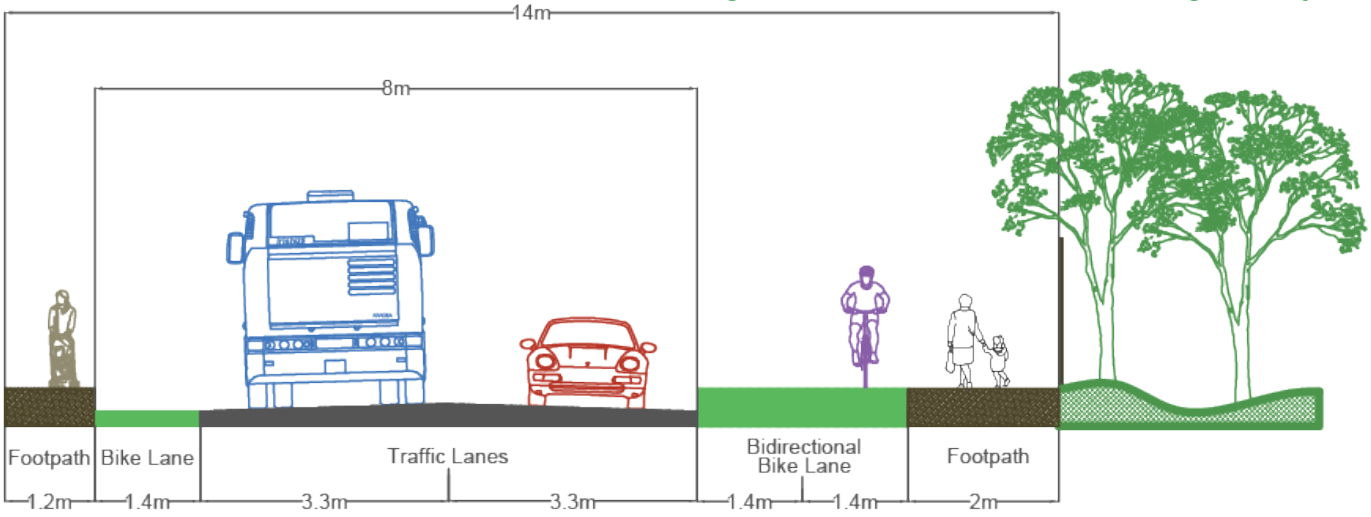


Figure 55 Proposed reconfiguration of Bennelong Parkway, looking north

12.2 Connections to the wider walking and cycling network

12.2.1 Vision

The HBC will be well integrated with the wider active and public transport network, making it inclusive and accessible for all users.

12.2.2 Objectives

1. For users to be able to access the HBC conveniently, safely and legibly from the wider region using active transport.
2. For wayfinding signage to actively promote visitation to the HBC from the wider walking and cycling network.
3. For the HBC to be easily accessible by public transport through signage and quality built form design.
4. For public transport stops and stations to have advanced wayfinding opportunities, which help users access the HBC.
5. For HBC users to be able to easily locate and access their nearest public transport options.

12.2.3 Actions

1. The following infrastructure projects would improve connections to the wider walking and cycling network:
    a. Improving the cycling environment at Victoria Avenue and King Street in Concord West, to better connect Concord West train station with the HBC;
    b. Implement a step-free crossing of the railway line adjacent to Rhodes Station to offer convenient cycling opportunities between the west and east of Rhodes;
    c. Complete the Promenade north of Bennelong Bridge around Wentworth Point to Sydney Olympic Park Ferry Wharf and on to Parramatta;
    d. Improved pedestrian crossings at: Shoreline Drive and Mary Street; Hill Road and Stromboli Strait; Hill Road and Nuvolari Place; Hill Road and Footbridge Boulevard. These crossings have been identified through site inspections and community consultation as potentially unsafe;
    e. Collaborate with relevant Strata to install a kerb ramp with a gentler grade at the eastern end of Amalfi Drive;
    f. Install a kerb ramp at the western end of Jean Wailes Avenue allowing cycling access to the Corso;
    g. Install a kerb ramp with a gentler grade at the western end of Nina Gray Avenue allowing cycling access to the Corso;
    h. Install a kerb ramp with a gentler grade at the western end of Sevier Avenue;
    i. Install troughing at the stairs south west of the intersection between Shoreline Drive and Rider Boulevard, allowing cyclists to avoid the ramps;
2. Improve connectivity between the HBC and the Parramatta Valley Cycleway (west) by upgrading the Silverwater Road Bridge shared path.
3. Improve connectivity between the HBC and the Parramatta Valley Cycleway through installation of wayfinding signs at:
    a. Bennelong Bridge and the Corso
    b. The northern and southern sides of the John Whitton Bridge
    c. The intersection of Hill Road and Footbridge Boulevard
    d. The junction between Bennelong Bridge and The Promenade
    e. Sydney Olympic Park Ferry Wharf
    f. The Silverwater Road Bridge shared path and the shared path on the southern side of the Parramatta River
    g. The Silverwater Road Bridge shared path and the Parramatta Valley Cycleway
4. To install material promoting the HBC at public transport points, as shown on Figure 56. These

points should have NFC and QR tags allowing users to engage digitally on their mobile device.

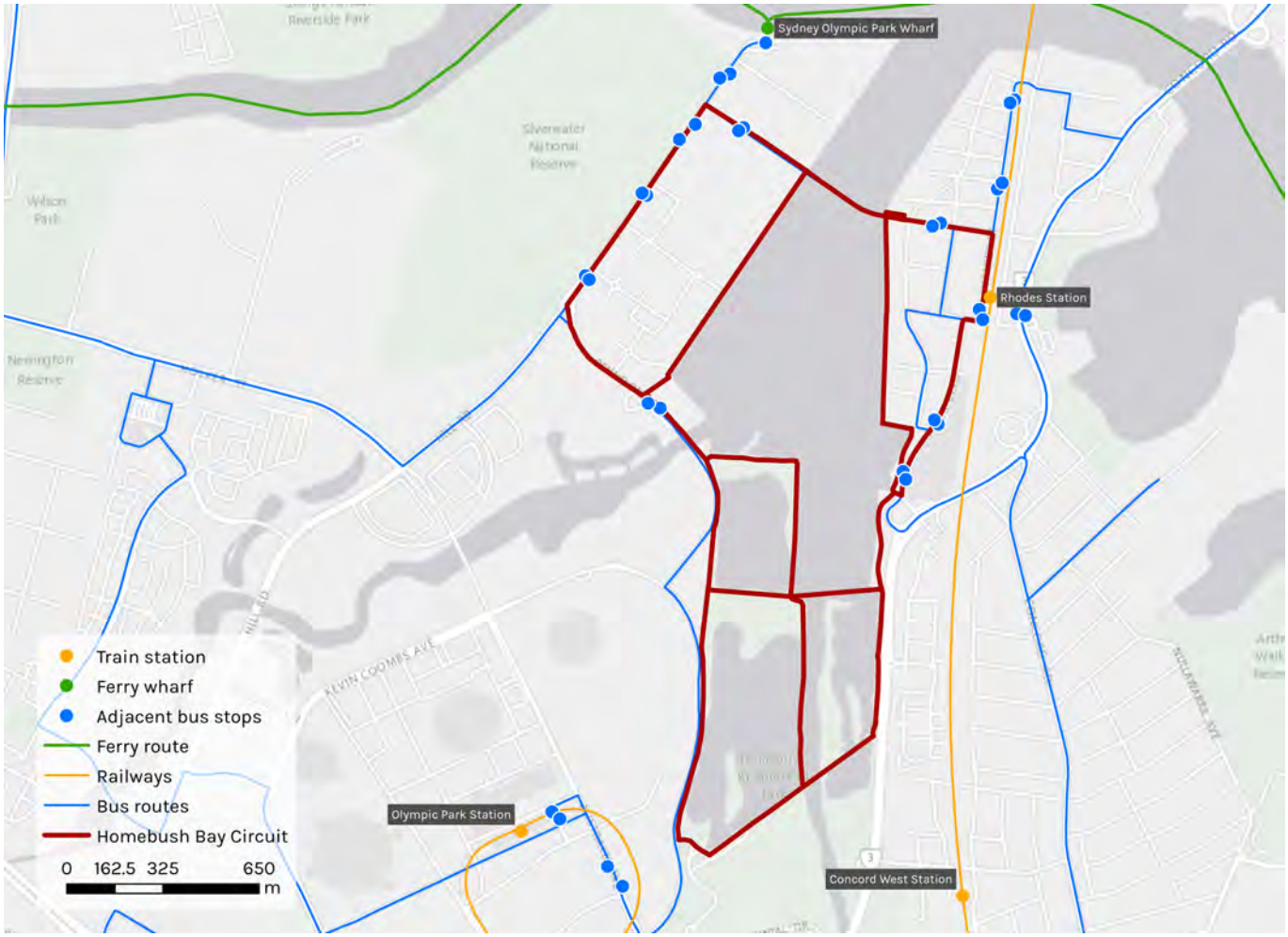


Figure 56 Select train stations, ferry wharf, and bus stops.

12.3 Wayfinding

12.3.1 Vision

The HBC will be legible and users will be able to easily orientate themselves and navigate around the Circuit, discovering key points of interest along the way.

12.3.2 Objectives

1. To create an enticing digital platform to encourage potential visitors to travel to the HBC, from anywhere they might be in the world
2. To apply best practice, innovative digital and physical wayfinding to create a seamless, high quality user experience
3. To provide an engaging interface to enable users to interpret the rich cultural and historic value of the HBC
4. To have a strong, unique brand that clearly identifies the HBC
5. For wayfinding to be accessible to all HBC users

12.3.3 Actions

The following actions will require a coordinated approach involving City of Canada Bay, City of Parramatta and Sydney Olympic Park Authority.

1. To engage a suitably qualified branding consultant to develop a brand identity and logo for the HBC with consideration of the following factors:
    a. The HBC logo should be easily recognisable at different scales and distances
    b. The HBC logo should be able to be represented in different colours as well as monotone
    c. The HBC logo should embody the physical and cultural characteristics of Homebush Bay
    d. Typeface used in HBC branding to be sans-serif font without pronounced variation in stroke width, to enhance legibility
    e. Typeface used in HBC branding to not be excessively thin, with an appropriate stroke width-to-height ratio (e.g. between 1:5 and 1:10)
    f. For text size on signs to be determined based on ideal viewing distance of each sign at each location
    g. For the height of the capital letter X (Cap X-height) to be used instead of the point size of the font
    h. Avoid all-upper-case text (reduces readability)
    i. For signage to contrast light letters on a dark background, or vice versa
    j. For legible pictograms to be included in the brand identity toolkit
2. To have a digital platform which is accessible from computers and mobile devices (both through a mobile website and application)
3. For the digital platform to follow the principles of progressive disclosure (see Section 8.4)
4. To apply the wayfinding strategy principles as outlined in Section 8 to the production and implementation of wayfinding
5. To install physical wayfinding as shown in Figure 57 and described in Appendix 2.
6. To develop and maintain a database of locations near the HBC, as shown in Figure 58, and Appendix 1 for the names of the numbers used in Figure 58.
7. For physical wayfinding signage to have NFC and QR tags attached, which allow users to digitally engage on their own mobile devise (either through a mobile website or app)
8. To locate NFC and QR tags adjacent to culturally or historically significant objects, allowing for digital engagement and interpretation
9. To install digital kiosks at Sydney Olympic Park Station, Sydney Olympic Park Ferry Wharf, Rhodes Station, Rhodes Waterside Shopping Centre, and in Bicentennial Park

10. To provide hard copy maps on location and distributed to shops and community services in the region

11. To investigate the potential for installing physical map production and dispensing machines (such as that shown in Figure 59).

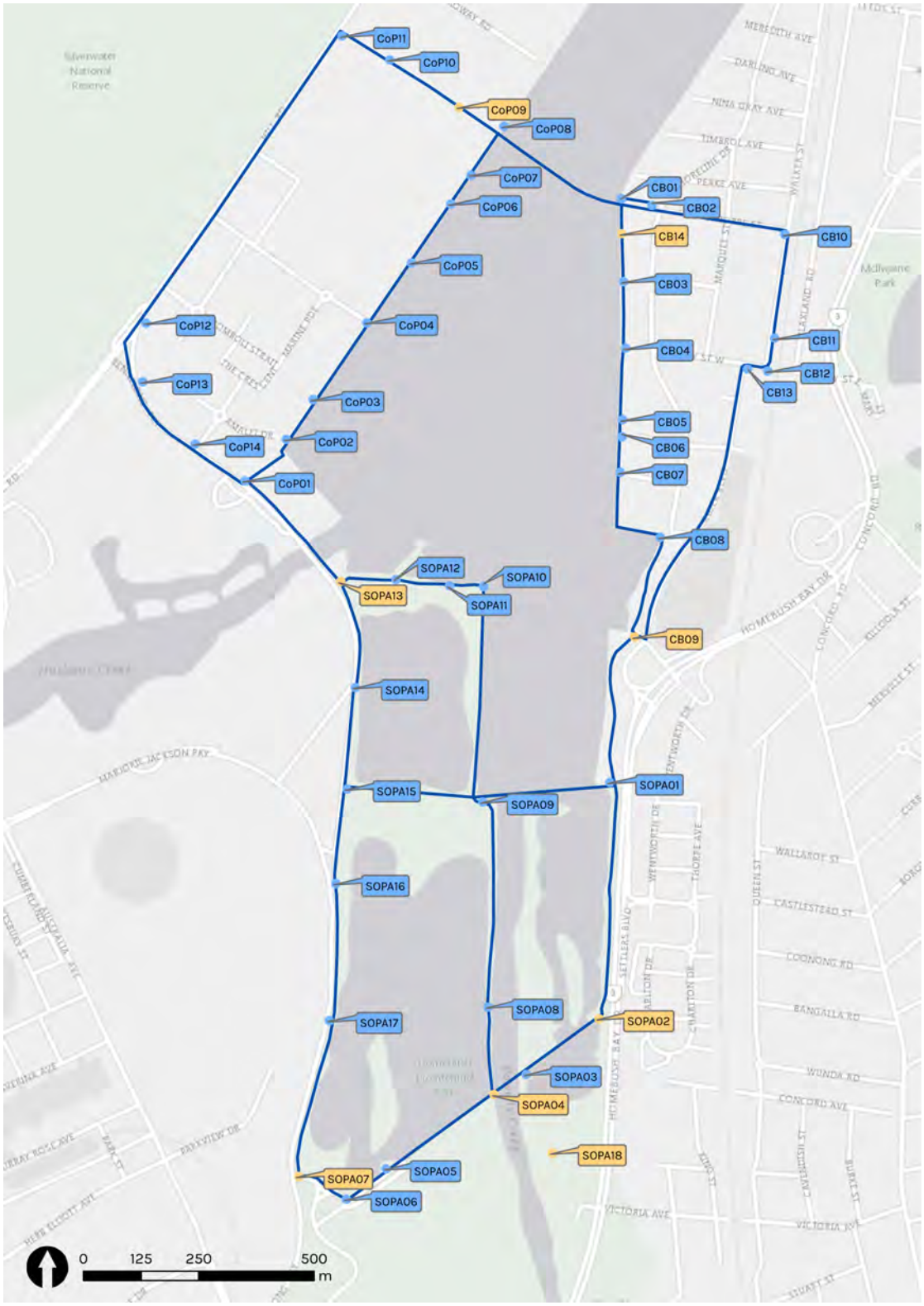


Figure 57 Physical wayfinding locations

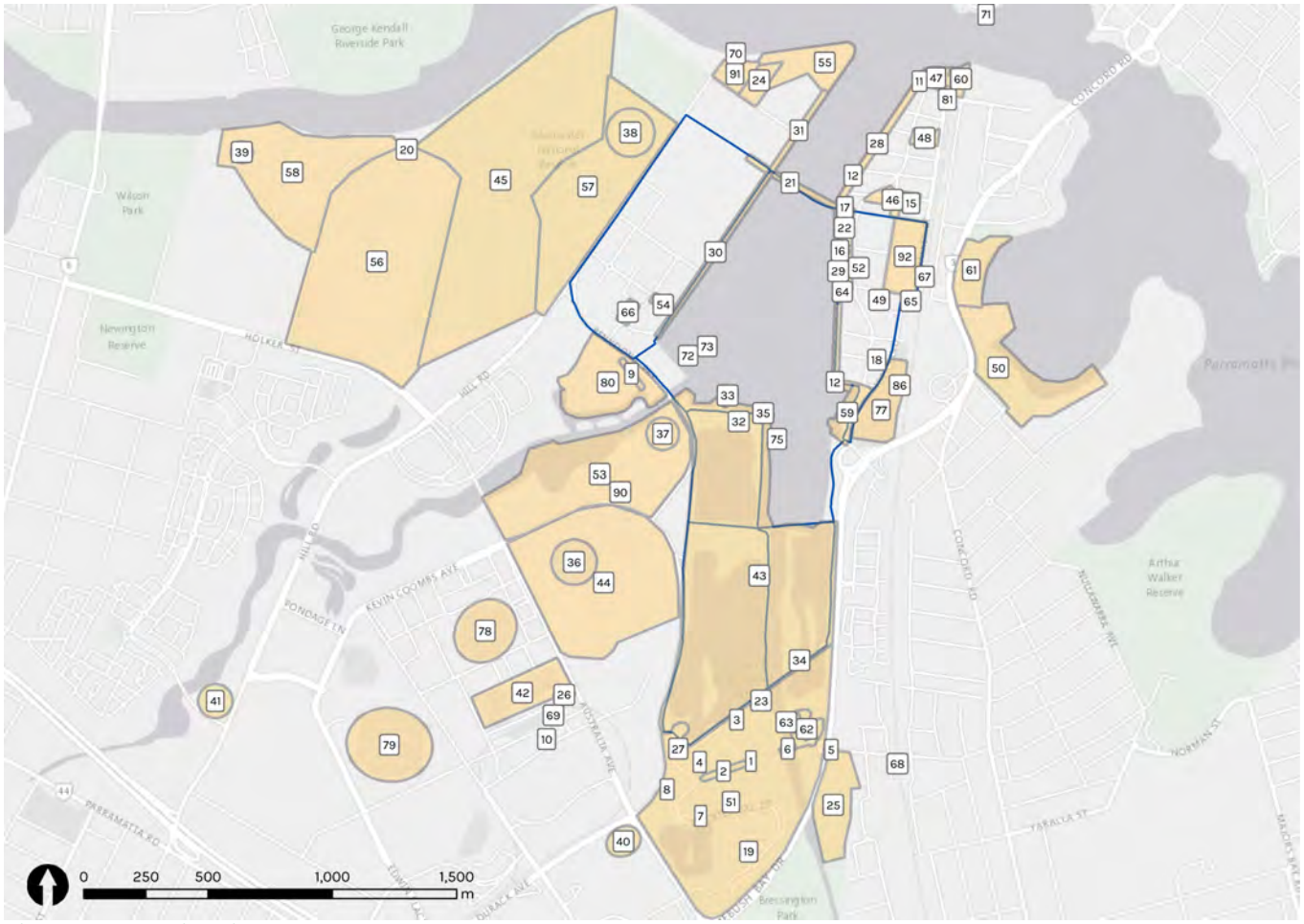


Figure 58 Destinations relevant to HBC users

NB: See Appendix 1 for names of numbers destinations.

Figure 59 Tourist map production and dispenser, The Netherlands.

12.4 Public Art

Public art describes art practice that is part of the public experience of built and natural environments. It can include sculpture, environmental art, the integration of art and architectural design, installations, lighting works, new media and outdoor performance. Where there is artist involvement, customised design is also included in the broader definition of public art and may include artist designed street furniture, decorative paving, lighting treatments, signage, and glasswork. Public artworks are usually site specific and may celebrate the distinctiveness of the environment, local heritage, cultural identity, the energy of urban spaces or other themes relevant to people and place. Artworks may be of a significant scale and define a locality or be intimately integrated into urban elements.

The HBC currently has numerous public artworks, as shown in Figure 60 and listed in Table 1. These artworks enhance the area, providing visual interest, linking to the cultural identity of the area, and providing spatial awareness that helps wayfinding. There is scope to add to this existing catalogue of public artwork, further enhancing Homebush Bay and the user experience.

12.4.1 Vision

For the HBC to have interesting and culturally significant public artworks which enhances the amenity; sense of place; and legibility of Homebush Bay.

12.4.2 Objectives

1. For public artworks to enhance the sense of space and place of Homebush Bay.
2. For public artworks to complement wayfinding by increase legibility and spatial awareness of the HBC.
3. For public artworks to reflect Homebush Bay's culture and heritage, including:
    - Indigenous heritage;
    - The Parramatta River, Homebush Bay and the natural environment;
    - Colonial heritage;
    - Industrial heritage;
    - Remediation and rebuilding of the land;
    - The emerging built form;
    - An intercultural community
4. For public art to engage with the waterfront where appropriate.
5. For public art to be responsive in place, space, and size to its context and surrounds.
6. Public art should be of high design quality, using sustainable materials where possible.
7. For the provision of public art to be consistent with relevant local government policies.
8. For public art to enhance the legibility of Homebush Bay by providing reference points.

12.4.3 Actions

1. To enhance the HBC through the provision for public art at key locations (suggested locations are shown in Figure 60).
2. To consult the local community, and communities, about potential locations and designs of public art in Homebush Bay.
3. To engage the Aboriginal community about the cultural appropriateness, and potential Aboriginal desire, to celebrate Homebush Bay's rich Aboriginal heritage through public art.
4. To engage local artists to produce public artworks responsive to Homebush Bay.

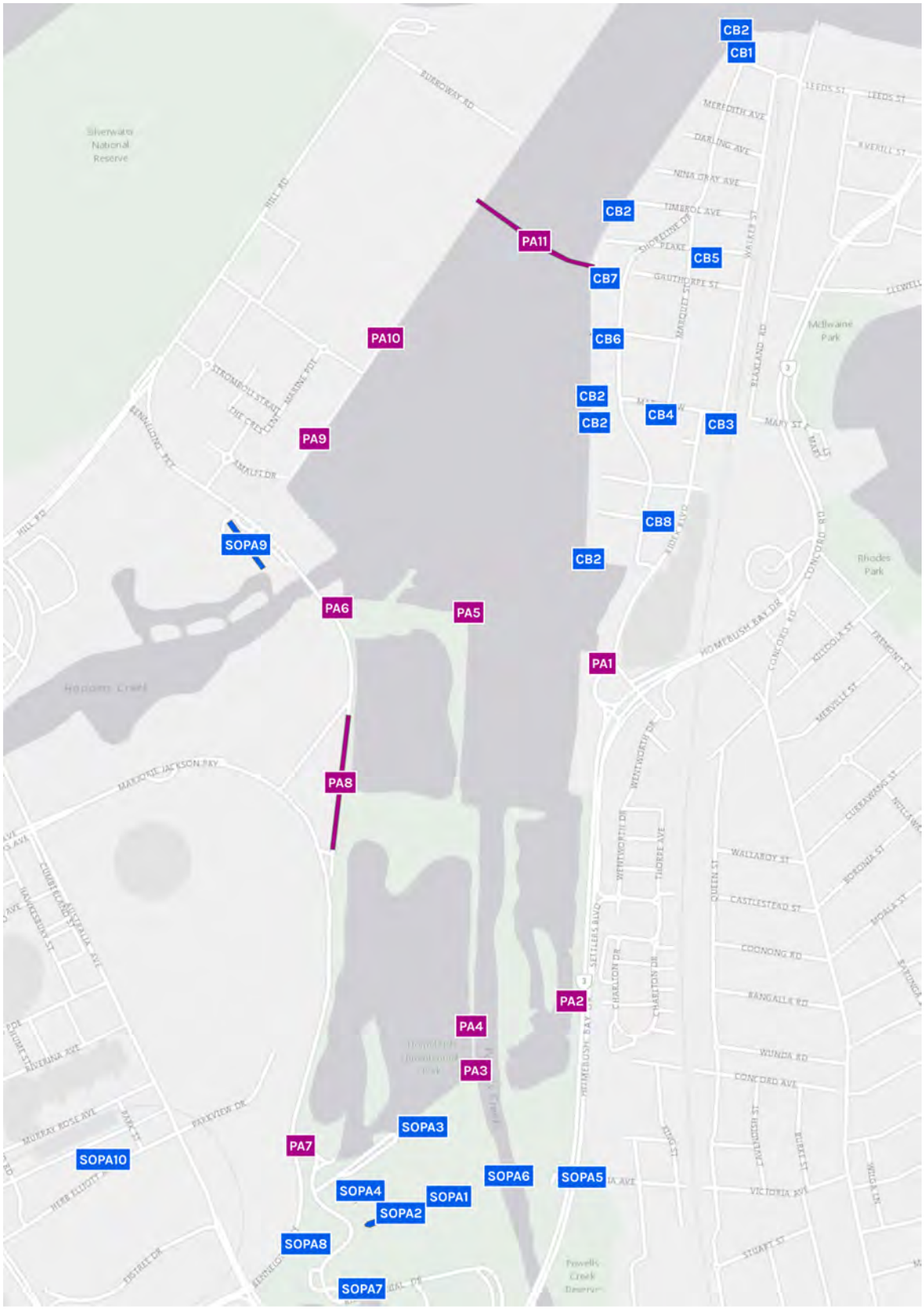


Figure 60 Existing public art surrounding Homebush Bay (blue)

Note: Potential suggested locations marked in purple.

Figure 60 reference	Artwork	Location
CB1	Mill Park Art - Jane Cavanaugh	Mill Park, Rhodes
CB2	Cartwheeling Youngsters - Caroline Rothwell	The Corso, Rhodes
CB2	Cartwheeling Youngsters - Caroline Rothwell	The Corso, Rhodes
CB2	Cartwheeling Youngsters - Caroline Rothwell	The Corso, Rhodes
CB2	Cartwheeling Youngsters - Caroline Rothwell	The Corso, Rhodes
CB2	Cartwheeling Youngsters - Caroline Rothwell	The Corso, Rhodes
CB2	Cartwheeling Youngsters - Caroline Rothwell	The Corso, Rhodes
CB3	Cumulus - Stuart Green	Union Square, Rhodes
CB4	POPP Table Tennis Table - Mulga the Artist	Peg Paterson Park, Rhodes
CB5	Mullet Feast and Wangal Wall - Jason Wing	Phoenix Park, Rhodes
CB6	Aqueous - Emma Anne	Shoreline Drive, Rhodes
CB7	In Motion - Brook Andrew	The Connection, Rhodes
CB8	Wonderwalk - Particle	Lewis Avenue, Rhodes
SOPA1	Treillage Tower	Bicentennial Park
SOPA2	Bicentennial Park Water Feature	Bicentennial Park
SOPA3	Sundial	Bicentennial Park
SOPA4	Peace Monument	Bicentennial Park
SOPA5	Obelisks	Bicentennial Park
SOPA6	Powell's Creek Bridge	Bicentennial Park
SOPA7	Migration	Bicentennial Park
SOPA8	Cyrus the Great	Bicentennial Park
SOPA9	Pole Forest	SOP Archers, Bennelong Parkway, Sydney Olympic Park
SOPA10	Discobolus	Herb Elliot Avenue, Sydney Olympic Park

Table 1 Current public artworks and locations

Figure 60 reference	Location for potential public art
PA1	Northern entrance to Bicentennial Park
PA2	Bicentennial Park junction
PA3	Entry to Badu Mangroves
PA4	Badu Mangroves, boardwalk
PA5	Badu Mangroves, lookout
PA6	Entry to Badu Mangroves
PA7	Intersection of Bennelong Parkway and Bicentennial Drive
PA8	Disused section of Bennelong Parkway
PA9	Strombol Square at The Promenade
PA10	Baywater Drive at The Promenade
PA11	Bennelong Bridge

Table 2 Potential public artwork locations

12.5 Lighting

Public lighting increases safety and opportunities for passive surveillance of public spaces. The number of people using the HBC will increase as residential populations around Homebush Bay grow. This will lead to more people using the HBC after dark. Community consultation showed there is a strong desire for the HBC to be lit at night. Further, a night time lighting assessment of the HBC area was undertaken. Owing to the environmentally sensitive nature of the wetland areas that will form part of the HBC, there may be instances in which no, or limited lighting will be appropriate.

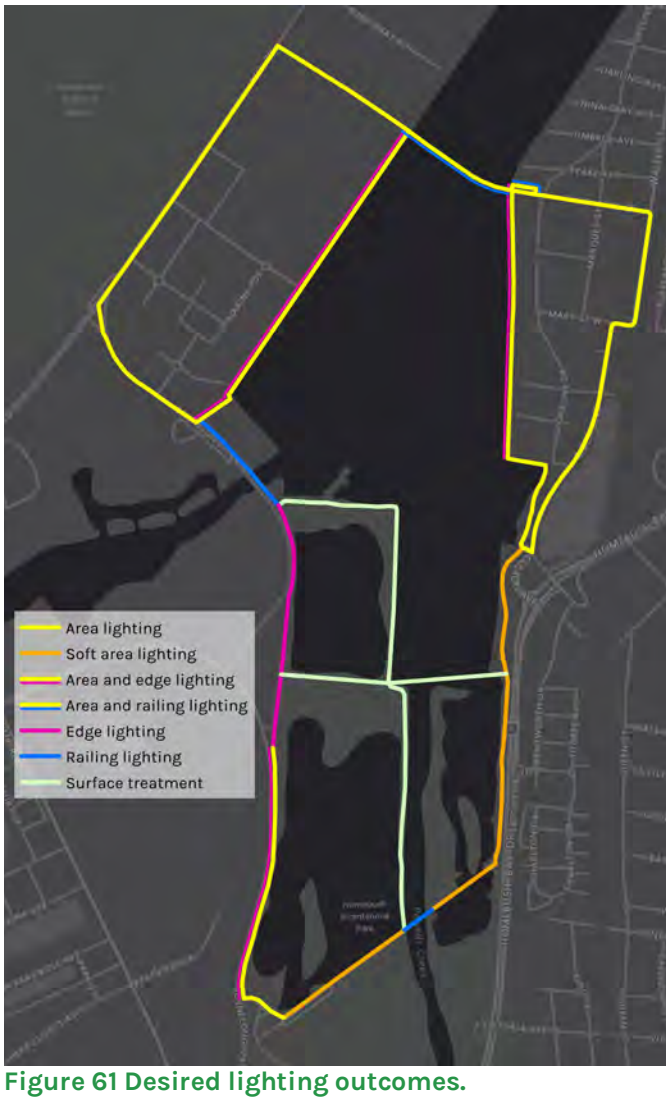


Figure 61 Desired lighting outcomes.

The map shown in Figure 61 identifies lighting outcomes required to achieve the lighting objectives and ensure the HBC can be enjoyed by a wide range of users after dark. As mentioned previously, the need to be sensitive to the ecology of the area is an important requirement and this has influenced the lighting recommendations illustrated in Figure 61.

A hierarchy of lighting levels ensures the lighting treatment is suitable for the context of the area in which it is located. Key lighting designs are briefly described below:

12.5.1.1 Area lighting

Figure 62 and Figure 63 provide an illustration of area lighting.

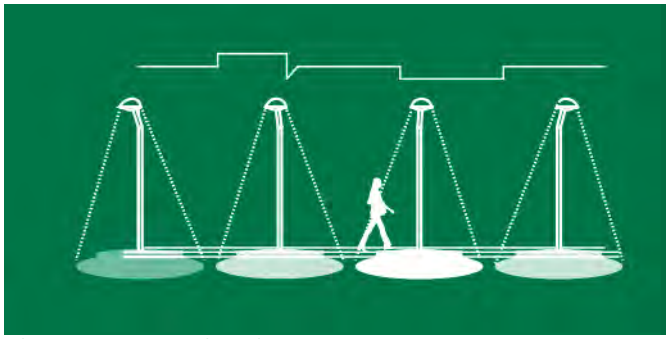


Figure 62 Area lighting

Figure 63 Area lighting along a path/promenade

12.5.1.2 Path edge lighting

The lighting shown in Figure 64 and Figure 65 provide good examples of how low-profile lighting can be used to identify the edge of a path, enhancing its legibility in a visually attractive manner that avoids 'over lighting'.

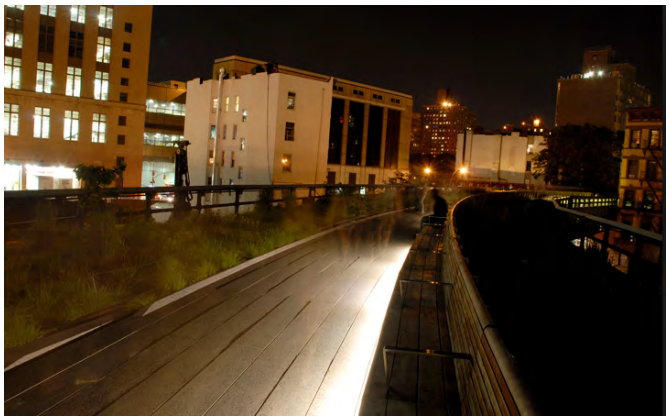


Figure 64 Under seat lighting

Figure 65 Low profile lighting on the underside of street furniture

Figure 66 Lighting on the perimetre of a path

Source: See http://www.coxarchitecture.com.au/project/jim-stynes-bridge/

12.5.1.3 Underside of railing lighting

LED lighting on the underside or railings is an effective way of lighting paths, while minimising infrastructure requirements such as lighting poles and avoiding 'over lighting' (see Figure 67).

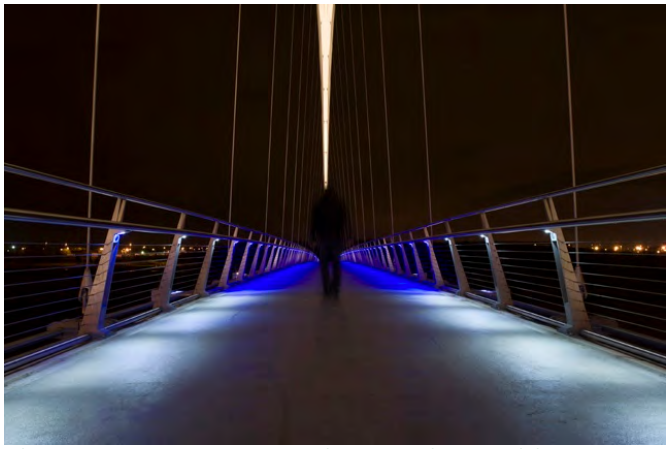


Figure 67 LEDs on underside of bridge railing

12.5.1.4 Path surface treatments

In recent years 'glow-in-the-dark' pavements have become commercially available, and these are considered particularly suitable for the HBC. A number of products can be applied to the surface of a path offering low-level illumination over an entire night. An example of this surface type is shown in Figure 68.

Figure 68 Glow in the dark surface treatment applied to a walking and cycling path

12.5.1.5 Landmark lighting

The lighting of landmarks can help to highlight key points of interest and act as a navigational aide.

12.5.2 Vision

To enhance people's experience of the HBC after dark and respect the ecologically sensitive areas that make up the Circuit.

12.5.3 Objectives

1. To encourage people to enjoy the HBC after dark.
2. To increase real and perceived safety for those using the HBC in the after dark/pre-dawn period.
3. To ensure paths remain legible after dark.
4. To be sensitive to the surrounding environment, to ensure wildlife is not unduly impacted by artificial illumination.
5. To avoid 'over-lighting' in an effort to minimise the impact of 'sky glow'.
6. To minimise energy use in the provision of lighting.
7. To provide a mix of lighting options, appropriate to the context of its position.

12.5.4 Actions

1. To illuminate the Corso with area lighting and edge line indicator lights to define the water front.
2. To illuminate The Promenade with area lighting edge line indicator lights to define the water front.
3. To illuminate Bennelong Bridge with area lighting and lighting on the underside of the railings.
4. To illuminate the bridge over Powells Creek with area lighting and lighting on the underside of the railings.
5. To illuminate the future bridge over Haslams Creek with area lighting and lighting on the underside of the railings.
6. To illuminate public artworks and landmarks at night, where appropriate.
7. To illuminate the following on-road bicycle lanes with area lighting provided by street lighting:
    a. Gauthorpe Street;
    b. Walker Street;
    c. Mary Street;
    d. Rider Boulevard;
    e. Bennelong Parkway (between Haslams Creek and Hill Road)
    f. Hill Road
    g. Footbridge Boulevard.
8. To illuminate Bennelong Parkway (south of Haslams Creek) with lighting on the underside of railings on the east of the shared path, directed west to avoid light spill into the Badu Mangroves.
9. To illuminate HBC paths through Bicentennial Park with soft area lighting.
10. To illuminate all HBC path junctions with area lighting.
11. To investigate for paths through the Badu Mangroves to be illuminated with treatments to the path surface.
12. To have all lighting designs assessed by environmental professionals prior to installation to ensure the design will not cause undue negative impacts on local flora or fauna.

12.6 Street furniture

Street furniture enhances the amenity and attractiveness of an area. Community consultation highlighted the appeal of street furniture, with the community indicating they desired more bins, playgrounds, and other leisure equipment. The need for more bins is especially apparent along the Corso and Bennelong Bridge.

'Smart furniture' is now commercially available, with companies developing internet connected, solar powered furniture that have multiple benefits. Innovations in bin technology now allow for solar powered, self compacting bins, that reduce the frequency of collection and the likelihood of overflow during high demand times. An example of such technology is shown in Figure 69, and discussions with other Local Government Areas have shown smart bins to be effective and reliable assets which lower collection costs.

Figure 69 Solar powered, connected bins

Photo: Big belly

Similar advances have been made in 'smart benches'. Companies are now producing benches that allow for the charging of mobile devices through integrated solar panels. More importantly, these benches can detect the MAC address from smartphones, to provide authorities with counts of the number of pedestrians passing through and whether they are new or returning visitors.

Figure 70 Smart bench

Photo: Soofa

12.6.1 Vision

For the HBC to have high quality street furniture and amenities at regular intervals along the route, enhancing the attractiveness, function, and desirability of the HBC.

12.6.2 Objectives

1. For comfortable seating to be provided, allowing all users a place to rest and relax, while not impacting on movement along paths.
2. For seating to be positioned to take advantage of foreshore views.
3. For litter bins to be provided, where appropriate, to reduce littering, protecting the environment.
4. For recycling and landfill bins to be provided, where appropriate, reducing waste streams to landfill.
5. For the HBC to have 'smart furniture', such as smart bins which can monitor and compact waste, and smart furniture which can count HBC users anonymously and allow users to charge their mobile devices.
6. For appropriate shade structures to be provided in areas of relaxation or congregation.

7. For toilet facilities to be close to all parts of the HBC, and well signed.
8. For water refill stations to be regularly provided, and well signed.

12.6.3 Actions

Some of the following actions may require a coordinated approach involving City of Canada Bay, City of Parramatta and Sydney Olympic Park Authority.

1. To provide recycling bins adjacent to rubbish bins
2. To ensure that there are rubbish bins every 500m (except in the Badu Mangroves)
3. Operate 'smart bins' at heavily used locations across the HBC.
4. To install litter bins at either end of Bennelong Bridge and monitor the Bennelong Bridge for cleanliness; if conditions do not improve, propose the installation of litter bins adjacent to seats on the Bennelong Bridge
5. To provide seating at regular intervals along the Corso and The Promenade (not more than 250m between seats)
6. To provide seating at regular intervals along paths in Bicentennial Park and the Badu mangroves (not more than 500m between seats)
7. To trial the operation of 'smart benches', at roughly every 1,000m, along the shared paths of the HBC.
8. To ensure drinking refill stations are available at the following locations:
    a. Near the Sydney Olympic Park Education Centre
    b. Near the intersection of Bennelong Parkway and Bicentennial Drive
    c. At the southern end of The Promenade
    d. Near the junction between The Promenade and Bennelong Bridge
9. For all new and replaced drinking water fountains to have the ability to fill water bottles and provide drinking water for companion animals.
10. To ensure that seating along Corso and The Promenade is place facing the waterfront, increasing attraction and desirability
11. To avoid placing seating along the Corso path furthest from the waterfront so as to maintain this path's function as a transport route
12. To collaborate with Strata in Wentworth Point to provide playgrounds near or on The Promenade
13. To consult with the community on the installation of outdoor exercise equipment at one or more points along the HBC.

12.7 Environment and sustainability

12.7.1 Vision

For the HBC to be environmentally sensitive and sustainable in development and operation.

12.7.2 Objectives

1. For the HBC to be sustainable
2. To ensure that native flora and fauna are not negatively impacted by the HBC

12.7.3 Actions

1. To control noxious weeds growing in the verges of paths adjacent to the Badu Mangroves
2. To perform an environmental investigation of potential sensitivities of increased human activity in the Badu Mangroves and wetlands, and how best to minimise negative effects.
3. To replace exotic grass such as African Veldt Grass in the Badu Mangroves with native grass species that may have occurred in the locality such as Kangaroo Grass and Basket Grass
4. To further formalise viewing areas at the Wetland Bird Sanctuary to allow bird watching activities away from the shared path
5. To install signage inside the Badu Mangroves alerting users to the presence of birds and recommending that users keep noise to a minimum
6. To use low-light LED sensor lights in environmentally sensitive areas
7. To install furniture and fixtures made from recycled and recyclable materials, wherever possible
8. To use renewable energy for the digital wayfinding platform, including digital kiosks, or offset emission using carbon credits
9. To operate lighting by renewable energy, or offset by carbon credits
10. To use permeable surfaces on pedestrian paths, reducing run off and creating a softer walking environment
11. To implement Water Sensitive Urban Design projects to manage stormwater runoff
12. To use recycled paper and biodegradable inks for all printed materials, including physical wayfinding maps.

12.8 Management

There are a variety of instances that require the implementation of management protocols for the HBC. The HBC may need to be closed during emergencies or natural events (e.g. floods). Similarly, major events may bring large crowds which will require a management plan.

12.8.1 Objectives

1. To ensure the safety of HBC users
3. For HBC users to be alerted of potential dangers
4. For a variety of platforms to be used to disseminate information in emergencies
5. For access to the Badu Mangroves to be restricted during floods/tidal inundation
6. For large crowds to be managed safely.

12.8.2 Actions

1. In the event of an emergency (e.g. inundation or storm surges), the following actions shall be taken:
    a. Council or SOPA rangers to restrict access to affected sections of path (e.g. boom gates at the Badu Mangroves).
    b. For path users to be alerted to alternative routes through signage.
    c. To use the HBC mobile website and/or mobile app to alert active path users to the emergency, path closures, potential dangers, and an advised course of action.
    d. To use the HBC website and social media platforms to alert prospective users to the

emergency, path closures, potential dangers, and an advised course of action.

e. For digital kiosks to alert active and prospective users to the emergency, path closures, potential dangers, and an advised course of action.

f. For links from QR/NFC tags along the HBC to be redirected to pages alerting active users to the emergency, path closures, potential dangers, and an advised course of action.

2. During major events the following actions shall be taken:

   a. For an event management plan to be developed with key stakeholders, including NSW Police, where applicable

   b. For road management procedures to be implemented, where applicable

   c. For event coordinators to be encouraged to have events utilise Bennelong Parkway over the Badu Mangroves (to limit potential environmental damage and make emergency response easier)

   d. For events to be advertised on Council/SOPA websites and social media platforms

   e. For the HBC digital engine to alert potential and active users of the event and possible disruptions

   f. To hold debrief sessions with involved parties following events (use smart furniture to assess pedestrian movement data to inform future crowd manage plans).

13. Implementation

13.1 Future use and development of Homebush Bay Circuit

13.1.1 Introduction

Future development of the Homebush Bay Circuit (HBC) will need to respond to changing community needs and expectations within the context of available resources. Consequently, it is not possible to forecast every activity of development that may occur along the course proposed to create the HBC. The circumstances under which facilities are developed and activities take place in the future will vary as funding becomes available, as management issues arise and as other opportunities emerge that cannot be foreseen during the preparation of the Wayfinding Strategy and Masterplan.

13.1.1.1 Legislative requirements

The land uses and facilities proposed to establish the HBC must be permissible under relevant legislation as the routes include Council owned, Crown land, SOPA land and private lands with covenants.

13.1.1.2 Council owned land

Under the Local Government Act 1993, uses and developments within land categorized as community land must be consistent with the guidelines for categorization and the core objectives of the relevant category.

Leases and licences over community land must follow the requirements of the Local Government Act 1993 for leases, licences and other estates.

Open space categorized as Operational Land also comes under the Local Government Act 1993.

13.1.1.3 Crown land

Crown land must be generally used and managed according to the principles of Crown land management under Section 11 of the Crown Lands Act 1989. Any proposed use, developments and management practices on Crown land must conform to the public purposes for the reserve or dedication of land.

At the time of writing this Wayfinding Strategy and Masterplan, the NSW Government was reviewing legislation that regulates Crown Land. New Crown Lands Legislation is anticipated in 2018.

13.2 Leases and Licences

Leases and licences formalist the use of public land by individuals, groups and organisations.

A lease is typically required where exclusive use or control of part of an open space area is desirable for effective use and management. A lease may also be required in response to the scale of investment in facilities, the necessity for security measures, or where the relationship between a major user and facilities in open space justify such security of tenure.

Licences allow multiple and non-exclusive use of an area. A licence may be required where intermittent or short-term use or control of part of open space is proposed.

13.3 Funding sources

All proposed works are dependent on the availability of funding. Councils and SOPA have limited funds, and as such will rely on external grants and funding from key stakeholder groups including New South Wales State and Australian Governments. It is envisaged that the HBC will be implemented progressively over a fifteen-year period as funds become available.

13.3.1 General

Implementation of the HBC is to be achieved by coordination between project stakeholders. Funding is integral to implementing the proposal and funding arrangements will need to address recurrent costs of management and maintenance, together with capital costs for new facilities or upgrading works. The project stakeholders currently fund management and maintenance costs through a variety of sources including annual budget allocations, capital funding and development contributions and grants.

Project funding for construction of new facilities is generally determined through an annual budgeting process, but special projects may be partly funding through government grant allocations, which may involve matching funding from project stakeholders.

13.3.2 Developer contributions

Project stakeholders currently enter into planning agreements, or levy contributions or works in kind from developers who receive approval for development projects. These funds are used to contribute to the cost of upgrading facilities to meet the increased demand for facilities created by the new development.

13.3.3 Environmental levy

Funds raised from environmental levies may be used for open space projects. A portion of these funds could be allocated to projects associated with the HBC.

13.3.4 Partnerships

Opportunities exist for the development of partnerships with residents and interested individuals in relation to improvements and ongoing management of open space.

13.3.5 Rental income

Income from open space is primarily generated by lease and licence fees, as well as application fees for approved functions and events.

13.3.6 Grants

A number of State and Commonwealth grants are available to assist capital works funding. While not exhaustive, the following list provides and an indication of the range of available grant programmes through which improvements that are consistent with this plan could be funded.

Grant	Organisation	Purpose
Public Reserves Management Fund	Crown Lands Division	Assists Crown Reserve Trusts in the management, planning and development of Crown reserves.
Metropolitan Greenspace Program	Department of Planning and Infrastructure	Planning and improvement of regionally significant open space in Sydney.
NSW Environmental Trust	Office of Environment and Heritage	Grant programs include: • Urban sustainability program – protect and restore the urban environment. • Environmental restoration and rehabilitation program.
Heritage Grants Program	NSW Heritage Branch	Grants are available for: • Historical research and local archive projects. • Aboriginal heritage projects. • Works Projects. • On-ground interpretation projects. • Conservation management documents. • Local government heritage management.
Smart Cities and Suburbs Program	Department of Prime Minister and Cabinet	To improve cities and assist in development through the innovative use of smart technologies.

13.4 Implementation

Implementation of the HBC is to be monitored annually through the preparation of annual

performance standards and capital works program reviews. Performance standards and works programs for administration, maintenance and upgrading works are to be revised each year to meet allocated budgets and works priorities determined in stakeholder's management plans.

Funding for establishment of the HBC will be sought from a range of government, council, corporate and community sources on an ongoing basis.

13.5 Review

The Wayfinding Strategy and Masterplan will require regular review to ensure that it continues to reflect current community expectations and changing circumstances. It is intended to be reviewed and updated within five years, and a major review carried out by 2025.

The Wayfinding Strategy and Masterplan is to be updated to reflect changing community, Council and SOPA priorities and issues, which taking account of changes in funding, legislation or Ministerial directions, and to recognise completed actions. Review of this Wayfinding Strategy and Masterplan should also take into account the outcomes of periodic reviews of Councils' and SOPA's strategic operational plans.

14. Appendix 1

The following table relates to Figure 58 and denotes the names of the destinations shown as numbers in Figure 58.

Id	Destination	Destination Type
1	Treillage Tower	Artwork
2	Bicentennial Park Water Feature	Artwork
3	Sundial	Artwork
4	Peace Monument	Artwork
5	Obelisks	Artwork
6	Powell's Creek Bridge	Artwork
7	Migration	Artwork
8	Cyrus the Great	Artwork
9	Pole Forest	Artwork
10	Discobolus	Artwork
11	Mill Park Art - Jane Cavanaugh	Artwork
12	Cartwheeling Youngsters - Caroline Rothwell	Artwork
13	Cumulus - Stuart Green	Artwork
14	POPP Table Tennis Table - Mulga the Artist	Artwork
15	Mullet Feast and Wangal Wall - Jason Wing	Artwork
16	Aqueous - Emma Anne	Artwork
17	In Motion - Brook Andrew	Artwork
18	Wonderwalk - Particle	Artwork
19	Bike Hire @ Sydney Olympic Park - Bicentennial	Bike hire
20	Bike Hire @ Sydney Olympic Park - Blaxland	Bike hire
21	Bennelong Bridge	Bridge
22	The Connection	Community centre
23	Sydney Olympic Park Education Centre	Education
24	Wentworth Point School	Education
25	Victoria Avenue Public School	Education
26	Western Sydney University - Sydney Olympic Park	Education
27	Sydney Olympic Park Outdoor Gym	Exercise equipment
28	Corso - non-HBC	Foreshore
29	Corso - HBC	Foreshore
30	The Promenade - HBC	Foreshore
31	The Promenade - non-HBC	Foreshore
32	Badu Mangroves - Bird Hide	Lookout
33	Badu Mangroves - Shipwreck look out	Lookout
34	Lookout	Lookout
35	Lookout	Lookout

Id	Destination	Destination Type
36	The Brickpit Ring Walk	Lookout
37	Bay Marker	Marker
38	Silverwater Marker	Marker
39	River Marker	Marker
40	Bicentennial Marker	Marker
41	Haslam's Marker	Marker
42	Sydney Showgrounds	Multipurpose facility
43	Badu Mangroves	Nature reserve
44	The Brickpit	Nature reserve
45	Newington Nature Reserve Forest	Nature reserve
46	Phoenix Park	Park
47	Mill Park	Park
48	Hoskins Reserve	Park
49	Peg Paterson Park	Park
50	Brays Bay Reserve	Park
51	Bicentennial Park	Park
52	Rhodes Foreshore Park	Park
53	Wentworth Common	Park
54	Strombol Square	Park
55	Peninsula Park	Park
56	Newington Armoury	Park
57	Woo-la-ra	Park
58	Blaxland Riverside Park	Park
59	Rhodes Waterside Park	Park
60	John Whitton Bridge Park	Park
61	McIlwaine Park	Park
62	Bicentennial Park - Picnic and Playground	Picnic area
63	Bicentennial Park Playground	Playground
64	Rhodes Foreshore Park playground	Playground
65	Union Square	Plaza
66	The Piazza	Plaza
67	Rhodes Railway Station	Public Transport
68	Concord West Railway Station	Public Transport
69	Olympic Park Railway Station	Public Transport
70	Sydney Olympic Park Ferry Wharf	Public Transport
71	Meadowbank Ferry Wharf	Public Transport
72	Shipwreck	Shipwreck
73	Shipwreck	Shipwreck

Id	Destination	Destination Type
74	Shipwreck	Shipwreck
75	Shipwreck	Shipwreck
76	Shipwreck	Shipwreck
77	Rhodes Waterside Shopping Centre	Shopping centre
78	Sydney Showground Stadium	Sport facility
79	Stadium Australia	Sport facility
80	Archery Centre	Sport facility
81	Mill Park toilet	Toilet
82	The Connection toilet	Toilet
83	Sydney Olympic Park Ferry Wharf toilet	Toilet
84	Bicentennial Park - Picnic area toilet	Toilet
85	Rhodes Railway Station toilet	Toilet
86	Rhodes Waterside Shopping Centre	Toilet
87	Concord West Railway Station toilet	Toilet
88	Olympic Park Railway Station toilet	Toilet
89	Bicentennial Park toilet	Toilet
90	Wentworth Common toilet (approximate location)	Toilet
91	Activity centre	Town centre
92	Station Precinct	Town centre

15. Appendix 2

The following tables provides a description of the numbers used to identify physical wayfinding signage shown in Figure 57.

Asset ID	Asset type	Location	Fingerboard direction	Design	Destination	Distance (m)	Walking time (at 4kmh)	Cycling time (at 16kmh)	Pictographs
CB01	Pole	Corso and Bennelong Bridge	12oclock	CB	Corso	N/A	N/A	N/A	Shared path
			12oclock	CB	Mill Park	700	11	3	Toilet; Playground
			12oclock	CB / Bike route	To Parramatta Valley Cycleway	1800	27	7	Shared path
			3oclock	HBC	Rhodes, Union Square	600	9	3	Food and drink
			3oclock	HBC	To Bennelong Bridge	100	2	1	Shared path
			3oclock	HBC	To Gauthorpe Street	70	2	1	Cycling route
			3oclock	HBC	Phoenix Park	230	4	1	Toilet; Playground
			3oclock	HBC	Rhodes Station	600	9	3	Train; Bus; Toilet
			6oclock	HBC	Corso	N/A	N/A	N/A	Shared path
CB02	Pole	Bennelong Bridge and Shoreline Drive	12oclock	CB	Shoreline Drive	N/A	N/A	N/A	Shared path
			3oclock	HBC	Gauthorpe Street	100	2	1	Cycling route
			3oclock	HBC	Rhodes, Union Square	520	8	2	Food and drink
			3oclock	HBC	Phoenix Park	170	3	1	Toilet; Playground
			3oclock	HBC	Rhodes Station	500	8	2	Train; Bus; Toilet
			9oclock (up)	HBC	Bennelong Bridge	N/A	N/A	N/A	Shared path
			9oclock (up)	HBC	Wentworth Point	400	6	2	
			9oclock (down)	HBC	To Corso	70	2	1	Shared path

Asset ID	Asset type	Location	Fingerboard direction	Design	Destination	Distance (m)	Walking time (at 4kmh)	Cycling time (at 16kmh)	Pictographs
			6oclock	HBC	The Connection	100	2	1	Toilet; Playground; Library; Food and drink; Water fountain
CB03	Pole	Corso and Annie Legget Promenade	12oclock	HBC	Corso	N/A	N/A	N/A	Shared path
			12oclock	HBC	The Connection	50	1	1	Toilet; Playground; Library; Food and drink; Water fountain
			3oclock	CB	Annie Leggett Promenade	N/A	N/A	N/A	Shared path
			6oclock	HBC	Corso	N/A	N/A	N/A	Shared path
CB04	Pole	Corso and Mary Street	12oclock	HBC	Corso	N/A	N/A	N/A	Shared path
			12oclock	HBC	The Connection	250	4	1	Toilet; Playground; Library; Food and drink; Water fountain
			3oclock	HBC	Mary Street	N/A	N/A	N/A	Walking route; Cycling route
			3oclock	HBC	Rhodes, Union Square	300	5	2	Food and drink
			3oclock	HBC	Rhodes Station	400	6	2	Train; Bus; Toilet
			3oclock	HBC	Peg Paterson Park	170	3	1	Playground
CB05	Pole	Corso and Sevier Avenue	12oclock	HBC	Corso	N/A	N/A	N/A	Shared path
			2oclock	CB	Sevier Avenue	N/A	N/A	N/A	
			6oclock	HBC	Corso	N/A	N/A	N/A	Shared path

Asset ID	Asset type	Location	Fingerboard direction	Design	Destination	Distance (m)	Walking time (at 4kmh)	Cycling time (at 16kmh)	Pictographs
CB06	Pole	Corso and Jean Wailes Avenue	12oclock	HBC	Corso	N/A	N/A	N/A	Shared path
			7oclock	CB	Jean Wailes Avenue	N/A	N/A	N/A	
			6oclock	HBC	Corso	N/A	N/A	N/A	Shared path
CB07	Pole	Corso and Lewis Avenue	12oclock	HBC	Corso	N/A	N/A	N/A	Shared path
			7oclock	CB	Lewis Avenue	N/A	N/A	N/A	
			6oclock	HBC	Corso	N/A	N/A	N/A	Shared path
CB08	Pole	Corso and Shoreline Drive	9oclock	HBC	Corso	N/A	N/A	N/A	Shared path
			3oclock	HBC	To Rider Boulevard	50	1	1	Cycling route
			3oclock	HBC	Rhodes, Union Square	450	7	2	Food and drink
			3oclock	HBC	Rhodes Station	600	9	3	Train; Bus; Toilet
			3oclock	HBC	Rhodes Waterside Shopping Centre	100	2	1	Toilets; Shoping/retail ; Food and drink
			3oclock	HBC	Rhodes Station (via Rider Boulevard)	600	9	3	Train; Bus; Toilet
			6oclock	HBC	Rhodes Waterside Park	N/A	N/A	N/A	Shared path
			6oclock	HBC	Sydney Olympic Park	N/A	N/A	N/A	Shared path
CB09	Map board	Oulton Avenue and Rider Boulevard		HBC					
CB10	Pole	Walker Street and Gauthorpe Street	10oclock	HBC	Gauthorpe Street	N/A	N/A	N/A	Cycling route
			10oclock	HBC	To Bennelong Bridge	300	5	2	Shared path
			10oclock	HBC	To Corso	380	6	2	Shared path

Asset ID	Asset type	Location	Fingerboard direction	Design	Destination	Distance (m)	Walking time (at 4kmh)	Cycling time (at 16kmh)	Pictographs
			10oclock	HBC	The Connection	350	6	2	Toilet; Playground; Library; Food and drink; Water fountain
			10oclock	HBC	Phoenix Park	130	2	1	Toilet; Playground
			1oclock	CB	Cycling route MR5 signage	N/A	N/A	N/A	
			1oclock	CB / Bike route	To Parramatta Valley Cycleway	1600	24	6	Shared path
			7oclock	HBC	Walker Street	N/A	N/A	N/A	Cycling route
			7oclock	HBC	Rhodes Station	230	4	1	Train; Bus; Toilet
			7oclock	HBC	Rhodes, Union Square	380	6	2	Food and drink
CB11	Pole	Rhodes Station	N/A	HBC	Rhodes Station	N/A	N/A	N/A	Train; Bus; Toilet
			1oclock	HBC	Walker Street	N/A	N/A	N/A	Cycling route
			4oclock	CB	McIlwaine Park	200	3	1	Toilets; BBQs; Picnic area; Playground
			4oclock	CB	Brays Bay Reserve	200	3	1	
			4oclock	CB	To Kokoda Track Memorial Walkway	200	3	1	Walking route
			7oclock	HBC	Rhodes, Union Square	150	3	1	Food and drink
CB12	Pole	Mary Street and Walker Street	1oclock	HBC	Walker Street	N/A	N/A	N/A	Cycling route
			1oclock	HBC	Rhodes Station	80	2	1	Train; Bus; Toilet
			7oclock	CB	Cycling route MR5 signage	N/A	N/A	N/A	Shared path

Asset ID	Asset type	Location	Fingerboard direction	Design	Destination	Distance (m)	Walking time (at 4kmh)	Cycling time (at 16kmh)	Pictographs
			10oclock	HBC	Mary Street	N/A	N/A	N/A	Walking route; Cycling route
CB13	Pole	Mary Street and Rider Boulevard	N/A	HBC	Rhodes, Union Square	N/A	N/A	N/A	Food and drink
			4oclock	HBC	Mary Street	N/A	N/A	N/A	Walking route; Cycling route
			4oclock	HBC	Rhodes Station	130	2	1	Train; Bus; Toilet
			7oclock	HBC	Rider Boulevard	N/A	N/A	N/A	Cycling route
			10oclock	HBC	Mary Street	N/A	N/A	N/A	Walking route; Cycling route
			10oclock	HBC	To Corso	270	5	2	Shared path
			10oclock	HBC	The Connection	500	8	2	Toilet; Playground; Library; Food and drink; Water fountain
			10oclock	HBC	Peg Paterson Park	100	2	1	Playground
							0	0	
CB14	Map board	The Connection		HBC					
SOPA01	Pole	Shared path and potential shared path	12oclock	HBC	Rhodes	N/A	N/A	N/A	Shared path
			6oclock	HBC	Sydney Olympic Park	N/A	N/A	N/A	Shared path
			6oclock	HBC	Bicentennial Park	900	14	4	Toilets; BBQs; Picnic area; Playground
			9oclock	HBC	Future east west link through Badu Mangroves	TBD	TBD	TBD	TBD
SOPA02	Map board	Shared path junction		HBC					

Asset ID	Asset type	Location	Fingerboard direction	Design	Destination	Distance (m)	Walking time (at 4kmh)	Cycling time (at 16kmh)	Pictographs
SOPA03	Pole	Shared path junction	10clock	HBC	Rhodes	N/A	N/A	N/A	Shared path
			6oclock	SOPA	Picnic area	200	3	1	Toilets; BBQs; Picnic area; Playground
			6oclock	SOPA	Concord West Station	750	12	3	Train; Toilet
			8oclock	HBC	To Badu Mangroves	100	2	1	Shared path
			8oclock	HBC	Sydney Olympic Park	TBD	TBD	TBD	Train; Bus; Toilet; Shops (retail); Food and drink; Stadium
			8oclock	HBC	Sydney Olympic Park Education Centre	100	2	1	Toilets
SOPA04	Map board	Badu Mangrove entry south		HBC					
SOPA05	Pole	Badu Mangrove boardwalk south	12oclock	SOPA	Badu Mangroves Boardwalk	N/A	N/A	N/A	Walking route
			10clock	HBC	To Badu Mangroves	380	6	2	Shared path
			10clock	HBC	Sydney Olympic Park Education Centre	380	6	2	Toilets
			8oclock	HBC	Sydney Olympic Park	TBD	TBD	TBD	Train; Bus; Toilet; Shops (retail); Food and drink; Stadium
			8oclock	HBC	To Bennelong Parkway	250	4	1	Walking route; Cycling route
SOPA06	Pole	Shared path junction	10clock	HBC	Rhodes	N/A	N/A	N/A	Shared path

Asset ID	Asset type	Location	Fingerboard direction	Design	Destination	Distance (m)	Walking time (at 4kmh)	Cycling time (at 16kmh)	Pictographs
			1oclock	HBC	Sydney Olympic Park Education Centre	250	4	1	Toilets
			10oclock	HBC	Sydney Olympic Park	TBD	TBD	TBD	Train; Bus; Toilet; Shops (retail); Food and drink; Stadium
			10oclock	HBC	To Bennelong Parkway	130	2	1	Walking route; Cycling route
SOPA07	Map board	Bicentennial Drive and Bennelong Parkway		HBC					
SOPA08	Pole	Badu Mangrove boardwalk east	12oclock	HBC	Badu Mangroves	N/A	N/A	N/A	Shared path
			6oclock	HBC	Badu Mangroves	N/A	N/A	N/A	Shared path
			9oclock	SOPA	Badu Mangroves Boardwalk	N/A	N/A	N/A	Walking route
SOPA09	Pole	Badu Mangrove midpoint	12oclock	HBC	Badu Mangroves	N/A	N/A	N/A	Shared path
			3oclock	HBC	Future east west link through Badu Mangroves	TBD	TBD	TBD	TBD
			6oclock	HBC	Badu Mangroves	N/A	N/A	N/A	Shared path
			9oclock	HBC	Future east west link through Badu Mangroves	TBD	TBD	TBD	TBD
SOPA10	Pole	Badu Mangrove northern lookout	N/A	HBC	Lookout over Homebush Bay	N/A	N/A	N/A	Lookout
			6oclock	HBC	Badu Mangroves	N/A	N/A	N/A	Shared path
			9oclock	HBC	Badu Mangroves	N/A	N/A	N/A	Shared path
			9oclock	HBC	Bird hide	100	2	1	Lookout
			9oclock	HBC	Shipwreck Lookout	250	4	1	Lookout

Asset ID	Asset type	Location	Fingerboard direction	Design	Destination	Distance (m)	Walking time (at 4kmh)	Cycling time (at 16kmh)	Pictographs
SOPA11	Pole	Badu Mangrove bird hide path	3oclock	HBC	Badu Mangroves	N/A	N/A	N/A	Shared path
			3oclock	HBC	Lookout over Homebush Bay	50	1	1	Lookout
			6oclock	HBC	Bird hide	N/A	N/A	N/A	Lookout
			9oclock	HBC	Badu Mangroves	N/A	N/A	N/A	Shared path
			9oclock	HBC	Shipwreck Lookout	200	3	1	Lookout
SOPA12	Pole	Badu Mangrove shipwreck lookout north	12oclock	HBC	Shipwreck Lookout	N/A	N/A	N/A	Lookout
			3oclock	HBC	Badu Mangroves	N/A	N/A	N/A	Shared path
			3oclock	HBC	Bird hide	200	3	1	Lookout
			3oclock	HBC	Lookout over Homebush Bay	200	3	1	Lookout
			9oclock	HBC	Badu Mangroves	N/A	N/A	N/A	Shared path
SOPA13	Map board	Badu Mangrove entry north		HBC					
SOPA14	Pole	Bennelong Parkway disused section northern	12oclock	HBC	Bennelong Parkway	N/A	N/A	N/A	Walking route; Cycling route
			12oclock	HBC	Wentworth Point	N/A	N/A	N/A	Ferry; Bus; Toilet; Shops (retail); Food and drink
			6oclock	HBC	Bennelong Parkway	N/A	N/A	N/A	Walking route; Cycling route
			6oclock	HBC	Sydney Olympic Park	1400	21	6	Train; Bus; Toilet; Shops (retail); Food and drink; Stadium
			8oclock	CoP / SOPA / Bike route	Bennelong Parkway	N/A	N/A	N/A	

Asset ID	Asset type	Location	Fingerboard direction	Design	Destination	Distance (m)	Walking time (at 4kmh)	Cycling time (at 16kmh)	Pictographs
SOPA15	Pole	Bennelong Parkway disused section middle	12oclock	HBC	Bennelong Parkway	N/A	N/A	N/A	Walking route; Cycling route
			12oclock	HBC	Wentworth Point	N/A	N/A	N/A	Ferry; Bus; Toilet; Shops (retail); Food and drink
			3oclock	HBC	Future east west link through Badu Mangroves	TBD	TBD	TBD	TBD
			6oclock	HBC	Bennelong Parkway	N/A	N/A	N/A	Walking route; Cycling route
			6oclock	HBC	Sydney Olympic Park	1200	18	5	Train; Bus; Toilet; Shops (retail); Food and drink; Stadium
SOPA16	Pole	Bennelong Parkway disused section southern	12oclock	HBC	Bennelong Parkway	N/A	N/A	N/A	Walking route; Cycling route
			12oclock	HBC	Wentworth Point	N/A	N/A	N/A	Ferry; Bus; Toilet; Shops (retail); Food and drink
			6oclock	HBC	Bennelong Parkway	N/A	N/A	N/A	Walking route; Cycling route
			6oclock	HBC	Sydney Olympic Park	1000	15	4	Train; Bus; Toilet; Shops (retail); Food and drink; Stadium
			10oclock	CoP / SOPA / Bike route	Bennelong Parkway	N/A	N/A	N/A	
SOPA17	Pole	Bennelong Parkway and	12oclock	HBC	Bennelong Parkway	N/A	N/A	N/A	Walking route; Cycling route

Asset ID	Asset type	Location	Fingerboard direction	Design	Destination	Distance (m)	Walking time (at 4kmh)	Cycling time (at 16kmh)	Pictographs
		Murray Rose Avenue							
			12oclock	HBC	Wentworth Point	N/A	N/A	N/A	Ferry; Bus; Toilet; Shops (retail); Food and drink
			6oclock	HBC	Bennelong Parkway	N/A	N/A	N/A	Walking route; Cycling route
			6oclock	HBC	Bicentennial Park	350	6	2	
			9oclock	SOPA	Sydney Olympic Park	650	10	3	Train; Bus; Toilet; Shops (retail); Food and drink; Stadium
SOPA18	Map board	Bicentennial Park picnic area		HBC			0	0	
CoP01	Pole	Promenade and Bennelong Boulevard	2oclock	HBC	To The Promenade	130	2	1	Shared path
			2oclock	HBC	Wentworth Point	2000	30	8	Ferry; Bus; Toilet; Shops (retail); Food and drink
			4oclock	HBC	Sydney Olympic Park	N/A	N/A	N/A	Train; Bus; Toilet; Shops (retail); Food and drink; Stadium
			4oclock	HBC	Badu Mangroves	300	5	2	Lookout
			8oclock	SOPA	Sydney Olympic Park Archers	N/A	N/A	N/A	
			10oclock	HBC	Bennelong Parkway	N/A	N/A	N/A	Cycling route
CoP02	Pole	Promenade and Amalfi Drive	1oclock	HBC	The Promenade	N/A	N/A	N/A	Shared path
			7oclock	HBC	To Bennelong Parkway	130	2	1	Walking route; Cycling route

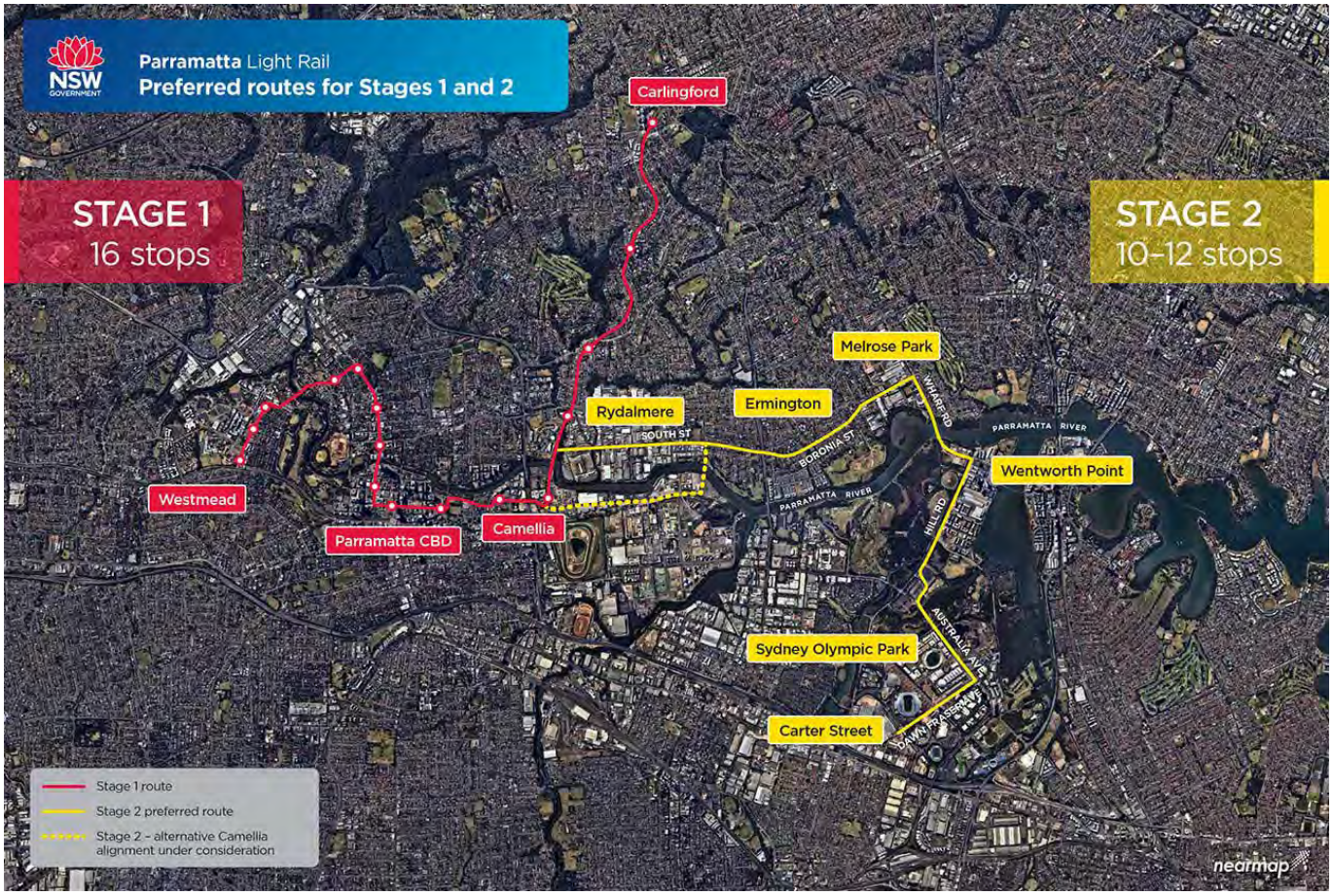
Asset ID	Asset type	Location	Fingerboard direction	Design	Destination	Distance (m)	Walking time (at 4kmh)	Cycling time (at 16kmh)	Pictographs
			7oclock	HBC	Sydney Olympic Park	N/A	N/A	N/A	
			9oclock	CoP	Amalfi Drive	N/A	N/A	N/A	
			9oclock	CoP	The Piazza	150	3	1	Food and drink
CoP03	Pole	Promeande and Strombol Square	1oclock	HBC	The Promenade	N/A	N/A	N/A	Shared path
			10oclock	CoP	Strombol Square	N/A	N/A	N/A	
			10oclock	CoP	The Piazza	200	3	1	Food and drink
			7oclock	HBC	The Promenade	N/A	N/A	N/A	Shared path
CoP04	Pole	Promenade and Baywater Drive	1oclock	HBC	The Promenade	N/A	N/A	N/A	Shared path
			10oclock	CoP	Baywater Drive	N/A	N/A	N/A	
			7oclock	HBC	The Promenade	N/A	N/A	N/A	Shared path
CoP05	Pole	Promenade and Nuvolari Place	1oclock	HBC	The Promenade	N/A	N/A	N/A	Shared path
			10oclock	CoP	Nuvolari Place	N/A	N/A	N/A	
			7oclock	HBC	The Promenade	N/A	N/A	N/A	Shared path
CoP06	Pole	Promenade and Verona Drive	1oclock	HBC	The Promenade	N/A	N/A	N/A	Shared path
			10oclock	CoP	Verona Drive	N/A	N/A	N/A	
			7oclock	HBC	The Promenade	N/A	N/A	N/A	Shared path
CoP07	Pole	Promenade and Half Street	1oclock	HBC	The Promenade	N/A	N/A	N/A	Shared path
			10oclock	CoP	Half Street	N/A	N/A	N/A	
			7oclock	HBC	The Promenade	N/A	N/A	N/A	Shared path
CoP08	Pole	Promenade and Bennelong Bridge	1oclock	CoP	The Promenade	N/A	N/A	N/A	Shared path
			1oclock	CoP	Wentworth Point	1000	15	4	Ferry; Bus; Toilet; Shops (retail); Food and drink

Asset ID	Asset type	Location	Fingerboard direction	Design	Destination	Distance (m)	Walking time (at 4kmh)	Cycling time (at 16kmh)	Pictographs
			TBD	HBC	Bennelong Bridge	TBD	TBD	TBD	TBD
			TBD	HBC	Footbridge Boulevard	TBD	TBD	TBD	Bus; Toilet; Shops (retail); Food and drink
			7oclock	HBC	The Promenade	N/A	N/A	N/A	Shared path
			7oclock	HBC	Sydney Olympic Park	N/A	N/A	N/A	
CoP09	Map board	Footbridge Boulevard and Bennelong Bridge		HBC					
CoP10	Pole	Footbridge Boulevard and Waterways Street	4oclock	HBC	The Promenade	TBD	TBD	TBD	Shared path
			4oclock	HBC	Bennelong Bridge	N/A	N/A	N/A	Shared path
			4oclock	HBC	Rhodes	N/A	N/A	N/A	Train; Bus; Toilet; Food and drink
			10oclock	HBC	Footbridge Boulevard	N/A	N/A	N/A	Walking route; Cycling route
			1oclock	HBC	Sydney Olympic Park Ferry Wharf	300	5	2	Ferry; Bus; Toilet; Shops (retail); Food and drink
			1oclock	HBC	Parramatta via Parramatta River Walk shared path	N/A	N/A	N/A	
			1oclock	HBC	Newington Armory via Parramatta River Walk shared path	1900	29	8	Toilets; BBQs; Picnic area; Playground; Food and drink
CoP11	Pole	Footbridge Boulevard and Hill Road	1oclock	CoP / Bike route	Hill Road		0	0	

Asset ID	Asset type	Location	Fingerboard direction	Design	Destination	Distance (m)	Walking time (at 4kmh)	Cycling time (at 16kmh)	Pictographs
			1oclock	CoP	Sydney Olympic Park Ferry Wharf	300	5	2	Ferry; Bus; Toilet; Shops (retail); Food and drink
			1oclock	CoP	Parramatta via Parramatta River Walk shared path	N/A	N/A	N/A	
			1oclock	CoP	Newington Armory via Parramatta River Walk shared path	1800	27	7	Toilets; BBQs; Picnic area; Playground; Food and drink
			4oclock	HBC	Footbridge Boulevard	N/A	N/A	N/A	Cycling route
			4oclock	HBC	The Promenade	TBD	TBD	TBD	Shared path
			4oclock	HBC	To Bennelong Bridge	300	5	2	Shared path
			4oclock	HBC	Rhodes	N/A	N/A	N/A	Train; Bus; Toilet; Food and drink
			7oclock	HBC	Hill Road	N/A	N/A	N/A	Cycling route
CoP12	Pole	Hill Road and Bennelong Parkway north	1oclock	HBC	Hill Road	N/A	N/A	N/A	Cycling route
			1oclock	HBC	Sydney Olympic Park Ferry Wharf	1200	18	5	Ferry; Bus; Toilet; Shops (retail); Food and drink
			6oclock	HBC	To Bennelong Parkway	N/A	N/A	N/A	Cycling route
			6oclock	HBC	Sydney Olympic Park	N/A	N/A	N/A	Train; Bus; Toilet; Shops (retail); Food and drink; Stadium
			8oclock	CoP / Bike route	Hill Road	N/A	N/A	N/A	

Asset ID	Asset type	Location	Fingerboard direction	Design	Destination	Distance (m)	Walking time (at 4kmh)	Cycling time (at 16kmh)	Pictographs
			10oclock	CoP / Bike route	To Louise Sauvage Pathway	N/A	N/A	N/A	
CoP13	Pole	Hill Road and Bennelong Parkway south	12oclock	HBC	To Hill Road	N/A	N/A	N/A	Cycling route
			12oclock	HBC	Sydney Olympic Park Ferry Wharf	1000	15	4	Ferry; Bus; Toilet; Shops (retail); Food and drink
			5oclock	HBC	Bennelong Parkway	N/A	N/A	N/A	Cycling route
			5oclock	HBC	Sydney Olympic Park	N/A	N/A	N/A	Train; Bus; Toilet; Shops (retail); Food and drink; Stadium
			11oclock	CoP / Bike route	Hill Road	N/A	N/A	N/A	
CoP14	Pole	Bennelong Parkway and The Piazza	10oclock	HBC	Bennelong Parkway	N/A	N/A	N/A	
			1oclock	CoP	The Piazza	100	2	1	Food and drink
			4oclock	HBC	Bennelong Parkway	N/A	N/A	N/A	

16. Appendix 3



Institute for Sensible Transport
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Institute for
Sensible Transport

ATTACHMENT 2 - 31 JULY 2018 - EXHIBITION DISPLAY

ON EXHIBITION NOW
Tuesday 31 July - Friday 31 August 2018

Homebush Bay Circuit
Wayfinding Strategy & Masterplan

View the Homebush Bay Circuit Wayfinding Strategy and Masterplan on partner websites and provide your input. Interpretive services available if required.

The NSW Government under the Roads and Maritime Services Active Transport program has funded the development of a Homebush Bay Circuit Wayfinding Strategy and Masterplan.

The project is being undertaken in partnership with the City of Canada Bay, the Sydney Olympic Park Authority and the City of Parramatta.

Comprehensive community consultation was undertaken in 2017.

It is proposed that a world class facility for walking, running and cycling be established on Homebush Bay to seamlessly interface with the waterfront and celebrate the area's unique history.

Exploring the use of innovative technology the Wayfinding Strategy and Masterplan will provide a comprehensive guide to the future development of the circuit.

Institute for Sensible Transport

City of Canada Bay

SydneyOlympicPark

CITY OF PARRAMATTA

NSW GOVERNMENT Transport Roads & Maritime Services

ATTACHMENT 3 - SUMMARY OF SUBMISSIONS RECEIVED BY CITY OF CANADA BAY

Submissions received by City of Canada Bay

Respondent	Issue	Action
1	The foreshore path in in Rhodes adjacent to Homebush Bay (The Corso) is mainly used by locals its development as regional facility diminishes its local identity.	The Homebush Bay Circuit (HBC) is similar in nature to the Bay Run, escallting use as as both a local, district and regional facility will require appropriate infrastructure upgrades.
	Cyclists, & new motorised modes of transport such as electric bikes, skateboards ands scooters are in conflict regularly with pedestrians on the HBC.	The HBC will be upgraded as funding becomes available to minimise conflicts and separate cyclists from pedestrians and those using newer forms of active transport. The increasing use of motorised modes of transport is noted and will be addressed in upgrade designs.
	Bike lanes on existing roads in Rhodes which result in the loss of parking is not supported.	The Homebush Bay Wayfinding Strategy and Masterplan (HBC WS&MP) is not proposing the lost of parking or the installation of bike lanes on roads in Rhodes. Any proposal to undertake such works would be subject of further investigations and community consultation.
	Cyclists use pathways within the Connection precinct.	The use of footpaths within the Connection by cyclists will be addressed should this casual usage bcome a significant issue.
2	The development of new town centres in Wentworth Point will generate additional activity on the HBC.	A review of the HBC WS&MP within 5 years is recommended to address the impacts of these developments on the HBC and design future upgrades accordingly.
	Proposals such as Sydney Metro West and the Light Rail Stage 2 need to be addressed when developing the HBC.	A review of the HBC WS&MP within 5 years is recommended to address the impact of these major transport infrastructure projects on the HBC.

Proposals subject of the Wentworth Point Masterplan need to be considered in the HBC WS&MP.	A review of the HBC WS&MP within 5 years is recommended to address the impacts of these developments on the HBC and design future upgrades accordingly.
Destination identity addressed in the HBC WS&MP should also consider urban identity.	The unique urban identities of the communities on the HBC will be addressed in the delivery of both physical and on line wayfinding elements developed in future programs.
Retail hubs and linkages between facilities that may result in journeys on only sections of the HBC should be considered in the HBC WS&MP	The HBC WS&MP recommends that on line solutions address wayfinding on the HBC such solutions will address journeys between facilities and retails hubs adjacent to the HBC.
New arrival points adjacent to the HBC facilitated by the development of the Sydney Metro West and the Light Rail Stage 2 will need to be addressed when developing the HBC WS&MP	A review of the HBC WS&MP within 5 years is recommended to address the impact of new arrival precincts associated with major transport infrastructure projects on the HBC.
The capacity of the HBC to address potential users arriving on the Sydney Metro West and the Light Rail Stage 2 will need to be considered when developing the HBC.	A review of the HBC WS&MP within 5 years is recommended to address capacity issues as new major transport infrastructure projects provides upgraded access to the HBC.
The HBC WS&MP should document the connectivity dynamics of the Sydney Metro West and the Light Rail Stage 2	A review of the HBC WS&MP within 5 years is recommended to address the impact of these major transport infrastructure projects on the HBC.
The impact of carparking proposed in new town centres in Wentworth Point and Rhodes should be captured in the HBC WS&MP	A review of the HBC WS&MP within 5 years will document new connectivity to the HBC as new developments are completed.
The redevelopment of Hill Road and its major inersections will need to be addressed in the HBC WS&MP	A review of the HBC WS&MP within 5 years will address Hill Road upgrades currently the subject of investigation.

	The figures within the HBC WS&MP will require updating as the impact of new major transport infrastructure and community facilities becomes evident. These projects may also create new urban nodes that require addressing in the wayfinding strategy.	Figures within the HBC WS&MP will be updated to address new infrastructure when the plan is updated.
	Future transport stops with digital kiosks or wayfinding will require documenting in the HBC WS&MP	A review of the HBC WS&MP within 5 years will address digital delivery of wayfinding which may be installed in new transport stops.
	Facilities delivered at the Wentworth Point Town Centre should be addressed in the HBC WS&MP.	A review of the HBC WS&MP within 5 years will address all new facilities delivered in Wentworth Point Town Centre .
	The HBC WS&MP should address mode shifts.	A review of the HBC WS&MP within 5 years will address all locations where mode shift from say the Sydney Metro West to bike or walking to Light Rail will be be important in wayfinding.
3	Separation of cyclist from vehicles to address animosity	Recent law changes to provide additional safety for on road cyclists addresses animosity between cyclists and motorists. The impact of these laws will addressed in a review of the HBC WS&MP within 5 years
	Develop facilities that address the requirements of cyclists and motorists in Hill Road. These facilities should address the requirements of slower cyclists, be family friendly and calm traffic speeds.	A review of the HBC WS&MP within 5 years will address cycling upgrades on Hill Road.
	The shared use or conversion of the Bennelong busway to facilitate cycle use between Rhodes/Wentworth Point and the HBC needs further consideration.	Addressing the use of busway for cyclists is regularly reviewed and is subject of further investigation.
4	Have ecologists played a role in the development of the HBC especially considering the national significance of the Badu Wetland	ACS Environmental was commissioned to survey the impact of the HBC in Bicentennial Park and adjacent to Homebush Bay to inform the HBC WS&MP .

Have legal requirements unique to the Badu Wetlands been considered in the development of the HBC.	ACS Environmental considered that no significant impacts were considered likely with the development of the HBC and the proposal did not appear to warrant a a species impact statement. However upgrades proposed on the HBC will be assessed on a case by case basis
The HBC should recognise that its path through the Badu Wetland needs to consider its use as a nature trail	The Badu Wetland is a area of national significance and its use as a nature trail and a route for the HBC will be recognised in the wayfinding strategy.
All paths within the Badu Wetland should be subject of a more detailed assessment and wayfinding strategies developed in future programs to clearly indicate those paths that are operational and those which are redundant or where usage may impact on the significance of the area	A further assessment of all Badu Wetland paths in collaboration with the Sydney Olympic Park Authority will inform physical and digital solutions for wayfinding on the HBC when funding for implemention is available.
Conflicts between those who use the Badu Wetland area for nature walks and the HBC will need to be managed effectively to ensure a safe and enjoyable experience for all users.	Wayfinding strategies implemented in the Badu Wetland for the HBC will encourage respect between all users of this place and consider the introducation of mechanisms to reduce cycle speeds and encourage understanding of the wetaland as a high value environmental and educational resource.
The introduction of lighting in areas adjacent to the Badu Wetlands will require expert assessment to determine any impacts on sensitive wetlands and terrestrial habitats	The upgrading of lighting in or adjacent to the Badu Wetland will be the subject of further investigation and consultation when funding for implemention is available.
Community gardens should be designed to ensured any runoff from such facilities do not impact on the Badu Wetlands	The establishment of community gardens as a destination on the HBC will be the subject of further investigation and consultation when funding for implemention is available.
Increased public usage from the development of the HBC should be montored carefully to ensure impacts on ecologically sensitive areas are understood and managed appropriately.	The establishment of HBC will result in significant new usage of areas adjacent to Homebush Bay. This usage will be monitored and techniques for ameloriating any adverse impacts will be developed collaboratively with the project partners.

	The introduction of lighting or strategies such as fluorencent line making within the Badu Wetlands which will encourage use of the area during the night will require expert assessment to determine any impacts especially wildlife.	The use of fluorencent linemarking to guide limited night time use of the HBC in the Badu Wetland will be the subject of further investigation and consultation when funding for implemention is available.
5	Cyclists and pedestrian conflicts on The Corso adjacent to the Connection need to be addressed.	Further detailed design is required to minimise conflicts between pedestrians and cyclists. Actions proposed in the HBC WS&MP such as line marking to separate pedestrians and cyclists, additional signage and surface treatments on paving to reduce cycle speeds will be subject of further investigation.
	Bike lanes on existing roads in Rhodes which result in the loss of parking is not supported.	The HBC WS&MP is not proposing the lost of parking or the installation of bike lanes on roads in Rhodes. Any proposal to undertake such works would be subject of further investigations and community consultation.
	New motorised modes of transport such as electric bikes, skateboards ands scooters are a concern for pedestrioans	The HBC will be upgraded as funding becomes available to minimise conflicts and separate cyclists from pedestrians and those using newer forms of active transport. The increasing use of motorised modes of transport is noted and will be addressed in upgrade designs.
	The shared use of the Bennelong busway to facilitate cycle usage controlled by traffic lights needs further consideration.	Addressing the use of busway for cyclists is regularly reviewed and is subject of further investigation.
6	Install finger board signage, digital signage is unnecessary. Consider some fun run type events	Council has funding available in the 2019/20 budget to address finger board signage on the HBC to establish the route. Council actively support fun activities around Homebush Bay.
Facebook		
	Plant more trees and grass. The circuit will be dominated by cyclists if further upgrades are undertaken.	The HBC will be developed as funding becomes available to minimise conflicts and separate cyclists from pedestrians. Tree planting will be undertaken as sections of the HBC are upgraded.
	Address poor lighting.	Council has provided funding in 2019/20 budget to address foreshore lighting on the The Corso in Rhodes.

ATTACHMENT 4 - Submissions City of Parramatta

The City of Parramatta requested feedback on the exhibited plan in a survey format.

Respondents who indicated they all were users of the HBC generally were supportive of the project and its objectives however provided feedback that should inform future upgrades of the Homebush Bay Circuit especially in environmentally sensitive areas. The feedback would indicate an appreciation of the world class facilities available in the vicinity of Homebush Bay and enthusiasm to ensure intrinsic values of this place are maintained and enhanced.

Survey questions addressed by respondents.

1.

In the future, as path usage increases, it may be necessary to make changes to existing pedestrian and cycle facilities what issues do you see as important:

The following summaries the responses received:

- Where possible install softer, permeable treatment for the pedestrian surface (which will allow rain to pass through to the earth underneath) providing safety and comfort. This would minimise damage caused by tree roots to concrete surfaces.
- Monitor and maintain hard surfaces, filling in cracks and pot holes, removing trip hazards and ensuring Disability Discrimination Act compliance.
- In areas where the paving width permits on the circuit line marking should provide for safe usage by pedestrian and cyclists.
- Paving should generally be centre line marked where paths are shared path with markings and directional arrows which indicate directional flow if paving width allows. Signage to remind users to keep left.
- Install signs indicating cyclists to use their bell before passing.
- Install reflective tape on all poles adjacent to the circuit to maximise visibility to path users.
- Path widths should aim to achieve safe distances from the roadways and adjacent plants.
- Two-way pedestrian paths with separate cycle lanes line marking should be considered where paving width permits.

Action proposed

All proposals indicated in the draft plan are dependent on the availability of funding. The project partners have limited funds, and as such will rely on external grants, funds from developer contributions and the support of key stakeholder groups to establish the HBC.

Further detailed design is required to complete all future significant upgrades of the HBC and the issues raised above will contribute to the development and maintenance of new facilities on or adjacent to the HBC especially in environmentally sensitive areas.

2.

A bespoke digital map with a range of information could be developed. What features are most important to you and should be included on the map.

The following summaries the responses received:

- Communicate distances and walking time effectively.
- Show the relationship and proximity of destinations.
- Communicate a large number of destinations and routes.
- Allow customised route planning that accommodates individual preferences.
- Allow for a wide use of internationally recognised symbols to communicate a diverse range of amenities.
- Show amenities, activities and experiences to encourage further exploration and discovery.

Action proposed

These responses are noted and will be considered when both digital and physical wayfinding solutions based on the plan are subject of design development.

3.

Section 12 of the document includes a range of works for consideration to establish the HBC should funding become available.

The following summaries the responses received:

- Physically separating pedestrian, cyclists and cars

  Action proposed

  See action indicated Question 1.

- Make walking space safe for pedestrians and stop making cyclists a priority.

  Action proposed

  See action indicated Question 1.

- A better pedestrian bridge along Bennelong Parkway is important to avoid having to cross the road twice. It's a nice walk past the bird sanctuary and through the mangroves. Perhaps putting some sort of barrier between Homebush Bay Drive and the pathway to reduce noise along that corridor could make the walk/cycle more pleasant.

  Action proposed

  See action indicated Question 1.

- The concept of "shared pathways" for walkers, family cyclists and fast cyclists needs careful thought to avoid dangerous conflicts.
- The proposed circuit along Bennelong Parkway towards Haslams Creek Bridge crosses the entry way into Mariners Cove Estate in two places this will require careful consideration to resolve vehicle and circuit user conflicts.

  Action proposed

  See action indicated Question 1.

- Impacts on the waterbird sanctuary and habitat need expert consideration.
- Unauthorised use of the closed off section of Bennelong Parkway should be regulated.
- The final section of the waterfront to allow connected access to the bridge and along Wentworth Point side of the bay should be a priority
- If in the future there is a rowing club its impact needs to be carefully considered

Action proposed

See action indicated Question 1.

- Pedestrian safety should be paramount.
- Provide public transport so people are able to use facilities.

Action proposed

See action indicated Question 1.

- A new Haslams Creek Bridge should be a priority.

Action proposed

See action indicated Question 1.

- I appreciate the concern shown in the plan for environmental protection in the Badu Mangrove area. It would be good to ensure that the relatively quickly moving cyclists are hidden from the birds. I also appreciate the idea of using low light level glow-in-the-dark surface treatment in this area to minimise disturbance to the fauna.

Action proposed

See action indicated Question 1.

- The circuit needs to bypass areas that are sensitive to birds i.e. the waterbird refuge. It is vital that this area does not have huge numbers of cyclists using the path and lighting solutions are appropriate.

Action proposed

See action indicated Question 1.

- The development of the HBC in or around the Waterbird Refuge in Sydney Olympic Park should not be permitted in areas that impact adversely on of this environment or migratory species found here.

Action proposed

See action indicated Question 1.

- A skate bowl/Park is way overdue for this area. Recently, VANS, the world renowned company held a worldwide recognised event at Five Dock Skate Park.

Action proposed

See action indicated Question 1.

4.

Do you have any other feedback on the Homebush Bay Circuit.

The following summaries the responses received:

- Thank you for focussing on this route and planning for its future popularity. Please ensure it is considered not only for recreation but also part of the wider commuting walking/cycling network. Create more separated or shared paths so more people can get around Sydney by walking or cycling.
- Please make a safe connection between Cooks River and Bicentennial Park. It is too dangerous to go on the road especially along Bridge St and Parramatta Road.
- Measures need to be taken to ensure that those using shared paths are respectful to all users.
- Look forward to the promenade on the Wentworth Point side being opened all the way from the Peninsular Park through to Bennelong Parkway. This will make a huge difference, as Hill Road is noisy and dangerous.
- The overall concept is very good, but design is required so that the HBC is safe for all users and local residents.
- Council and SOPA need to work together better to manage this area. Consistency in terms of signage and path type and maintenance is essential.
- Proposals for digital signage should be subject of further consultation.
- Access in the wetland area will be difficult to construct and maintain and may impact on water flow, birds and other fauna. Further detailed site assessment is warranted.
- In the wetlands area, some physical barriers may be required to protect the birds.
- Upgrade path lighting.
- The proposed path along the southern side of the Waterbird Refuge (WBR) has never been open before and frequent human activity along there is likely to greatly disturb the birds that regularly perch in that area. It is also vital that increased usage of the other paths does not interfere with the water birds. Suitable viewing points should be provided for interested pedestrians to appreciate the birds without disturbing them.
- Night lighting or other path marking mechanisms need to sensitively develop.
- A protocol needs to be developed to exclude the likes of organised sport activities from the whole Badu Mangrove area.

Action proposed

These matters are noted or will be actioned in accordance with the action indicated Question 1.

ITEM **HOMEBUSH BAY CIRCUIT**

Department **Community and Environmental Planning**

Author Initials: SK

EXECUTIVE SUMMARY

Council at meeting of 12 June 2018 resolved to place the draft Homebush Bay Circuit Wayfinding Strategy and Masterplan on exhibition. This report addresses submissions received during the exhibition period and recommends that the Council endorse the Homebush Bay Circuit Wayfinding Strategy and Master Plan to complete the project.

STRATEGIC CONNECTION

This report supports YOUR future 2030 Outcome area:

IIP 1.2.2. Provide quality active and passive Recreation Services and Facilities that contribute to health and wellbeing.

This report also relates to Rhodes Peninsula Plan of Management and Masterplan.

REPORT

Background

The NSW Government, under the Roads and Maritime Services Active Transport program, provided a grant of $90,000 to the City of Canada Bay for the development of a Homebush Bay Circuit Wayfinding Strategy and Masterplan (HBC WS&MP). This project encompassed the jurisdictions of City of Canada Bay, City of Parramatta and Sydney Olympic Park Authority (SOPA).

Council at its meeting of 12 June 2018 resolved to place the draft HBC WS&MP on exhibition. The exhibition of the HBC WS&MP was supported by the SOPA and Parramatta City Council.

Exhibition Period

The exhibition period commenced on Tuesday 31 July 2018 and closed on Friday 31 August 2018 with written submissions being accepted during this period.

The exhibition of the draft plan was advertised broadly in the project group jurisdictions via local media coverage, on Council and SOPA websites and within project partner publications. A display advertisement was placed in the Sydney

Morning Herald, see appendix 2. The draft plan was also available for viewing at libraries and in the project partners customer service areas.

A postcard advising the plan was on exhibition was delivered to residents adjacent to the Homebush Bay Circuit (HBC) in Rhodes and circulated to the project partners.

Notice of the exhibition was also provided to the over 900 respondents who provided input into the document during the consultation phase of its development.

Submissions received

Submissions were received by both the City of Canada Bay (6) and the City of Parramatta (20).

Appendix 3 and 4 address the submissions received during the exhibition period. No significant objections have been received to the project partners proposition to:

"Establish a world class facility for walking, running and cycling on the foreshore area of Homebush Bay to seamlessly interface with the waterfront and celebrate the area's unique history using innovative technology for wayfinding"

Respondents who indicated they were users of the HBC appeared generally supportive of the project overall and its objectives. The feedback provided will inform future upgrades of the Homebush Bay Circuit especially in environmentally sensitive areas. Submissions indicate an appreciation of the world class facilities available in the vicinity of Homebush Bay and an enthusiasm to ensure intrinsic values of this place are maintained and enhanced.

Further amendments to the HBC WS&MP therefore are not warranted at this stage.

However it is proposed that this report and its appendices form an appendix to the Homebush Bay Circuit Wayfinding Strategy to:

- Ensure contributions provided by those who made submissions towards the plan assist in future upgrades of the Homebush Bay Circuit.

- That a review of the plan in the next 5 years document the development of the HBC and the new communities and infrastructure being established adjacent to the circuit.

FINANCIAL IMPACT

Funding for the preparation and exhibition of the Homebush Bay Circuit Wayfinding Strategy and Master Plan is provided in the 2018/19 budget and from the RMS Active Transport program grant.

All proposals indicated in draft plans are dependent on the availability of funding. The project partners have limited funds, and as such will rely on external grants, funds from developer contributions and the support of key stakeholder groups to establish the HBC.

It is envisaged that the HBC will be progressively upgraded over a fifteen-year period guided by the plan.

Funding opportunities such as grants available under the Australian Government Smart Cities program, Roads and Maritime Services Active Transport program and Metropolitan Greenspace Program will be considered by the project group to fund priority works identified in the plan.

Conclusion

It is recommended that Council endorse the Homebush Bay Circuit Wayfinding Strategy and Master Plan and the project partners continue to meet regularly to actively pursue the establishment of the circuit.

The City of Parramatta City has indicated support for above proposal and will advise its Council accordingly.

RECOMMENDATION

1. THAT Council adopt the Homebush Bay Circuit Wayfinding Strategy and Master Plan (as exhibited).

Attachments:
1. Homebush Bay Circuit Wayfinding Strategy and Master Plan (provided under separate cover)
2. Display advertisement from the Sydney Morning Herald dated 31 July 2018
3. Summary of submissions received by the City of Canada Bay
4. Summary of submissions received by the City of Parramatta

Attachment 2 - Exhibition display advert.pdf
Attachment 3 - Copy of Submissions City of Canada Bay.pdf
Attachment 4 - Submissions City of Parramatta.pdf

ITEM HOMEBUSH BAY CIRCUIT

At 6.23pm, Councillor Ferguson returned to the meeting.

RESOLVED
(Crs Megna/Di Pasqua)

THAT Council adopt the Homebush Bay Circuit Wayfinding Strategy and Master Plan (as exhibited).

NOTICE OF COUNCIL MEETING
PUBLIC COPY

The Meeting of City of Parramatta Council will be held in Cloister Function Rooms, St Patrick's Cathedral, 1 Marist Place Parramatta on Monday, 25 February 2019 at 6.30pm.

Sue Coleman
ACTING CHIEF EXECUTIVE OFFICER

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ACCESSIBLE

ITEM NUMBER	12.1
SUBJECT	Homebush Bay Circuit Wayfinding Strategy and Masterplan
REFERENCE	F2017/00722 - D06545006
REPORT OF	Project Officer - Transport Planning

PURPOSE:

To seek the endorsement of Council for the Homebush Bay Circuit Wayfinding Strategy and Master Plan.

RECOMMENDATION

(a) **That** Council note the feedback from the exhibition period provided at **Attachment 2** and **3**,

(b) **That** Council endorse the Homebush Bay Circuit Wayfinding Strategy and Master Plan as provided at **Attachment 1**

(c) **That** this Council report and **Attachment 2** and **3** form an appendix to the Master Plan.

(d) **That** a review of the plan in the next 5 years be guided by the submissions received, and respond to the establishment of new communities and infrastructure adjacent to the circuit.

(e) **That** the project partners and Roads and Maritime Services be thanked for their support.

(f) **Further, that** the project partners meet regularly to use the plan as a basis for establishing the Homebush Bay Circuit, and actively seek funding opportunities for delivery.

BACKGROUND

1. With the recent completion of Bennelong Bridge, it was identified that the walking and cycling circuits around Homebush Bay would contribute greatly to the health and liveability of workers, residents and visitors of the surrounding area.
2. To assist in planning, Roads and Maritime Services (RMS) fully funded the development of a Master Plan to identify a potential circuit/s, guide physical infrastructure improvements, and develop a consistent and coherent wayfinding strategy. Figure 1 illustrates the proposed Homebush Bay Circuits.
3. The Master Plan provided at **Attachment 1** has been developed in collaboration between City of Parramatta Council (CoP), City of Canada Bay Council (CoCB) and Sydney Olympic Park Authority (SOPA).
4. Council at its meeting on 25 June 2018, resolved:

   a) That Council endorse the public exhibition for 28 days of the Homebush Bay Circuit Wayfinding Strategy and Master Plan provided at Attachment 1.

b) *That the Master Plan be advertised in local newspapers and through social media.*

c) *Further, that the Master Plan be available on Council's website, as well as the libraries in Parramatta and Newington.*

Figure 1, proposed Homebush Bay Circuits.

CONSULTATION & TIMING

5. The draft Master Plan was placed on exhibition from the 31st of July to the 31st of August 2018, and a total of 24 submissions were received by CoP (18 submissions) and CoCB (6 submissions). A summary of the submissions is provided at **Attachments 2** and **3** respectively.

6. Users of the Homebush Bay Circuit (HBC) appeared generally supportive of the project overall and its objective to *establish a world class facility for walking, running and cycling on the foreshore area of Homebush Bay to seamlessly*

interface with the waterfront and celebrate the area's unique history using innovative technology for wayfinding.

7. The key themes arising from the consultation are summarised below:
   - managing pedestrian, cyclist and vehicle interaction to maximise safety and amenity of all users,
   - the document needs to evolve as new infrastructure is delivered and use of the circuit changes over time,
   - thoughtful consideration of ecologically sensitive interfaces such as the Badu mangroves.
8. It is proposed that this Council report and the feedback and responses provided at **Attachments 2** and **3** form an appendix to the Master Plan to:
   - Inform future upgrades of the HBC,
   - Secure the knowledge and contributions provided by those who made submissions on the plan,
   - Assist in a review of the plan over the next 5 years which will document the development of the HBC and the new communities and infrastructure being established adjacent to the circuit.

FINANCIAL IMPACT

9. The preparation and exhibition of the Master Plan is wholly funded by an RMS Active Transport program grant. All proposals indicated in the Master Plan are dependent on the availability of funding. The project partners have limited funds, and as such will rely on external grants, funds from developer contributions and the support of key stakeholder groups to establish the HBC. It is envisaged that the HBC will be progressively upgraded over a fifteen-year period guided by the plan.

CONCLUSION

10. It is recommended that Council endorse the Homebush Bay Circuit Wayfinding Strategy and Master Plan and the project partners continue to meet regularly to actively pursue the establishment of the circuit. The City of Canada Bay have indicated support for above proposal and will advise its Council accordingly.

Mark Crispin
Senior Project Officer Transport Planning

Michael Jollon
Service Manager Transport Planning

Jennifer Concato
Acting Director Strategic Outcomes and Development

ATTACHMENTS:

1⇩	Homebush Bay Circuit Wayfinding Strategy and Master Plan	96 Pages
2⇩	Submissions City of Parramatta - HBC Master Plan	3 Pages
3⇩	Submissions City of Canada Bay - HBC Master Plan	4 Pages

MINUTES OF THE MEETING OF CITY OF PARRAMATTA COUNCIL HELD IN THE CLOISTER FUNCTION ROOMS, ST PATRICK'S CATHEDRAL 1 MARIST PLACE, PARRAMATTA ON MONDAY, 25 FEBRUARY 2019 AT 6.30PM

PRESENT

The Lord Mayor, Councillor Andrew Wilson and Councillors Benjamin Barrak, Phil Bradley, Donna Davis, Robert Dwyer, Pierre Esber, Michelle Garrard (Deputy Lord Mayor), Steven Issa, Andrew Jefferies *(arrived at 6.47pm)*, Sameer Pandey, Bill Tyrrell, Lorraine Wearne and Martin Zaiter.

1. ACKNOWLEDGEMENT TO TRADITIONAL LAND OWNERS

The Lord Mayor, Councillor Andrew Wilson, acknowledged the Burramattagal people of The Darug Nation as the traditional custodians of this land, and paid respect to their ancient culture and their elders past and present.

2. WEBCASTING COUNCIL MEETING

The Lord Mayor, Councillor Andrew Wilson, advised that this public meeting is being recorded and streamed live on the internet. The recording will also be archived and made available on Council's website.

The Lord Mayor further advised that all care will be taken to maintain privacy, however as a visitor in the public gallery, the public should be aware that their presence may be recorded.

3. OTHER RECORDING OF MEETING

As per Council's Code of Meeting Practice, the recording of the Council Meeting by the public using any device, audio or video, is only permitted with Council permission. Recording a Council Meeting without permission may result in the individual being expelled from the Meeting.

4. APOLOGIES

Apologies were received and noted for Councillors Han and Prociv and leave of absence was granted.

5. DECLARATIONS OF INTEREST

There were no declarations of Interest this meeting.

6. MINUTES

SUBJECT: Minutes of the Council Meeting held on 17 December 2018

1927 RESOLVED (Davis/Garrard)

That the minutes be taken as read and be accepted as a true record of the Meeting.

Capacity Building team for November 2019.

A Motion was moved from Councillor Zaiter that the motion be put was put and lost.

The Amendment was put and lost, the motion was put and carried.

NOTE:

Councillor Garrard left the meeting at 7.42pm and returned at 7.44pm during consideration of Item 11.3

Councillor Garrard left the meeting at 8.01pm and returned at 8.03pm during consideration of Item 11.3

12. ACCESSIBLE

12.1 SUBJECT Homebush Bay Circuit Wayfinding Strategy and Masterplan

REFERENCE F2017/00722 - D06545006

REPORT OF Project Officer - Transport Planning

1942 RESOLVED (Issa/Garrard)

a) **That** Council note the feedback from the exhibition period provided at **Attachment 2** and **3**,

b) **That** Council endorse the Homebush Bay Circuit Wayfinding Strategy and Master Plan as provided at **Attachment 1**

c) **That** this Council report and **Attachment 2** and **3** form an appendix to the Master Plan.

d) **That** a review of the plan in the next 5 years be guided by the submissions received, and respond to the establishment of new communities and infrastructure adjacent to the circuit.

e) **That** the project partners and Roads and Maritime Services be thanked for their support.

f) **Further, that** the project partners meet regularly to use the plan as a basis for establishing the Homebush Bay Circuit, and actively seek funding opportunities for delivery.

12.2 SUBJECT Pedestrian accessways and laneways - Epping Town Centre

REFERENCE F2017/00210 - D06645680

REPORT OF Snr Project Officer

1943 RESOLVED (Wearne/Tyrrell)

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Institute for
Sensible Transport